Progressive Relationship Development in Supply Chain Alliances

An Empirical Study

By

Beverly Anne Wagner

Volume I

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ABSTRACT

A search of literature shows that most writings on business alliances focus their attention on alliance inception and the resultant benefits from them, and largely ignore how cooperating relations between actors develop with the passage of time.

In contrast, the main aim of the thesis is to examine the concept of phased development in alliances. Associated objectives are to establish if stages can be identified as alliances progress and whether it is possible to distinguish change points when the alliances advance from one phase to another and to determine characteristics at the time.

Exploratory and inductive qualitative methods are utilised in this study and a conceptual framework constructed using a number of methodologies. In the first instance early conceptualisation is built upon a review of supply chain alliance literature and secondary data from one research site.

Data gathering, observation and interviews continue in parallel with the introduction of a second field site. This presents the opportunity to apply an inductive approach and allows themes to emerge empirically from field research. Finally, secondary data from a third alliance helps to test and refine the previous findings.

Case studies with the research sites from different industrial sectors provide the grounds to explore, describe and analyse the interactions and processes of three alliances.

The main finding of this thesis is a framework for progressive relationship development in supply chain alliances which is presented in six notional stages, for convenience termed Prelude, Purpose, Process, Plateau, Progress and Parting.

The thesis builds on and reinforces existing research to provide insights into evolutionary alliance development as well as contributing to practice, by equipping managers with a road map to navigate a relationship maze. Finally, a future research agenda is proposed.
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Introduction
INTRODUCTION

According to many academics, there seems to be a shift in supply chain relationships from adversarial to more cooperative associations (see for example Kanter 1994; Spekman et al 1998; see also chapter 1.1.4, page4). Because of intense competition, companies are changing the focus of their attention from firm versus firm to supply chain versus supply chain (Christopher 1992). This is the background to companies’ decisions to invest in cooperative exchange relations, through the medium of strategic alliances.

For an organisation seeking to enter a new market and in response to competitive challenges, a strategic alliance is a mechanism for retaining flexibility that offers an alternative to mergers or acquisition. Such associations enable companies to extend knowledge boundaries in terms of pooled resources and skills (see also chapter 1.1.4).

In the best circumstances, cooperative relationships allow access to a wide range of technologies, resources, expertise and knowledge. Closer, non-adversarial relations between customers and suppliers offer the possibility of gaining competitive advantage. Concord is based on the principle that both parties are likely to benefit more by working together, rather than alone. It is an all embracing philosophy that focuses on long-term objectives and growth, rather than gaining the lowest price through opportunistic behaviour.

In an era where, in many instances, firms no longer compete individually and competition is between supply chains, to acquire competitive edge it is essential to understand how technology, time and costs impact on products and services. This requires that customers and suppliers share accurate information to allow faster and more flexible responses to changing market requirements. Bettering the processes at the interface between organisations can improve efficiency, reduce time to market and lower costs. Adopting such cooperative strategies means that buyers and suppliers work towards a common goal based on the premise that each party can gain more by cooperating than by pursuing self-interest.
Although the notion of cooperation and its importance to competitiveness is generally appreciated, managers often have difficulty understanding the architecture of their supply chains. This, coupled with the challenge of modifying adversarial behaviour, creates stumbling blocks to successful alliances.

Strategic alliances can be categorised by degrees of ownership. Full equity alliances involve mergers or acquisitions, whereas partial ownership alliances comprise joint ventures and non-equity alliances are cooperative agreements between trading partners. This study is concerned with the latter category, and the customer and supplier relations which are the primary focus of alliance improvement efforts (see chapter 1.1.2).

Creating, developing and maintaining an alliance is a difficult task and there has been considerable rhetoric in literature regarding the benefits to customers and suppliers, of cooperative strategies. A great deal of academic research has been conducted into companies' motivation in forming alliances and the eventual outcomes of such coalitions. However, research has tended to ignore developmental aspects of the inter-organisational exchange, preferring to emphasise the requirements necessary to begin an alliance and the conclusions at the end of it.

This neglect means that the effects of joint learning and the complex dynamics between allies have been overlooked. Literature review has indicated, that although there have been a number of evolutionary process or lifecycle models describing alliance development, these are fragmented in terms of academic discipline. They are often only conceptual in nature, with each describing varying numbers of stages and different criteria within each such stage.

In order to address this gap the aim of the thesis is to contribute to and build upon previous research, by considering further the notion of a phased development in business alliances.
The reader is asked to forgive the use of interchangeable terms, for example, *alliances* and *partnering*, which mean the same thing; similarly in the case of *collaboration* and *cooperation*. Cooperative agreements between customers and suppliers are also given a variety of different names including, among others, *collaboration, partnering, business alliances, networks, co-makership and preferred suppliers*. Despite such terminological diversity, the over-riding principle is that teamwork and cooperation are only successful when all parties to the agreement are committed to common goals and provide mutual support.

**Methodology**

Three alliances in unrelated industrial sectors, namely Drinks and Packaging, Microelectronics and Oil and Gas supply services, were studied during the period from 1991 to 2000.

An inductive, interpretive methodology was considered the best technique to understand alliance development in the first place by obtaining knowledge from secondary data and observation and then by focusing on the personal experiences of managers directly involved in the process.

Secondary data and literature were the main sources of material from which the early conceptual framework emerged. Themes elicited through interviews and observation contributed the re-definition of the framework. Secondary data, from a third research site was used to test and also further re-define the conceptual model. Case studies provided a detailed chronological description of how the three alliance developed.
Thesis Contribution

This thesis endeavours to enrich alliance theory by providing a deeper awareness of the alliance development process. The work also emphasises the role of teamwork in developing new capabilities and alliance management skills and presents evidence to show that innovation is the result of network links and learning.

The study aims to contribute to managerial practice by demonstrating the significance of evolutionary development in alliances. It may therefore serve as an important contribution to research into change management by helping managers to navigate a route through the alliance maze.

Appreciation of the evolutionary process has the potential to help alliance managers to intervene by showing interacting individuals how to recognise behavioural signals that presage a slow down. Timely intervention means that problems are addressed and resolved more easily; often with unexpectedly innovative outcomes.

A further potential contribution of the work is the significance of alliance learning, so that managers may confidently use this new knowledge to build new alliances and achieve business objectives more quickly.

This thesis also has the possibility to contribute to policy by demonstrating that, in order to improve the possibilities of alliance success, individuals must be supported and encouraged to learn new skills through education and continuous professional development. This is influenced by the extent to which the organisation sees the alliance as a significant strategic tool.
Overview of Dissertation Structure

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<td>To outline and evaluate literature appertaining to strategic alliances</td>
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<td>2. Process Models of Inter-Organisational Exchange</td>
<td>To evaluate a number of process models of inter-organisational exchange and organisational renewal To set out the main research objective</td>
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<tr>
<td>3. Methodology</td>
<td>To set out the philosophical context and methodological approach undertaken in this study</td>
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<td>4. Findings- Part I</td>
<td>To explain the exploratory phase of this study by describing in detail the development of the early conceptual model To describe Killeen’s alliance relationship with IDV</td>
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<td>To review the case studies described in chapters four to six and discuss the main themes drawn from the findings chapters To address the research questions</td>
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<td>8. Discussion- Part II</td>
<td>To continue the discussion by evaluating the findings relative to academic literature To present the final framework derived from this study</td>
</tr>
<tr>
<td>9. Conclusions</td>
<td>To discuss the factors identified in the study in relation to alliance evolution To review the research questions in the light of the foregoing discussion To present the theoretical and practical contribution</td>
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Table 0.2: Overview of Dissertation Structure
Chapter One: Literature Review

The literature review is divided into five sections, linking supply chain literature and cooperative management practice with economic theories that support the alliance concept. The aim of Chapter One is to consider forms of inter-organisational cooperation and to describe the alliance concept and its philosophy. The literature review evaluates the importance of writings related to teamwork, learning, innovation, networks, and trust.

Chapter Two: Process Models and Organisational Renewal

This chapter elaborates on various process models, conceptual and empirical, summarises the models and explains how they differ. The discussion continues with the relevance of organisational renewal and dissolution in the alliance context. Finally the main research objective and research questions are set out.

Chapter Three: Methodology

This chapter provides background literature justifying the qualitative research strategy. It describes the research design and process, methods of data collection and analysis, as well as how the data has been interpreted and presented. Limitations of the methodological process are also outlined.

Chapters Four To Six: Findings

These chapters clarify how the conceptual framework was derived. Chapter four gives an account of the IDV/Killeen alliance. Chapter five, describes the Shell, Seaforth and ARRC, Supply Chain Alliance. After each case study, the conceptual framework is reassessed in the light of the findings. Chapter six, relates the development of the Sun Microsystems and Birkby's alliance. Secondary field data provided the opportunity to test the framework.
Chapter Seven: Discussion Part I

This chapter reviews the case studies described in chapters four to six and specifically addresses the research questions. It discusses cases in relation to the conceptual framework and presents propositions drawn from the data. Reasons why the cases are similar and dissimilar, are considered and the transition between phases is described. Research questions are addressed in detail in this chapter.

Chapter Eight: Discussion Part II

This chapter considers the evolutionary process of alliance development. It assesses whether the dominant characteristics in the conceptual framework agree with relevant literature. It establishes whether findings from the study have been corroborated by past research. It presents a framework of progressive relationship development in business alliances.

Chapter Nine: Conclusions

The aim of this chapter is to advance the general discussion concerning the evolutionary development of alliances. Answers to the research questions are reviewed and the realities of cooperation are summarised. The study's potential contribution to theory and practice are outlined. Future research and a summary of conclusions are suggested.
Chapter One

Literature Review
1.0 DEVELOPMENT OF CONTEMPORARY STRATEGIC ALLIANCES

1.1 INTRODUCTION

The aim of this chapter is to outline and evaluate literature appertaining to strategic alliances.

The objective is to:

- consider forms of inter-organisational cooperation
- describe the alliance concept and philosophy
- describe the underlying motives for entering into strategic alliances
- consider theoretical perspectives
- evaluate the importance of inter-organisational teams to alliances
- reflect on learning, networks and trust literature in relation to strategic alliances

1.1.2 DEFINITIONS

According to Whipple and Gentry (2000:301), there is a marked shift from adversarial to more cooperative supply chain relationships. These relatively new forms of relationships have been referred to as partnerships (Johnston and Lawrence, 1988; Anderson and Narus, 1990), partnering (Macbeth and Ferguson 1994), networks (Miles and Snow, 1986; Thorelli 1986), and strategic alliances (Heide and John, 1990; Day 1994). They are usually characterised by longer-term and closer working associations between suppliers and buyers (e.g. Heide and John 1990; Ellram and Carr 1994).

Strategic alliances are defined by Varadarajan and Cunningham (1995:283) as "manifestations of inter-organisational cooperative strategies which entail the pooling of specific resources and skills by the cooperating organisations in order to achieve common goals, as well as objectives specific to the individual partners." Similarly, Parkhe (1998:3) describes strategic alliances as, "relatively enduring interfirm cooperative arrangements, involving flows and linkages that use resources and / or governance structures from autonomous organisations, for the joint accomplishment of corporate goals linked to the mission of each sponsoring firm."
Heide and Stump (1995) suggest that the basic assumption made by firms entering into a strategic alliance is that cultivating such relationships will enhance some aspect of performance (cited in Whipple and Gentry 2000:301; see also Mohr and Spekman 1994; Ellram & Carr 1994).

According to Contractor (1986:78) business alliances are a form of vertical quasi-integration and occur when each partner contributes by adding value to one or more elements in the chain from raw materials procurement, production and finally distribution to the end consumer. Various degrees of interfirm cooperation lie somewhere between the extremes of complete vertical integration, to circumstances in which production and distribution are owned by separate businesses contracting with one another. The optimal middle position for many companies is somewhere between full integration and a purely contractual relationship (ibid:78).

Strategic alliances are categorised by degrees of ownership. First, full equity alliances involve mergers or acquisitions; whereas partial ownership alliances include joint ventures and lastly, non-equity alliances are cooperative agreements between trading partners (Varadarajan and Cunningham 1995). At one extreme, a strategic alliance between two firms can encompass all of the functional areas, and at the other end of the spectrum, the association may be limited in scope to a single functional area or value activity (Varadarajan and Cunningham 1995).

This is consistent with the emerging consensus that a number of inter-organisational cooperative arrangements fall into the domain of strategic alliances with varying degrees of flexibility (see for example Spekman et al 1998). According to Varadarajan and Cunningham (1995:284), alliances not involving shared equity are less rigid and, when unstable market conditions prevail, are easier to revise, reorganise, or terminate than those that involve shared equity.

Despite such diversity, the over-riding principle is that teamwork and collaboration is only successful when all parties are committed to common goals and support each other (for example see Best 1990: 125; see also Monczka and Trent 1993; Wageman 1997).
Such arrangements involve sharing risks and rewards (Ellram 1991), cooperation (Spekman 1988), preferred supplier status and flexible negotiations (Bailly and Farmer 1988; Rainnie 1991), purposeful strategic relationships (Mohr and Spekman 1994), blurred boundaries (Kanter 1994), and new organisational paradigms (Macbeth and Ferguson 1994: 229). Other literature identifies commitment, coordination, interdependence and trust as qualities important to strategic alliances (see for example Pfeffer and Salancik 1978, Williamson, 1985, Sako 1992).

1.1.3 DEVELOPMENT OF CONTEMPORARY BUSINESS ALLIANCES

The fuel shortage during the oil crisis of 1973-74, which had a knock on effect on other raw materials, focused attention on the importance of purchasing. However, it was not until Porter (1980) identified the role of buyer and supplier as two of the “five forces”, that the strategic importance of suppliers and buyers received due recognition in literature (Ellram and Carr 1994: 11).

The 1980’s saw the emergence of new attitudes regarding purchasing although real changes in business terms were limited. By the 1990’s, the role of the buyer had gained acceptance as being significant to a firm’s success (Ellram and Carr 1994: 11).

The world-wide recession in the late 1980’s and early 1990’s, forced businesses to look at adding value and reducing costs generally. This resulted in large scale redundancy programmes euphemistically termed “down-sizing”. The aim was to identify savings, through quality improvement initiatives and inventory reduction and managers were obliged to look at new ways of adding value (Ellram and Carr 1994: 11).

Evidence of the spread of close inter-organisational links between manufacturers and suppliers has been used as proof that difficult economic circumstances lead buyers and suppliers to re-examine business dealings with one another and shift from traditional adversarial relations to more cooperative ways of working (Womack 1990; Sako 1992; Lamming 1993: 185; Macbeth and Ferguson 1994: 7; Bresnen 1996; Whipple and Frankel 2000).
1.1.4 ALLIANCE CONCEPT AND PHILOSOPHY

Traditional forms of competitive tendering are characterised by:

- contracts awarded mainly on the basis of price
- absence of strategic and operational linkage between buyer and supplier
- win-lose transactions
- mutual suspicion
- opportunism

(see for example, Imrie and Morris 1992; Macbeth 1994; Bresnen 1996)

In contrast, a new philosophy of inter-organisational cooperation has emerged (Imrie and Morris, 1992), the philosophical underpinnings of which are based on the TQM work inspired by the example of Japanese economic planners in the late 1940’s, tasked with reconstruction of Japan’s shattered economy. W. Edwards Deming argued that firms should work more closely with fewer suppliers, thereby enabling clearer and less ambiguous communication. The principal benefit of good supplier relations, is the synergy resulting from organisations working together and resolving common problems, in order to achieve mutual goals (See for example, Deming 1986, Morgan and Hunt, 1994; Wilson 1995).

Continuous innovative effort, joint learning and developing customer and supplier core capabilities, could result in upgrading of product quality, development of new applications, and enhancement of the cooperating organisations’ competitiveness in the marketplace (Dodgson 1991; Hamel 1991; Karnoe 1996; Madhock 1996).

According to Mohr and Spekman (1994:135), the motivation behind formation of strategic alliances is to gain competitive advantage. Varadarajan and Cunningham (1995:284) argue that inter-organisational cooperation can be realistically viewed as strategic only if it enables the cooperating firms to achieve competitive advantage in the marketplace. Varadarajan and Cunningham (1995:284) continue by stating that, although the term “strategic alliance” is used to describe close cooperation between customers and suppliers, such relations are operational more often than not and cannot, at this level, create sustainable competitive advantage (refer to chapter 9.3).
That is, the main purpose underlying cooperation between organisations may be either strategic, for example entry into a new market domain, or operational, involving streamlining operations or logistics processes (Sheth and Parvatiyar 1992).

Ellram and Carr (1994) list the following significant advantages of alliances to customers: -

- easier management of the supply base
- reduced time searching for new suppliers by tender
- increased supplier loyalty and reliability
- increased attention to common problems
- improved quality as a result of supplier knowledge and his involvement in design
- reduced inventory through information sharing and joint forecasting
- more stable supply prices due to long term partnering

Cooperative practices have also been linked to strategic purchasing techniques such as Just in Time (JIT), Electronic Data Interchange (EDI), Internet Technology and Total Quality Management (TQM). These benefit the supplier in terms of improved scheduling and capacity planning and are based on the premise that long term orders mean lower prices for the buyer (Erridge 1993:41, see also Angeles 2000; Tucker and Jones 2000).

All these endeavours help to create the confidence essential for investment in plant, equipment, people and training (Cherrett 1994:9; see also Boddy et al 1998). The logic of linking each step of the process, as materials and products move closer to the customer, is based upon the principles of optimisation (Christopher 1992:187. See also Christopher 2000). The goal is to improve customer service whilst simultaneously minimising costs and freeing up assets in the logistics pipeline (Christopher 1992:187).

Shared design costs, on-time deliveries, and improved quality, together with faster product and service are as vital for the buyer as his security of supply (Christopher 1992:189). Similarly Monczka and Trent (1993) link business alliances with higher quality, improved delivery, lower costs and less duplication of effort (see also Hendrick and Ellram 1993; Kanter 1994).
Others (for example Mohr and Spekman 1994) point out that alliances enable firms to access new technologies and markets by providing a wider range of products and services. This creates economies of scale in terms of joint research and / or production, allowing access to knowledge beyond the firm’s boundaries and the sharing of complementary skills (Varadarajan and Cunningham 1995; McFarlan and Nolan 1995). Related to this, is the desire of many firms to affiliate with a partner possessing sophisticated information capabilities (Whipple and Gentry 2000).

On the most part, allies do not rely on legal contracts, but depend on trust that has been developed through working closely for a period of time (see for example Sako 1992). Both begin the relationship for maximum commercial advantage, based on the principle that teamwork is better than conflict (Cherrett 1994:8). Although literature on the subject mostly emphasises dramatic aspects of buyer-supplier relations, in practice however, achievements in the early stages may be much more modest (ibid.8).

Traditionally, purchasing has been grounded on the importance of negotiating unit price. Now, other factors, often hidden, such as the cost of holding inventory or stock, lost production time, inadequate innovation and development, and administration and process costs, are identified as being much more important than price (e.g. Frazier et al, 1988; Monczka and Trent 1993; Chadwick and Ragagopal 1995).

Assessing costs is only half the task, as benefits have to be quantified as well, which can be even more challenging and difficult (Cherrett 1994:10). Total cost reduction, meeting profit targets and improving competitive position are somewhat easier to measure than “softer” values. For example the fostering of good relations and the success of the process itself, are intangible benefits that have considerable competitive potential (ibid:10). To ensure that the benefits of the alliance are fully realised, dealing with suppliers must be monitored and all costs taken into account (Chadwick and Rajagopal 1995:98).

The work of cross-functional teams is fundamental in all such strategic objectives (e.g. Cammish and Keough 1991; Cohen 1994; Wageman 1997; Chen 1999). Forming
business alliances with suppliers is not an end in itself but is rather a means of increasing competitiveness and enhancing quality. It is not a panacea for the fundamental problems of marketing and production and certainly not a soft option (Chadwick and Rajagopal 1995; Thompson, Mitchell and Knox 1998).

1.1.5 LOGISTICS AS A MECHANISM FOR CHANGE

The concept of integrated logistical management, whereby the flow of information as well as materials between source and user are continuously coordinated and managed as a process, is now well understood (Christopher 1992:187). The logic of linking each interfacing step and moving materials and products closer to the customer, is based upon principles of optimisation (ibid.187). In other words, the goal is to simplify the supply chain, to improve customer service and total quality, whilst simultaneously minimising costs and freeing up assets in the logistics pipeline (ibid.187). (see also Christopher and Towill 2000; Evans and Jukes 2000)

The objective is to look for opportunities to simplify and combine these steps in the supply chain, by bringing together separate groups of people performing related tasks and by reducing paperwork (Christopher 1992:193).

For a business to compete and survive in the global market place, it has to be supply chain oriented (Christopher 1992:197). For companies suffering from poor performance, this means nothing less than a move away from a functional towards a process orientation (ibid.197). This involves restructuring the organisation so that cross-functional work flows create an information network (ibid.197). Supplier integration must happen upstream as well as downstream, in the case of distributors and customers (ibid.197). (see also Christopher and Towill 2000; Evans and Jukes 2000).

The nature of logistics and supply chain management has dramatically changed as a result of new information technology systems. Information is now the catalyst forcing companies to revolutionise their dealings with customers and suppliers. It is no longer possible to conduct business in a vacuum, free from involvement with other organisations. Lack of planning discipline means that instructions to suppliers, revised at
short notice, will result in schedule instability as well as higher costs due to the changeovers, additional set-ups and shorter production runs (see for example Angeles 2000; Tucker and Jones 2000).

An organisation is part of a wider supply chain and it cannot develop a strategy for competitive advantage by seeking to solely optimise its own internal efficiencies. Real competitive advantage is only achieved when the supply chain as a whole, is more efficient and effective than competing supply chains (Christopher 1992:200). However, few recognise how extreme a paradigm shift is required to reap the benefits of waste reduction, improved performance, flexibility and innovation (Macbeth 1994:215).

1.1.6 JAPANESE INFLUENCES

Dyer and Ouchi’s (1993:53) research into relations between suppliers and manufacturers in the automotive industries in the Unites States and Japan, concludes that the key characteristics of Japanese Supplier Partnering (JSP) are as follows: -

- Long-term relations and commitment, with frequent dialogue and planning, reduces transaction costs and eliminates inefficiency
- Attention to cost and quality which reduces total cost in the value chain, not just unit costs.
- Willingness to make significant joint investments in plant, equipment and superior personnel.
- Improved performance benefits both parties equally as a result of regular sharing of valuable technical and cost information.
- Building trust, by introducing practices such as stock owning, and staff exchange and by maintaining consistent goals.

According to Dyer and Ouchi (1993) JSP’s realise the following economic benefits: -

- Fewer direct suppliers; which in itself reduces costs of production and transactions.
- Site specific, physical and human capital investments creates commitment, by making the parties to the alliance interdependent.
Forces competition by building-in substantial incentives for suppliers to continue to innovate.

Imai et al’s (1985:340) study of major Japanese companies, describes product development as “a dynamic and continuous adaptation to changes in the environment”. It points to three features of product development, namely self-organising teams (i.e. autonomy given to groups to define their own activities), overlapping phases and finally commitment to continuous learning. Product development groups face challenges collectively rather than in the isolation of distinct specialist departments. Information is shared across functional boundaries, a common language is developed and responsibilities are shared.

Imai et al (1985:340) also identifies “an almost fanatical devotion to learning, both within the organisation and by members outside, but involved with the inter-organisational network”.

To enhance the capabilities of suppliers, parent companies established kyoryokukai or informal associations of cooperative part makers, constituted by informal understandings (Best 1990 155-156). Imai et al (1985) describes this process as “sharing network norms”. Formal and informal associations between parent and supplier firms become the means of transferring organisational innovation. For example, Just in Time, Zero Quality Defects, Single-Minute Change of Die Cutter, all required consultation and coordination across producing units.

Best (1990:166) described this new competition in Japan as being Schumpeterian because firms compete strategically by choosing the terrain of competition on the basis of price, product quality, technological process or product innovation. It is Penrosian, according to Best (1990:166), in that the firm is a learning organisation, continuously creating new productive services by teamwork and experience.
1.1.7 FACTORS NECESSARY FOR SUCCESSFUL ALLIANCES

Literature elaborates on the following important factors that contribute to the success of business alliances.

Commitment. Commitment is considered a huge influence in stimulating innovation (see Ford and Rasson 1982; Ghemawatt 1991; Giancarlo 1999). Commitment is a measure of the importance of a relationship in terms of the inputs that each party is prepared to make to it. Or to put it another way, commitment is the degree of tolerance one party is prepared to offer the other when dealing with problems (Hardwick and Ford 1986:5; see also Morgan and Hunt 1994).

Trust. Exploring the usefulness of trust, Driscoll (1978:44-54) attributes participation in decision making, as an explanation for satisfaction at work. An outcome of his study is that trust predicts overall satisfaction with the organisation, more so than taking part in decision making. Regardless of an individual’s degree of involvement, or the fit between desired outcomes and participation, people who have greater trust in an organisation, seem to be more satisfied with their own role in it (see also Barney 1991; Barney and Hansen 1994; Bidault and Jarillo 1997; Giancarlo 1999; also chapter 1.5).


- Contractual trust describes trading partners who adhere to a specific written agreement, uphold ethical standards, keep promises and protect commercial secrets.
- Competence trust is the expectation that a trading partner will perform his role competently.
- Goodwill trust refers to mutual expectation of commitment. The key to goodwill trust is that although trading partners may use their initiative, they will refrain from taking unfair advantage. Both goodwill trust and contractual trust imply the absence of opportunistic behaviour (ibid. 37-39).

Other factors that build commitment and trust and contribute to successful alliances are, informal communication, measures to identify continuous improvement and well defined
structures that cross organisational boundaries and develop individual and organisational learning (Boddy et al 1998). Management commitment, clear objectives, mutual goals and availability of adequate resources to carry out the task, have also been cited as important (e.g. Ellram and Edis 1996; Whipple and Frankel 2000).

Choosing partners - appropriate supplier selection. The selection of an alliance partner, and whether he can be seen as a long-term collaborator, is perhaps the decision most critical to success (Dodgson 1991:12). It takes a long time to develop a common language and procedures, bearing in mind that the business environment is ever changing. Because of this, the customer should be attracted to a particular supplier, not for what he can currently offer, but rather for his future development potential (ibid.12 ; see also Ellram and Edis 1996; Hitt et al 2000).

Tenbrunsel et al (1999) echo this by stressing the need to examine the process of partner selection and the influence that relationships may have on the partner selection. They compared the matching process when relations could influence the partner selection decision, with a matching process when relationships could not influence this decision. Their findings showed that when relations were not allowed to influence the process, the resulting agreements were more economically optimal. The rational for this proposition was that, during the course of negotiations and interviews, potential partners implicitly, or explicitly, discussed commitment to each other and this might have been at the expense of the market and the association in the longer term.

Lei and Slocum (1991) counter the above by suggesting that some of the most successful alliances are those that have an extended courtship period before the venture is created.

Complementary skills. Hamilton’s (1990) research in the US biotechnology industry found that both new and existing firms readily joined forces in search of complementary assets. However, although new firms possessed desirable technology and knowledge skills, they tended to lack the management and marketing expertise that firms of longer standing possessed (see also Ellram and Edis 1996; Miller and Shamsie 1996; Osborn and Hagedoorn 1997).
Bakker and Nichols (1994:15) emphasised the complementary skill reasoning. Managers need to be aware of core competencies and capabilities available within the company and should anticipate the skills needed to succeed in the new business. Managers must judge the "critical mass" of competencies that is going to be necessary for joint development by both companies.

**Cooperative cultures.** Culture is not a characteristic of individuals, but a collection of individuals who share common values and the extent to which these values are held can influence the implementation of a business alliance (see for example Fiol 1991; Hastings 1993; Lowndes and Skelcher 1998). Slocum and Lei (1993:295) state that the wide proliferation of alliances of varying degrees of sophistication, makes it necessary for senior management to understand the importance of organisational cultural factors. Alliances require partners to respond quickly to change whereas mechanistic, bureaucratic structures respond too slowly. Control through common values must therefore increase.

Brouthers et al (1995:20) suggest that the key to creating cooperative cultures is an understanding of the concept of symmetry, i.e. when collaborating firms are of an equivalent size, when they have comparable financial resources and have similar internal working environments (see also Brouthers and Brouthers 2000).

**Compatible goals.** Mismatch, in terms of strategic goals, is the most common cause of failed alliances. Clarity of focus is vital. Ambiguous, fuzzy direction, and uncoordinated activities are also reasons for the failure of cooperative ventures (see for example Lynch 1991; Mahoney 1992; Yan and Zeng 1999). Khan (1996) suggests that partners can establish common goals through a process of inter-departmental integration. Commensurate risk is needed to glue the strategic alliance together (see for example Das and Bing-Sheng 1999). If nothing is at risk then there is little incentive to cooperate (Brouthers et al 1995:22).

**Performance measurement.** Organisations, used to traditional purchasing techniques, often find it difficult to accurately determine performance. They are accustomed to
recording savings achieved, versus price inflation and fail to map out their processes to make it possible to identify cost drivers. Although balance sheets may show an apparently satisfactory profit, waste that needs to be removed is not pin pointed. In fact, price inflation can only be kept under control through continuously challenging specifications, simplifying supplier logistics, and changing product design (Cammish and Keough 1991:37, see also Ittner and Larcker 1996; Glaister and Buckley 1998).

1.1.8 FACTORS IN UNSUCCESSFUL ALLIANCES

According to Boddy et al (1998), alliancing requires a culture shift. It is not just a process but a behavioural change and must be evaluated by means of a formalised monitoring structure. If this does not happen, the initiative is likely to fail. Threats to stable alliances can come from two main directions, internal changes in one of the organisations, or a major change that shifts the focus of attention away from the alliance in general (see for example Murray and Mahon 1993). Other factors concerning alliance failure have been cited, such as differences in the goals of the parties, unequal benefits and costs, conflicts over decision-making, decline of resource contribution (see for example Dymsza (cited in Contractor and Lorange 1988: 403-424).

The following section reflects on theoretical perspectives for understanding strategic alliance formation.

1.1.9 THEORETICAL PERSPECTIVES ON STRATEGIC ALLIANCES

A number of theoretical perspectives have been advanced to explain the motives underlying the entry of firms into strategic alliances, the conditions under which strategic alliances are likely to be formed and the types of strategic alliances (see for example Kogut 1988; Varadarajan and Cunningham 1995).

One of the most difficult decisions that some managers have to make is whether to make or buy. The issue of what to make and what to buy is very much a strategic decision requiring full executive backing and clear communication. It should be taken from a
position of well-developed supplier relationships with clear awareness of cost and capability (Chadwick 1995:89)

Transaction Cost Economics is the most popular approach used in relation to this question and an important consideration is the level of transaction-specific investment (see for example Best 1990; Powell 1990).

Transaction Cost logic suggests that the choice between market, hybrid or hierarchy, depends on the level of transaction specific investment required by the firm to gain the capabilities it desires to possess (Williamson 1993). If transaction specific investment is high, the firm should either, develop the necessary capabilities on its own if it can, or acquire another firm that already possesses such resources (Barney 1999).

In Transaction Cost Economics, governance is the mechanism by which the firm manages the exchange. When firms embark on strategic alliances such associations replace arms-length market relations. Trust and self-enforcing agreements between the alliance partners is the governance employed to manage the exchange and reduce the threat of opportunism (see for example Barney and Hanson 1994. Refer also to chapter 1.5, pages 43-49).

Firms’ capabilities do not seem to play a significant role in Transaction Cost Economics and the Resource Based Perspective suggests that a firm is made up of sticky and imperfectly inimitable resources and capabilities enabling it to successfully compete (see Wernerfelt 1984, Barney 1986). This means that a firm can achieve rents, not just because it has better resources, but because it makes better use of them (see for example Conner 1991). The following sections 1.1.10 and 1.1.11 elaborate on the relevance of Transaction Cost Economics and the Resource Based Theory of the firm with respect to inter-organisational strategies.

1.1.10 TRANSACTION COSTS AND ALLIANCES

Transaction Cost Economics (TCE) has been held out as one of the most influential economic theories in strategy research (Coase 1937; Williamson 1979,1985, 1999), and
Williamson (1985) suggests that a critical role of the firm is to economise on transaction costs. Transaction cost analysis has increasingly recognised the existence of forms of governance that correspond closely to alliance agreements (Teece 1984; Best 1990; Powell 1990; Williamson 1993).

Once analysts sought to examine the choices amongst markets, hierarchies, and hybrid forms, such as joint ventures and franchising agreements (Osborn and Hagedoorn, 1997). Powell (1990), recognises three forms of organisation, namely market, hierarchy and network and suggests that "firms are blurring their established boundaries and engage in forms of collaboration that resemble neither markets, nor hierarchies, nor vertical integration" (1990:297). This differentiation among administrative forms has been accompanied by a broader view of the alliance function. It is seen, not just as an instrument to reduce transaction costs, but also as a way of gaining technical, administrative and commercial benefits (Osborn and Hagedoorn, 1997).

Transaction cost economics has had a profound effect on the analysis of interfirm cooperation (e.g. Williamson 1985, 1991). The core argument of transaction costs is expressed as follows: The governance structures that we observe in our "institutions of capitalism" are devised to economise on bounded rationality and to simultaneously safeguard transactions against opportunism of adverse selection, moral hazard and hold-ups (Mahoney and Pandian 1992). Cost reducing governance structures emerge from institutional competition (Mahoney and Pandian 1992).

Environmental conditions that make transaction cost analysis critical are asset specificity and uncertainty (Williamson 1979,1985,1999). The major dimensions of asset specificity are site, physical and human capital specificity. As site specificity increases, the buyer and seller become locked into a relationship, so as to economise on inventory and transportation costs. Physical asset specificity occurs when one or both parties to a transaction make investments in plant and equipment, that involve design characteristics specific to the transaction. Human capital specificity involves learning by doing and team experience (Mahoney and Pandian 1992).
Ghoshal and Moran's (1996:13) critique of transaction cost theory argues that organisations are not mere substitutes for structuring efficient transactions, but that they possess unique advantages for governing certain kinds of economic activities and subscribe to a logic very different from transaction cost economics. They suggest that Williamson has ignored the potential power of organisations to influence both the direction of economic progress and the motivation of individuals to contribute and benefit from that progress (ibid.40). Furthermore, the advantages of organisations over markets may lie in human ability to take the initiative and to cooperate. It may also rely on exploiting the organisation’s internalised purpose and diversity, to enhance both learning and to create innovation and purposeful adaptation (ibid.42).

Powell (1990) proposes that inter-organisational alliances, based as much on cooperation and trust as upon formal contracts, is an alternative way to meet market demands and that alliances work just as well as hierarchical forms of governance. The focus of transaction costs is to explore the best responses in various environmental conditions, and not to proactively seek to change conditions through strategic initiatives (Varadarajan and Cunningham 1995:287). Strategy is therefore a mechanism for change that reflects the power of idiosyncratic managerial intention and ability, as exemplified by the concept of the resource based approach (Varadarajan and Cunningham 1995:287).

1.1.11 THE RESOURCE BASED THEORY OF THE FIRM

The resource based view of the firm has recently emerged as an alternative way of understanding industrial organisations and their competitive strategies (Das and Teng 2000). The resource-based approach emphasises the firm, whereas industrial organisation theory concentrates on the industry and it is this that differentiates the two. Industry and the market are Siamese twins. As both production and market reaction are inextricably tied, the analysis of the firm and its industrial sector is important (Maijoor and van Witteloostuijn 1996). However, in contrast to transaction cost logic, which emphasises cost minimisation, the resource-based rationale emphasises value maximisation of the firm, by pooling and utilising valuable resources (Das and Teng 2000).
Zajac and Olsen (1993) suggest that Transaction Cost Economics fail to explain inter-organisational strategies. In their view, the concept over-emphasised the extent that markets and hierarchies inhibit a behavioral approach. At the core of their analysis, is an examination of the influence of market structure upon industry, which concludes that it does not adequately take into account the internal organisation of the firm (see also Dyer and Singh 1998). The resource view holds that the type, magnitude and nature of a firm’s internal resources and capabilities are important determinants of profitability (Das and Teng, 2000).

The firm is considered to be both an administrative organisation and a pool of productive and interdependent resources (Penrose 1959:31). Productive resources can take the form of human capital, physical capital and intangible capital (see for example Itami and Roehl 1987; Farjoum 1994; Dyer and Singh 1998). Different combinations of these attributes mean that all firms are unique or heterogeneous (Penrose 1959,1985) and, if used properly, resources can be a firm’s particular source of competitive advantage (Grant 1991:124).

Rents derive from resources that are at the same time superior, imperfectly immitable and non-substitutable (Lipman and Rumelt 1982). These resources will not be easily dissipated by competition, as they are unable to be traded perfectly (Amit and Schoemaker 1993, Barney 1986, 1988, 1991; Dierickx and Cool 1989; Peteraf 1993). A firm can achieve rents, not just because it has better resources, but because it makes better use of them (Penrose 1959:54).

The Resource Based theory of the firm identifies resources and capabilities, which are important determinants of sustainable competitive advantage. The way to understand the resource-based theory of strategy formulation is to appreciate the relationship between resources, capabilities and profitability and, in particular, the way that competitive advantage can be sustained over time. (Grant 1991:124). The basic concept [strategy] is that a firm’s competitive position is defined by a bundle of unique resources and relationships. Management’s duty is to adjust and renew these as time, competition and change erode their value (Rumelt 1984 557-558).
The notion that firms are fundamentally heterogeneous, in terms of their resources and internal capabilities, has long been at the heart of the concept of strategic management (Peteraf 1993:173). Heterogeneity implies that firms with lesser capabilities are still able to compete in the market place, or at least break even, although firms with superior resources will earn rents (ibid.180).

Heterogeneity in an industry may reflect the presence of limited superior productive influences. They may be fixed factors that cannot be expanded, but more often are quasi-fixed, in the sense that their supply cannot be increased rapidly. They are scarce and insufficient to satisfy demand and thus inferior resources have to be brought into production as well. The important point is that the supply of superior resources is exhaustible and efficient firms can only maintain competitive advantage if their resources are both able to be expanded, and at the same time, not easily imitated by others (Peteraf 1993).

Quasi-fixed resources, are much more important. These are resources which, while limited in the short run, may be renewed and expanded incrementally by the firm using them (Nelson and Winter 1982; Wernerfelt 1984; Peteraf 1993). For example, knowledge based capabilities are enhanced as they are utilised. These kinds of assets provide the basis and direction for growth of the firm itself (Teece 1980; Teece et al 1997; Argyres and Liebeskind 1999). Current capabilities may both impede and constrain further learning and investment, but overcoming this influence depends on an ambitious workforce (Itami and Numagami 1992). Incremental growth and renewal of limited resources however, is consistent with the Ricardian view of rent and competitive advantage (Peteraf 1993:182).

An emerging theoretical perspective is that the firm is a collection of tangible and intangible resources and capabilities required for product/market competition (see Miller and Shamsie 1996). The resource based view of the firm (see for example Coase 1937; Penrose 1959; Nelson and Winter, 1982; Teece 1981; Rumelt 1984; Wernerfelt, 1984;
Barney 1986, 1991), highlights the heterogeneity of firms, their varying degrees of specialisation, and the limited transferability of corporate resources (Amit and Schoemaker 1993). In addition, the resource view holds that the type, magnitude and nature of a firm's resources and capabilities are important determinants of its profitability (see for example Barney 1999).

1.1.12 COMPETITIVE ADVANTAGE

For a limited period of time, competing in the right way and in the appropriate arena may result in a high level of profitability. However long-term profitability is unlikely unless this advantage is either not easily duplicated, nor countered (Aacker 1989, 1993). Researchers attempting to understand the sources of competitive advantage (e.g. Rumelt, Schendel and Teece 1991), have looked at the differences between firms and how some are better able than others to conceive of, and implement, valuable strategies (Barney 1991). These studies have concluded that the central issue in understanding success, rests on the underlying theory of the firm and the associated theory of strategy (Porter 1991: 95).

According to Barney (1986), companies may obtain above normal returns when they have superior information, when they are lucky, or both. Alchian (1950) and Rumelt (1984) also emphasise this point. The implication to be drawn is that, as well as analysing the competitive environment, managers should focus on their own company's skills and resources (Dierickx and Cool 1989:1504).

Williamson (1979) points out, that the idiosyncratic nature of unique assets precludes their tradability in the open market and, being non-tradable, the firm-specific content is accumulated internally. A business must be capable of continuous improvement in areas critical to its strategy, if any competitive advantage is to be sustained (Collis 1991:66).

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A company is said to possess sustained competitive advantage when it pursues a value creating strategy, not simultaneously being implemented by current or potential competitors and when the latter are unable to duplicate benefits from that strategy (Barney 1991:102).

This does not imply sustainability, or that the advantage lasts forever. Unanticipated economic changes in an industry may mean that what was, at one time, a steady source of competitive advantage, is no longer of value to the firm (Barney 1991:103). Such structural changes in an industry are often called “Schumpeterian shocks” (Schumpeter 1934:65-66; Barney 1986; Rumelt 1987).

The objective for managers is to build an organisation capable of continuous improvement, innovation, collective learning, and information transfer (Collis 1991:66). Competitive strengths are developed by organisational learning, and acquisition of industry-specific capabilities for production, distribution, R&D, purchasing, and labour relations (Chandler 1992:92).

The key to sustainable rents is the existence of isolating mechanisms (Rumelt 1984; Rumelt 1991). The notion of an isolating mechanism is analogous to an entry or mobility barrier (Caves and Porter 1977; Caves and Ghemawat 1992).

1.1.13 ISOLATING MECHANISMS

Rumelt (1984:567) describes isolating mechanisms as “phenomena that limit the ex post equilibrium of rents among individual firms”. That is, those “hidden” capabilities or assets, not directly associated with a product or service, that sustain advantage e.g. proprietary knowledge, or company reputation, or brand image, or specialised equipment.

Dierickx and Cool (1989:1507-9) go on to develop this concept by identifying mechanisms which render inputs costly to copy, such as team embodied knowledge that can be passed onto new generations of team members, without significant degradation.
Isolating mechanisms have been described as, but are not limited to, history and path dependence (Dierickx and Cool 1989), organisation routines (Nelson and Winter 1982:99), knowledge (Itami & Roehl 1987:53; Badaracco 1991), bounded rationality (Simon 1962), causal ambiguity (Lipman and Rumelt 1982:420), uncertain imitability (Lipman and Rumelt 1982:419), culture (Fiol 1991:194), first mover advantage (Liberman and Montgomery 1988:47), social complexity (Fiol 1991:191), managerial knowledge and skills (Prahalad & Bettis 1986:491; Spender 1996), strategic groups (Cool and Schendel 1988:207), strategic alliances (Gomes-Casseres 1996:84), and each will be described in turn.

**History and Path Dependence**

Resource-based theorists are not alone in recognising the importance of history as a determinant of a firm's performance and competitive advantage. Traditional strategy studies often cite historical circumstances as relevant precedents (Learned et al 1961; Ansoff 1979).

Firms are idiosyncratic and, in the course of events, they accumulate and acquire assets as a result of tacit learning and dynamic routines (Teece, Pisano and Sheun 1997). Imitation of these assets is only possible by the same time consuming investment into learning that the firm itself made (Dierickx and Cool, 1989; Barney 1991).

Assets are said to produce a "path dependence" which provides substance to the tenet that "history matters". A firm's history and strategy yield a special combination of resources and accumulated assets. Clearly, had the firm made different decisions in the past, it would itself be different today (Collis 1991:51).

**Organisation Routines**

Routines and path dependence are used to explain the resource-based view and why imitation is often inhibited (Nelson and Winter 1982:99; Teece, Pisano and Sheun 1997). According to Nelson and Winter (1982), routines are the most important means by which an organisation's operational knowledge is stored. Certain characteristics of routines
are so subtle that even persons carrying out the routines may not be consciously aware of them (Koch and McGrath 1996:336) and this makes imitation by competitors difficult (Reed and Defillippi 1990). These routines stabilise knowledge and immobilise procedures so that routines “stick” to the organisation where they were developed (Koch and McGrath 1996:337).

Knowledge

Knowledge based resources are protected from imitation by barriers, which means they cannot be imitated by competitors, because they are refined and hard to understand. They involve elusive talents and their connection with results is difficult to pin point (Lipman and Rumelt 1982). Knowledge based resources often take the form of particular skills, e.g. technical, creative and collaborative (Itami and Roehl 1987; Hall 1992,1993).

Economic rents arise from such skills, mainly because rivals are ignorant of why a firm is successful. It is often hard to appreciate the basis for a rival’s creativity or the teamwork that makes it effective. Complete protection by barriers is impossible, because competitors can acquire similar knowledge and talents. Normally this takes time, and by then a firm may have gone on to develop further skills and have learned to use them in a different way (Miller and Shamsie 1996:522).

Systematic knowledge based resources may depend on making use of integrating or coordinating aptitude in multidisciplinary teamwork (e.g. Fiol 1991; Monczka and Trent 1993). Some firms invest in team-building and collaborative efforts to promote adaptation and flexibility. This is not just expertise in any field, but rather the way skills from several domains complement one another in a team, to give competitive advantage (Itami and Roehl 1987:12; Hall 1993; Teece, Pisano and Shuen 1997).

Bounded Rationality

In the past, economics largely ignored the processes that people use to reach decisions. It was deemed acceptable to explain strategic decisions flowing from static, relatively
simple problems, where it might be assumed that additional time, for deliberation or the exercise of power, was unlikely to change the outcome. Such explanations however, do not work when we are seeking to analyse a decision maker’s behaviour in complex circumstances which involve much uncertainty and make severe demands upon his attention (Simon 1962:14).

Causal Ambiguity

This term has come to mean the inability of economic agents to fully understand the causes of differences in efficiency which limit competition by entry or imitation (Rumelt 1984:567). Causal ambiguity is used in literature to describe circumstances where the link between resources controlled by a company and its sustainable competitive advantage, is not fully understood (Alchian 1950:219; Rumelt 1984; Barney 1991, 1999). Whilst it is natural sometimes, to fail to understand why one company consistently outperforms others (Demsetz 1982), in the circumstances of causal ambiguity, imitators cannot identify the actions they should take in order to duplicate the strategies of firms achieving consistent competitive advantage (Barney 1991:109).

Uncertain Imitability

Lipman and Rumelt (1982:420) state that a common explanation for factor immobility is not ambiguity, but uniqueness. This means that concepts of uncertainty and uniqueness are deeply interdependent and, in the absence of uncertainty, creation of a unique resource could be attempted and, the uniqueness lost as a consequence. This strong connection between uniqueness and ambiguity is also emphasised by Williamson (1979) in relation to idiosyncratic knowledge. Frequent personal interaction between people and complex systems, gives rise to unique transaction-specific skills that are, in Polanyi’s word, “unspecifiable” (1958:53).

Culture

Culture consists of beliefs, knowledge, attitudes of mind and customs to which individuals in an organisation are exposed and, as a result of which they acquire values,
adopt terminology and habits of behaviour and thought. This culture sets the
organisation apart from others and binds its members together (Hall 1992:139).
According to Cartwright and Cooper (1996:6) cultural differences and the concept of
cultural distance can inhibit and obstruct cooperation and although by no means the only
criterion, cultural compatibility will go a long way in aiding successful alliances.

First Mover Advantage

The first firm to implement a particular strategy in an industry can result in first mover
advantage because of three reasons; technological leadership, pre-emption of assets and
buyer switching costs (Lieberman and Montgomery 1988:41, see also Lieberman and
Montgomery 1998).

Technological leadership derives from a learning or experience curve (Henderson and
Green 1997), i.e. costs falling due to cumulative output, success in patents and R&D.
Innovation need not be limited to physical hardware. Firms may also make managerial
improvements by inventing better organisational systems (Lieberman and Montgomery
1988:44). Organisational innovation is often slow to diffuse, hence it will offer more
durable first-mover advantage than product, or process innovation (Teece 1980). In
describing managerial innovations in the late 19th century that enabled producers to
exploit economies of scale, Chandler (1990) refers to companies such as American
Tobacco, Campbell Soups, Quaker Oats, Procter and Gamble which, to this day, still
retain dominant positions in industry.

A business can acquire first mover opportunities through a combination of proficiency
and luck (Lieberman and Montgomery 1988:49). This can affect profits directly, as in a
situation where a firm possesses the know-how to enable it to manufacture products at
lower cost than its competitors (ibid.50).

Firms may win access to distribution channels, develop customer goodwill, or acquire a
positive reputation, before their rivals (Barney 1991:104). It follows therefore, that by
implementing a strategy earlier than competing firms, a first mover must have insights
into opportunities associated with implementation of a strategy, not shared by others in
the industry, or potential new entrants (Leiberman and Montgomery 1988:44). This unique resource makes it possible for the better informed firm to implement its strategy to good effect (Barney 1991:104).

Social Complexity

Resources controlled by a business are frequently interdependent and subject to its asset specificity (Williamson 1975). Often, resources are implicit and taken for granted by managers, rather than being highlighted by explicit analysis (Polanyi 1967; Nelson and Winter 1982).

A wide variety of resources can derive from social complexity (Dierickx and Cool 1989), culture (Fiol 1991:94), a firm’s reputation (Barney 1986), and relations between its customers and suppliers (Macbeth and Ferguson 1994).

The resource-based view asserts that, not only are firms intrinsically historical and social entities, but that their ability to acquire and exploit certain resources depends upon good luck and timing (see Barney 1991). When competitive advantage stems from complex social phenomena, the ability of competitors to imitate these resources is significantly constrained. Several firms may possess the same physical technology but, frequently, only one may possess the social relations or traditions to fully exploit this technology when implementing its strategy (Barney 1999: 107-110).

Managerial Skills and Knowledge Based Resources

Understanding the nature of superior management, involves examining skill differentials between the best and less able managers. All other things being equal, such as the level of experience, high quality managerial skills of any type are likely to result from superior innate abilities (endowments) and/or superior learning (Castianas and Helfat 1991:160).

However, management know-how is generally intangible and difficult to codify (e.g. Huber 1996). Learning by doing becomes important; Katz (1964) suggests that managerial skills are developed through the practise of relating one’s own personal
experience and background. It is difficult for assets to accrue rents without continuous application of managerial skills (Castianas and Helfat 1991:164).

The systematic and coordinative nature of team skills makes them particularly firm-specific and therefore more valuable to an enterprise than to its competitors (Dierickx and Cool 1989:1505). Team talents are difficult for rivals to steal as they are personal and they rely on the special infrastructure, history and the collective experience of people in a specific organisation (ibid.1505).

Cooperative skills especially, are not developed by programmed or routine activity but are nurtured during and as a result of, a history of challenging projects. Ambitious long-term projects force specialists from different parts of the business to work together intensively on complex problems. As such interaction broadens into effective tactics, it also promotes greater technical learning and social interaction in the team (Itami and Roehl 1987).

Performance Difference among Strategic Group Members

The term strategic group is used with reference to industrial competition and the variable success of strategic groups comes from the different asset accumulation of their members (Cool and Schendel 1988:207).

Coase (1937), Williamson (1975), Nelson and Winter (1982) point out that free markets tend to be imperfect and incomplete. Indeed, critical assets may be tied up and imitation consequently made difficult, if not impossible, because knowledge to reproduce the resources and skills are tacit and firm specific (Nelson and Winter 1982; Lippman and Rumelt 1982). Substitutes may not be available without significant cost and may involve substantial uncertainty or long lead times. Wernerfelt (1984) calls this "resource position barriers", though group members pursuing the same strategy may not necessarily achieve similar performance (Cool and Schendel 1988:210).
Strategic Alliances

The very incentive to form an alliance revolves around the effort and investment required to tailor and combine the capabilities of the partners (Gomes-Casseres 1996:84). Cooperative relations are encouraged by developing a strategic similarity or "dominant general management logic", which means the way managers conceptualise the business and make critical resource allocation decisions - be it in technology, product development, distribution, advertising, or in human resource management (Prahalad and Bettis 1986 :460).

Dominant logic is however, as much a cognitive concept, as it is a mind-set or a view of business in an industrial grouping. The implication of dominant logic for alliencing firms is that effective corporate management requires that business units share "strategic characteristics" compatible with the firm’s dominant logic (Grant 1988:640). Operationalising this mind set through shared activities, creates interdependence between these businesses (ibid.641).

Internal and inter-organisational teams are more likely to improve technological knowledge, skill, or routines that fit better with the firm’s current activities by bringing new firm specific assets to its intellectual capital (Conner 1991). Know-how is unlikely to be transmittable in a lump, rather the alliance investment may generate gains when the possessor of the know-how is continuously and intimately engaged in applying it to new projects. It will also have a spill over effect on existing projects and Cohen and Levinthal (1990) call this feature "absorptive capacity".

Barney (1986, 1999) suggested that unique organisational skills and abilities, involving a combination of a firm’s resources, may create advantage. Team specific assets, developed between customers and suppliers within a relationship specific (e.g. Alliancing) context may constitute such resources.
1.1.14 CRITICS OF BUSINESS ALLIANCES

Critics of current research into cooperative inter-organisational strategies argue that studies to date have demonstrated a limited understanding of contemporary business relations.

Writers such as Imrie and Morris (1992), Rainnie (1991), Turnbull (1991) suggest that strategic alliances are an exception, rather than a regular occurrence. Imrie and Morris (1992) find it difficult to conclude that coherent and consistent changes in buyer-supplier relations have occurred, or that any differences are the results of a broad philosophical shift. Despite evidence of change in buyer-supplier relations, many commentators still doubt its true extent and nature (see for example Ramsey 1996; Serapio and Cascio 1996; Parkhe 1998; Yan and Zeng 1999).

Alliances are becoming prevalent as companies’ overall structure, and competitive advantage depends more and more, not only on a business’s internal capabilities, but also on the types of alliances and the scope of its relations with other firms (Parkhe 1998). Paradoxically, the rapid growth of alliances in recent years has been counterbalanced by high failure rates in the relationships (see Parkhe 1998; Koza and Lewin 1998). Customer and supplier alliances frequently are far from idyllic and advocates of cooperation often underestimate the negative aspects including, increased complexity, loss of autonomy and information asymmetry (Matthyssens and Van Den Bulte 1994:88).

Earlier, Coleman (1988; cited in Tenbrunsel et al 2000) argued that reliance on alliance relations was a double-edged sword, beneficial for facilitating certain transactions but detrimental to others. For example, the relationship itself can become a dominant influence, de-emphasising the economic interests of the partners and limiting the amount of market information that participants seek to obtain.

In the opinion of sceptics, ostensibly closer, more cooperative relations simply mask attempts to extend and exert greater managerial control over dependent supplier organisations (see for example Ramsey 1996). “Partnerships” between buyers and
suppliers are, in their view, forms of control and market power, underpinning the demand-supply exchange.

Bresnen (1996) argues that over simplification of the dynamics of buyer-supplier relations tends to underplay the role of perception and choice on the part of the supplier organisation. The natural tension between competition and cooperation is underplayed or ignored in writings on buyer-supplier relations.

1.1.2 SECTION ONE SUMMARY

The foregoing literature has established that management of strategic alliances involves activities from procurement of materials to end-use and, at the risk of stating the obvious, that motivation for combining forces and forging cooperative agreements, is to benefit the partners (see section 1.1- 1.1.8).

The review has touched on the necessity for companies in an alliance environment to develop and ultimately to operate more efficiently as a result of engaging in cross-functional, inter-organisational projects (see section 1.2, page 30). Skills acquired in this way, engender greater flexibility and increase knowledge of both the customer and supplier businesses. Such information channels help in communication of innovative ideas that are strategically significant (see section 1.3, page 36 and 1.4, page 39).

The study of inter-organisational associations has been the subject of much research over the recent past (see section 1.1.3, page 3). The emphasis has been on how such relationships offer technical, commercial and corporate advantages over competitive tendering and arms-length market transactions (see section 1.1.4, page 4). Critical attributes of alliance success include, but are not limited to, commitment, sharing information and relation-specific skills (see section 1.1.7, page 10).
Scholars are questioning early theoretical assumptions concerning alliances and acknowledge the complexity of alliances and associated networks. To address this uncertainty the role of inter-organisational teams (see section 1.2), learning (see section 1.3, page 36), innovation (see section 1.4) and trust (see section 1.5, page 43) will be considered in the remainder of this chapter.

1.2 TEAM INTERACTION AND PERFORMANCE

Section two provides a brief outline of team literature, as it relates to alliances.

Taking strategic decisions is, by its very nature, complex and unpredictable and the team members' perceptions and interpretations of the market critically influence their choices (Dutton and Dunce 1987). Furthermore, decisions are influenced by strategies aimed at achieving high level objectives set by senior management (e.g. Tushman and Romanelli 1985; Clark and Wheelwright 1992). Teamwork has to be seen as aligning individual motivation with organisational rationality (Mueller 1994). From a strategic perspective and with the aim of building competencies or capabilities, teamwork can be considered part of the corporate response to environmental challenges, (e.g. Monczka and Trent 1993).

Teamwork provides a structure that encourages employees to work in a mutually supportive way and it enables development of effective problem solving capabilities (see Hurst et al 1989). For a team to be successful in initiating strategic change, it must have certain essential qualities. These include receptivity to change, willingness to take risk, access to diverse information sources and perspectives, also creative and innovative decision making ability (see Cohen 1994). Mueller (1994) calls attention to quantifiable costs of teamwork such as training, reduced production due to split responsibility, as well as physical and spatial requirements. It goes without saying that when a new management technique is introduced, its benefits are stressed and potential costs or risks receive less attention. Concentration focuses on effective adoption and implementation (e.g. Polley and Dyne 1994; Wageman 1997).
Self-managing teams should be self-regulating and responsible for a complete task (Cummings 1981; Cohen 1994). Teamwork encourages contributions based on different members' skills and abilities, exercises discretion over work methods and task schedules, disseminates feedback and determines rewards based on group performance, as opposed to individual effort (Polley and Dyne 1994; Tjosvold and Tjosvold 1994). According to McGrath (1984:6) most definitions of teamwork stress the idea of interaction, interdependence, mutual awareness, a vision of the past and of an anticipated future. Teams are social systems and have pervasive, persistent and powerful effects on human behaviour (McGrath 1984:6). Ideal team activity is encapsulated in the classic metaphor, as more than the sum of its parts (Polley and Dyne 1994:26), where separate strengths are bound together into a single coordinated initiative. That is, the whole is greater than the sum of its parts (Dyer 1977:4).

Teamwork encourages organisational learning and adaptability, especially when teams have freedom to experiment and to develop unique strategies suited to the task in hand (e.g. McGrath 1984; Wageman 1997).

As far back as 1951 (cited in Pearce and Ravlin 1987), researchers at the Tavistock Institute stated that groups should:

- be responsible for an identifiable part of the business
- foster cooperative work arrangements
- learn all the jobs within their group
- have the authority and material resources required to do the job
- receive performance feedback.

1.2.1 CROSS FUNCTIONAL TEAMS

The concept of cross-functional teams has a tremendous potential for a wide range of business applications (Clark and Wheelwright 1992). To be successful, the team requires strong and independent leadership, supported by members with a broad range of skills (Dimancescu 1992:6).
Although ownership and commitment are the most striking features of cross-functional teams, each team has its own particular weaknesses. For example, given insufficient direction, or if the remit at the outset is vague, a team might go off at a tangent and lose its way (Clark and Wheelwright 1992). A balance has to be struck between the needs of the individual project and the corporate strategy. Cross-functional teams should complement the work of functional departments by integrating the processes across the organisation. In this way, teams should be able to see the larger picture and become more customer orientated (Harshman and Phillips 1994; Wageman 1997).

Creating an effective team with good leadership, problem-solving skills and the ability to integrate across functions, means a basic change in the way people work together (Dimancescu 1992:8). It involves fundamentally transforming the behaviour of core staff, such as engineers, marketers, designers etc, not only in their day to day work, but also in their work ethics (Ketchum and Trist 1992:10). Firms must be aware of the difficulties in realising the full potential of teamwork. Those prepared to rise to the challenge and make the profound changes needed will reap the rewards (Larson and Lafasto 1989).

In some cases, gains from teamwork may include tacit knowledge that members are unable to explain to others (Nelson and Winter 1982; Nonaka et al 1996). Accordingly, members see their effort and ability as unique. Hedlund (1994) perceives the interplay between articulated and tacit knowledge at four different levels, namely, individual, team, company and inter-organisational.

Teams learn from failure and have to be prepared to accept negative feedback in order to do better next time. Paradoxically, the team will learn, grow and become more successful as a result of circumstances of less than perfect performance (Spender 1996).

Souder (1987, cited in Hedlund 1994:81) in his literature on innovation readily acknowledges that functionally diverse groups find difficulty reaching agreement on integrated programmes of action. The key to competitive advantage is speedy exploitation of opportunities, which, in its turn, requires flexible co-ordination and synchronised execution.
A number of studies have looked at the subject of communication within and by groups (Tushman 1979; Allen 1984; Ebadi and Dilts 1986). These seem to give the impression that the frequency and patterns of communication, particularly of a technical nature within the team and also between the team and outside groups, is a useful pointer to its performance (Ancona and Caldwell 1992:324).

Creative decisions are activities that groups perform when faced with a problem requiring novel solutions, or resolution of an issue for which there is no “correct” formula (see for example Jackson 1992; Alper et al 1998).

According to Bettenhausen and Murnighan (1985), conflict is counter-productive and detracts from a group’s ability to negotiate roles, goals, and priorities.

Teams must cooperate with other teams (e.g. Tjosvold and Tjosvold 1994:141; Korshaard et al 1995). They should have similar goals (Polley and Dyne 1994:27), although teams naturally strive to achieve in competition with other teams (Messick et al 1997). Dichotomy between competition and cooperation is to be expected and ignoring tension will not make it go away, but can instead lead to frustration. Tjosvold and Tjosvold (1991:141, also 1994) and Baron et al (1992) contrast this against the positive effect of acknowledging the existence of conflict and trying to manage it proactively.

Review of research into the influence of group composition on the generation of creative ideas and consensus based decisions, appears to lead to the conclusion that heterogeneous groups are more likely to be creative and to reach better decisions than homogeneous groups (see Shaw 1981:154; McGrath 1984:15; Trent and Monczka 1994).

It follows that team creativity requires stimulation and the ideal condition is where there is a pool of ideas to draw from. This lies at the heart of radical change (Feurer et al 1996:6). Creativity is also a function of problem recognition. During the initial problem awareness phase, team members collect information about the issues to be addressed and the business environment (ibid:6).
In order to develop creative solutions team members reflect on the points at issue as well as the general business environment. The problem identification and reflection phases are repeated continually in order to develop new breakthroughs and solutions (Hurst 1995). Feurer, Chaharbaghi, and Wargin (1996:6) propose that creative teams require an environment which is, to some extent, contradictory.

In their study of this subject, Cohen (1994) and also Sims and Manz (1994) introduce the notion that team leadership is a paradox. How does one lead a group of employees who are supposed to lead themselves? The leader, in his diplomatic role, maintains positive relations with team members and others, within and outside the company (see for example Ancona and Caldwell 1992). Six leadership rules of group behaviour have been identified by Sims and Manz (1994: 187-221), as follows: -

- the team monitors its own performance
- the team set performance targets
- the team is self-critical and discourages poor performance
- the team encourages high ambitions
- the team thinks through and practises before taking actions

According to Monzcka and Trent (1993) team members are not always guaranteed to exert themselves to complete assignments. Certain factors discourage players from putting in maximum effort to complete a task. These can be as follows: -

- treating teamwork as add-on, or spare time, duties with minimal or no recognition of individual effort
- limited time set aside in the working day for teamwork

Ancona and Caldwell (1992) state that a team’s performance is linked to the degree of boundary spanning activity and the resources at its disposal. In the first place, teams need to be outgoing and to maintain good relations with outsiders, because these are the people they depend on for information (Pfeffer 1984). Terms such as stars, gatekeepers, and liaisers describe the roles of individuals who communicate across boundaries (Ancona and Caldwell 1988).
Teams have a significant measure of control over norms, the behaviour of their co-
members, and consequently their overall effectiveness (Barney and Hansen 1994). 
Control is usually tacit and is not exercised by any authority outside the work group 
(Bettenhausen and Murningham 1985: Barney and Hansen 1994).

Measured by the extent to which members desire to remain in the group, cohesion is 
important in establishing group identity and helping to smooth out internal friction 
(Cartwright 1968:304-309). Cohesive groups are more efficient in performing tasks, 
especially when the group norms and tasks are designed to support productivity (Polley 

Eisenhardt (1989) and Deutsch (1957) see trust as a prerequisite to the establishment of 
stable relationships. If team members do not trust each other, the result is lack of co-
operation regarding decisions, unwillingness to share information and even sabotage of 
future decisions (Barney and Hansen 1994). The challenge facing the team leader is to 
ensure members' commitment as regards decisions, their attachment to the team and 
trust in his judgment.

Korsgaard et al (1995:62) remind readers that the way decisions are arrived at affects the 
commitment and trust of individual team members and that people's cooperation is 
essential to implementing and adopting strategic decisions.

McGrath (1984:95) understands norms to be expectations about actions that someone 
ought to perform in given conditions, with violations being condemned. Unless a team is 
clear as regards what is acceptable behaviour and what is not, it will not be able to 
regulate and direct its members. Although not the only requirement, having well 
understood norms is therefore an important necessity for effective teamwork.

1.2.2 SECTION TWO- SUMMARY

Section two indicated that to develop creative solutions, inter-organisational teams 
derive information from other organisations by drawing on knowledge and past 
experience. Appreciation of inter-organisational relations stimulates learning as issues
are better understood and objectives re-defined. Inter-organisational teams encourage regular communications, problem solving, boundary spanning and adapting to changing environments. The foregoing suggests that cooperation between trading partners should enable otherwise elusive specialist skills to be accessed, allowing complex tacit knowledge to be transferred and technologies shared.

1.3 LEARNING IN ALLIANCES

Section three goes on to expand the argument that interfirm cooperation and teamwork enhance organisational learning and skill development within the ally organisations. Management publications ascribe increasing importance to learning and this, as well as cooperation between firms and knowledge management, is seen as crucial in business.

The importance of knowledge in business has been given enormous emphasis. So much so that it has even been suggested that a company’s competitive advantage depends mainly on its knowledge-based, intangible assets (e.g. Nelson and Winter 1982; Harris 1985; Itami and Roehl 1987; Tomer 1987; Spender, 1996).

Mobility of knowledge is of fundamental importance to a firm because when people leave, the organisation’s knowledge base diminishes. This also happens if technologies are difficult to use or “inaccessible”, or when organisational routines are lost (Grant 1995; Argote 1996; Spender 1996).

Although people learn from experience, they tend to do so haphazardly (Huber 1996:827), rarely storing experiences in ways that make the lessons learnt, easily accessible by others (see also Dibello and Spender 1996; Lipshitz, Popper, and Oz 1996). Most organisations do not appreciate that everyday activities generate practical knowledge which, when recognised as valuable, should be stored for future reference by decision-makers (Nelson and Winter 1982; Karnoe 1996, Nonaka and Takeuchi 1995; Spender 1996; Weick 1996). Hastings (1993;120), describes this as the "know-how iceberg".
Yves Doz (1988, 1996) considers acquisition and development of unique non-tradable assets, i.e. knowledge, to be the key factor differentiating companies that adopt a successful strategy from those failing to grasp the same opportunity.

This is echoed by Huber (1996:827), who suggests that few businesses have systematically attempted to save corporate knowledge gained from experience which, if retrieved, could lead to considerable improvement in performance. Safeguarding knowledge, or intellectual property, in the form of patents and copyrights, is a forerunner of the developing field of intellectual capital management.

Cooperation between companies is a potent alternative to internal knowledge generation (Richter and Vettel 1995) and managers strive to understand how firms learn from one another and the best ways to disseminate knowledge (Teece 1998).

Itami and Roehl (1987) say that, in an age of rapidly proliferating knowledge, a pivotal requirement is the capacity to absorb, to create, to store, to buy or sell and to communicate. Acquisition of knowledge relies on social and economic networks that lie at the heart of the matter (see for example Dussauge, Garrette and Mitchell 2000). Porter (1990:151) writes that information and innovation spread rapidly as a result of customer and suppliers contacts and also as a reaction to competition. People and ideas combine in novel ways. Often unanticipated connections within trading clusters lead to new ways of competing and reveal unexpected opportunities.

This is echoed by Badaracco (1991:xii) who observes that we are now in a world, not just of global markets and international firms, but in a complex web of business and social relationships.

Business collaboration accelerates the exchange of knowledge and creates conduits for learning and generation of new knowledge. This is despite the fact that, on the most part, embedded knowledge moves slowly and unevenly. Analysis provides evidence confirming that "stickiness" in routines, individual skills and social arrangements means that the transfer of knowledge and capability is not easy to realise. According to
Szulanski (1996) cooperation between companies tends to reduce this stickiness (see also for example Nonacka and Takeuchi 1995; Lipshitz et al 1996).

An organisation needs to form a close relationship with another company to absorb embedded knowledge from it. Knowledge cannot simply be expressed as a formula or a book to be bought (Badaracco 1991:xii). Companies wishing to create new capabilities and combine skills must provide the environment and conditions conducive for personnel to work together (see for example Hastings 1993; Chung, Singh and Lee 2000).

Mody (1990) and Helfat (1997) suggest that collaborative learning is one way of dealing with uncertainty. Ciborra (1991) says much the same thing in proposing that alliances are the means by which organisational learning and innovation will be implemented. Many other authors such as Foray (1991) Griffin and Hauser (1996), Helfat (1997) and O’Neill, Pouder and Buchholtz (1998) appear to share the same point of view. Doz (1988) suggests that three essentials for good alliances are learning about the following: -

- **the partner**, appreciating all the time that the most important kind of knowledge is tacit knowledge
- **the task**, that is setting clear objectives expected of the alliance
- **the outcomes**, over-expectation is anticipated because partners may overstate potential opportunities and understate weaknesses

Strategic decisions not only depend on choices about resource allocation, but also about what a company learns, what core skills it builds, and the extent to which it will do so on its own, or as a result of cooperation. (e.g. Badaracco 1991; Chung et al 2000).

Knowledge links help a company to extend its expertise in wider directions. Links can contribute to transformation of a company’s core capabilities and perhaps even change the competitive ranking in its own industry (e.g. Tomer 1987; Mody 1990; Badaracco 1991; Peteraf 1993). Learning focuses on distinctive attributes that may be grounded in a firm’s knowledge base, firm specific competencies and routines (Dodgson 1991:24).
1.3.1 SECTION THREE- SUMMARY

Section 1.3 described learning as contextually oriented and generated through a process of managed, joint social activity. The review elaborated on the significance of knowledge acquisition to alliances. In particular, the extent to which companies can learn from each other by pooling resources. Generation of knowledge is seen as a key element in enabling organisations to go through a process of self-renewal and expansion. In response to competition, companies are now linking in innovative ways and knowledge enhancement is a product of these new coalitions.

Accordingly, literature argues that business collaboration accelerates the exchange of knowledge and creates conduits for learning. This knowledge transfer, increases understanding of joint processes, and open communication provides the background so that the inter-organisational teams can be the medium for innovation and creativity.

Cross boundary communication derives information from other organisations by drawing on knowledge and past experience, to develop unique competencies. New appreciation of cross-functional relations stimulates learning as issues are better understood and objectives clearly defined.

Innovation and creativity are influenced by the impact of information networks. Their place in the dissemination of novel ideas is the subject of section four.

1.4 ALLIANCES AS NETWORKS OF INNOVATORS.

Section four extends the review to include network literature to reinforce the themes in sections one to three.

1.4.1 INNOVATION AND CREATIVITY

When organisations innovate to re-create their environment they not only process information, but are also inventive and acquire knowledge (see Griffin and Hausser 1996;
O'Neill et al 1998). We therefore need to have a theory of learning to adequately explain innovation (Nonaka and Takeuchi 1995).

Similarly, Nelson and Winter’s (1982) view of organisational capabilities and absorptive capacity is that it does not reside in one or more persons, but depends on a mosaic of linked capabilities. "Given today’s complex technologies, almost invariably innovation needs a team or a network, since no individual has a monopoly of the skills and knowledge required" (Fairtlough 1994:95). Moreover, Nelson and Winter’s analysis suggests that much of the detailed knowledge of organisational routines enabling a firm and its R&D department to function, is tacit.

An important feature of business alliances is the evolution of shared communication via interpersonal and inter-organisational networks. The exchange of ideas between ally companies stimulates the search for, and analysis of, opportunities. Innovation is supported by encouraging networks to spread concepts relevant to the innovative process (ibid:89-96).

Inter-firm alliances provide a means of pooling resources by using complementary assets to create favourable conditions for innovation and exploration. Furthermore, the network philosophy offers an alternative to the individualism of Schumpeter’s entrepreneur (Debresson and Ammesse 1991:364).

Powell (1998) contends that networks are a new way of fostering innovation beyond the scope of bilateral supplier-buyer links. Successful innovation in a new market often results from networks that generate collective knowledge in order to realise common standards (see also Saxenian 1991; Chung et al 2000).

Analysis is useful when complemented by other important aspects of innovative networks such as synergetic creation of knowledge, technological accumulation (Pavitt 1992) and social learning (Aoki 1988). According to Teece (1980) all technological transactions have a number of common characteristics including systems interdependence, indivisibility, asset specificity, tacit knowledge, market and technological uncertainties.
According to Saxenian (1991:431), Silicon Valley in the United States of America is characterised by networks of interdependent, yet autonomous, producers who are organised to innovate reciprocally and to grow. These social networks promote new product development and encourage specialisation. They also provide firms with opportunities to spread the costs and risks associated with developing technologically intensive products. They allow diffusion of new technologies by facilitating exchange of information and joint problem solving between firms, and even between industries. Finally, networks foster use of new technologies because they provide conduits for new firm entry and product experimentation.

According to Lundvall (1994) networks encourage businesses to learn, create scope for application and experimentation, reduce sunk investments and irreversible technical commitment. However, Teece (1980) says it is naive to think that all negative tendencies in human nature, such as for example opportunism, can be neutralised in networks; although he suggests that they are reduced. Literature on the subject appears to confirm that participation in an industrial network, not only reduces the cost of information acquisition, but also circumvents exclusion and entry barriers (Debresson and Amesse 1991:368).

Sharing uncertainties, risks and costs, by themselves is insufficient to explain why networks are so beneficial, unless long-term results are compared with the immediate costs of cooperation (Debresson and Amesse 1991:369). The motivation must be an expectation of exceptional and immediate joint returns on investment, resulting from significantly better lead times and improved time to market (Debresson and Amesse 1991:369). This aspect of joint rents has been given considerable attention to date (see for example Barney and Zajac 1994; Dyer 1996; O’Neill et al 1998).

Quests for new ideas draw firms into networks where rational dimensions prevail over transaction costs (see Powell 1990; 1998). Close relations based on reciprocity, mutual goals and personal commitment, call for early involvement of suppliers in product design and development stages. As a consequence, by adhering to a “learning by cooperating” logic, firms profit from early sharing of crucial information that stimulates technical and managerial ideas (Griffin and Hausser 1996; Hunt - Campbell 2000).
Experience gained through networking provides information about alternatives. In a sense, the firms with high absorptive capacity (Cohen and Levinthal 1990) use internal and external networks to understand and learn from failures experienced by others in the network. It could be argued that effective organisational learning is an essential requirement for survival. Organisations that understand the dynamics of adopting and evaluating novel strategies should have an advantage in a highly competitive world (O’Neill et al. 1998; Hunt-Campbell 2000).

Research into networks has tended to ignore why some dissolve (Debresson and Amesse 1991:369), although it may safely be assumed that failure results from diverging strategies, incompatible assets, or persistent and unacceptably opportunistic behaviour.

1.4.2 SECTION FOUR – SUMMARY

Section four has described how inter-firm networks provide an environment that encourages formal and informal communication. In this way, diverse competencies are shared, promoting knowledge transfer and innovation among participating firms. Literature suggests that firms’ survival depends on the ability to gain knowledge and to translate it into innovative strategies. This reinforces Cohen and Levinthal’s (1990) concept of “absorptive capacity” and the alliance teams’ skill to recognise the potential value of external information, to assimilate it and apply it to commercial ends.

The review again emphasised that a firm’s knowledge and capabilities are internal and embedded. However, close relations between customers and suppliers, can provide the opportunity for specialised attributes to take root and grow. Organisations cannot create knowledge without people’s contribution and this takes place within an expanding community of interaction, crossing intra and inter-organisational levels and boundaries. Innovation is considered essential for organisations to maintain competitive edge and business alliances appear to provide the creative context that nurtures innovation.
The next section reviews the role of trust within alliances, describing how mutual trust and interdependence provide the foundation upon which cooperative business relations are based.

1.5 TRUST IN ALLIANCES

Section five provides a brief review of the importance of trust in cooperative behaviour by firstly looking at the role of trust in market and social relations. The review then considers individuals' expectations and trust building in alliances.

Economists, psychologists, sociologists and management theorists (Williamson 1975, Lewis & Weigert 1985; Grant 1991; Barney and Hansen 1994) are united in agreement as regards the importance of trust in the conduct of human affairs (Hosmer 1995). Saxenian (1991) proposes that trust is a crucial component of long-term business alliances.

Barney and Hansen (1994:176) describe trust, as mutual confidence that no one will exploit another’s vulnerability (see also Sako 1992). Trust which partners bring to an exchange reflects values, principles and standards that are embedded in the firm’s history, culture, or the personal beliefs of key individuals associated with it (Barney 1986; Dierickx and Cool, 1989). However, to be a source of competitive advantage, trust must be mutual to only the firms participating in the exchange relationship (Fiol, 1991; Peteraf, 1993). Building on Powell’s (1990) work, Ring and Van de Ven (1992) suggest that a firm’s reliance on markets, hierarchies or alliances for its governance structure depends on the level of trust by the collaborating parties. Hill (1990) describes his typology of trust as follows:

- **weak form**, where there is no significant vulnerability
- **semi-strong form**, when significant exchange vulnerabilities exist. Trust can still emerge if parties to an exchange are protected by governance penalties that impose various kinds of sanctions on the party who behaves opportunistically and where it is
in the interests of all to behave in a trustworthy manner. This type of trust applies in most models of economic exchange.

- **strong-form**, which is not a product of the exchange structure, but is rather a reflection of the values, principles, and standards that the partners bring to the exchange.

Trust plays an essential part in a variety of human activities including personal and social relationships and economic exchanges (Hosmer 1995).

### 1.5.1 ECONOMIC EXCHANGE

Lorenz (1988:194) contends that, as a rule, economists attach little importance to social niceties such as trust and friendliness in market exchanges. He goes on to say that this is because the ideal market involves large numbers of anonymous buyers and sellers with perfect information. In such markets there is no room for bargaining or negotiation, and operators who contract together, need not have recurrent, or continual dealings.

According to Lorenz (1988:194), trusting behavior involves activity that:

- increases one's vulnerability relative to another person, whose behaviour is outwith one's control
- takes place in a situation, if the trust was abused, that would lead one to regret the action

Lorenz (1988:195) adds that although trust aids decision-making in a risk situation, there is no best action in the absence of trust. There is a distinction between risk associated with the behaviour of others and that arising from economic uncertainty. Williamson (1993,1999) points out that in the absence of opportunistic behaviour, if parties came to a self-enforced agreement, there would be no need for costly controls and formal contracts. In such circumstances, the question of trust would not arise, as everyone's behaviour would be rational (see also Madhok 1996).
Trust is an essential ingredient in negotiation, because of human nature and the possibility of opportunistic behaviour (see for example Barber 1983; Lorenz 1988; Creed and Miles 1996; Bidault and Jarillo 1997). It is important as trust saves a lot of time and trouble by placing a reasonable degree of reliance on other people’s word (see Arrow 1974; Lewicki and Bunker 1996).

Motivated by opportunism, suppliers’ or buyers’ ambition to maximise individual profit may lead to an impasse. This does not mean changing the terms of the original agreement but more usually involves either reneging on the contract, or using unanticipated circumstances to try to alter profits in one’s favour (e.g. Lorenz, 1988; Doney and Cannon, 1997).

Trust cannot be discounted entirely and in the face of economic uncertainty, trusting behaviour is viewed as rational (e.g. Heide and John; 1990; Goshal and Moran 1996). A priori, a common bond exists between the parties, or they would neither collaborate, nor be prepared to share sensitive cost and revenue information (see for example, Ford 1984; Gulati 1995). Trust is therefore essential for firms working cooperatively (e.g. Good 1988; Kramer and Tyler 1996; Jones and George 1998).

Lorenz (1988:202) suggests that the implications of a lack of trust in an economic exchange may include:

- The right sort of investments may not be made. Actors, who do not trust each other, will not refrain from abusing their bargaining power, or failing to live up to contract conditions, or using changed circumstances to alter the division of profits in their favour.

- Considerable cost may arise from safeguards to minimise the risk of opportunistic behaviour. Such expenses could be avoided if mutual trust was assured.
• More subtly, those in a bilateral agreement may hesitate to make legitimate claims, fearing such demands may cause suspicion that the proposed amendments are in fact illegitimate, and only raised to change the agreed costs.

Time and experience are critical elements in deciding trust. Good (1988) talks of incremental trust, that is trust built up in successive stages through personal contact. This infers that building trust is not simply a question of registering satisfactory performance in successive contracts, but that it is based on the probability of trustworthiness (see Killing 1987; Lewicki and Bunker 1996; Lane and Bachmann 1998).

Trust concerns cooperating firms being prepared to sacrifice short-term gains for the long-term benefit of mutual cooperation (e.g. Lundvall 1994). Although building trust is expensive, lack of trust is costlier still (e.g. Miles and Snow 1992; Lewicki and Bunker 1996; Mishra 1996). Tyler and Kramer (1996) argue that declining trust in the case of long-term exchange relations increases transaction costs, because people make provision for opportunistic behaviour, just in case it happens.

1.5.2 SOCIAL RELATIONSHIPS

Tyler and Kramer (1996) suggest that literature, dealing with social dilemmas, provides evidence that trust plays an important role in cooperative behaviour. Evidence of the nature of people's behaviour in social dilemmas, is provided by the role of group identification in facilitating cooperation (Brewer and Kramer 1986). This is corroborated by Dawes and Thaler (1988:195) in their review of cooperation, in so much that "group identity appears to be a crucial factor in lessening competition."

Although one aspect is that group identity increases expectations that others will reciprocate, expectations of reciprocity do not fully account for this effect (Brewer 1981). Those who trust continue to cooperate, irrespective of the behaviour of others in the group (Brann and Foddy 1988) and trusting behaviour reflects a "moral duty or commitment" (Kramer and Goldman 1993). Similarly, cooperators do not leave groups
when it is in their interests to do so, which suggests that group identification reinforces cooperation (Orbell, van de Kragt, and Dawes 1988).

Creed and Miles (1996) show how organisational norms and management philosophies shape issues of trust in organisations. Zucker, Darby, Brewer and Peng (1993) attest to similar findings in their study of the biotechnology businesses, which suggests that when intellectual capital is widely valued, people are likely to have a larger number of collaborators. Because of the proprietary nature of the business environment, collaborators within the same company were more likely to be imbued by a mindset that generated confidence.

Powell’s (1996:51) study on trust in interpersonal networks in a large high-technology firm, found that although trust and distrust had opposite effects, their influence was not symmetrical. Instead, while trust was built incrementally, distrust had a more dramatic “catastrophic” effect.

1.5.3 INDIVIDUAL EXPECTATIONS AND INTERPERSONAL RELATIONS

Lewicki and Bunker (1996) point to the centrality of trust in emerging organisational forms and seek to understand how trust can be developed. They propose a three-stage model to illustrate the circumstances underlying the development of trust.

Stage one, deterrence-based trust is based on the threat of punishment for failure to cooperate. This type of trust assumes that two parties entering into a new business relationship, have no history, no previous “reputation” to overcome and are therefore, quite naturally, uncertain about each other.

Stage two, knowledge-based trust is where people's disposition is sufficiently well known and their behaviour can be predicted. Knowledge-based trust relies on information, rather than deterrence, and it grows over time as the parties interact and develop an expectancy of each other's behaviour. Information contributes to predictability which, in turn, enhances trust. Regular communication is essential for knowledge-based trust in human relations, and parties acquire knowledge about one
another by gathering data, observing each other in different contexts and noting reactions in various situations.

Finally, identification-based trust occurs when people adopt, as personal goals, the needs and desires of others and act in ways that result in mutual gain. Identification-based trust occurs in situations of common understanding and is evident in collective identity, co-location, joint products and commitment to shared values.

Sheppard and Tuchinsky (1996), explore the implication of the movement away from market or hierarchy, to more collaborative forms of organisation. They suggest that organisational behaviour often depends on managerial control over subordinates, whereas collaborating organisations emphasise interaction between people.

In similar vein, Meyerson, Weick and Kramer (1996) suggest that businesses are moving towards more flexible temporary groupings, based around specific projects. This stimulates "swift trust", whereby people behave in an apparently trusting manner, but hedge their bets to reduce risks of betrayal. This demands a high level of competence and realistic appreciation of their own roles and responsibilities.

Trust entails the assumption of risks and a degree of trust is inherent in all relationships (see Deutsch 1957; Saxenian 1995). However, time, proximity, shared strategic design, shared identity, common incentives, and negotiation of mutual ethos, all can lead to the eventual evolution of highly similar internalised views, beliefs and values (Sheppard and Sherman 1998).

1.5.4 TRUST BUILDING IN ALLIANCES

In networks, economic transactions occur neither through discrete exchanges (markets) nor by administrative fiat (hierarchies). Rather, network forms of exchange entail indefinite, sequential transactions within the context of a general pattern of reciprocity (Grabher 1994). Heide and Minor (1992) argue that cooperation is sustained by a shadow of the future and trust is seen as a response to expected future behaviour. An ongoing
relationship is expected to sustain belief in the integrity of others because it pays the participants to cooperate.

The ethical foundations of exchange contracts include qualities such as equity, responsibility, commitment and trust. In many cases no agreements are written, and instead firms cooperate under conditions of mutual understanding and trust (Blomqvist 1997). In general, non-legal sanctions such as ridicule or ostracism, can be important substitutes to contractual control (see for example, Luthmann 1979).

It has been widely acknowledged by scholars that trust can lead to cooperative behaviour in companies (see for example, Axelrod 1984, Sako 1992; Lewicki and Bunker 1996). Although the presence of conditional trust, i.e. based on knowledge or positive expectation, allows a group to work towards a common goal, it is the existence of unconditional trust, i.e. founded on shared values, that can fundamentally change the exchange relationship (Jones and George, 1998).

According to Jones and George (1998), unconditional trust promotes help seeking behaviour, free exchange of knowledge and information, subjugation of personal needs and egotism and leads to greater involvement.

Other researchers claim that one of the main sources of competitive advantage is the capability to produce tacit knowledge (see Badaracco 1991; Amit and Schoemaker 1993; Huber 1996). What that does for a company is to add unique advantages not able to be imitated or copied (see Penrose 1959, Wernerfelt 1984, Conner 1991). Rumelt (1984) terms these “isolating mechanisms” and Barney and Hansen (1994) go as far to suggest that trust is an isolating mechanism (refer to section 1.1.13).

1.5.5 SECTION FIVE - SUMMARY

The foregoing described how inclinations to trust are embedded in management philosophies and organisational forms, with attitudes and behaviour of managers determining the level of trust expected. Such values and norms are incorporated into the
governance structures of firms and emphasise the importance of social relations in all market transactions.

As a common norm, trust grows as individuals, teams and organisations interact, share information and generate new strategically valuable knowledge and skills. Trust is seen as a mechanism of control among cooperating firms and a willingness to share information reduces uncertainty, minimises bounded rationality and constrains opportunistic behaviour. Firms produce competitive advantage through isolating mechanisms and some scholars consider trust to be a differentiating factor, even suggesting that trust has a measurable economic value.

Trust is a dominant form of governance providing the incentive to build a strategy. Trust is stimulated and reinforced through the work of inter-organisational teams. The social dimensions of their transactions are essential in explaining the background to the alliance control and coordination, as teams begin to form networks, develop social capital and relationship specific skills.

1.6 SYNTHESIS OF LITERATURE REVIEW - Research Gap

Zajac and Olsen (1993) expand Williamson's (1975, 1979, 1993, 1999) Transaction Cost Economics theory by suggesting that inter-organisational exchange relations need to be looked at as a developmental process, rather than making a “before and after” comparison. In their opinion, alliances should be regarded as an intertwining of structure, content and process to deal with issues in a dynamic environment. Viewing inter-organisational exchange relations in this way, promotes more flexible strategic decisions and allows reaction and adaptation to change.

In particular, research not only tends to ignore the dynamics that characterise inter-organisational dealings, but also looks at the latter with too narrow an empirical focus (Doz 1996). Such a perspective downplays the dynamics of business alliances. Studies have tended to ignore the developmental, evolutionary aspect of inter-organisational relations, preferring to emphasise the requirements necessary to begin an alliance and the
outcomes of it. This oversight precludes the effects, and degree, of joint learning between the partners.

To address this gap, researchers relatively recently have begun to consider the impact of broader social relations rather than maintaining a static, deterministic interpretation of the nature of transactions (e.g. Ford 1980; Ring and Van de Ven 1994; Doz 1996; Spekman et al 1998).

Recent studies of inter-organisational relations have emphasised the need for research to more fully explain the dynamics of inter-organisational cooperation and the performance implications of strategic alliance development (see for example Spekman et al 1998). This has been acknowledged by scholars (e.g. Ford 1980; Dwyer et al, 1987; Anderson and Narus, 1990; Wilson 1995) and Ring and Van de Ven (1994) who state that a concern for process adds a temporal dimension, affecting how managers negotiate, execute and modify alliances over time.

While the importance of evolutionary processes is well recognised in many fields of management (e.g. Nelson and Winter 1982; Baum and Singh 1994; Teece Pisano and Shuen 1997), there is growing recognition that alliances and networks are also an evolutionary, multifaceted means of cooperation (Osborn and Hagedoorn 1997).

From this review it is deduced that writings on the topic of alliancing have focused mainly on how to form alliances and the resultant benefits from them. Central to this issue, and largely ignored, is understanding how alliance relationships develop with the passage of time. This demands that greater attention is directed to evolution of the alliance and the social context within which dyads or networks are embedded. Accordingly chapter two considers this literature.
Chapter Two

Process models of inter-organisational exchange
2.0 PROCESS MODELS OF INTER-ORGANISATIONAL EXCHANGE

The aim of this chapter is to extend the literature review to evaluate a number of process models of inter-organisational exchange and organisational renewal.

To achieve this, the objectives are to:

- elaborate on the various process models both conceptual and empirical
- summarise the models and explain where they differ.
- discuss organisational renewal and dissolution in alliances
- describe the relevance of organisational renewal in the alliance context
- set out the main research objective

2.1 PROCESS MODELS REVIEWED

A number of inter-organisation life cycle process models have been proposed, each emphasising different factors to explain the changing characteristics of an alliance exchange relationship over a period of time. See table 2.1 for a chronological review of life cycle development.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Description of Stages</th>
<th>Conceptual or Empirical</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hakansson and Wootz</td>
<td>Environment, Atmosphere, Interaction process</td>
<td>Empirical</td>
<td>IMP Interaction Model</td>
</tr>
<tr>
<td>Ford. 1980</td>
<td>Pre-relationship, Early stage, Development stage, The long-term stage, The final stage</td>
<td>Conceptual</td>
<td>The development of Buyer-Seller relationships in industrial markets</td>
</tr>
<tr>
<td>Reference</td>
<td>Description of Stages</td>
<td>Conceptual or Empirical</td>
<td>Description</td>
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<tr>
<td>------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>D'Aunno &amp; Zuckerman</td>
<td>Emergence Transition Maturity Crossroads</td>
<td>Conceptual</td>
<td>A life cycle model of organisational federation</td>
</tr>
<tr>
<td>1987</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dwyer, Schurr &amp; Oh</td>
<td>Awareness Exploration Expansion Commitment Dissolution</td>
<td>Conceptual</td>
<td>Relationship Development Process</td>
</tr>
<tr>
<td>1987</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frazier, Spekman &amp; O'Neal, 1988</td>
<td>Interest stage Initiation-rejection stage Implementation stage Review stage</td>
<td>Conceptual</td>
<td>Just-in-Time Exchange Relationships in Industrial Markets</td>
</tr>
<tr>
<td>Gray 1989</td>
<td>Getting started The negotiation stage Implementation Revision</td>
<td>Empirical. Case study</td>
<td>Collaboration model</td>
</tr>
<tr>
<td>Ellram 1991</td>
<td>Introduction Growth Maturity Decline</td>
<td>Empirical. Case study</td>
<td>Life-cycle patterns in Buyer-seller partnerships</td>
</tr>
<tr>
<td>Larson 1992</td>
<td>Pre-conditions for exchange Conditions to build Integration and control</td>
<td>Empirical. Case study</td>
<td>A process model for the formation of entrepreneurial dyads</td>
</tr>
<tr>
<td>Murray and Mahon. 1993</td>
<td>Courtship Negotiation Start-up Maintenance Ending</td>
<td>Conceptual</td>
<td>Strategic alliance life-cycle</td>
</tr>
<tr>
<td>Zajac and Olsen. 1993</td>
<td>Initialising stage Processing stage Reconfiguration stage</td>
<td>Conceptual</td>
<td>Transactional value model</td>
</tr>
<tr>
<td>Ring &amp; Van de Ven. 1994</td>
<td>Negotiation Commitment Execution Dissolution</td>
<td>Conceptual</td>
<td>Developmental processes of cooperative inter-organisational relationships</td>
</tr>
<tr>
<td>Doz. 1996</td>
<td>Learning cycles. Cognitive and behavioural interaction between initial conditions, learning processes, re-evaluation and adjustment</td>
<td>Empirical. Case study</td>
<td>The evolution of cooperation in strategic alliances: Initial conditions or learning processes?</td>
</tr>
</tbody>
</table>
The following summarises the characteristics of each model as specified by the authors.


Wilson's (1978) early model is based on works by several authors who have explored organisational buying behaviour including O'Shaughnessy; Olshavsky and Sheth, Homan (cited in Wilson 1978: 41-42). Wilson suggests that selling is not simply an exchange of a product for money, but an exchange of attributes having both physical and psychological values.

Wilson's dyadic process model was concerned with the development of long-term relations rather than one-off selling situations. It begins with an initial meeting between buyer and seller and moves through a number of stages that take place over a period of time. The stages involved are source legitimisation, information exchange, attribute delineation, attribute value negotiation and relationship maintenance.

The basic objective of the source legitimisation stage is to establish the salesman as a legitimate and credible partner in the dyadic interaction process. This process may continue through the early interactions of the dyad. Information exchange involves bounding the problem to be solved so as to assign a package that will result in a sale.
Attribute delineation involves the development of a bundle of attributes, both explicit and intangible. The influence of the salesman who offers guidance and support is considerable at this stage. Attribute value negotiation involves bargaining and determines the attribute set, for example, price, product quality, delivery etc. Finally relationship maintenance involves developing and building on the relations. The maintenance of an ongoing account is much easier to manage and less costly than finding new accounts.

2.1.2 International Marketing and Purchasing (IMP) Group. Interaction Model.
Hakansson and Wootz 1979

An emergent interactive model contains four groups of variables (Campbell 1985:59):-
- The interactive process itself
- The environment within which the action takes place
- The parties involved, the organisations as well as individuals
- The atmosphere affected by interaction.

Relations between a buyer and seller are frequently long term, close and involve complex patterns of action. This ground breaking research, places considerable emphasis on the impact of broader social relations rather than a more static, deterministic interpretation of the nature of transactions (Grabher 1994).

Industrial marketing and purchasing can be described as the management of buyer-seller relations (Ford 1980:349). Rather than play the market, companies develop close links with other businesses and benefit by cost reduction and increased revenue. These advantages are achieved by efficient use of resources and by making durable "transaction specific" investments to deal with specific buyer and supplier requirements (Williamson 1975, 1979).

Implications of these relationships (Ford 1980:349) may be seen as:-
- increased experience for two companies in alliance
• reduced risk and uncertainty
• growth of commitment; actual and perceived
• increased communication through formal and informal channels
• investment and cost benefits

2.1.3 Ford: The Development of Buyer-Seller Relations in Industrial Markets (1980:339-351)

This model is theoretically based on an interaction approach developed by the International Marketing and Purchasing (IMP) group (Hakansson and Wootz 1979) see figure 2.1, which, like Wilson (1978), sees buyer-seller relations taking place between two active parties.

The interaction approach considers that either the buyer or seller may take the initiative in seeking a partner. Both are likely to be involved in adapting their process or product technologies to accommodate the other. Neither party, however, unilaterally changes its activities without consulting the partner.

According to Ford (1980: 340), the complexity of alliances and the importance of mutual adaptation mean that the analysis of relationships must be separated between the overall

- ENVIRONMENT
  * market structure
  * internationalisation
  * dynamism
  * social system

- ATMOSPHERE
  * power
  * cooperation
  * short-term exchange episodes
  * closeness
  * expectations

Customer  Interaction Process  Supplier

Long-term relationships

Figure 2.1: Industrial Marketing and Purchasing Model: Source Ford 1990:20
relationship itself and the individual episodes that comprise it. It is important to analyse individual episodes and the overall relationship, as well as to understand the interaction between the two. Thus, each delivery of product, price negotiation or social meeting takes place within the context of the overall relationship. Norms and procedures, that may have been established, as well as the atmosphere of cooperation, or conflict, affect each episode.

Development within the two companies involves mutually shared experiences, reduces uncertainty, promotes growth of both actual and perceived commitment to one another through formal and informal adaptations and encourages investment. The process evolves in five evolutionary stages as follows:

**Stage 1. Pre-relationship stage.** Evaluation of the supply base and potential new suppliers

**Stage 2. Early stage.** Potential suppliers are in contact with the buyer to negotiate or develop specifications

**Stage 3. Development stage.** Features continual purchase of products and deliveries.

**Stage 4. Long-term stage.** Is characterised by recognition of the companies' mutual importance to each other

**Stage 5. Final stage.** Marked less by commercial considerations and more by the way the parties conduct their business.


This conceptual model is based on the authors' involvement in hospital federations. Federations in this case are three or more organisations that pool resources to achieve planned objectives. They are not permanent arrangements and their life can span from several months to years, depending on the objectives. Federation members relinquish some control over their activities to a management group or organisation (Provan 1983).
The model is based on life cycle models of individual firms (Quinn & Cameron 1983). The underlying assumption is that federations pass through predictable stages and that the passage from one stage to the other is influenced by one or more key factors.

The model proposes that the strategies, structures and activities of a federation correspond to four stages in the life cycle. Stage 1, emergence suggests that organisations engage in collaborative coalescent activities, prior to forming a federation. Collaboration is an attempt to reduce the effects of one organisation's dependence for scarce resources on at least one actor. During this stage, organisations define the purpose of the coalition and develop criteria for membership. Stage two involves the transition to a federation and recognition of increased dependence on the coalition for valued resources. It involves creating a management group that encourages centralised decision making and trust building. Shared values and expectations are reinforced and risks reduced, by investing initially in programmes that are relatively safe, and with potential savings substantial enough to encourage further commitment.

The maturity stage, is characterised by increased resource investment, although only if the federation is seen to achieve objectives that benefit its members in the relatively short term. It also depends on individual members' willingness to put the interests of the federation ahead of their own concerns. The final stage, critical crossroads, views escalating member commitment as creating instability within the federation thereby leaving two options; to either withdraw because of the reduced autonomy and increased dependence, or to move towards merger and common ownership. The latter involves a transition to more formal hierarchical arrangements or alternatively dissolution of the federation. Table 2.2 summarises the features of this life cycle model.

<table>
<thead>
<tr>
<th>Emergence</th>
<th>Transition</th>
<th>Maturity</th>
<th>Critical Crossroads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define purpose</td>
<td>Increasing dependency</td>
<td>Increased investment in</td>
<td>Instability</td>
</tr>
<tr>
<td>Develop membership criteria</td>
<td>Steering group formed</td>
<td>resources</td>
<td>Withdraw</td>
</tr>
<tr>
<td></td>
<td>Trust building</td>
<td>Increased commitment</td>
<td>Merger</td>
</tr>
</tbody>
</table>

Table 2.2: Summary of Main Features in D'Aunno and Zuckerman Model
2.1.5 Dwyer, Schurr and Oh. Relationship Development Process (1987:15-24)

The authors describe a framework for developing buyer-seller relationships through five phases. These are identified as (1) awareness, (2) exploration, (3) expansion, (4) commitment, and (5) dissolution.

Awareness is recognition that a particular party is a feasible exchange partner, although interaction between the two has not yet happened. Exploration is characterised by sub-processes, namely attraction, communication and bargaining, exercise of power, norm and expectation development. These sub-processes enable each party to test the goal compatibility, integrity and performance of the other. Expansion refers to a continued increase in benefits obtained from the exchange and recognition by the partners of their increasing dependence. The rudiments of trust and joint satisfaction, established earlier, lead to increased risk taking within the dyad and consequently, the range and depth of dependence increases. This greater cooperation leads to interaction beyond that intended, or required at the outset. Commitment refers to an implicit or explicit pledge of continuity between the partners and is measured using three criteria, firstly, inputs in terms of the levels of communication and resources, secondly, durability or expectation of continued association and thirdly, consistency of performance. The final stage, dissolution is implicit throughout the model. Table 2.3, summarises the main features of this model.

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Exploration</th>
<th>Expansion</th>
<th>Commitment</th>
<th>Dissolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner selection</td>
<td>Attraction</td>
<td>Increasing benefits</td>
<td>Continuity</td>
<td>Implicit throughout</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
<td>Interdependency</td>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bargaining</td>
<td></td>
<td>Pledging resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development of expectations</td>
<td></td>
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<td></td>
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</tbody>
</table>

Table 2.3: Summary of Dwyer et al's Relationship Development Model

Elements instrumental in the development of this framework are political economics (see Stern and Reve 1980), resource dependence (Pfeffer and Salancik 1978), transaction cost analysis (Williamson 1975, 1985), inter-organisational exchange (Frazier 1983), and relational exchange (Dwyer, Schurr, and Oh 1987).

The framework provides useful insights into how and why JIT exchanges begin, evolve, grow and fail. It consists of four stages, interest, initiation-rejection, implementation and finally review.

Interest in JIT exchanges is related to the level of importance of the materials/products and the need to improve price and quality levels, joint design efforts, technology transfer and waste reduction. Once a moderately high level of interest has been created, the initiation-rejection stage is triggered. This stage is characterised by the translation of interest into a desire to initiate a JIT exchange for the material parts. Search and evaluation processes assess, in greater depth, the costs and benefits of an exchange relationship. Greater uncertainty often contributes to a desire to establish JIT exchange by offering higher levels of interfirm coordination and increased stability. The exchange agreement, partner expectations and the internal socio-political structure of the partner organisations represent the implementation stage. Once the agreement is formalised, partners have a better idea of their roles and obligations, although unrealistic expectations may hamper the success of JIT exchanges. The review stage involves comparisons of past and present, after which each firm is in a better position to judge the equity of the JIT exchange. Equity is judged by each firm comparing rewards or outputs against its investment and costs. Table 2.4, on the next page, describes Frazier et al's process model.
This model has been based on case study observation and comprises three stages, (1) *getting started*, (2) *negotiation* and (3) *implementation / revision*. *Getting started* is influenced by previous experience of collaborative relationships. During this stage a background analysis evaluates current environmental conditions faced by the firms, possible collaborators are assessed and a selection is made. The next stage, *negotiation*, is often difficult for collaborators as they have little past experience on which to base decisions. During this time, estimates are made of anticipated resources as well as mechanisms to protect and transfer Intellectual Property. Roles and responsibilities are assigned. During the *implementation / revision* stage it is clear that the original plan requires substantial revision and adaptation. These revised projects frequently differ greatly from the original intention, partly because it takes some time for the companies to establish effective operational mechanisms. Favourable or unfavourable contingencies may occur, such as new market opportunities or technological and competitive problems. Often, there is a lapse of time between start-up and negotiation which may adversely affect the motivation to collaborate.

However, adjustment and revision during collaboration are common features. Re-adjustment is due to internal learning that stimulates fine-tuning of structures and processes. For example, modifications might be made in the human resource profile, reassignment of roles and composition of the management team. The implementation stage is critical, as firms usually underestimate obstacles at this time. Continual negotiation to resolve impasses, suggests that a priori compatibility between partners is insufficient for
successful alliances. Making them work, requires mutual adaptation, fine-tuning and openness to learn from partners previous mistakes. Table 2.5 summarises Gray’s model.

<table>
<thead>
<tr>
<th>Getting Started</th>
<th>Negotiation</th>
<th>Implementation/ Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner selection</td>
<td>Resource considerations</td>
<td>Adaptation</td>
</tr>
<tr>
<td>Resource consideration</td>
<td>Mechanisms to protect IPR</td>
<td></td>
</tr>
<tr>
<td>Assesses current environmental</td>
<td>Assign roles and responsibilities</td>
<td></td>
</tr>
<tr>
<td>conditions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.5: Summary of Gray’s Collaboration Model

2.1.8 Ellram: Life-Cycle Patterns In Industrial Buyer-Seller Partnerships. (1991:12-21)

According to Ellram, the life-cycle concept is useful to understand the growth and development of business alliances. The study was based on in-depth observation of eight manufacturing firms involved with one or more purchasing partners. Ellram’s findings suggest four stages which she has termed *development, commitment, integration and dissolution*.

The *development stage*, is when the partners become familiar with each other and establish the basis and ground rules for the future. This stage is characteristically exploratory and tentative in nature, and an unsatisfactory development stage may indeed delay or even stop the alliance’s development. Development is critical, as it establishes norms and promotes a growth of confidence between the parties.

Based on a successful development stage, the partners will move into the *commitment stage*. The aim of this stage, is to improve the relationship and build strength and dependency. Ellram suggests that top management support at this point is essential to determine strategic direction. This is in contrast to the need for top management visibility in stage one, which was symbolic and important to show support for the relationship. The
third stage, **integration**, is when confidence is at a high level and the goal is to maintain and stabilise the relationship.

The fourth and final stage, is **dissolution**. Dissolution, where one partner dissolves the relationship, may be due to unsatisfactory performance, or where the alliance never got beyond the developmental stage. Table 2.6 summarises Ellram’s model.

<table>
<thead>
<tr>
<th>Development</th>
<th>Commitment</th>
<th>Integration</th>
<th>Dissolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground rules</td>
<td>Dependency</td>
<td>Maintain</td>
<td>Declining product</td>
</tr>
<tr>
<td>Expectations</td>
<td>Trust</td>
<td>Stabilise</td>
<td>Unsatisfactory performance</td>
</tr>
<tr>
<td></td>
<td>Strategic direction</td>
<td></td>
<td>Partner Incompatibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>One partner decides to withdraw</td>
</tr>
</tbody>
</table>

Table 2.6: Summary of Ellram’s Lifecycle Framework

2.1.9 Larson: A Process Model for the Formation of Entrepreneurial Dyads (1992: 82-97)

This empirically researched model of seven dyads comprised three phases. **Pre-conditions for exchange, conditions to build** and **integration and control**.

Phase I, **Pre-conditions for exchange**, consists of historical experience of prior personal relations and firms’ reputation. Prior personal relationships and known reputation reduced uncertainty and established expectations that enhanced early cooperation between the partners.

Phase II, **Conditions to build**, is considered a trial period designed to establish the necessary conditions to build the relationships, for example mutual economic advantage. Rules, procedures and clear expectations also help to build trust and reciprocity.

Phase III, **Integration and control**, means the organisations become operationally and strategically more tightly integrated. Effective control and coordination is achieved and opportunism avoided, through the regulatory presence of moral obligations, trust and concern for preserving reputations. Table 2.7 summarises Larson’s process model.
2.1.10 Murray and Mahon: Strategic Alliance Lifecycle (1993:109-110)

According to Murray and Mahon, alliances go through five stages, namely (1) courtship, (2) negotiation (3) startup, (4) maintenance, and (5) endings. All alliances being with the ritual courtship stage, where partners investigate each other, assess strengths and weaknesses, develop initial contacts and negotiating positions and critically evaluate the costs and benefits of the alliance. Negotiation, involves creating the contract agreement and, if all goes well, is followed by joint activity in the start-up stage. Organisations then progress to the maintenance phase, characterised by routine operations and reporting.

Murray and Mahon then consider the importance to the organisations of endings and future alliance activity. They suggest three possible endings. Firstly, the end of the specific relationship with an extension into another area. Secondly an amicable separation and winding-up of the alliance with no further immediate relations by the partners and thirdly, a hostile divorce. Table 2.8 summarises this framework.

<table>
<thead>
<tr>
<th>Courtship</th>
<th>Negotiation</th>
<th>Startup</th>
<th>Maintenance</th>
<th>Endings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner selection</td>
<td>Contract agreement</td>
<td>Joint activity</td>
<td>Routine operations and reporting</td>
<td>End relationship</td>
</tr>
<tr>
<td>Cost / benefits</td>
<td></td>
<td></td>
<td></td>
<td>Amicable separation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hostile divorce</td>
</tr>
</tbody>
</table>

Table 2.8: Summary of Murray and Mahon's Strategic Alliance Lifecycle
Zajac and Olsen's value framework addresses joint value maximisation and the process by which the exchange partners create and claim value. The authors contend that expected joint gains often outweigh transaction cost considerations although the existence of inter-organisational strategies may appear irrational from a transaction cost and efficiency perspective.

Examination of inter-organisational strategies from a transactional value, rather than a transaction cost point of view, suggests two major limitations vis-à-vis the transaction cost perspective. Firstly, the emphasis on single party cost minimisation neglects the interdependence between the exchange partners and their pursuit for joint value. Secondly, an over emphasis on structural features neglects process issues.

Zajac and Olsen's inter-organisational exchange processes can be described in three distinct and logical stages. The initialising stage, the processing stage and the reconfiguring stage.

The initialising stage is when each firm formulates its own strategic plan, evaluates exchange alternatives and begins involvement in the inter-organisational exchange. Perceptions of value emerge at this stage and firms identify with complementarities that can form the basis for mutually beneficial exchanges. Firms’ behaviour at this stage can set a precedent and pattern for future exchanges (Fiol and Lyles 1985).

The second processing stage, encompasses the forecast period over which value-creating exchanges are expected to occur. A parallel process of informal inter-organisational communication occurs between individuals at many different levels in the organisations and between functions.

Recognition that learning is important to such exchange relations, is explicit in this model. Learning continues and actual value becomes increasingly clearer with the passage of time and over a range of inter-organisational exchanges. New interdependent activities by the
two parties give rise to associations, cognitive systems and memories, which then become a repository of organisational learning (Fiol and Lyles 1985).

Inter-organisational conflict is an obstacle to value maximisation and explicit and implicit norms for managing conflict will be created. Expectations, arising from past actions, emphasise the importance of joint value maximisation and lead to searches for jointly satisfactory outcomes to conflicting situations.

Development of trust is critical. The norms developing and evolving in this processing stage, set the tone for execution of future contracts.

The third reconfiguring stage is characterised by redefinition of the strategy. Reaching the end of the planned duration of the relationship, or catalysed by changes in the partners, the value of the business relationship is assessed and compared relative to absence of the association.

Changes emerge from a fluid environment and, as a result, value created has to be measured against actual gains. While the performance gap (Shortell and Zajac 1988) can lead to a re-evaluation of the relationship itself, it may simply lead to a reassessment of the developmental processes. In other words, the reconfiguring stage may not involve modification of the inter-organisational strategy per se, but only changed interaction within the existing strategy. Therefore, the reconfiguring stage can be said to loop back to, either the initialising, or processing stage. Table 2.9 summarises Zajac and Olsen's transaction value model.

<table>
<thead>
<tr>
<th>Initialising</th>
<th>Processing</th>
<th>Reconfiguring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each firm formulates strategic plan</td>
<td>Formal and informal communication</td>
<td>Redefining strategy</td>
</tr>
<tr>
<td>Evaluate alternatives</td>
<td>Learning</td>
<td>Value of relationship assessed</td>
</tr>
<tr>
<td></td>
<td>Norms for managing conflict</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.9: Summary of Zajac and Olsen’s Transaction Value Model.

Ring and Van de Ven consider how inter-organisational relationships emerge, grow and dissolve over time. They base the framework on the following key concepts, or assumed starting conditions, that remain fluid throughout the duration of the exchange. (a) uncertainties inherent in the cooperative relations, (b) efficiency and equity criteria for assessing the cooperative relations, (c) the need for resolution of disputes, and (d) the importance of role relationships.

This framework is consistent with Common's (1950) original formulation of transactions, although Ring and Van de Ven see the evolution of a cooperative relationship as consisting of a repetitive sequence of negotiation, commitment, and execution, each of which is assessed in terms of efficiency and equity.

In the negotiation stage, the focus is on formal bargaining. The parties develop joint expectations about their motivations, possible investments and perceived uncertainties. The underlying socio-psychological processes should offer evidence why the parties should enter into negotiations with one another.

The commitment stage is when agreement is reached concerning the obligations and rules for future action. The terms and governance structure of the relationship are established and either made explicit in a formal relational contract or in a looser understanding. These agreements will depend on the amount of risk and the parties' willingness to rely on trust.

In the execution stage, after a series of interactions, the players become more familiar with one another, and increasingly rely on inter-personal, as opposed to inter-role, relations. With the passage of time, misunderstandings, conflicts, and changed expectations are inevitable, and these factors can provide causes for rethinking the terms of the relationship. In these renegotiations, new supplementary agreements are established to resolve contested
issues. All other terms and understandings contained in the relational contract are expected to remain the same.

In the final cycle of the process, the parties may decide to terminate the relationship, usually when they have achieved their commitments and the business is complete. Of course, dissolution will also be inevitable, as a consequence of failure. Table 2.10, Ring and Van de Ven’s process model.

<table>
<thead>
<tr>
<th>Negotiation</th>
<th>Commitment</th>
<th>Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bargaining</td>
<td>Obligations</td>
<td>Increasing familiarity</td>
</tr>
<tr>
<td>Joint expectations</td>
<td>Rules</td>
<td>Re-negotiation</td>
</tr>
<tr>
<td>Investment</td>
<td>Contract agreement</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.10: Summary of Ring and Van de Ven’s Process Model.


In a longitudinal case study of two projects in one alliance, that extended to another four projects in two alliances, Doz has developed a framework to analyse the evolution of cooperation in strategic business alliances. He suggests that successful alliances are highly evolutionary and go through a sequence of interactive cycles of learning, re-evaluation and re-adjustment. Conversely, failing projects manifested inertia and resulted in either little, or divergent learning.

A set of initial alliance conditions determined whether an exchange of knowledge between the partners would take place. These conditions were understood as a definition of the task to be performed, a set of action routines borrowed from the context of each partner, a design interface between the partners and a series of expectations about the results of the alliance. Doz observed that these initial conditions could either facilitate, or hamper, the partner’s knowledge about their alliance’s environment.
As the partners engage in the exchange, their learning leads to periodic evaluations of the alliance, which, in turn, causes the partners to make adjustments to the relationship. Successful alliances were seen to evolve through a sequence of learning, adjustment and re-adjustment cycles, in which the intentions behind the initial conditions changed or improved. Throughout the cycles, partners' expectations about alliance efficiency, equity between partners and their adaptability was positively re-evaluated by increasingly irreversible commitment to the alliance, thereby justifying further efforts to make the relationship successful. These learning cycles nourish the growth of cooperation between the partners. Table 2.11, below summarises Doz's Process Model.

<table>
<thead>
<tr>
<th>Learning</th>
<th>Reevaluation</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial alliance conditions</td>
<td>Assessment</td>
<td>Intention behind initial conditions are changed</td>
</tr>
<tr>
<td>Define tasks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expectations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.11: Summary of Doz's Evolution Learning Process Model.


This framework is based on case studies involving several manufacturer-supplier and manufacturer-distributor alliances and the model has a number of vertical and horizontal components. The vertical components are, process, strategic and operational. Process outlines the stages of alliance development that show the required steps for formation, implementation and maintenance. The strategic element examines how strategic expectations and evaluations of the alliance evolve as it passes through development stages. The operational element outlines the development of search and selection criteria and operating standards for managing alliances.
The strategic and operational phases of alliance development must coincide with each of the following process stages namely *conceptualisation, pursuance, confirmation* and *implementation/continuity.*

Level one, *alliance conceptualisation* begins when the firm, driven by expectations of improved performance, decides to collaborate. Moreover, the creation of an alliance requires a new mindset towards other supply chain members.

Level two, *alliance pursuance.* The decision to form an alliance is taken and strategies are clarified and defined. Initial goals, established earlier, are reviewed and secondary goals derived by refining the primary goals.

Level three, *alliance confirmation,* by formal or verbal agreement, focuses on partner selection. All partners determine the criteria for managing the relationship process. These will include the expected duration of the alliance and mechanisms to manage conflict and imbalances when partners fail to provide equal support. In addition to agreements on strategic effectiveness, the parties also develop mutual agreement regarding a number of operating standards. These are the mechanisms by which the parties intend their day-to-day business to operate together. They also include roles and responsibilities, measures of operational performance, type of information to be shared and frequency of information transfer.

Level four, *alliance implementation / continuity* creates feedback mechanisms to administer and assess performance to determine whether the alliance will be sustained, modified or terminated. Table 2.12 summaries the model.
### Conceptualisation Pursuance Confirmation Implementation

<table>
<thead>
<tr>
<th>Expectations of improved performance</th>
<th>Define strategy</th>
<th>Alliance agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Establish goals</td>
<td>Duration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mechanisms to manage conflict</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roles and responsibilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Performance measures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type of information to be exchanged</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback mechanisms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assess performance</td>
</tr>
</tbody>
</table>

**Table 2.12: Summary of Schmitz et al's, Alliance Best Practice Model**


This is a seven stage model based on extensive case study research. The stages are *anticipating, engaging, valuing, coordinating, investing, stabilising* and *decision*. Spekman et al also examine the requirement that managers, involved in alliances, should have an "*alliance mindset*" and their research concludes that those whose perspectives accentuate learning and creativity, make the strongest alliance managers.

The role of project, or team leader calls for new skills and a commitment to learning, to seek challenges and to honestly review successes as well as failures. The successful alliance manager is the symbol of the learning organisation.

*Anticipating* is the preliminary stage, in which an organisation envisions the possibility of an alliance. Managers begin to articulate the strategic intent of the alliance and to consider potential alliance partners.

*Engaging* follows and is characterised by partners shaping mutual expectations of the alliance. A steering committee enables key managers to take ownership of the alliance.
Valuing is the period when the terms and conditions of the business exchange are negotiated and finalised. A business case is completed and anticipated benefits determined.

Coordinating is when joint work begins and more permanent governance structures are bedded in. The focus is on the integration of complementary business activities.

Investing involves commitment of key resources and assets. The full costs associated with the alliance should be known and apparent at this time.

Stabilising defines the stage when the alliance is on-going and viable. This stage reflects the alliance as it matures and realises its potential.

Decision considers where the alliance and partners are going next.

According to Spekman et al and the previous mentioned scholars, simply enumerating and defining the stages fails to impart the full impact of the on-going dynamic nature of these models. In particular, the continuous and often conflicting interplay between people, activities and processes has to be emphasised. Spekman et al, begin to address this when they consider the necessary attributes and skills that alliance managers require. For example, they discuss "alliance mindsets" that involve management perspectives to promote learning and creativity. Table 2.13, summarises Spekman et al's lifecycle model.

<table>
<thead>
<tr>
<th>Anticipating</th>
<th>Engaging</th>
<th>Valuing</th>
<th>Coordinating</th>
<th>Investing</th>
<th>Stabilising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consider alliance</td>
<td>Mutual expectations</td>
<td>Negotiate terms and conditions</td>
<td>Joint work</td>
<td>Commitment of resources</td>
<td>Maturity</td>
</tr>
<tr>
<td>Partner selection</td>
<td>Steering committee</td>
<td>Business case</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.13: Summary of Spekman et al's lifecycle Model.
2.1.16 SUMMARY

There is a strong link to theoretical roots in the foregoing synthesis of life cycle models. Marketing literature tends to focus on processes prior to formation of alliances, such as negotiation and positioning (e.g. Heide & John 1990; Wilson 1995) as well as factors that help to make alliances successful such as trust, commitment, interdependence and communication (e.g. Spekman et al 1998).

Management and strategy literature examines the strategic intent behind alliances and the steps required for partner selection, determination of an alliance structure and its implementation. (see for example Hamel 1991; Larson 1992). Economic literature investigates inter-organisational strategies from a transaction cost point of view. This limitation of focus on costs of one party neglects the interdependence between the exchange partners (Zajac and Olsen, 1993).

Although the models give a macro view of the whole lifecycle, they fail to illustrate the actual activities of life cycle evolution or the changes that take place when moving from one phase to another. Zajac and Olsen, Gray, Doz and Spekman et al. come closer to explaining this with the introduction of the general notion of learning. With regard to alliance dissolution, although implicit in many of the models, the concept is based mainly on opinion and is an area requiring further and empirical investigation.

Ring and Van de Ven state that a concern for process adds a transient dimension that affects how managers negotiate, execute and modify alliances over time (1994:113). According to Spekman et al (1998:247-248), a focus on process begins to address research gaps by considering the following types of questions. How do alliances evolve over time? What managerial skills and experience are required for managing alliances? What kinds of problems would alliance managers have to address over the life of an alliance?
2.2 ORGANISATION EVOLUTION AND BUSINESS SURVIVAL IN A CHANGING ENVIRONMENT

The summary of the lifecycle models in the previous section alludes to dissolution as part of the evolutionary process, therefore section 2.2 provides a brief review of organisational evolution and renewal.

The historical process by which the past is encapsulated in the present is mimicked in modern theories of evolution, learning, and culture and natural selection. Past experiences are the product of a combination of experimentation and exploitation, turning to advantage the knowledge gained from experience. Evolution includes mechanisms for interpreting, retaining, transmitting and retrieving lessons from the past (Baum and Singh 1994, refer also 1.3 and 1.4).

According to Baum and Singh (1994:45), the natural development of organisations can be affected by relatively small interventions, which have a significant and permanent effect. March (1991) agrees adding that evolutionary changes are unpredictable. The outcomes of an environment depend not only on its particularity, but also the ways in which previous environments have developed. Mis-directed strategies can make some outcomes unrealisable and history, is perversely unpredictable.

Company culture often depends on ways in which information and experiences are spread. March, (1991) emphasises that historical processes rely on branching out, as well as on local feedback. Furthermore, evolutionary theories define opportunities for changing the course of history, sometimes by relatively modest interventions if these occur in the right places at decisive moments (see Nelson and Winter 1982).

According to Miner and Anderson (1999), in order to achieve business prosperity, managers have two main roles. Firstly, to steer the company towards a higher level of evolutionary processes, often by direct intervention and secondly, to influence the organisation in its variation-selection and retention cycles. Variations occur in routines, or
stable bundles of activities, either intentionally or unintentionally, and some of these changes are selected and built into practice.

Considering organisational evolution and business survival, Levinthal (1991) says it is essential to understand the distinction between learning and adaptation. On the one hand learning involves a cumulative development of skills and capabilities whereas adaptation refers to a response to feedback about environmental changes.

Miner and Anderson (1999) put forward a number of reasons why some managerial action can lead to failure. For example, managers may fall into a competency trap. This is the result of lack of foresight and arises from a failure to recognise better practice, because the search does not extend beyond current routines. Even though management is aware of alternatives, these are not followed up because of switching costs and may ultimately lead to stagnation (Levitt and March 1988; Starbuck 1996).

Quinn (1980) stresses that "logical incrementalism" is the means by which firms can capitalise on current competencies, make incremental adaptations and explore alternative pathways. Increasingly, research points to the combination of existing routines as an important source of innovation (Abernathy and Clark 1985).

Serendipity also plays a considerable role in major organisational change (see for example March and Olsen 1975; Quinn 1980; Van de Ven, Angle and Pool 1989), when unexpected outcomes are the product of interacting routines.

Social interaction plays a central role in the transfer of new technologies and involves a more complicated process than the simple transfer of information (Granovetter 1985; Leonard-Barton 1991).

Cohen and Levinthal (1990) suggest that a firm’s "absorptive capacity", that is its capacity to evaluate and utilise outside knowledge, is a function of the ability and level of learning of the workforce. An R&D department that recognises the value of new information can
assimilate and apply knowledge to enhance this learning capability, as well as directing it to commercial ends. This implies that development of capabilities and innovative performance is path dependent (Levinthal 1991). Conversely, if a firm is not involved in active market research, the net result may be lost opportunities and reduced absorptive capacity.

Miles and Snow (1994) maintain that existing managerial philosophies are the most difficult barriers for firms to overcome in their search for new strategies and structures. Furthermore, success results from achieving a "fit" between the internal and external environments and writers conceptualise this as a journey, during which strategies are modified, rather than a destination.

2.2.1 ORGANISATIONAL RENEWAL

Tangible assets alone do not usually provide a sustainable competitive advantage (Miles and Snow 1994). The principal vehicle for renewal is an organisation's dynamic capability (Teece et al 1997) and its source of distinctive competence (Wernerfelt 1984). Such know-how is not just in the minds of its members, but also resides in organisational processes and characteristics (Dodgson 1991; Nonaka and Takeuchi 1995; Nonaka et al 1996). Firms with the capability to continually redesign strategies are termed learning organisations (Senge 1990; Huber 1991, 1996; Nonaka and Takeuchi 1995).

In order to renew themselves quicker, increasing numbers of businesses are moving toward organisational forms of networks that demand new types of managerial skills (Miles and Snow 1994; Spekman et al 1998). Cooperation between firms is therefore growing in strategic importance (Mudambi and Helper 1998). Supply chain alliances are recognised as important to competitive advantage by transferring and combining technologies, skills and capabilities (e.g. Das and Teng 2000). In so doing, they develop isolating mechanisms (Rumelt 1984) such as the ability to create more value than their competitors, by sharing tacit and explicit know-how (Reed and de Fillipi 1990; Ghemawat 1991).
These alliances are built upon long-term informal agreements between partners and are governed by trust, commitment and reputation (Casson 1991; 1997; Mudambi and Helper 1998; Das and Bing-Shen Teng 1998). The development of such institutions takes time to grow and as Ring and Van de Ven (1994:113) point out:

"As uncertainty, complexity and duration of economic transactions within and between firms increase, it becomes increasingly important for scholars and managers to understand developmental processes and how equity, trust, conflict resolution procedures and internal governance structures emerge, evolve and dissolve over time."

2.2.2 DISSOLUTION IN PERSONAL RELATIONSHIPS: ARE THERE SIMILARITIES IN ALLIANCE WITHDRAWAL?

A useful framework to analyse the dissolution of business alliances is the exit-voice dichotomy, originally proposed by Hirschman (1970). Hirschman describes two characteristic ways of reacting to deterioration in economic / political domains:

(1) exit, ending or threatening to end the relationship;
(2) voice, actively and constructively expressing one’s dissatisfaction, with the intention of improving conditions.

Hirschman’s model encapsulates a range of reactions to relations in an economic or political environment. However, he is not pessimistic and does not assume that all alliances culminate in exit, although business relations have their periodic ups and downs. “Voice” refers to active and constructive reactions, in terms of actual vocalisation and modification of behaviour. “Exit” refers to destructive behaviour, including not only termination of relations but, more importantly, other behaviour intended to harm the relationship (Hirschman 1970).

A number of models account for the process by which participants disengage from and dissolve in personal relationships (Baxter 1983; Duck 1982; Miller and Parks 1982).
Rusbult’s (1983) investment model is an attempt to describe reactions to potentially reparable lapses in the quality of relations. Rather that assuming that the relationship is on the road to dissolution, his exit-voice-loyalty-neglect study deals with reactions to problems as they emerge.

Rusbult’s (1980, 1983) investment model of commitment in close partnerships uses measures of satisfaction, investment size, and alternative quality to predict the level of commitment. This model proposes that the level of satisfaction, prior to relationship decline, tends to determine whether persons react to problems in a constructive or destructive manner. Greater satisfaction should induce voice while discouraging exit (see also Wilson 1978; 1995). Satisfaction is positively associated with voice-like behaviour, such as superior communication.

Rusbult (1983) found that increases in investment size usually promoted constructive behaviour while inhibiting a destructive response. Resources, such as time that individuals direct to a relationship and activities which are intrinsic to the involvement, are considered to be investments. Other studies, in the domain of interpersonal relations, have concluded that greater investments in relationships lead to higher levels of voice and loyalty and lower levels of exit (e.g. Staw 1976).

Relating these findings to business alliances where investment is often high, there is much more to lose in financial terms if the alliance suffers or ends. Accordingly constructive responses, intended to maintain or revive the alliance, are to be expected (Wilson 1978;1995). Similarly, if investment is low, there is little to lose from an exit.

Rusbult’s third variable, i.e. alternative quality, determined whether an individual’s response to dissatisfaction was active or passive. Such a threat to a business alliance can serve as a source of power that, in the absence of a suitable alternative, assists improvement of the relationship. Thus factors associated with alternative quality may promote exit or voice.
Helper and Levine (1992) argue that an exit relationship is characterised by low commitment and infrequent information exchange, making it easy for suppliers to perceive high probability of change in allegiance. By contrast, in a voice relationship both commitment and information exchanges are high, causing suppliers to perceive low probability of switching to a rival. Inter-organisational life cycle literature considers relationship dissolution to be of sufficient merit to be a concept for study (e.g. Ring and Van de Ven 1994).

Informal commitment requires active effort by participants to develop social networks (Casson 1997). Given that alliances depend on such networks, it might be useful to look for information in literature about organisational renewal and dissolution pertaining to personal relationships (e.g. Duck 1982).

In exchange theory terms, each relationship has its own rewards and cost dynamics. Evidence appears to suggest that a ceiling exists on the number of alliance relations at any one time. Accretion of additional associations is usually offset by disengaging from existing ties (Baxter 1979), similarly organisations can grow out of existing alliances as motivation changes with the passage of time (see for example Spekman et al 1998).

2.2.3 SUMMARY

A number of process models are reviewed in Chapter two, setting out phases and different characteristics within each phase.

The importance of evolutionary processes has been recognised in many fields of management (see for example Nelson and Winter 1982; Baum and Singh 1994; Teece, Pisano and Shuen 1997). However, on the most part, research has ignored questions of process with regard to inter-organisational business alliances. In essence, understanding the historical and contemporary evolution or lifecycles in alliances could provide a useful tool for interpreting lessons from the past and learning future alliance strategies. In today’s market environment, organisations must grasp every opportunity to maintain and improve
competitive positioning. This implies that business strategy must be flexible and people adaptable and alert to changes.

In this sense, business alliances could be used as strategic instruments with which companies transfer and combine technologies, skills and capabilities. This ability of allies to align strategies in response to market turbulence is described by Teece et al (1997) as a dynamic capability.

2.3 RESEARCH AIM and QUESTIONS

Discussions concerning inter-organisational exchange relationships can be found in literature, on such diverse subjects as marketing (for example Ford 1980), management (Ellram 1991), strategy (Doz 1996) and economics (Zajac and Olsen 1993). It is perhaps this kind of fragmentation which has contributed to the relative anonymity of process frameworks in academic publications.

There is a strong link to theoretical roots in the synthesis of life cycle models. Marketing literature tends to focus on processes prior to formation of alliances, such as negotiation and positioning (e.g. Heide & John 1990; Wilson 1995) as well as factors that help to make alliances successful such as trust, commitment, interdependence and communication (e.g. Spekman et al 1998).

Management and strategy literature examines the strategic intent behind alliances and the steps required for partner selection, determination of an alliance structure and its implementation (see for example Hamel 1991; Larson 1992). Economic literature investigates inter-organisational strategies from a transaction cost point of view. This limitation of focus on costs of one party neglects the interdependence between the exchange partners (Zajac and Olsen, 1993).
There is a dearth of research on the evolution of strategic alliances in contrast to abundant research on the conditions that lead to their creation (Doz 1996). When alliance management is discussed, the relevance of such systems seems to have been missed in terms of both theoretical development and practitioner value (Zajac and Olsen 1993; Ring and Van de Ven 1994; Spekman et al 1998). Recent studies of inter-organisational relations have emphasised the need for research to more fully explain the dynamics of inter-organisational cooperation and the performance implications of strategic alliance development (see for example Spekman et al 1998).

This has been acknowledged by scholars (e.g. Ford 1980; Dwyer et al, 1987; Anderson and Narus, 1990; Wilson 1995) and Ring and Van de Ven (1994) who state that a concern for process adds a temporal dimension, affecting how managers negotiate, execute and modify alliances over time. There appears to have been an overemphasis on the structural content of alliance building and a dearth of empirical studies of its development (Doz 1996).

From this review it is deduced that writings on the topic of alliancing have focused mainly on how to form alliances and the resultant benefits from them. Central to this issue, and largely ignored, is understanding how alliance relationships develop with the passage of time. This demands that greater attention is directed to evolution of the alliance and the social context within which dyads or networks are embedded.

In the light of the foregoing and in order to contribute to, and build upon, previous research the overall aim of this thesis is to consider further this notion of phased development in business alliances. The research question which supports this aim is:

1. How do alliances evolve over time?

This review outlines a number of process models each with different numbers of stages and characteristics within each stage (for example Wilson 1978; Ford 1980; Dwyer et al 1987; Gray 1989; Larson 1992). Nevertheless, although empirical evidence is inconsistent with regards to alliance stages and characteristics, there is growing recognition that alliance
development remains an under researched area of understanding (see for example Ring and Van de Ven 1994; Doz 1996). A central issue of this thesis is to explore the alliance development path and capture the dynamics of cooperation, summarised in the following research question:-

2. Are progressive stages evident as the alliance matures and in what way does one stage differentiate itself from another?

While the importance of evolutionary processes is well recognised in many fields of management (e.g. Nelson and Winter 1982; Baum and Singh 1994; Teece Pisano and Shuen 1997), there is growing recognition that alliances and networks are also an evolutionary, multifaceted means of cooperation (Osborn and Hagedoorn 1997). To address this, researchers relatively recently have begun to consider the impact of broader social relations rather than maintaining a static, deterministic interpretation of the nature of transactions (e.g. Ford 1980; Ring and Van de Ven 1994; Wilson 1995; Doz 1996; Spekman et al 1998).

Appreciation of inter-organisational relations stimulates learning as issues are better understood and objectives re-defined. Inter-organisational teams encourage regular communications, problem solving, boundary spanning and adapting to changing environments (Ancona and Caldwell 1992; Monczka and Trent 1993: Spender 1996). The foregoing suggests that cooperation between trading partners should enable otherwise elusive specialist skills to be accessed, allowing complex tacit knowledge to be transferred and technologies shared (Nelson and Winter 1982; Nonaka et al 1996).

Accordingly, literature argues that business collaboration accelerates the exchange of knowledge and creates conduits for learning (Hall 1993; Teece et al 1997). This knowledge transfer, increases understanding of joint processes, and open communication provides the background so that the inter-organisational teams can be the medium for innovation and creativity (Best 1990; Dodgson 1991; Varadarajan and Cunningham 1995).
Cross boundary communication derives information from other organisations by drawing on knowledge and past experience, to develop unique competencies (Ancona and Caldwell 1992). New appreciation of cross-functional relations stimulates learning as issues are better understood and objectives clearly defined (Clark and Wheelwright 1992; Harshman and Phillips 1994; Hedlund 1994).

Although scholars acknowledge the important economic role that alliances play in the competitiveness of the firms, in terms of generating new capabilities through learning and innovation (see for example Itami and Roehl 1987; Miller and Shamsie 1996), they are questioning early theoretical assumptions concerning alliances and acknowledge the complexity of alliances and associated networks (Debresson and Amesse 1991; Powell 1998; Lundvall 1994; Griffin and Hauser 1996; Hunt-Campbell 2000).

Critics of current research into cooperative inter-organisational strategies argue that studies to date have demonstrated a limited understanding of contemporary business relations (Imrie and Morris 1992; Serapio and Cascio; Parkhe 1998; Yan and Zeng 1999). In particular, the field has suffered from a lack of research into individual and managerial behaviour or organisational processes (Doz 1996).

From a strategic perspective and with the aim of building competencies or capabilities, teamwork can be considered part of the corporate response to environmental challenges, (e.g. Monczka and Trent 1993). Teamwork provides a structure that encourages employees to work in a mutually supportive way and it enables development of effective problem solving capabilities (see Hurst et al 1989).

The review again emphasised that a firm’s knowledge and capabilities are internal and embedded. However, close relations between customers and suppliers, can provide the opportunity for specialised attributes to take root and grow (see for example Penrose 1959; Wernerfelt 1984; Barney 1991; Dyer and Singh 1998). Organisations cannot create knowledge without people’s contribution and this takes place within an expanding community of interaction, crossing intra and inter-organisational levels and boundaries
(Powell 1989; Saxenian 1991; Chung et al 2000). Innovation is considered essential for organisations to maintain competitive edge and business alliances appear to provide the creative context that nurtures innovation (see Debresson and Ammesse; Pavitt 1992).

The objective for managers is to build an organisation capable of continuous improvement, innovation, collective learning, and information transfer (Collis 1991:66). Competitive strengths are developed by organisational learning, and acquisition of industry-specific capabilities for production, distribution, R&D, purchasing, and labour relations (Chandler 1992:92).

However, all of the above takes time to accumulate as well as being influenced by external and internal conditions affecting the alliance and the continuous and conflicting interplay between people, structures and processes. Furthermore, because alliances evolve over time, internal and external conditions, alliance objectives and expectations change and are likely to differ from the original concept.

Although studies identify stages in alliance evolution (see for example Ellram 1991; Murray and Mahon 1993; Ring and Van de Ven 1994), few of the studies cited in this review consider how an alliance advances from one phase to another (see Ellram 1991).

Although the models give a macro view of the whole lifecycle, they fail to illustrate the actual activities of life cycle evolution or the changes that take place when moving from one phase to another. Zajac and Olsen (1993), Gray (1989), Doz (1996) and Spekman et al (1998) come closer to explaining this with the introduction of the general notion of learning.

This knowledge is critical to both academic and practitioner understanding in order to identify where in the cycle the alliance might currently be and the factors that influence management and growth at that point in time. Without an understanding of movement between stages, the concept of alliances developing in stages becomes almost meaningless. Research questions number three to five summarise the above:-
Given that the degree of interaction, learning and innovation may alter as the alliance relationship develops, what characteristics are evident within each of the stages?

Are certain characteristic more important in one phase of the evolution than in another?

What factors identify the transition from one stage to another?

One of the striking facts about the increase in alliance formation is the large number which have failed to succeed (see for example Parkhe 1998; Speckman et al 1998). Despite this, explanations of dissolution or withdrawal have received little empirical attention, with notable exceptions including Weitzel and Jonsson (1998), Seabright et al (1992), Truskowski and Thorne-Thomsen (1994), Serapio and Cascio (1996); Glaister and Buckley (1999).

Quinn and Cameron (1983) refer to an organisational life cycle with stages similar to those of the product life cycle and cite decline as the latter stage. In this regard, a number of inter-organisational process models have also emphasised different factors and stages to explain the changing characteristics of exchange relationships over a period of time (see for example D'Aunno and Zuckerman 1987; Gray 1989; Larson 1993; Murray and Mahon 1993, Wilson 1978, 1995; Speckman et al 1998). Implied in these discussions is the notion that dissolution only occurs after organisations have passed through other stages in the life cycle.

According to Dwyer et al (1987) the possibility of withdrawal, or disengagement, has to be implicit throughout the whole relationship, although actual dissolution is often left unexplained. They suggest that there are probably many dissolution trajectories and that it is overly simplistic to regard termination as being consolidated within a single phase.
Research to date suggests that suspension of cooperation between organisations might be due to one, or a combination of the following reasons: lack of clear purpose and management commitment; incompatibility between objectives and reward; lack of clear monitoring of changing internal and external conditions; personnel turnover; lack of investment or commitment to a long-term future; other factors beyond the companies' control; static focus on the final outcome rather than viewing the process as being evolutionary (see for example Greenhalgh 1983; Cameron, Whetton and Kin 1987; Weitzel and Jonsson 1989; Yan 1998; Yan and Zeng 1999).

This latter factor is crucial since it indexes contemporary concerns in the alliance literature that researchers should focus more on the process of alliance development (Ring and Van de Ven 1994; Doz 1996) and in particular, the way in which stability and instability of that process comes about and is managed (Yan and Zeng 1999).

The main argument from the literature is that research recognises that alliances are inherently unstable, but most fail to explain why many can survive and succeed over time (Yan 1998). Dissolution is usually considered as a sign of failure, yet it may actually represent an accomplishment of the partner's initial intention, and would thus signify success (Gomes-Casseres 1986).

The summary of process models in chapter two alludes to dissolution as part of the evolutionary process. Although implicit in many of the models, the concept is based mainly on opinion and is an area requiring further and empirical investigation. Given this lack of empirical exploration and conceptual depth, this thesis sets out to contribute to the debate by considering the nature of alliance dissolution with a view to understanding better its conditions and consequences. This is encapsulated in research question number six:

6 What factors trigger stability and instability in alliances and what happens when the alliance ends?

Chapter three describes the methodology adopted in this thesis to address these questions.
Chapter Three

Methodology
3.0 METHODOLOGY

The aim of the chapter is to set out the philosophical context and methodological approach undertaken in this study.

Accordingly, its objectives are:-

- to provide background literature justifying the qualitative research strategy
- to describe the research design and process, methods of data collection and analysis and how the data was subsequently interpreted and presented
- to articulate the limitations to the methodology

3.1 QUALITATIVE RESEARCH AND ITS TRADITION

Qualitative research is a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live (Holloway 1997:1). Researchers, studying an actual setting try to make sense of phenomena by inductive and interpretative methods (Flick 1998:24). A number of different procedures within the wider framework cut across disciplines and subject matter and utilise interconnected terms, concepts and assumptions (see for example Denzin and Lincoln 1998; Holloway 1997; Patton 1990). The aim however, remains the same; that is to understand the social reality of those individuals, groups or cultures under examination (Holloway 1997:1). The focus on which attention is concentrated is how participants' interpret their experience and construct reality (Berger and Inkmann 1967, cited in Burgess 1985:3).

3.2 HISTORICAL DEVELOPMENT OF QUALITATIVE RESEARCH

Denzin and Lincoln (1998:13-22) refer to historical development of qualitative research as taking place in five moments, or phases, which are described as follows:-

1. The traditional period which had its roots in anthropology and sociology and spanned over the period from the early twentieth century up to World War II. In terms of
sociology, the work of the “Chicago School” in the 1920’s and 30’s established the importance of qualitative research in the study of human group behaviour (Denzin and Lincoln 1998:1). Prior to that time qualitative research had been journalistic in style and relatively unsystematic (Holloway 1979:3). In anthropology, during the same period, studies by Boas, Mead, Benedict, Bateson, and Malinowski charted new fieldwork methods for observing and analysing the customs and habits of other societies and cultures (Denzin and Lincoln 1998:1).

2. Since then qualitative research experienced steady advancement, and the Modernist Phase from the 1940’s onwards was marked by attempts to formalise qualitative research. This lasted until the emergence of the symbolic interactionist perspectives by Becker et al, in 1961 and was followed by the development of grounded theory by Glaser and Strauss (1967) (see also Holloway 1979:4, also Miles and Huberman 1994).

3. Blurred genres is the term describing the subsequent development of qualitative research until the mid 1980’s and features in the various theoretical models which researchers could choose to use, either separately or in combination. Ethonomethodology and phenomenology are two of these paradigms (Flick 1998:9).

4. A profound split occurred in the mid 1980s when some researchers challenged previous models and called into question issues of validity, reliability, and objectivity, of work carried out in earlier phases. This was termed the crisis of representation by Denzin and Lincoln (1998:19). Interpretive theories were common, and writers continued to question older models of truth and meaning (Rosaldo 1989, cited in Denzin and Lincoln 1998:19).

5. In the Fifth Moment, or what appears to be the latest and current phase, the emphasis has shifted towards interpretation of theories and narratives that fit specific, delimited, local, historical situations and problems (see also Flick 1998:10).
3.3 QUALITATIVE VS. QUANTITATIVE RESEARCH: CONFLICTING OR COMPLEMENTARY PERSPECTIVES

There appear to be two main interpretive research paradigms: -

- positivist and post positivist and
- constructivist-interpretative

The term positivist applies to the dominant philosophical ideas of the physical and social sciences over the last four centuries (Denzin and Lincoln 1998:116). A positivist approach takes the view that the world is relatively unproblematic and the main issue is how to measure research findings adequately (Sapsford and Jupp 1996:1). Positivism emphasises the neutrality and separateness of the researcher from the subject under investigation and is typically quantitative in nature in that it results from measurement and analysis of relationships between numerical quantities (ibid.1).

One of the main traits of this type of research is the question of objectivity and distance between researcher and his subject (Holloway 1997:12). However, the danger of this approach is that researchers treat perceptions of the social world as objective and absolute, and neglect everyday subjective interpretations in the context of the research (ibid. 12).

Other paradigms take a more interactionist approach, looking at the meanings of people’s situations and actions as dynamic and negotiated moment by moment. Studies based on this perspective, are more likely to be qualitative (see for example Strauss and Corbin 1996). The word qualitative implies an emphasis on process and meanings that are not rigorously measured in terms of quality, amount, intensity or frequency (Denzin and Lincoln, 1998:8). Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between researcher, the study subject, and the situational constraints that shape the inquiry (ibid.8).

Embodied in this is the constructivist point of view that considers the context as a product of history and social structure (Sapsford and Jupp 1996:2). The constructivist /
**Interpretive paradigm** is a wide ranging framework with fine distinctions and detailed subdivisions, including phenomenology, ethnomethodology and related theoretical traditions associated with interpretive methods (Lincoln and Guba 1985: 14-15). According to Denzin and Lincoln (1998:218), paradigm development within qualitative research is at a formative stage, with no consistency of agreement among proponents about definitions, meanings or implications.

Both quantitative and qualitative research have had a long and distinguished history in studies of social science (Denzin and Lincoln 1998:1). The discussion therefore, is not about the merits or demerits of quantitative or qualitative methodology, as both have their own strengths and weaknesses. It is the problem itself and the subsequent questions to be answered, that guide the researcher as to the most appropriate method for a particular study (Patton 1990:13).

### 3.4 INTERPRETIVE PROCEDURES

Interpretive procedures owe their theoretical tradition to the notion of “interactionism” which is to be found in the work of Blumer (1996) and Hughes (1971) (cited in Burgess 1984:3) and has roots in the human sciences, particularly history and anthropology (Holloway 1979:1).

Researchers focus on the way in which different people experience, define and structure their lives (Burgess 1983:3). Interpretists claim that people’s experiences are essentially context bound, that is, they cannot be free of time, location or the mind of the human actor (Holloway 1997:2). To make the best use of such a theoretical perspective it is therefore essential to gather statements from participants with a view of examining various dimensions of the situations that they construct and, in so doing, to focus on ongoing patterns of interaction (Burgess 1983:4).

In describing fully situations in the life of individuals or groups under scrutiny, empirical data is collected from a variety of sources, including case study, histories, personal experiences, life stories, introspection, interviews, observations, interaction and any
material that gives meaning to the routine and problematic moments in individuals' lives (Denzin and Lincoln 1998:3). Accordingly, qualitative researchers deploy a wide range of practices, hoping always to get a deeper understanding of the subject matter in hand (ibid.3).

The multiplicity of related methods and meanings make it difficult for researchers to agree on a definition of qualitative research, for it is never just one thing. However, Nelson et al's (1992) definition which is quoted as follows, provides a good starting point (cited in Denzin and Lincoln 1998:6).

"Qualitative research is an inter-disciplinary, trans-disciplinary, and sometimes counter-disciplinary field. It cuts across the humanities and the social and physical sciences. Qualitative research is many things at one and the same time. Its practitioners are sensitive to the value of a multi-method approach. They are committed to a naturalistic perspective; and to an interpretive understanding of human experience. At the same time, the field is inherently political and is shaped by multiple ethical and political positions" (Nelson et al 1992).

Qualitative research places the investigator in a historical and contemporary context that guides and constrains work in his specific study (see for example Miles and Huberman 1994, Flick 1998). In this sense qualitative methodology is imprecise because human beings do not behave logically or predictably (Holloway 1997:3). Investigators in qualitative inquiry turn to actors for guidance, control and direction throughout the research (ibid. 3).

As a consequence, during the course of the research the researcher must not only confront the ethics and politics but also consider the effects of his, or her, own actions (Lincoln and Guba 1998:23). According to Punch (1994, cited in Punch 1998:140) politics suffuse all social science research. In this respect, a central feature of qualitative work involves monitoring the process and the research design, for the latter must be continually modified and developed by the researcher throughout the process (Burgess 1984:5).
This sentiment is echoed by Holloway (1997:3), while stating the apparently obvious, that rigour and order are important for scientific research given that the social world is neither orderly nor systematic, says that it is all the more important that the researcher proceeds in a well structured and systematic way.

Alongside observational work, formal and informal interviews should be conducted and records made. Techniques should be developed for gathering, storing and retrieving data for analysis as well as checking the reliability and validity of that information (Burgess 1984:5). Basic to the good conduct of field research is the development of open relations between the researcher and the researched (ibid.5)

According to Miles and Huberman (1994:5) qualitative research has the following recurring features: -

- it is conducted in the course of intense and prolonged contact in field situations
- it offers a “holistic” overview of the context
- the researcher gains perceptions from a new standpoint
- themes are reviewed and discussed with contributors of information
- the researcher is the main medium for measurement
- analysis is described in a way that permits researchers to draw comparisons

Patton (1990:40) illustrates how the variety of strategies for qualitative inquiry are built upon several interconnected themes that are summarised in table 3:1 below.
Naturalistic inquiry | Studying real-world situations that unfold naturally and unobtrusively; free of predetermined constraints on outcomes.
---|---
Inductive analysis | Immersion in detail and specifics of data to discover important categories and inter-relationships. Use of open questions, rather than testing theoretically derived hypotheses.
Holistic perspective | The phenomenon is understood to focus on complex interdependencies as opposed to discrete variables.
Qualitative data | Detailed, in depth, inquiry using direct quotations that capture people's personal experiences.
Personal contact and insight | People's perspectives and insights are critical to a better understanding.
Dynamic systems | Attention to process, assumes that change is constant and ongoing.
Unique case orientation | Assumes each case is special and unique. Cross case analysis follows individual case studies.
Context sensitivity | Places findings in a social, historical and temporal context.
Empathic neutrality | Complete objectivity is impossible and the researcher's goal is to understand the world in all its complexity, while taking a neutral non-judgmental stance.
Design flexibility | Open to adaptive inquiry as understanding deepens and/or situations change. Avoids getting locked into designs that eliminate responsiveness and therefore allow pursuit of new possibilities.

Table 3.1: Variety in Qualitative Inquiry: Theoretical Traditions (Patton 1990:40)

3.5 STARTING RESEARCH AND GAINING ACCESS

Number of research sites

According to Eisenhardt (1989:532) there is no ideal number of cases. Nevertheless it is often difficult to generate theory with fewer than four cases and if there are more than ten cases it becomes too complicated. However, in Dyer and Wilkins’s (1991:614) response to Eisenhardt, the former argue that "such a view is clearly at odds with what social scientists would consider to be classical case studies in the field." For example, some of the more important studies that have advanced the knowledge of organisations and social systems include authors listed in the following table:
Table 3.2: Theory Generation Using Two or Fewer Case Studies. Source Dyer and Wilkins 1991

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Date</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selznick</td>
<td>1949</td>
<td>1</td>
</tr>
<tr>
<td>Blau</td>
<td>1955</td>
<td>2</td>
</tr>
<tr>
<td>Lipset, Trow and Coleman</td>
<td>1956</td>
<td>1</td>
</tr>
<tr>
<td>Becker, Geer, Strauss, and Hughes</td>
<td>1961</td>
<td>1</td>
</tr>
<tr>
<td>Corziner</td>
<td>1964</td>
<td>2</td>
</tr>
<tr>
<td>Kanter</td>
<td>1977</td>
<td>1</td>
</tr>
</tbody>
</table>

According to Dyer and Wilkins (1991:615) the main aim is to describe the social scene, the context in which the events occur and to reveal, what Light (1979) refers to as, the deep structure of social behaviour (see also Dyer and Wilkins 1991:615).

Glaser and Strauss (1967:61) suggest that it is impossible to define at the outset exactly how many groups will be sampled during the entire study and that the criterion for judging when to stop sampling, is "theoretical saturation." This means that when no more data is found, the researcher develops new categories or additional properties and begins to see similar instances repeated.

It is usual for research reports to indicate that the literature review constitutes the "real" start of research. It is the reading done by the researcher, it is argued, that helps to generate the research problem (Burgess 1984:32). However, background reading is not all that may be used and the foregoing account overlooks the researcher's personal experience. That is, the researcher can make links between familiarity with the social setting and the literature within the field of study (Burgess:1984:34).

Gaining access is a precondition for conduct of the research. This usually involves negotiating entry into a group, institution, community or social setting (Sapsford and Jupp 1996:64).
3.6 DATA COLLECTION

Observation

Observation is one of the principal strategies in data collection. The typology developed by Gold (1958) distinguishes four types of participant roles (cited in Flick 1998:137-138):

- *The complete participant.* The researcher is part of the setting and takes an active insider’s role.
- *The participant-as-observer.* The researcher has negotiated access to the setting and is an observer of the whole work group under study.
- *The observer-as-participant.* The researcher is only marginally involved in the situation.
- *The complete observer.* The researcher does not take part in the setting and adopts a "fly on the wall" approach.

Researchers, as observers, look at places and people in their natural settings and qualitative researchers generally rely on participant observation (observer-as-participant) (Holloway 1997:109). In the majority of cases data is collected regarding incidents that give meaning to the behaviour or culture of a particular group, institution or community (see for example Sissons 1981). Participant observation does not just mean observing the situation, but also involves listening to the people under scrutiny (Holloway 1997:109). The aim is to produce detailed, qualitative descriptions of human behaviour in natural situations and in a cultural context. Spradley (1980:34) distinguishes three phases of participant observation (cited in Flick 1998:142):

1. Descriptive observation serves to provide the researcher with an orientation as regards the field under study. It helps to add non-specific background information, which is helpful to appreciation of the complexity of issue while at the same time serving to develop new research questions and different lines of vision;
2. *Focused observation*, whereby the perspective increasingly narrows onto processes and problems which are essential to the research question;

3. *Selective observation*, occurs towards the end of the data collection and is concerned with finding further evidence for the types of practices and processes found in the second step.

Data collected in this manner is combined with information from conversations and interviews. Where appropriate, documentary sources are recorded using fieldnotes, ideally to produce an in-depth and rounded picture of the group that reflects the complexity of its social world (Sapsford and Jupp 1996:61-63). It is not unusual for the focus of the research to change quickly during the course of data collection as particular issues are revealed as important (ibid.61). As with any research method, participant observation has its advantages and limitations, and these are summarised in table 3.3 below (Sapsford and Jupp 1996).

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Dates are documented as events occur</td>
<td>• The environment may be inaccessible and observation impossible</td>
</tr>
<tr>
<td>• Observation provides information on the context and behaviour of those</td>
<td>• People may consciously or unconsciously change the way they behave and render</td>
</tr>
<tr>
<td>not directly involved</td>
<td>observation inaccurate</td>
</tr>
<tr>
<td>• Information gathered at interviews can be checked against observational</td>
<td>• It is time consuming and costly</td>
</tr>
<tr>
<td>notes</td>
<td>• Observations are filtered through the interpretive lens of the observer</td>
</tr>
<tr>
<td>• Greater in-depth knowledge of a culture or subculture is generated</td>
<td></td>
</tr>
<tr>
<td>• Immersion in the setting is the first step in observation. Researchers</td>
<td></td>
</tr>
<tr>
<td>may avoid disturbances and potential bias as a result of only</td>
<td></td>
</tr>
<tr>
<td>occasional visits</td>
<td></td>
</tr>
<tr>
<td>• Observation is less disruptive than interviews.</td>
<td></td>
</tr>
</tbody>
</table>

Table 3.3: Advantages and Disadvantages of Participant Observation. Source: Sapsford and Jupp 1996:56-65
In summary, some of the problems are that participant observation can involve questions of validity and reliability, observer and setting bias, and the absence of checking by a third party (Burgess 1984:45).

**Interviews and interviewing**

Basic interviewing skills include gaining access, presentation by the researcher, building trust and establishing rapport. Kvale (1996:133) uses as a metaphor, a journey with the interviewer exploring unknown landscapes, where he enters into conversations with people he meets. During these meanderings, he learns about the world of the natives and listens to their stories. The journey not only leads to his acquiring new knowledge, but the traveller's outlook changes as well.

Interviews, conducted for the purpose of qualitative research, are intended to help understand the world from the respondent’s point of view and to reveal its meaning from his experience. While the interview may appear to be a straightforward conversation it should involve skills for listening as well as questioning. This is not a neutral tool and it varies according to the personal characteristics of the interviewer. Asking questions is one thing, and actually getting answers is often more difficult than it would seem (see for example Burgess 1984; Flick 1998).

The spoken word always contains a degree of ambiguity no matter how carefully the questions are worded and answers reported. Nevertheless, interviewing is one of the most effective ways of understanding human beings. The most common type of interview is a face to face verbal exchange between two people, however, interviews may also involve groups (see for example Kvale 1996; Punch 1998; Sapsford and Jupp 1998).

There is no single interview style for every occasion. While it is important to understand the mechanics of good interviewing an understanding of the context of the respondent’s world is equally important. Finally, the importance of using multiple data gathering
methods has to be mentioned (Patton 1990). Also use of structured or semi-structured questions. See following table 3.4.

<table>
<thead>
<tr>
<th>Style</th>
<th>Structured</th>
<th>Semi-structured</th>
</tr>
</thead>
</table>
| Characteristics | • pre-established with limited response  
                  • little room for variation of response  
                  • responses recorded according to a predetermined coding scheme  
                  • interviewer controls pace, using questionnaire like a script  
                  • little flexibility in the sequence or manner in which questions are asked  
                  • neutral role of interviewer | • interview guide provides a basic framework for interviewer  
                  • questions and answers encourage interview-respondent interaction  
                  • enables interviewer to probe  
                  • new questions emerge as study progresses |
| Purpose       | • to provide an ideal interview and minimise errors | • enables understanding of people's often complex behaviour |
| Source of errors | • respondent's behaviour | • personal judgment influences analysis  
                  • "going native" |
| Problems      | • elicits rational responses only  
                  • inadequately assesses the emotional dimension | • respondent may go off on a tangent  
                  • analysis can be complicated |

Table 3.4: Difference Between Structured and Semi-Structured Interviews. Source: Flick 1998: 76

3.7 ANALYTICAL TECHNIQUES

The Interplay between Deduction and Induction

Deduction means that the researcher moves from the general to the specific, that is they start with a general theory from which a conclusion is deduced (Holloway 197:46). Researchers search for empirical evidence to test a hypothesis by collecting data from observation and subsequent analysis (ibid.46).

Conversely, inductive reasoning, involves going from the specific to the general, by starting with the observation or study of a number of individual cases or incidents and establishing generalities that link them to each other (Holloway 1997:91). Researchers should collect data, without making prior assumptions, analyse the data and generate theories (ibid.91).
According to Strauss and Corbin (1998:136), interpretation is a form of deduction based on the researchers reading of the data, along with assumptions about the nature of life, relevant literature and discussions with colleagues and research participants.

With regards to the inductive approach, grounded theory has as its explicit purpose, the generation of theory from data (Punch 1998:166). Textbooks discuss the distinction between theory generation and theory verification (Strauss and Corbin 1998:12).

Traditionally quantitative research, has followed the theory verification model where the hypothesis is central to the research and since the hypothesis was deduced from other more general theory, the point of the research was to test the theory (Punch 1998:166).

In the grounded approach which aims to generate theory, no specific theory is initially proposed and no hypotheses are formulated for testing ahead of the research (Punch 1998:166). One starts with an open mind, aiming to end up with a theory (ibid.166). According to Lincoln and Guba (1985:332), generative inquiry attempts to discover constructs which may lead to propositions, and uses the data itself as a point of departure. The authors go on to suggest that generative inquiry is most often served by inductive analysis and verification inquiry by deductive analysis. Although they do observe that there are exceptions, when generative inquiry is nevertheless informed by some a priori theory (Lincoln and Guba 1985:33).

The main challenge is how to ensure accurate data input and how to test theory rigorously. Data analysis in qualitative research begins with data collection and involves breaking down the information in search of categories, which are then reassembled to form themes (Holloway 1997:43). According to Glaser and Strauss (1967:228) records rely on an orderly system of information gathering and analysis. Glaser and Strauss (1967:228) suggest that the following inter-related activities allow a theoretical qualitative study to expand into particular areas of behaviour:

- explanation to provide a perspective of behaviour
- theoretical prediction
practical applications

The method of constant comparison provides an excellent fit with continuous and simultaneous data collection and processing (Lincoln and Guba 1985: 335).

Comparative analysis means the researcher is able to systematically check data obtained in the course of a study. It may be viewed as an ever changing process with theoretical implications that fit into and are easily understood in the study context (see for example Glaser and Strauss, 1967; Strauss and Corbin 1998). This kind of analysis, which sets out to record the chronological flow of events, may also lead to unexpected findings that help the researcher go beyond the initial concept giving rise to a new framework of ideas (Miles and Huberman 1994:337). Generating theory from data means that propositions and concepts are regularly worked out in a formalised way in relation to data collated (ibid.337).

According to Strauss and Corbin (1990:13) the constant comparative method of analysis is designed to:

- build rather than test theory
- base research on “good” science
- help the analyst to disregard biases and unwarranted assumptions
- provide the grounding for a tightly woven theory that approximates reality.

Inductive analysis relies on comparing incidents or cases and on establishing similarities and differences, in order to define categories and concepts (Punch 1998:200). Lincoln and Guba (1985:334) describe this as a process of abstraction whereby units of analysis are derived from a “stream of behaviour”. Researchers attempt to make sense of the data by conceptual ordering, which refers to the organisation of data into discrete categories according to their properties and dimensions and then using description to elucidate those categories (Strauss and Corbin 1990:19). Categories derived by the constant comparative method, advocated by Glaser and Strauss (1967) and Miles and Huberma (1994:12) illustrate the concurrent activities ongoing throughout the analysis as; data collection, data reduction, data display and drawing and verifying conclusions. The constant comparative
method provides an excellent fit with the earlier account of continuous and simultaneous data collection and processing (Lincoln and Guba 1985:335)

The point to make is that grounded theory is not a theory at all. It is a method, an approach, a research strategy to generate propositions developed inductively from data (Punch 1998:163). "As a research strategy, grounded theory is specific and different...and is probably the most widely employed interpretive strategy in the social sciences today" (Denzin and Lincoln 1994:204). This approach, developed by Glaser and Strauss (1967) offers a method for the study of complex social behaviour. "Grounded" means that the theory will be generated on the basis of data and "theory" means the objective of collecting and analysing data is to generate theory (Punch 1998:163).

Constructing theories involves a number of definite stages in data analysis (Glaser and Strauss, 1967:105). These are: -

- comparing data applicable to each conceptual category
- integrating the categories and their properties
- delimiting the emergent theory
- writing up the theory

This procedure has many advantages. It is coordinated, systematic and flexible in contrast to the ad hoc and uncoordinated approach which sometimes characterises qualitative research (Punch 1998:162). Following the stages listed above means that the study is substantive and the analysis formalised (Glaser and Strauss, 1967:105). However, this is not a clinical process as Patton (1990:434) states "qualitative evaluation inquiry draws on both critical and creative thinking - both the science and the art of analysis" This is especially important in an area of new research and where a grounded concept for describing and explaining what goes on, is lacking (Punch 1998:163).

In summary, the comparative method's requirement to constantly intermesh data collection and analysis, has a direct bearing on how the research is conducted. The analysis is not
scattered, data is systematically ordered and, by inductive effort, a substantive theory is
developed which is grounded in specific data.

3.8 INTERPRETATION AND PRESENTATION

Case study

Rather than a method, case studies can be considered a strategy for organising social data
while at the same time preserving wholeness and unity (Punch 1998:153). As with all
inquiries, a case study has its limitations. According to Hamel et al (1991:39), case study
has proven to be in complete harmony with the three activities that characterise all
qualitative methods: namely describing, understanding and explaining.

3.9 VALIDITY - ESTABLISHING TRUSTWORTHINESS

Validity is the scientific concept of the notion of truth (Holloway 1997:159). The basic
issue in relation to trustworthiness is the ability of the researcher to persuade his or her
audience that the findings of the investigation are worth paying attention to (Lincoln and
Guba 1985:290). The criteria that have evolved in response to this are termed internal and
external validity (Punch 1998:30)

Internal validity is concerned with the research design and whether it is a true reflection of
reality, studied and described through detailed descriptions of the decision trail and in field
notes (Holloway 1997:159).

External validity relates to the generality of the research and how far the study's findings
can be transferred to other settings (Punch 1998:30). However, Lincoln and Guba
(1985:294) consider that external validity in qualitative research needs to be assessed
differently from quantitative research and should include the notion of trustworthiness. The
elements of trustworthiness may be credibility, transferability, dependability and
confirmability. Each of these qualities will be dealt with in turn.
Credibility corresponds to internal validity in quantitative research and exists when the participants in a study acknowledge the findings in their own social context. That is to say, the researcher’s findings are compatible with the perceptions of the people under study (Holloway 1997:160). Techniques to make it more likely that credible findings and interpretations will be produced are triangulation; which is the use of different methods, or possibly different researchers, as well as evidence from different data sources (Holloway 1997:160). Denzin (1978, cited in Flick 1998:229) identified four basic types of triangulation:

- **Data**
  - Study of material from different information sources
- **Investigator**
  - Participation by several different researchers
- **Theory**
  - Use of multiple perspectives to interpret a single set of data
- **Methodological**
  - Use of several methods to interpret a single problem

The logic of triangulation is based on the premise that "no single plan ever adequately solves the problem of rival causal factors . . . multiple methods of observations must be employed because each reveals different aspects of empirical reality. This is termed triangulation and I now offer as a final methodological rule the principle that multiple methods should be used in every investigation" (Denzin 1978:28)

The concept of triangulation by different methods can imply either different data collection modes, for example, interview, questionnaire, observation, or testing (Lincoln and Guba 1985:306) as well as verifying findings through feedback from participants and peer debriefing (Lincoln and Guba 1985:310).

Transferability is the alternative term for external validity and generality. It means that findings in one context may be transferred to similar situations or other participants (Holloway 1997:161). However, Lincoln and Guba (1985:316) suggest that the establishment of external validity by qualitative research is very different from quantitative inquiry. These authors go on to explain that although the quantitative researcher may expect to make relatively precise statements about external validity, the qualitative researcher cannot specify the external validity of an inquiry (ibid. 316). The researcher can provide only the thick description so that they describe accurately and in detail the data in
their contexts providing a clear picture of what goes on and inviting readers to reach conclusions about whether transfer can be contemplated as a possibility (ibid.316).

Dependability means that the study is consistent and reliable and can be demonstrated through an audit trail where the researcher provides details of the research path (Holloway 1997:161).

Finally, confirmability means that the findings are the result of research and not a biased conclusion and subject to researcher assumptions (ibid.161). The major technique for establishing confirmability is an audit. Even although qualitative researchers realise the futility of attempting to achieve complete objectivity, they must nevertheless be reflexive and show that the data can be traced back to its origin (ibid.161).

Strauss and Corbin (1998:267) do not propose that theory, developed from the study of a small area of investigation or from a specific population, has the relevance of a wider, more general theory. The real merit of a substantive theory lies in its ability to speak specifically for the population from which it was derived and to apply back to it (ibid.267). With regard to qualitative inquiries, validity hinges, to a large extent, on the skill, competence and rigour of those carrying out the fieldwork.

"The inquirer is himself the instrument. Changes resulting from fatigue, shifts in knowledge, as well as variations resulting from differences in training, skill and experience, may easily occur. This loss in rigor is more than offset by the flexibility, insight, and the ability to build tacit knowledge peculiar to the human instrument" (Guba and Lincoln 1981:113).

The major concern is to provide credible conclusions from the research (Sapsford and Jupp, 1996:1). For judging its applicability to the focus of a study well constructed grounded theory should meet the following four central criteria, fit, understanding, usability and generality (Glaser and Strauss 1967:233).
The first requisite, fit, is that the theory be closely related to the day-to-day realities and clearly applicable to dealing with the subject under investigation (Glaser and Strauss 1967:238). Understanding the theory is important to people involved and is critical to its use. It should sharpen their sensitivity to problems they face and should provide an image of how they can potentially make matters better (ibid.238). Usability, enables the person who applies the theory to understand and analyse on-going realities as the structure and daily situations change with the passage of time (ibid.238). Generality, makes the theory flexible enough to understand a wide variety of changing situations within the substantive area (ibid.238).

In summary, John Dewey suggests that people in situations for which grounded theory has been generated, can apply it in the natural course of daily events (cited in Glaser and Strauss 1967:249)

Lincoln and Guba (1985:289) state that “the inquirer soon becomes accustomed to hearing charges that naturalistic studies are undisciplined; that he or she is guilty of “sloppy” research, engages in “merely subjective” observations, responds indiscriminately to the “loudest bangs or brightest lights. Rigour, it is asserted, is not the hallmark of naturalism.” However, it must be recognised that there are flaws in every research method. Grounded theory is no exception. If data is not gathered and analysed in a systematic and rigorous manner, the results are bound to be biased and will not withstand criticism.

3.10 INTRODUCTION TO RESEARCH DESIGN

Given that relatively few empirical studies have investigated the process of alliance development, an exploratory mode was chosen for this study (refer to chapter 3.1, pages 87-90)

An inductive, interpretive methodology was considered the best technique to understand alliance development (refer to chapter 3.4, page 90); firstly by obtaining knowledge from observation and then by focusing on the personal experiences of managers directly involved in the process. Information was gained from in-depth-interviews with the most knowledgeable participants in the alliances as well as insight gained from the literature and
other sources (refer to chapter 3.6, pages 95-98). Propositions were derived from data, rather than from a priori assumptions, other research, or existing theoretical frameworks (refer to chapter 3.7, pages 98-102). The remainder of this chapter describes this in more detail.

3.11 RESEARCH DESIGN

Getting started

The aim is to describe the purposeful route of this study from start to finish. Table 3.5 below summarises the interpretive framework of the research.

<table>
<thead>
<tr>
<th>Premise</th>
<th>Interpretative Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the nature of the knowledge?</td>
<td>• Qualitative</td>
</tr>
<tr>
<td></td>
<td>• Naturalistic</td>
</tr>
<tr>
<td></td>
<td>• Local and Specific</td>
</tr>
<tr>
<td>What is the relationship between the inquirer and the knowledge?</td>
<td>• Interaction</td>
</tr>
<tr>
<td></td>
<td>• Subjectivity</td>
</tr>
<tr>
<td></td>
<td>• Inductive</td>
</tr>
<tr>
<td></td>
<td>• Holistic</td>
</tr>
<tr>
<td></td>
<td>• context specific</td>
</tr>
<tr>
<td>How has the knowledge been accumulated?</td>
<td>• Observation</td>
</tr>
<tr>
<td></td>
<td>• Participation</td>
</tr>
<tr>
<td></td>
<td>• Interviews</td>
</tr>
<tr>
<td></td>
<td>• Historical data</td>
</tr>
<tr>
<td>How is the theory developed?</td>
<td>• Inductive and</td>
</tr>
<tr>
<td></td>
<td>• Deductive</td>
</tr>
</tbody>
</table>

Table 3.5: Interpretative Framework. Source Author

3.12 RESEARCH CONTEXT

Work for this dissertation began in August 1996 during involvement in an EPSRC project, Grant Number GRK 21252, titled "Implementing Partnering in the Supply Chain". The duration of the project was three years from 1994 to 1997. The project had been running for about fifteen months prior to the author joining.
3.13 HOW THE RESEARCH PROBLEM WAS IDENTIFIED

In the first instance, literature review and the study of a new alliance in Ireland between International Distillers and Vinters (IDV) and Killeen Corrugated identified the importance of inter-organisational teams when adopting partnering. Starting with a basic assumption that these teams were a key element in business alliances, the initial research objective was to try and understand how team dynamics and the organisational context affected project outcomes in cooperative alliances.

Following on from this, an early review was compiled from alliance literature. It was from these literary sources as well as, in the first place, practical involvement in one alliance that it became apparent that they are complex, often neither properly managed nor supported and costly and time consuming.

More significantly, there was an abundance of literature regarding partner selection and reasons why firms embark on an alliance route as well as accounts of expected benefits and outcomes. That is, the “before and after” of the alliance was explained but what seemed to be missing was the actual process by which the alliance developed and performed over a period of time.

Growing familiarity with the research environment, conversations with participants as well as consideration of documents compiled during the earlier fifteen months highlighted changes in behaviour and pace of the alliance under investigation.

According to Dussauge et al (2000) alliances by their very nature change substantially, as the partners learn more about each other and as technical and market environments, within which the alliance operates, change over time.

Such developmental changes were apparent during the author’s involvement with IDV and Killeen and, in addition, this alliance seemed to indicate a progressive pattern as it matured. In the light of the latter, while still emphasising the significance of teamwork, the research
focus shifted away from team efficiency to stress the relationship process and alliance development. Thus the research problem was established through interaction and links between literature, consideration of the actual research setting and reflections on participants’ views of the alliance.

Research Objective and Associated Research Questions

In the light of the foregoing, the research objective was to examine further the notion of phased evolutionary development in alliances and, in so doing, to contribute to a growing understanding of the alliance development process. Questions to be investigated in this study included the following:

1. How do alliances evolve over time?
2. Are progressive stages evident as the alliance matures and in what way does one stage differentiate itself from another?
3. Given that the degree of interaction, learning and innovation may alter as the alliance relationship develops what characteristics are evident within each of the stages?
4. Are certain characteristic more important in one phase of the evolution than in another
5. What factors identify the transition from one stage to another?
6. What factors trigger stability and instability in alliances and what happens when the alliance ends?

3.14 ENTERING THE FIELD

Negotiating access

Access to field sites began when cross-functional teams were still being considered in the main topic of study. Even although the overall research objective changed, the basis for selecting the organisations remained valid, namely that they should be involved in customer/supplier alliancing. Criteria for selecting target organisations were that they should:

- have inter-organisational project teams tasked with driving the change process
- utilise teams related to the company’s logistics function
Selection was justified because literature identified inter-organisational / cross-functional teams as essential to the alliance process and logistics as a functional area where customers and suppliers could work effectively together to remove costs and improved processes, essential to supply chain efficiency (refer to chapter 1.1.5, page 7 and also chapter 1.2, page 30).

A letter of introduction to business organisations and a follow up telephone call initiated the first contact. Twenty one positive responses were received to sixty-eight letters of inquiry and this number was further reduced following telephone conversations with the companies. Although in many instances an initial interest was expressed, other organisational changes were taking place and in these cases the timing was deemed inappropriate.

Gaining access is central in the research process (refer to chapter 3.5, page 93,#4). If an inappropriate site is selected then that will influence the reliability and validity of the data the researcher subsequently gathers. With this important aspect in mind, a number of businesses were visited to assess if the research matched with the company’s activity. These are summarised in table 3.6, along with the reasons for rejecting the site.

<table>
<thead>
<tr>
<th>Company</th>
<th>Industry</th>
<th>Position in organisation of interviewee</th>
<th>Reasons for rejecting research site</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Automotive</td>
<td>Company director</td>
<td>Internal organisational changes could not sustain research.</td>
</tr>
<tr>
<td>B</td>
<td>Specialised music equipment</td>
<td>Company director, Purchasing manager</td>
<td>Not ready for alliance relationship. New purchasing director was trying to change the mindset in the department from transactional purchasing to cooperative relations with suppliers.</td>
</tr>
<tr>
<td>C</td>
<td>Electronics</td>
<td>Company director, Purchasing manager, Finance and sales manager</td>
<td>Lots of internal project teams, but little involvement with suppliers.</td>
</tr>
<tr>
<td>D</td>
<td>Clothing</td>
<td>Company director, Purchasing director</td>
<td>Internal project teams, lots of communication and discussion with suppliers, but no close alliance relationships.</td>
</tr>
</tbody>
</table>
Table 3:6: Companies Visited During Site Selection Process

Conversations revolved around customer / supplier relations within each organisation, how these were managed and the importance of customer / supplier relations and alliancing. All discussions were taped, transcribed and analysed by the author in accordance with the constant comparative methods recommended by Glaser and Strauss (1967) and Strauss and Corbin (1990,1996).

Following from these negotiations, two further companies and associated suppliers were selected as possible research sites, namely IBM in Greenock and UDV in Edinburgh. A number of presentations were made to IBM managers as well as interviews with its supply chain personnel in order to negotiate entry. This raised the issue of the significance of gatekeepers in the site selection process and although initial contacts expressed positive interest in the research, indecision and procrastination by the company eventually led to a realisation that the “moment” was lost.
With regards to UDV, a conversation with the European Supply Chain Manager indicated a personal interest in the proposed research and with his assistance, a meeting was arranged with another member of his team. Regrettably, this opportunity also evaporated when the project he had in mind was transferred to a division in England.

Due to this failure to gain access to any of the foregoing organisations it was necessary to re-evaluate the situation and consider alternative ways to achieve the aim. While still searching and considering appropriate research sites, the author attended a presentation in Glasgow on strategic alliance implementation with the idea that this might lead to other research site possibilities. Two logistics managers from Shell Expro UK Limited, Aberdeen were present at this meeting.

Shell Expro had been considering an alliance and this was to prove a most fortuitous meeting. After a short presentation to the alliance team, Shell Expro and two contract organisations permitted the author complete freedom of access to personnel within the three organisations associated with the alliance.

During the “Implementing Partnering” project a second supply chain had been studied and there was a great deal of available data, field notes and case studies from this source. As access to a third “live” alliance appeared unlikely; contact with companies who participated in the first project was re-established. This was to be the third site with analysis based primarily on secondary, historical data. In summary the three alliances studied covered a time period from 1991 to 2000, see table 3.7 below (see also chapter 3.5, pages 93-94).

<table>
<thead>
<tr>
<th>No</th>
<th>Companies involved</th>
<th>Location</th>
<th>Sector</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UDV, Operations &amp; Killeen Corrugated</td>
<td>Dublin</td>
<td>Drinks Packaging</td>
<td>1994 to 2000</td>
</tr>
<tr>
<td>3</td>
<td>Shell Expro, Supply Logistics</td>
<td>Aberdeen</td>
<td>Oil and Gas related Logistics contractor</td>
<td>1996 to 2000</td>
</tr>
<tr>
<td></td>
<td>Seaforth Maritime Limited</td>
<td></td>
<td>Haulage contractor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ARR-Craib</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.7: Research Sites
Sites one and two were customers and product suppliers, cooperating in the manufacturing and electronics sectors respectively. Site three was similar, although this time it was a three party arrangement between two service providers and a customer in the oil and gas extraction industry.

The purpose and motivation behind all three alliances was to reduce costs and jointly create innovative solutions to supply related problems. Savings from cost reduction were to be shared annually on an agreed financial gainshare basis. All alliances were based on cooperative agreements between the trading partners. Although in different industrial sectors, i.e. drinks and packaging, electronics and oil and gas, cooperation between the partners in each alliance was based on the commitment of resources and joint activity to remove costs and improve the logistics process between the organisations. That is, although clearly unique each alliance was based on similar concepts.

3.15 RESEARCH METHODS APPLIED

Observation

Observation stages evolved as the study progressed. The initial observation involved getting to know the background and the people participating in the alliance. Field notes were mostly descriptive. In terms of Gold’s (1958) typology, the observer-as-participant (refer to chapter 3.6, page 95). There then followed a shift to a more focused kind of observation, once familiarity with the setting and key social groups had been established, that is participant-as-observer (refer chapter 3.6, page 95).

The principal objective was to assess what was happening among the groups involved and to describe their behaviour in the context of the alliance. In the first alliance, both companies were located in Ireland and it was only possible for the author to be there once or twice a month. The aim was to observe the alliance teams in operation as frequently as possible and visits usually coincided with either a project or Steering Committee meeting. Additional visits were arranged for the purpose of interviewing.
As a participant-as-observer, it was possible to learn and to understand what was happening during each encounter and move to a more insider role, the complete participant (refer to chapter 3.6, page 95). As well as observation at meetings, seventeen one to one, semi-structured interviews, each lasting sixty to ninety minutes, (to elicit the insider's point of view), were completed. These were supplemented from other sources, namely contractual documentation, workshop reports, diaries, in fact anything that could be useful to the study. This information was made freely available and access was never restricted at any time.

Different levels of observation enabled the researcher to become acquainted with the research environment and gradually establish closer relations with the participants. In this way trust was built between the researcher and participants which resulted in openness and access to sensitive information.

Initial data collection in Ireland was analysed in a variety of ways throughout the duration of the study. Interviews were reviewed using the constant comparative method, (using the look alike/feel criteria described in chapter 3.17, pages 117-119), in this way it was possible to capture new and emerging themes and to cluster similar themes and indicators together. Also, interrogating the data in this fashion ensured that all material was considered and placed in appropriate categories. Field notes were written after each visit and a research diary was kept up to date and analysed in a same manner as the interviews. This in turn influenced subsequent data collection, as themes emerged and some characteristics became more important than others.

As the data from the first alliance accumulated, the research was developing in Aberdeen. Close involvement with the ally firms since the beginning of this second alliance led to a long term and intimate understanding of the challenges facing the participants. Visits and contacts by telephone and e-mail were frequent. At no time was entry denied and indeed, interaction with the participants was such that problems were shared as soon as they occurred.
Because of such an active engagement it has been possible to describe the continuous process of the alliance, supported by data collected and analysed on an on going basis, using the same methods as in the first study.

It was essential to capture as much as possible about what was happening during this time and detailed field notes were very important (refer to chapter 3.9, page 102). A standard form based on Miles and Huberman's work (1994:73) helped to systematise reporting and allowed basic analysis to begin. The form was divided into the following five sections (see appendix I):

1) main themes and impressions to capture an impression of events
2) explanation
3) conflicting reports or disagreements
4) next steps in data collection
5) revisions, updating, coding

Using the above form for field notes forced standardisation of field note writing and made the researcher more disciplined in terms of interpretation of events. In effect, the notes were written up twice, once in the research diary and then into the computer file. There were a number of advantages to using this method, firstly, it helped the researcher interrogate the data more thoroughly by encouraging the writer to think more about the implications of the data, rather than simply reporting it superficially. It also assisted in future data gathering as well as providing an audit trail to track where ideas came from and the reasons why particular actions were taken. Data gathering included one-to-one interviews, reports of meetings and discussions, as well as details of ongoing events.

Case Studies

The case studies are in-depth descriptions of each business alliance (refer to chapter 3.8, page 102). They are an integral part of this inductive study and one of the main research products. The cases tell of the subject's experiences and paint a chronological picture of
events and how it altered with the passage of time. The cases are intended to provide a complete and detailed story in an organised manner. Each case can be compared and contrasted to highlight patterns and relationships, as well as similarities and differences. The cases are based on findings drawn from data, with the intention of forming a meaningful, credible piece of work.

3.16 DATA COLLECTION AND METHODS OF ANALYSIS

<table>
<thead>
<tr>
<th>PHASE I</th>
<th>Literature Review</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE II</td>
<td>Exploratory</td>
<td>Development of preliminary conceptual framework</td>
</tr>
<tr>
<td>PHASE III</td>
<td>Re-define conceptual framework</td>
<td>Case I</td>
</tr>
<tr>
<td>PHASE IV</td>
<td>Re-define conceptual framework</td>
<td>Case II</td>
</tr>
<tr>
<td>PHASE V</td>
<td>Re-define conceptual framework</td>
<td>Case III</td>
</tr>
</tbody>
</table>

Figure 3.1: Phases of Data Collection and Analysis

Figure 3.1 illustrate the research design of this study. The study was divided into five phases. In the first instance literature review and observation were combined and an early conceptual framework outlined (refer to chapter 4.0, page 121). The second phase was exploratory in nature and findings from the first research site served to inform and redevelop the earlier framework (see chapter 4.5, page 169). Phase three, progressive
theoretical development, took place using data from a second research site and the conceptual framework continued to develop in light of this data (see chapter 5.6, page 222). The fourth, testing phase, was possible using secondary data from a third alliance. This phase served not only to test the existing work but also new information was garnered to further inform and re-define the framework (see chapter 6.6, page 268). Phase five, presented the conclusions of the study.

**Questionnaire Design**

Developing themes and designing the questionnaire involved the following activities:

- Identifying, documenting and listing associated themes using a "**key theme tracking form**" (see appendix II and IIA)
- Designing questions and tabling data source
- Preparing questionnaires

In the first instance, the same basic information was asked of all participants in order to ensure systematic and comprehensive interviewing. However, the interview was intentionally semi-structured to flag up new topics and provide freedom to probe and explore. The structure and content was found to capture the main themes (appendix III). Observation of team meetings and field notes were added to the data.

A second alliance questionnaire was developed from the research data, to enable respondents to retrospectively review events over the time span of the alliance. This was completed by parties in all three alliances. The questionnaire did not claim to be exhaustive and new themes were able to be added if contextual factors affected one alliance differently from another (appendix IV).

In total, over sixty interviews were conducted and 100 hundred hours of dialogue transcribed and analysed (see appendix V). Interviewing stopped when themes were becoming recurrent and no new ideas were being drawn from the information received. An interesting aspect of the interviews was the amount of disclosure after the tape recorder had
been turned off. It was essential to be very alert at this time and continue to take notes, because invariably the additional off-the-record information proved to be of great interest. The Constant Comparative Method was employed to analyse the interviews.

3.17 CONSTANT COMPARATIVE METHOD OF DATA ANALYSIS

This study has used the comparative method of analysis, whereby the theory is “grounded” in data (refer to chapter 3.7, page 98). Data was gathered from a wide variety of sources that included interviews, observation, field notes, case studies, personal experience, history, as well as academic papers on related subjects (refer to chapter 3.9, page 102). The Constant Comparative Method was used in the analysis of the interviews, and was used to identify themes from the raw-data. Similar characteristics were grouped into clusters. Clustering involved comparing and contrasting themes to bring together those which were similar and to separate ideas of different significance. The same compare and contrast procedure was used to group the characteristics into new, higher order categories.
Analytical procedure

As theoretical concepts emerged from data analysis, findings gave rise to new data collection, although modifications occurred less often as characteristics began to fall into place. Analysis was complete when the critical characteristics were defined, and relationships between them established and no new themes were emerging from the data. Each phase entailed data reduction into manageable chunks and interpretation involved the following stages: -

- All field notes were typed, interviews transcribed and photocopied. (The completed questionnaire was duplicated. One copy for filing and the other for cutting into units of meaning.)
- Every interview was numbered, with the date, interview duration, the interviewee's name and position recorded.
  Information in the margin of each paragraph included the respondent's name, date, page and paragraph number. In this way, all quotations can be traced back to the original data source. These were coded in the text as follows:- Commercial Manager, Killeen, 1998, page 2, paragraph 2; CM,K,98,2,2
- In the first instance, many characteristics were identified and this meant there needed to be as many categories for analysis as possible.
- Unitising the data involved carefully reading the copy. Every piece of transcription was treated in the following way. When a unit of meaning was identified a line was drawn across the page. The left-hand margin contained the information stated in the previous paragraph. Each unit of meaning was described by a word or phrase in the right hand margin.
- Each unit of meaning was cut from this page and stuck on 5" x 8" index cards. As text fitted the categories, it was placed under the broad headings guided by descriptions in the margins.
- If a card seemed to fit another category it was copied and also placed in that category.
- Although very time consuming, this procedure continued until all data cards had been categorised.
• Cards were grouped together, using the *look/feel alike* criteria.
• The next task was to distill the categories in order to reduce the number of characteristics, and to create an economical framework. This was done using a matrix divided into the conceptual framework stages, categories and segments. As a result of the data analysis, the framework was continually being redefined (see table 6.9, page 265). In this way the basis was formalised for the propositions and characteristics within each stage of the conceptual framework.

Comparative analysis meant the researcher was able to systematically check data obtained during the course of a study. It may be viewed as an ever changing process with theoretical implications that fit, and are easily understood, in the study context.

### 3.18 LIMITATIONS OF THE METHODOLOGY

Data collection stopped after the 68th interview (total number of interviews from the three cases) because managerial responses increasingly reinforced themes and patterns identified, without adding significantly to the breadth of findings. That is, signs of data saturation were clearly evident.

Notwithstanding the foregoing, this study may have been affected by several factors that held the potential for bias. Firstly, the small sample of cases made it unfeasible to draw general conclusions (refer to 3.5 which illustrates a number of studies that have generated theory using two or fewer cases). With regard to internal validity, the intention was to understand the realities influencing the participants and to record a true reflection of their activity in each alliance. However, although the data drawn from the three alliances in this study, indicated a pattern in alliance development it is insufficient evidence to claim absolute external validity. Only future empirical validation of the propositions and framework in a larger sample of firms can attest the external validity of the thesis. However, the study provides an excellent starting point for further investigation to evaluate whether a broad pattern exists across alliance types and industries.
Few views were from persons not directly participating in the process. Seeking opinions from those outwith the alliance area may have provided a fuller understanding of the cultural and institutional barriers, as well as the political dynamics and how the latter may have influenced the alliance. Related to this is reliance on managerial descriptions and recollections. This was counterbalanced by triangulation using a variety of data collection methods (refer to chapter 3.9, page 102).

The greatest shortcoming, was that data analysis was the work of a single researcher. In defense, all research has its limitations, whether in terms of the bias the researcher brings to the study, the analysis and interpretation of the results, or the quality of the data gathered in the first place. It has to be acknowledged that there are always better and different ways to do things.

3.19 INTERPRETATION, PRESENTATION AND CONCLUSIONS

Empirical findings are in three parts; (1) exploratory, (2) progressive theoretical development, and (3) testing. The first described the exploratory phase and development of the early conceptual framework and the second part developed and refined the framework based on the evidence presented in each research site (see chapters 4.0, page 121; 5.0.1, pages 172; 5.6, page 222). The third phase, using secondary data allowed the framework to be tested. (see chapter 6.6 –6.8, pages 268-277)

The discussion chapter seven, compares and contrasts the three cases, drawing out the main themes from the research to present a structure of alliance development. Chapter eight continues the discussion with particular relevance to the literature described in chapters one and two. Finally, conclusions are presented as a contribution to knowledge in terms of management theory, practice and policy implications. With respect to experiential limitations, these issues have been addressed in an agenda for future research, in the final chapter.

Chapter four explains in detail the development of the preliminary conceptual framework.
Chapter Four

Findings - Part I
4.0 FINDINGS - PART I

4.0.1 DEVELOPMENT OF THE CONCEPTUAL FRAMEWORK

This chapter will endeavour to explain the early phase of conceptual development. Also, the research objective of the thesis will be examined i.e. the notion of phased evolutionary change in alliances.

The intention is to:-

- clarify how the initial conceptual framework was derived
- define the developmental stages
- give an account of the development of the IDV/Killeen alliance
- reassess the conceptual framework in the light of these findings

As described in chapter three, work for this dissertation began in August 1996 during involvement in an EPSRC project, Grant Number GRK 21252, titled "Implementing Partnering in the Supply Chain". The duration of the project was the three years from 1994 to 1997. The project had been running for fifteen months prior to the author's engagement and secondary data had already been compiled by a previous researcher.

Literature review, concerning supply chain cooperation and the study of a recent alliance in Ireland, between International Distillers and Vintners (IDV), producers of Baileys Irish Cream and its packaging company named Killeen Corrugated, identified the importance of inter-organisational teams when embarking on a partnering route. Starting with the basic assumption that teamwork was a key element in business alliances, an early aim of the research was to try and understand how team dynamics, in an inter-organisational context, affected project outcomes in cooperative coalitions.

Secondary data appeared to indicate a pattern to the IDV/Killeen alliance development. The research attention then shifted away from team efficiency to considering the notion of evolving stages in alliances.
To reiterate the methodological approach was exploratory and initial data collection in Ireland was analysed in a variety of ways throughout the duration of the study. Interviews were reviewed using the constant comparative method, (using the look feel/alike criteria described in chapter 3.17, page 117), in this way it was possible to capture new and emerging themes and to cluster similar themes and indicators together. Also, interrogating the data in this fashion ensured that all material was considered and placed in appropriate categories. Field notes were written after each visit and a research diary was kept up to date and analysed in a same manner as the interviews. This in turn influenced subsequent data collection, as themes emerged and some characteristics became more important than others.

Figure 4.1 Illustrates how the early exploratory phase of this research created a rudimentary framework which was initially informed by the IDV/Killeen alliance.

Reflection on the IDV/ Killeen alliance and the events as they unfolded, suggested incremental steps or stages. In the first instance the author termed these, Stages I, II and III.
Stage I, was generally concerned with understanding basic principles and raising awareness of the level of commitment that would be required. Stage II, was noteworthy for the intensity of inter-organisational activity. Achievement of team objectives followed by a degree of stagnation, slowed the process down and demonstrated a plateau period or Stage III.

Examination of secondary data gathered from the start of this alliance, suggested that IDV and Killeen had already passed the first of the two stages outlined above. By the time the writer became involved in 1996, IDV and Killeen seemed to be in, what has been termed, Stage III.

Discussions with key participants within IDV indicated that they had also noted a sequence of similar stages, not only in the IDV/ Killeen relationship but also in two separate alliances with glass and label suppliers. In summary, the IDV and Killeen alliance project provided manifestations of a definite pattern of development in the alliance relationship. The foregoing encapsulated history includes the first rudimentary conceptualisation of a framework and offers a field of research to be further investigated.

Table 4.1 below, illustrates characteristics attributed to each stage, garnered from literature (see appendix IIA showing each characteristic and associated literature) and resulting from analysis of IDV/ Killeen data. Characteristics have been grouped in the stage where they appeared most frequently.

<table>
<thead>
<tr>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alliance agreement</td>
<td>Reduced uncertainty</td>
<td>Understanding of process</td>
</tr>
<tr>
<td>Contract refined</td>
<td>Compelling purpose</td>
<td>Reflection and soul searching</td>
</tr>
<tr>
<td>Closer working relations</td>
<td>Personal satisfaction</td>
<td>Adapting cultures</td>
</tr>
<tr>
<td>Commitment</td>
<td>Motivation</td>
<td>Training needs assessment</td>
</tr>
<tr>
<td>Communicate vision</td>
<td>High energy</td>
<td>Performance sustainable</td>
</tr>
<tr>
<td>Shared vision</td>
<td>Interdependence</td>
<td>Cost drivers difficult to</td>
</tr>
<tr>
<td>Stage I</td>
<td>Stage II</td>
<td>Stage III</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>• Expectations</td>
<td>• Participative decision making</td>
<td>• quantify</td>
</tr>
<tr>
<td>• Ground rules</td>
<td>• Conflict management</td>
<td>• Customer focused</td>
</tr>
<tr>
<td>• Developing skills in teamwork</td>
<td>• Project management</td>
<td>• Increased technical and commercial know-how</td>
</tr>
<tr>
<td>• Identify strategic direction</td>
<td>• Feedback mechanisms</td>
<td>• Learning from each other and from experience</td>
</tr>
<tr>
<td>• Investment in relationship</td>
<td>• Benefits clearer</td>
<td>• Potential rewards better understood</td>
</tr>
<tr>
<td>• Leadership</td>
<td>• Growth of commitment</td>
<td>• Operations routine</td>
</tr>
<tr>
<td>• Learning</td>
<td>• Increase social relations</td>
<td>• Strategic integration contemplated</td>
</tr>
<tr>
<td>• Mechanisms for coordination and control</td>
<td>• Individual responsibility increases</td>
<td>• Individuals become more flexible</td>
</tr>
<tr>
<td>• Rules and procedures</td>
<td>• Openness</td>
<td>• Dense communication network</td>
</tr>
<tr>
<td>• Feedback mechanisms</td>
<td>• Environmental analysis</td>
<td>• Shared norms and values among relationship participants</td>
</tr>
<tr>
<td>• Regular team meetings</td>
<td>• Reduced misinterpretations</td>
<td>• Teamwork, promoting philosophy of cooperation</td>
</tr>
<tr>
<td>• Negotiation</td>
<td>• Longer-term planning</td>
<td></td>
</tr>
<tr>
<td>• Objective setting</td>
<td>• Team and communication skills developing</td>
<td></td>
</tr>
<tr>
<td>• Explicit mutual goals</td>
<td>• Internal and external networks forming</td>
<td></td>
</tr>
<tr>
<td>• Performance metrics</td>
<td>• Transfer of knowledge between participants</td>
<td></td>
</tr>
<tr>
<td>• Resource allocation and planning</td>
<td>• Joint value better understood</td>
<td></td>
</tr>
<tr>
<td>• Assign task responsibilities</td>
<td>• Discussion promotes corrective action</td>
<td></td>
</tr>
<tr>
<td>• Social interaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Transfer of ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Technological contribution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Trust building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Anticipation of reciprocity</td>
<td></td>
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</tr>
</tbody>
</table>

Table 4.1: Characteristics Identified in Each Stage

The foregoing paints a picture of the exploratory phases of this research and explains how the conceptual framework was founded. The following case study, describes the nature of alliance process in detail while attempting to evolve and build the framework.
4.1 STAGE I: Duration August - December 1994

The following describes the chronological development of the IDV / Killeen alliance broken down into interactions and processes. Table 4.2 below indicates characteristics, drawn from literature and the secondary data shown in table 4.1. Dominant characteristics, (main themes emerging from data analysis using the look/feel alike criteria described in chapter 3.17, page 117), provide a structure to illustrate in detail how the IDV/ Killeen association initially developed (see appendix VI for the background to the organisations).

| STAGE I |
|-------------------|-------------------|
| Characteristics from table 4.1 | Dominant characteristic |
| Team working | Building Trust |
| Closer working relations | |
| Anticipation of reciprocity | |
| Participation on Steering group | Commitment and Leadership |
| Team members | |
| Ready allocation of time and resources | |
| Regular team reviews- feedback | |
| Investment in relationship – time and resources | |
| Regular information sharing | Communication |
| Cross-functional activities break down barriers | |
| Communicate vision | |
| Social interaction | |
| Explicit mutual goals | |
| Regular team meetings | Coordination and Control Mechanisms |
| Feedback and evaluation of projects | |
| Joint planning and control | |
| Problem definition | Learning |
| Understand alliance concept | |
| Transfer of ideas | |
| Tracking quality standard, late deliveries, sub standard performance | Performance Metrics |
| Metrics identified | |
### Table 4.2: Distilled Characteristics in IDV/ Killeen Stage I

<table>
<thead>
<tr>
<th>STAGE I</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Team composition</td>
</tr>
<tr>
<td>• Assign task responsibilities</td>
</tr>
<tr>
<td>• Resource Planning</td>
</tr>
<tr>
<td>• Mutual goals</td>
</tr>
<tr>
<td>• Steering group formed</td>
</tr>
<tr>
<td>• Identifying strategic direction</td>
</tr>
<tr>
<td>• Setting Objectives</td>
</tr>
</tbody>
</table>

#### 4.1.1 Building Trust

It had taken some time to build trust. "In the early days, we didn't know each other well enough to speak frankly, but all that disappeared after the second or third meeting, when no one stood on ceremony." (B, IDV, 97,3: 2)

Developing an understanding of a partner's business and why things happen in particular ways, was the start of the long road to building trust between the two organisations. The mandated teams encouraged this by building closer working relations.

"A degree of trust has been built up although possibility there's still a slight feeling of reserve." (OPM, K, 97,1: 1)

"I think what helped was the good working relationship that Tom and I had. We had a generous respect for each other which grew during the course of the process. Clearly this cascaded down to the teams. They saw that we were prepared to talk about confidential and other matters that we wouldn't have mentioned before. The teams took this to heart and realised they should be equally open." (PD, IDV, 97,12: 3)
4.1.2 Commitment and Leadership

“*When someone like Esmond devotes so much of his time to the alliance, obviously that shows genuine commitment at the highest level.*” (KD,K,97,8:2)

“*People in Killeen are very positive about IDV. It seems to be the one company that people turn cartwheels for.*” (CM,K,96,3:1)

As with any major strategy, the most important factor for success was continuous commitment on the part of senior management. These were the people able to make or break the relationship. They were the process champions and could authorise the time and resources required to make it work. Their support was crucial at all times.

It was recognised early on, that a joint strategy was needed to make sure changes happened.

“*Although numerous operational activities were going on at the same time, there still seemed to be a loss of focus and we needed a long-term strategic plan to draw together the activities of the three teams. . . It was suggested that our monthly review meeting should discuss developing this kind of strategy.*” (CM,K,96,5:4)

IDV’s Procurement Director and the Managing Director of Killeen, together chaired a Steering Committee specifically set up for the purpose. The Committee was to regularly review progress and provide direction to the teams. Also it was there to allocate resources, encourage involvement, motivate team members, stretch their capabilities and to innovate.

“*Tom and Esmond embody commitment and consistently motivated and stimulated the teams.*” (QM,IDV,97,9:2)

Top management commitment to the partnering was always evident, not only by the Steering Committee, but also due to committee member’s participation as members in some of the teams. Resources from the two companies were adequate and available in plenty of time, giving the teams freedom to function.
"There are a lot of people in the organisation who want to make things better and are being constrained. The challenge is to break down barriers and we need to engage the attention of the people on the factory floor". . . . "this negativity in the plant, no matter what we do, puts a brake on further improvement and we recognise that." (PD,IDV,98,3:4)

In Killeen, participation was mainly by management, however, all staff attended a regular monthly meeting chaired by the Killeen MD. While IDV had always been an acknowledged and important customer, the meeting helped to raise awareness of what was going on.

Increased communication between personnel in both organisations, together with managers taking the role of ambassadors, helped to foster a common vision in both companies.

4.1.3 Communication

"IDV has become approachable. Now it's a customer with a face that stands out from the crowd of faceless customers." (CM,K,97,3:2)

Cross-organisational activity slowly began to break down barriers that had divided the companies in the past.

"It took some time, before people got to know each other properly." (CM,K,97,3:1)

On the most part, individuals were beginning to communicate freely and regularly share information. This was not so in everyone's case and a positive note was sometimes absent.

"There seems to be a lot of one way information with little feedback" (CM,K,96,3:1)

Improved communications flow and access by the supplier to detailed market forecasting, stimulated joint planning and generated more accurate production schedules. A daily forecasting meeting was started and this went a long way to ensuring accuracy of Killeen's planning.
4.1.4 Coordination and Control Mechanisms

The steering committee was the ground for reporting and monitoring team progress. It was also the forum for discussion and provided an opportunity to analyse team activities and identify areas of duplication. During the initial stage teams met regularly every month, with the venue alternating between the organisations. However little, if any, documentation was shared and few minutes taken.

"We tried to introduce a standard project form and to get the others to buy into this as well, but they didn't. At the time, the idea was that the various project groups should come together and update each other with information. It wasn't very planned and I felt there should have been a central point of reference for the sixteen projects that were going on, the people involved, the timescales and so on. We never got that going."

(MM, IDV, 97, 6: 6)

The Steering Committee was the forum where the teams reported to IDV and Killeen senior management, although it has to be said that some team members felt quite anxious about making a presentation.

"It was difficult going into a meeting of about twenty people around the table, and to be asked to explain how your team was performing."

(FD, K, 97, 6: 2)

Control of team activities and project management was left entirely to the individuals concerned.

"There was a lack of proper disciplined record keeping and note taking. It's difficult to have clarity of purpose when you're feeling your way for the first time."

(PC, IDV, 97, 4: 4)

There was an immediate change affecting planning after the project launch in April 1994. Goods had to be dispatched by 1800 hours at the latest the night before the required day and Killeen began to log their late deliveries.
“Targets weren’t always met and if we were going to be late I would immediately inform Sydney who would in turn tell IDV and ask which of the box codes could be delayed. Before, if we were going to be late, we would keep our heads down and hope for the best.” (CM,K,96,4:2)

“Co-ordination between planning in IDV and Killeen’s production seems to be running smoothly, due to better planning at IDV’s end as well as greater access to the IDV production schedule and call off times.” (CM,K,95,1:2)

At this juncture stock inventory reduction was being carried out and the procedure for managing material levels had become more transparent. Inventory reduced, obsolete stock was dealt with and minimum stock levels agreed. Money was no longer tied up in costly materials.

“We’ve actually managed to get a complete picture of the stock, references and purchase orders, so that now the whole thing has become much more comprehensive, which is indeed progress.” (MM,IDV,95,6:2)

4.1.5 Learning

This was the beginning of an increase in quality and service, as scheduling became less chaotic, and Killeen found itself able to concentrate on neglected areas of customer service. The pay off was improved efficiency and increased capacity.

“I don’t believe the majority of people who talk about working in an alliance fully understand what it’s about. I didn’t fully understand the mechanics, the pitfalls, the opportunities and the whole dynamism of what can happen when two companies get together.” (B,IDV,97,1:6)

The mandated teams encouraged learning through closer working. In most cases team activities during this building stage had not yet affected daily operations and there was
considerable pressure to reduce the man-hours dedicated to the alliance. The teams were trying to get to grips with the bigger alliance picture and IDV needed to understand the Killeen costs and why paper was such a volatile market. At the same time Killeen did not appreciate the role that the box played in IDV/ Baileys marketing and its significance in terms of brand image.

_The background was that no one knew the details of Killeen's costs and how costs in the paper industry in general were justified. We were suspicious because they had been benchmarked as 20% uncompetitive, and this had a bearing on the IDV team input. Killeen's input to the team was blurred because they did not really know what we wanted, as they were understandably ignorant of in-store merchandising._" (B, IDV, 971:2)

4.1.6 Performance Metrics

In the first instance it was necessary to establish exactly where the problems lay, what contributed to Killeen being uncompetitive and the reasons behind IDV's frequent call off changes.

An alliance service agreement listed all the expectations such as detailed stock availability, delivery interruptions, expected quality and so on. A supplier log was used to track quality standards, for example, incorrect specifications and performance shortfalls. Meanwhile Killeen was beginning to record the number and details of changes and the impact these had on production.

4.1.7 Resource Planning

Three joint working groups were established to look at logistics, print quality and cost reduction. The Logistic team was tasked with promoting the understanding of the joint process, stabilising planning cycles, creating and sharing forecasts and long-term plans, and improving communication.
The Quality team was there to analyse quality failures, introduce corrective measures, set up a quality regime, promote best practice and set up tests and R&D facilities. The Cost team set about benchmarking the competition, reviewing industry standards and identifying areas of bad practice. It recommended corrective action and developed a plan to ensure continuous improvement.

It quickly became apparent that team projects could take up too much of people's time. Fitting these activities in with day to day work had to be managed skillfully. To some extent, in the early days, high levels of energy and motivation helped overcome this challenge.

Keeping in sight strategic objectives set out in the partnering agreement, teams needed to develop their own tactical plan, milestones, group performance measures and monitoring and evaluating procedures.

The Logistics team produced results within three weeks of its being established.

"At the time we thought it surprising that Logistics achieved so much so quickly. We expected the Cost team to make quicker progress, however they did not and were actually very sluggish. So was the Quality Improvement team." (PD,IDV,97,A:1)

The reasons for this seemed to be that the joint IDV/Killeen Logistics group started simply to communicate and began to share IDV's scheduling information. This meant that for the first time, Killeen was able to have a long term planning horizon.

Other teams took longer to produce results and did not seem to grasp the problem at first. The Cost and Quality teams notably became involved in a lot of testing and evaluating work. It was at this time that the importance of communicating with people outside the teams became evident, as well as the benefit of using experience of suppliers further up the supply chain.
"After about three or four months into the process, the other teams started to catch up."
(PD,IDV,97,4:4)

However, all was not plain sailing and Killeen was dismayed that IDV continued to demand changes to call-off schedules. Despite such early problems, logistical planning between the companies showed a substantial improvement.

"Doubts were expressed as to whether IDV would stick to the call-off deal because it wasn’t meeting our joint obligation. Although we get a two-week call-off in advance, we’re not always getting the jobs dispatched by 6.00pm or earlier as agreed. At the same time IDV’s changes are within the limits of the period that it’s committed to. So all in all, the situation has substantially improved." (QM,K,95,2:2)

Success depended in large measure on how well an IDV/Killeen team understood its own objectives and also on management’s commitment to allocate resources to enable the team to operate. At strategic and operational levels teams were empowered with the authority relevant to the task in hand and the Steering Committee made the final business decisions.

"We didn’t impose too much discipline on the teams because they consisted of relatively senior people, able to make decisions." (P,IDV,97,3:4)

"I would say though, in nine out of ten instances the teams were fully autonomous and that Tom and Esmond only rubber stamped their decisions. The exception would be something major, like pricing." (B,IDV,97,11:1)

4.1.8 Setting Objectives

Apart from cost reduction, the ally companies raised a number of subordinate objectives to be achieved by the implementation of the alliance. These included greater flexibility in response to customer requirements, and long-term security of supply. These objectives were to be realised by influencing the supplier to develop in ways that aligned with the
customer's strategic direction. Crucial to this fundamental change was the supplier fully understanding the customer's business needs.

"Fundamentally the partnering process is not about relations, it's about business issues. We need to clearly understand the business, what our relationship is, what the margins should be and what the cost drivers are." (PD,IDV,98,1:6)

In 1994 joint targets were identified as follows:

- **Cost** To reduce cost of the corrugated box
- **Board** To reduce field failures
- **Print** To improve graphic impact
- **Logistics** To generally promote order and reduce end of year chaos

(Source IDV/Killeen partnering agreement document)

Teams, composed of people from IDV as well as Killeen, were set up to tackle these topics. The Steering Committee addressed the broad concerns and only laid out in general terms what the teams were supposed to do. In the beginning it took time for the teams to figure out exactly what they were going to do.

The teams were asked to meet again in a month, by which time they were expected to have set their own agendas and to have identified the way they were going to progress. Although most of the teams experienced some initial confusion, the roadblock was usually negotiated and in the final analysis eventually accomplished their objectives.

“At the very beginning of the project we gave each team a written document spelling out what we wanted and identifying the specific objective, which was the 20% cost reduction. We then gave out a page each, not only detailing their and the steering committee's responsibility, but also asking them to come back in a month to explain specific steps for achieving the objectives and the resources needed.” (PD,IDV,97,2:3)
At the start, time was spent simply trying to establish what they should have been doing. Confusion evaporated once the teams had a plan. However, minimal cross-team interaction meant that there were “islands” of activity and most teams did not know if their particular project had any implications as regards the work of others.

Regardless of such problems, and although it took longer than expected for benefits to be realised, there were a few notable exceptions. As relations evolved, key participants soon began to appreciate what was required.

4.1.9 Summary: Transition to Stage II

This alliance became characterised by its informality and apart from the alliance agreement itself, flexible structures set the tone of the entire relationship.

In Stage I, fundamentals set out at the beginning had to be reviewed frequently, to check that the alliance was on track and where adjustments had to be made. This stage laid the basic foundations, although the building blocks had to be continuously re-evaluated to align the direction to meet external and internal contingencies.

Early pay backs held the promise of even greater prizes. Because milestones were unambiguous, the inter-organisational teams could regularly assess progress against these targets. This stimulated new ideas and constant adaptation as the process developed. Performance was directly measured against the impact on the box cost.

Teamwork provided the structure for the members to work in a mutually supportive manner, and to develop effective problem solving skills. Nevertheless, at times the teams had difficulty prioritising activity and this was restrictive. However, people learned how to delegate tasks to those with the most appropriate skill or experience. Transition from Stage I to Stage II was characterised by the project teams working to full capacity. There was an openness as regards personal relations and everyone was spurred on by the Logistics team’s success.
Table 4.3 summarises behaviours which signalled the transition to Stage II. (refer to chapter 7.7)

<table>
<thead>
<tr>
<th>Stage I</th>
<th>Transition Stimulus</th>
<th>Stage II, Transition Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Building trust</td>
<td></td>
<td>• Teams working well</td>
</tr>
<tr>
<td>• Commitment and leadership</td>
<td></td>
<td>• Openness</td>
</tr>
<tr>
<td>• Communication</td>
<td></td>
<td>• Inspired by early success</td>
</tr>
<tr>
<td>• Coordination and control mechanisms</td>
<td></td>
<td>• Enthusiasm from senior management</td>
</tr>
<tr>
<td>• Learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Performance metrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Resource planning</td>
<td>Managerial Action</td>
<td></td>
</tr>
<tr>
<td>• Setting Objectives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.3: Transition from Stage I to Stage II

4.2 STAGE II: Duration January 1995 – March 1996

This stage was mainly concerned with the team processes and benefits resulting from freer communication and interaction between the organisations. This improved the information flow and led to a better appreciation by both companies of each other’s business. Generally the teams comprised between four and six senior managers some of whom were involved in more than one team.

Table 4.4 below, shows, how characteristics drawn from literature and secondary data as indicated in table 4.1 have been distilled, providing the structure to describe the events in Stage II.
### STAGE II

<table>
<thead>
<tr>
<th>Characteristics from table 4.1</th>
<th>Dominant characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Motivation high, but sometimes fluctuates</td>
<td>• Compelling purpose</td>
</tr>
<tr>
<td>• High energy</td>
<td></td>
</tr>
<tr>
<td>• Common mission</td>
<td></td>
</tr>
<tr>
<td>• Growth of commitment</td>
<td></td>
</tr>
<tr>
<td>• Historical interdependence</td>
<td>• Interdependence</td>
</tr>
<tr>
<td>• Joint problem solving</td>
<td></td>
</tr>
<tr>
<td>• Sharing market information</td>
<td></td>
</tr>
<tr>
<td>• Information exchange</td>
<td></td>
</tr>
<tr>
<td>• Joint planning</td>
<td></td>
</tr>
<tr>
<td>• Team skills</td>
<td>• Learning and alliance skills</td>
</tr>
<tr>
<td>• Understanding joint processes</td>
<td></td>
</tr>
<tr>
<td>• Understanding partner business</td>
<td></td>
</tr>
<tr>
<td>• Transfer of knowledge</td>
<td></td>
</tr>
<tr>
<td>• Internal and external networks forming</td>
<td></td>
</tr>
<tr>
<td>• Problem solving</td>
<td>• Joint decision making</td>
</tr>
<tr>
<td>• Conflict management</td>
<td></td>
</tr>
<tr>
<td>• Social interaction</td>
<td></td>
</tr>
<tr>
<td>• Team achievements</td>
<td>• Personal satisfaction and motivation</td>
</tr>
<tr>
<td>• Improved communication behaviour</td>
<td></td>
</tr>
<tr>
<td>• Individual’s responsibility increasing</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.4: Dominant Characteristic in Stage II

#### 4.2.1 Compelling Purpose

Both companies were motivated to achieve the alliance objectives. IDV wanted to drive the cost of the box down and improve performance by scheduling and planning. Killeen saw an opportunity to improve quality of service to a very important customer by working in concert with IDV. The inter-organisational teams stimulated innovative changes which went a long way towards attaining these objectives.

Early suspicion by IDV that the alliance was simply a public relations exercise on the part of Killeen was gradually dispelled because of the latter’s commitment to the project in terms of time and resources.
“Every supplier will always tell you what you want to hear. If Mr. Buyer says to Mr. Supplier partnering is a great idea, Mr. Supplier will reply that he was just about to say the same thing. So in the beginning Killeen might well have considered the whole thing a PR exercise.” (B, IDV, 97, 6: 2)

4.2.2 Interdependence

The historical interdependence between the companies was such that it would have taken IDV some time to get an equivalent service from another box supplier and up until this time IDV had not really considered that route. IDV was a very substantial segment of the Killeen business and Killeen has made a number of investments specifically for IDV’s business, such as the print machine for the Baileys box that printed seven colours in two runs.

The first alliance agreement guaranteed that IDV would continue to use Killeen for a further three years, that is from 1994 to 1997. In return, Killeen promised a series of cost cuts within that time frame. In the first instance, therefore, these two factors removed the uncertainty in respect of supply on the one hand and market value on the other.

Communication between organisations helped to create order as a result of forward planning information; work was now shared with Killeen. Also, Killeen would give advance notice to IDV when they would be unable to meet the order schedule and together they would reassess and prioritise which deliveries were most important. This was directly due to the cross-organisation team projects and communication improved hugely in the course of the alliance.

“We’re working better together and are much more open. There’s no fear about speaking to one another about problems and all of us are trying to look globally, rather than specifically. There are more people involved and there’s been a big transfer of knowledge in both directions.” (MC, ID, 97, 1: 2)
“The single biggest achievement is communication.” (MM, IDV, 97,6:3)

Before the alliance, dialogue between the companies had been minimal and it was as a result of the alliance that realisation grew that the old style behaviour was by comparison disadvantageous. By bringing Killeen into the planning process to challenge IDV’s assumptions, issues of mutual concern often were easily resolved.

“We no longer had to ask Killeen to do things at the drop of a hat. By making suggestions and identifying requirements we were able to plan better. We actually took a chunk of overtime out of the Killeen process and as a consequence costs disappeared.” (B, IDV, 97,4:2)

Near the end of 1995 and in early 1996 paper prices were on the increase. This was just at the time when IDV was developing its cost model in anticipation of raw material cost reductions. A sense of unease was generated within Killeen and this grew in view of reduced communication and feedback from IDV.

“I think that Killeen has been more open than ever before, by providing normally confidential information and both Liam and myself put in a lot of important work prior to coming to meetings. However, at the end of the day we haven’t really got any feedback or credit for this.” (CM, K, 96,5:4)

4.2.3 Learning and alliance skills

By early 1996, there was a far greater comprehension by the allies of each other’s processes. Over the nineteen months of the alliance, IDV learned more about box production than had been garnered in two decades of working with Killeen.

“We now know how a carton is made. In terms of management skills, we’ve learnt how to get round problems. Willing collaboration is much more powerful than the adversarial way.” (PD, IDV, 97,6:9)
While everyone was ploughing new ground, a helpful hand was always readily available.

"Both companies were sailing in uncharted waters, although we did not realise it at the time. If we needed more information, we got it and then moved on." (B, IDV, 97, 5: 3)

Three or four years ago (1992/1993) Killeen had two main customers. Killeen subsequently obtained sole supplier status from Proctor and Gamble, which was followed by a third customer. By 1996, Killeen was serving three large customers and more business was coming in, whereas in the summer of 1995, Killeen had spare capacity. By the end of 1996, Killeen’s production was significantly more efficient.

The alliance cost team was given the difficult task of tracking the costs of the box and it was at this point that Killeen gradually began opening its books to IDV.

"We would never have done it on our own, but certainly the push from IDV gave us confidence to improve our cost management." (CM, K, 97, 7: 2)

Nevertheless Killeen found it difficult to break down the cost of the IDV box and identify the cost drivers. Cutting overheads and the labour cost involved in converting the paper into the finished cardboard case proved to be a struggle.

"The cost model is broken down into raw material, distribution, overheads and conversion. We agree and accept that the overheads to sales ratio is out of line and we are trying to drive this down within an agreed period." (FM, K, 97, 1: 2)

As the integration stage developed the teams became more cohesive almost to the extent of exclusion, in the sense that, although secondary information sources were available, they were only just beginning to be explored. Boundary spanning was progressive and expertise from outside sources began to be used routinely. This reduced risk and eased the pressure on the team when reporting back to the steering committee. Associated technical
companies, such as the Smurfit R&D facility in France, were referred to for advice in support of team decisions and also Killeen’s ink suppliers helped develop new colours.

"Direct involvement with Smurfit in France, as well as with ink and paper suppliers, began in the lifetime of the partnership and is still happening to this day. From the packaging development point of view and in terms of professionalism and reliability we’ve certainly moved up a few notches." (QM,IDV,97,6:1)

The cost team used outside information extensively for market research and benchmarking. Significantly, however, they did not avail themselves of local expertise even when they needed it.

"The benchmarking criteria was external, and with hindsight, we would probably have benefited from more in depth involvement from finance." (B,IDV,97,2:6)

Clearly, the teams understood the benefit of external sources in their research, but lack of information sharing between teams meant, on occasions, duplication of effort.

"We'd areas of work which overlapped. There was no appreciation by the teams of what each was working on and they weren't really looking at the task in the round." The presentation every month could have been the opportunity to identify common interests. (MM,IDV,97,6:3)

Usually teams decisions were the result of consensus and the steering committee would resolve disputes after everyone had aired his view. Major disagreements were rare and mostly occurred during price negotiation.

The diverse composition of the teams helped to make decisions balanced and this was a positive factor in the leadership selection. The leader was generally the individual with the greatest technical expertise for the particular project in hand, with others taking on the leadership role as circumstances demanded.
"The team leader wasn't someone standing head and shoulders above everyone else. It was a subtle elevation within the team and it was quite sufficient for that person to have been so identified." (QM, IDV, 97, 7:1)

Problem solving took a similar course, namely through discussion and a consensual decision followed regarding action. Above all, there was continuous interest on the part of the steering committee with the latter offering strong leadership and a point of focus.

The teams were expected to identify market trends and monitor their own progress. Overall, performance was judged on its impact on the unit cost of the box. Plenty of work needed to be done to achieve targets and the meetings and reporting mechanisms provided teams with a structure to work within. Some fared better than others.

Project management proved to be the least of the teams skills, with the exception of the Logistics team who made good use of project management techniques. The leader of this team was particularly well organised and expected team members to perform similarly. The activities of most teams were not sufficiently sophisticated to add value to day-to-day activities apart from Logistics, whose daily operations were positively affected by the alliance. Time management was important and a degree of control built into the procedure was needed to do this efficiently.

The Logistics team had this down to such a fine art and when the team met, each member reported his recent activities and the outcomes. Further actions with deadlines were then recorded. By comparison, other teams operated in far more of an ad hoc way and although meetings should have been documented, mostly this was not the case. Consequently, much of the knowledge gained was team specific and was generally not disseminated.

"Above all, we learned that you need to formalise and use standard formats, particularly if the team is going to be involved in three or four projects. Activities had to be numbered, prioritised and afterwards analysed and evaluated." (MC, IDV, 97, 4:4)
4.2.4 Joint Decision-Making

As the alliance progressed and production was audited, it became clear to IDV that quality problems were now a rarity. Isolated incidents over the years created a negative perception of suppliers in the mind of IDV staff and this permeated from unit manager level down to the production floor. In fact, IDV had exactly the same unflattering opinion of their glass supplier who they said was providing a below standard service. In actuality, the root cause was IDV's own poor control, for example, inaccurate specifications were causing supply problems. The matter happened to be brought to light at one of the daily IDV production and planning meetings at which Killeen were now in attendance. This misconception by IDV was straightened out and reinforced the necessity of both parties understanding the implications of their own actions on the ally's business.

"In general terms we're fairly happy and certainly the documentary evidence shows that the packaging quality is good. But I am not sure if that matches up with the perception on the shopfloor. That is the men working with the outer cases, or the managers in production. It's also galling to find problems that are the result of IDV's own making. So I think it is important that we actually have these people (Killeen), at review meetings so as to ensure a common level of understanding." (MM, IDV, 97,4:3)

The Marketing manager from IDV, International Brand Company (IBC), was more receptive. He had joined the brand development team a little later in the process and provided the team with market information. The team looked to the IBC for direction in terms of where market opportunities lay and how the industry was developing. It relied on the IBC to give assistance in technical design and to advise how this might impact on the brand itself. Ultimately, Killeen and the design company, Tutsells, were in direct contact, with the supplier becoming involved in discussions concerning design at the very early stages.
4.2.5 Personal Satisfaction and Motivation

Team members liked working together and were obviously stimulated by achievements.

"I've certainly enjoyed the whole process because it's taken us out of the office and put us in the front line. It's been very challenging, and made us look at new ways of doing things." (FM,K,97,2:4)

The alliance project was driven ahead at full steam by teams aligned in a common mission. However, it quickly became apparent if anyone was not on board and this applied in particular to IDV unit managers who supervised and managed the bottling hall and were directly in charge of manufacturing.

Although their remit was to keep production up and to maintain efficiency, Unit Managers paid little attention to schedules or agreed production plans. They gave the impression of being oblivious to the knock on effect of their actions and seemed reluctant to discuss and resolve issues with suppliers or to attend logistics or indeed any other meetings.

"There is an attitudinal problem. Unit managers focus on what they are doing to the exclusion of everything else and view the supply of materials as very elastic." (MM,IDV,95,4:2)

There was notable improvement in communication links, especially, between IDV store men, forklift drivers and Killeen’s delivery drivers. The store men were prominently involved in the planning process and although not assigned to a team, their importance at the interface of materials coming into IDV was recognised.

4.2.6 Summary: Transition to Stage III

It was at this point in the relations that energy on both sides began to diminish and these signals marked the transition to another next stage. Mid way through 1995, the teams began to lose focus and to rectify this the team structure and projects were reviewed and
adjusted to reflect changing circumstances. Members were specifically directed to examine particular aspects such as logistic operations, brand development, benchmarking and innovation. At the same time a joint strategic plan was discussed again but still was not formally adopted.

The foregoing is the backdrop to the transition to the Stage III. The effect of the review and team reshuffle did not achieve the aim of re-energising the teams and after a brief period of apparent revitalization, they began to lose concentration once again. Table 4.5 summarise the indicators during this transition (refer chapter 7.7).

<table>
<thead>
<tr>
<th>Stage II</th>
<th>Transition Stimulus</th>
<th>Stage III, Transition Indicators</th>
</tr>
</thead>
</table>
| • Compelling purpose  
• Interdependence  
• Learning and alliance skills  
• Joint decision making  
• Personal satisfaction and motivation | Crisis followed by Managerial Action | • Loss of focus  
• Many projects completed  
• No formal strategic plan  
• Meetings cancelled  
• IDV benchmarking for packaging suppliers without consultation with Killeen |

Table 4.5: Transition to Stage III

4.3 STAGE III: Duration March 1996- March 1997

Late in 1995, IDV sought tenders from other companies for its packaging business without notifying Killeen. Despite all the good work of the past year, IDV remained unconvinced that the packaging cost was actually being reduced. Killeen struggled from the outset to break down the cost structure of the box, but was constrained because of overhead allocations as well as corporately driven pressure to maintain margins. Table 4.6 below, shows the dominant characteristics in the third stage.
### STAGE III

<table>
<thead>
<tr>
<th>Characteristics from table 4.1</th>
<th>Dominant characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Growing trust and commitment</td>
<td>• Adapting cultures</td>
</tr>
<tr>
<td>• Teamwork promoting cooperative philosophy</td>
<td></td>
</tr>
<tr>
<td>• Shared norms at relationship interface</td>
<td></td>
</tr>
<tr>
<td>• HR practices not influenced by the alliance</td>
<td>• HR assessment</td>
</tr>
<tr>
<td>• Companies maintain own policies and procedures</td>
<td></td>
</tr>
<tr>
<td>• Communication becomes increasingly routine</td>
<td>• Performance plateau</td>
</tr>
<tr>
<td>• Teams lose interest</td>
<td></td>
</tr>
<tr>
<td>• Routine operations</td>
<td></td>
</tr>
<tr>
<td>• Partners knowledgeable about each other’s business.</td>
<td>• Process understanding</td>
</tr>
<tr>
<td>• Scheduling and planning information available</td>
<td></td>
</tr>
<tr>
<td>• Operational performance sustainable</td>
<td></td>
</tr>
<tr>
<td>• Customer focused</td>
<td>• Reflection and learning</td>
</tr>
<tr>
<td>• Increased technical and commercial know-how</td>
<td></td>
</tr>
<tr>
<td>• Learning from each other and experience</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.6: Distilled Characteristics in Stage III

Factors that contributed to the slow down in activity were as follows:

• 20% cost reduction accomplished

• continuing pressure exerted on IDV to source packaging at the most competitive price
  
• increasing paper price plays havoc with Killeen’s cost plan.

However, there were still many positive factors evidence as the alliance continued to mature which have been described below.
4.3.1 Adapting Cultures

In the early stages, the teams seemed to be "shadow boxing" and social interaction improved as individuals got to know each other. Trust and commitment grew as a result of continuous management support and this was greatly reinforced by team success.

By this time the relationship had matured to the extent that a new philosophy and culture permeated Killeen. This was not universal in IDV and affected only persons directly involved in the alliance, whereas in Killeen there seemed to be a more general shift in attitude. Nevertheless, teamwork was seen as the way to do business and a change of behaviour was evident in many people.

4.3.2 HR Assessment

There was never any expectation of personal or group rewards. Motivation was purely to improve competitiveness. Employees worked to an agenda involving major organisational changes and those taking part gained considerable satisfaction from working in the team and from its achievements. Some of the projects were valued highly and successes were recognised and celebrated.

IDV had always been an organisation with positive HRM policies. Training in team building skills was promoted, both in house and by means of external seminars and workshops. Career development and rewards were based on annual performance appraisals that include team working.

4.3.3 Performance Plateau

Most of the projects were running and some teams had initiated sub projects, however, despite this team effort began to slow down. "I think the teams worked well till at one stage they hit a wall. It was a very definite problem for them." (MD,K,97:2:5)
Duplication of effort was due to the fact that no one had a complete overview of team activities. A major demotivating factor was the amount of time spent on certain projects that were destined to be shelved. In most instances this was inevitable and was justifiable after evaluation.

“There were projects with no definite output. No one knew until they got to the end whether they would be successful or not. They were long-term, pie in the sky type of things.” (OM,K,97,1:2)

 Mostly, it was too uncomfortable for IDV to change. For example, the case standardisation project aimed to reduce the eighty or ninety case variables, down to about fifteen. The savings identified were considerable but the project was scrapped because IDV decided it was too difficult to make the change.

Similarly, Killeen and its ink supplier, together with an IBC representative, created a new gold colour for the Baileys box to enhance the marketing and brand image. Trials were completed but the project was scrapped because the design company had something else in mind for the new container.

Clearly, such projects involved political decisions and stakeholders in the wider corporations had not been consulted at the appropriate stage. The effect of these reversals on the Operations and Quality team was demoralising.

“Nobody had approached the market place and from Killeen’s point of view there was a huge potential in the new design. If we were set a project by IDV and costs turned out to be the issue, IDV wouldn’t accept that we couldn’t do it. On the other hand, if it benefited us and it was turned down because IDV did not want to do it, then I found that exasperating. That is the negative side to the partnership.” (PM,K,97,14:5)

A few of the original members of the Logistics team, now termed Operations, formed a sub-committee, because day to day business seemed to be falling behind. The sub-
committee saw the need to continue looking at areas where money could really be saved such as logistics planning, run lengths and the like.

"We actually broke away from the Operations team, off our own bat, to keep track of logistics, order and planning accuracy, quality, delivery schedules, servicing and things like that." (OM,K,97,1:2)

On the most part although the projects were experimental by nature, the teams were attempting to produce innovative breakthroughs. Issues for these projects included:

- trim reduction to improve stacking
- outer case standardisation
- board grade reduction
- EDI implementation
- crease re-design
- clay coat reduction
- new gold trials
- cost models

Savings were realised through:

- reduced origination charges for complete case changes
- reduced set-up times and
- longer print runs

The biggest blow to the Killeen team morale came about as a result of rumours that IDV had put the whole of their packaging business out to tender.

"At various stages in the partnership we were under threat and we will never know how close IDV was to giving the business to someone else. It would have been too easy for us to say OK we accept the whole thing and as a gesture of good faith, our price reduced by 10%. But that would have decimated us." (FM,K,97,8:9)
4.3.4 Process Understanding

As well as suffering logistical problems originating in IDV, such as inconsistency of output, planning's disregard of production guidelines and various interdepartmental issues, Killeen experienced frequent changes of instructions that resulted in disrupted production schedules. The picture was transformed, due to the alliance, so that scheduling and forecasting information were available and daily operations in both organisations were merged.

"... production information is more structured and controlled and Sidney (Killeen) relays information from IDV. We've now have a better handle on the way IDV operates, and this means we know the little things that we can do to help and the little things they can do to help us. On the whole, I think it's working very well." (OM, K, 97,1:1)

"I'm meeting with their production people and know how the company operates. That they are looking at my areas from every angle, certainly helps." (SP, MK, 97,4:4)

However, change had taken place at different rates in different areas.

"... from our department's point of view change is not happening fast enough. ... although I'm the first to acknowledge that some problem areas have been taken on board and ploughed on." (MM, IDV, 97,5:2)

This lack of progress reflected how difficult it was to alter an entire community's work patterns and attitudes.

"... the bottling could be slower to change. ... they go for producing volume regardless of whether you ordered it or not. ... and the bottling department is a large department. ... There are eight to ten unit managers and counting the people on the floor themselves, in all there are about ninety people. For change to really happen, and to take it forward everyone has to first buy into it." (MM, IDV, 97,5:1)
"There was some difficulty regarding Planning sticking to agreed ground rules because customers exerted pressure to deliver with less than the agreed lead times, and the planning department would run with the request and alter the plan." (MM, IDV, 97,5:3)

"There was also a personal or even interdepartmental dimension to the problem of abiding by these ground rules. Sometimes materials, planning and production approached problems with attitudes that are blinkered to issues of real interest to others." (MM, IDV, 97,5:3)

4.3.5 Reflection and Learning

IDV achieved its reduction in box cost and by this time Killeen was operating with greater efficiency, having learnt so much about its own company's practices.

"From a learning point of view, one of the main benefits to us has been putting our people in the front line to deal with customers. It's made them much more customer focused and aware." (FM, K, 97,5:4)

Peaks and troughs in the process mirrored team motivation that fluctuated in accordance with the level of progress and feedback.

"There were a lot of times when we were desperate and didn't know where we were. There was only a certain amount we could do and we would then move on to another problem." (CM, K, 97,6:10)

A two day workshop was proposed to revitalise the teams and establish new strategic objectives for the alliance. This generated a new momentum for about three or four months. Then people began to get frustrated again, "they seemed to be getting nowhere, asking exactly what it was they were trying to do. The confused state we have been in for the past few months is quite frustrating." (B, IDV, 97,7:6)

During the Plateau stage, many new ideas and projects were mooted and an Innovation team was established to capture these ideas. Unfortunately, after only a few meetings, like the other teams, it got stuck.
"This Plateau is an evolutionary stage, it has been very valuable for us to reflect on and learn from the past few months. We realised a cost benefit along with a deeper understanding of our supply base. Now that we know what we want and understand our interdependence with Killeen, we aim to develop the relationship further." (PD,IDV,98,1:5)

4.3.6 Summary: Transition to Stage IV

As the alliance agreement, which was signed in 1994 defined the duration as 1994 –1997 the relationship was still active and maturing. Given that initial operational objectives had already been achieved, it seemed justifiable to introduce a further relationship stage into the conceptual framework. It was therefore postulated that Stage IV was characterised by a significant change in depth of involvement and structure of the relationship.

Poor feedback from the monthly review meetings contributed to de-motivation. Work was undermined because projects were not taken to a final conclusion. What had to be done was seen in terms of politics or requiring structural change and beyond the scope of the teams to realise.

People almost welcomed the loss of momentum. There were so many other areas of business to concentrate on that the alliance was pushed to one side. Everyone involved sensed what was happening but did not know how to deal with it. Guidance was sought from the Steering Committee and a review meeting was dedicated to categorise and prioritise all current projects. This was the first time that such an evaluation had taken place. Had they been conducted more regularly the duration of the plateau period may have reduced.

The Steering Committee recognised the need to review past achievements and consolidate existing projects. It also instituted a review to clarify what was understood by the term innovation and how to manage the process of capturing new ideas. This required a more structured approach to project evaluation and it also became evident that much learning from the Alliance had been lost because of inadequate recording and, when it did happen,
poor dissemination. Reporting at the Steering Committee had become mechanical and reports were cobbled together at the last minute. The structure of these review meetings changed, so that the teams were limited in time thereby inhibiting communication and learning.

Despite the foregoing background, a philosophy of cooperation filtered some way into the ally companies. Teamwork, as a method of working, had been established. There were pockets of support towards the alliance in IDV and in Killeen, knowledge was now spread far wider. Cross-fertilisation of tacit expertise enhanced the teams technical, operational and commercial know-how. Many of the lessons learnt have been passed on to other customers and suppliers and innovation has also taken place at the interfaces of these organisations.

New strategic objectives were as yet unclear and teams needed direction to meet new and changing internal and external environmental challenges. The transition to Stage IV was characterised by a structured review of current projects and the planning of a process mapping exercise to identify a new agenda for change (refer to chapter 7.7). See table 4.7

<table>
<thead>
<tr>
<th>Stage III</th>
<th>Transition Stimulus</th>
<th>Stage IV, Transition Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Adapting cultures</td>
<td>Managerial Action</td>
<td>• Structured review of current projects</td>
</tr>
<tr>
<td>• HR assessment</td>
<td></td>
<td>• Identified need to manage innovation better</td>
</tr>
<tr>
<td>• Performance plateau</td>
<td></td>
<td>• Next steps considered</td>
</tr>
<tr>
<td>• Process understanding</td>
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<td>• Reflection and learning</td>
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Table 4.7: Transition from Stage III to Stage IV

4.4 STAGE IV March 1997 to November 1999

Table 4.8, illustrates dominant characteristics, inductively derived from data gathered during participant observation in the fourth stage of the IDV/ Killeen alliance.
### STAGE IV

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<td>Transfer of knowledge and capabilities</td>
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<td>Teams have considerable knowledge of alliance partners and processes</td>
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<td>Joint strategic plan for next alliance period</td>
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<td>Re-define goals and objectives</td>
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<td>Opportunity for the alliance to become truly strategic</td>
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<tr>
<td>Adapt to external and internal dynamics</td>
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</table>

Table 4.8: Dominant Characteristics in Stage IV of the IDV/Killeen Alliance

#### 4.4.1 Cooperating Cultures

Killeen’s management always treated IDV as its principal customer, but now support throughout the company was generally so widespread that "even the people on the floor (are) speaking of quality and service." (CM,K,97,4:6)
It is evident that the culture has changed within both organisations "... attitudes have become more open and friendly. I can remember about two or three years ago IDV was preceded by a profanity, now it's IDV and there are no adjectives in front of it."

(OM,K,97,5:6)

What gave the alliance impetus was the effort by the two companies to dismantle communication barriers and motivate staff. Throughout the duration of the alliance project managers had been prepared to go the extra mile and this contributed significantly to the cultural change in the organisations.

"Esmond and Tom, are fully committed and I think this has been passed on to the rest of the people." (OM,K,97,5:6)

One thing unanimously acknowledged by everyone actively involved was that top management commitment to the project was continually in evidence.

The culture within Killeen changed. "Killeen had a reputation for laying off people and there's been quite a difference since 1990 when Smurfit took the plant over. For the first time in twenty-five years issues such as working conditions and social clubs have been discussed. The men have had an attitudinal change reflecting the scope for personal development. We're bringing in a training programme to increase the flexibility of the employees." (CM,K,97,5:1)

IDV's view was that Killeen still was not "challenging" assumptions enough although it has become much better at forewarning of impending problems that might impact on supply. IDV needed to respond positively to this and freely admitted that it had not always done so in the past.

"Sometimes our reaction to bad news verged on the hysterical and that didn't encourage Killeen to share problems with us again." (MM,IDV,97,2:2)
Opinions differed regarding how well IDV managed change, for example. “By and large I would say yes, people are open to change and willing to try new things.” (MC, IDV, 97, 5:2) Whereas another point of view may be summarised as . . . “reactive as opposed to proactive, risk averse.” (B, IDV, 97, 9:2)

The mood in the business had changed and the signs were positive. Killeen bought new machinery; the biggest investment being a six colour printing machine. The new machine was installed on the production floor that had been replanned for more efficient use of space.

4.4.2 Developing Alliancing Skills

Major changes have taken place inside Killeen over the past few years. . . “the majority of the people here are in their fifties. The work force was largely unionised, the factory itself used to be quite dirty and old, and the machinery needed maintenance. In the last three years there has been a big investment in plant. All the machinery is now in good running order and there is a maintenance programme. Planning is controlled through our central office and we have the commitment of the men on the floor who work all the hours god sends, to make sure we achieve what we've promised. I would definitely say we accept change nowadays much more easily than we did three years ago.” (CM, K, 97, 4:3)

People skills are clearly very important in alliance management. Members of the joint teams developed team spirit, problem analysis and solving skills. They identified each others needs, developed more collaborative attitudes to the other’s staff and they defended one another against outside criticism.

“. . .I've never seen so much joint team work that has gone on in this (partnering). I used to be quite cynical hearing about partnering but now I'm very impressed by the degree of openness after just six months.” (OM, K, 96, 6:3)

Although some people were in more than one team, there has been little cross team fertilisation of ideas, or discussion where projects obviously overlapped. Nevertheless,
some teams did boundary span to obtain external advice and assistance. Killeen sought IDV supplier's expertise to assist with the new box design. Representatives from Killeen were able to contact the design company at any time to discuss ideas.

"Eighteen months ago that just would not have happened." (OM,K,97,11:2)

It has to be said however that, on the whole, boundary-spanning activities were not managed efficiently. For example, a team member delegated to carry out research found difficulty in making initial contact with an outsider who already had had dealings with others in Killeen or IDV. In retrospect, it would have been quicker if the person, who already knew the relevant individual, had made a point of formally introducing his colleague.

"People are now generally more focused because there's now more contact and quicker communication with the customer." (CM,K,97,7:2)

Newly acquired knowledge of the *modus operandi* of the ally organisations helped in aligning team and company goals. Multi-disciplinary teams brought a diversity of technological expertise and the open atmosphere at meetings was conducive to airing all points of view, controversial or otherwise.

All in all, a robust set of alliance management skills and competencies has been developed in both companies.

"Undoubtedly, we're far more knowledgeable about how to manage an alliance, and I would suggest that we know more about real partnering than any other company I'm aware of." (B,IDV,97,4:1)

4.4.3 Joint Innovation and Continuous Improvement

Innovation needed the active support and encouragement of management. It took some time for the teams to grasp the mechanics of innovation generation in a team environment,
although a retrospective examination of what had been achieved so far suggested that innovation had indeed been ongoing and incremental.

Baileys new box design, intended to create a dynamic new image in seventeen markets, was approved. Early involvement by Killeen in the design project enabled issues, such as the time required for trials and implementation, to be factored into the plan.

A particularly difficult problem was reduction of colours from seven to a six, to allow printing to be done in one pass. Collaboration between Killeen and its ink suppliers also succeeded in improving the case image by development of a new bright metallic gold background.

Killeen frequently used the R&D facilities of its sister company in France. As the board grade reduction project proved to be difficult, it was proposed that the current Swedish paper suppliers should be asked to help find a method of strengthening the paper. Furthermore IDV suggested that supplier involvement generally should be rolled out further and that Killeen should invite its own suppliers to the alliance meetings.

In reaction to the market demand for innovative packaging, a five year plan was formulated, with regular reviews of package design development. The planned start of implementation of the new primary and secondary packaging was October 1997, with tertiary packaging following in June 1998.

Latterly, it had not been clear if the alliance was destined to continue into the future. This previously unspoken concern was eventually raised at a steering committee. The suggestion that the alliance was in question provoked surprise on the part of the directors who, in their own separate discussions, had agreed that the relationship would continue.

Discontent had been stirred up mainly one person in the guise of "devil's advocate". This led to Killeen picking up rumours from IDV personnel that the alliance was unlikely to last.
Even although IDV procurement director continually reassured Killeen that the situation was under control, nevertheless, Killeen staff remained unconvinced.

The problem was finally resolved at an internal IDV meeting, when each individual in attendance was asked to state whether he was in favour of the alliance. Everyone at that meeting replied positively and agreed that he was on board.

This particular incident highlighted the importance of personal relationships in the change process and how easily trust could be eroded. Accordingly, it was vital for all concerned to be fully committed, because one dissenter could exercise a disproportionate negative influence.

Lack of information was the root of uncertainty which demotivated team members tasked with joint evaluation of problems and solutions. There was a commonly held feeling that it was not worth wasting time and energy on projects that might come to nothing. This was dispelled when a further three-year agreement was formally negotiated starting 1st May 1997 through to 31st March 2000.

An exercise by the benchmarking team flagged up that Killeen was still pricing to high in comparison to the UK market. From tender returns the cost model revealed that one specific supplier was consistently more competitive than Killeen and was able to produce equivalent print quality.

The accounting in the model was straightforward in itself. However, it was still difficult to justify in financial terms Killeen’s advantage to IDV, despite its better understanding of IDV’s requirements and business processes, quicker speed of response, greater flexibility and geographical proximity.

"...Killeen . . look as if they are paying above the market price for corrugated and we suspect it’s about 10% more. But in fact they’re giving us the service and the JIT to keep
our lines fed, and we've no stock - That must be worth far more than the additional 10% we are paying for the box.” (BJIDV, 97,2:4)

The outcome was a twelve months cost sharing commitment during which time a value assessment model was to be developed. The agreement said that Killeen had to become the lowest cost supplier and provide IDV with the most competitive price by the end of a year. Progress was to be monitored every six months by the steering group.

4.4.4 Joint Learning, Tacit and Explicit

“We’ve been talking to Killeen’s suppliers and learning about paper making. We’re also examining the supply chain to pin down how to improve the end product.” (PD,IDV, 97,7:2) Learning about each other’s organisations and respective industries has created relationship specific knowledge.

“We've learnt about Killeen's organisation and the corrugated industry, starting from the mechanics of buying the paper, corrugating, and finally conversion. You learn about the physical operation, what is involved, the problems encountered and how they originate.” (BD,IDV, 97,3:6)

4.4.5 Process Alignment at the Interface

Daily operations were affected by the alliance so that more information was now available to both organisations, in particular regarding scheduling and forecasts. What is very interesting is understanding the reasons behind the changes and how they impacted on each partner.

The focus of attention was on each company’s core operations and how they could be realigned or adjusted to meet the requirements of both. The basic essential was that each organisation understood the other’s process and how the two fitted together into an integrated system.
"We know we want to look at how the processes merge between the two organisations and what can be done to improve it. We want change to be continuous and integrated. We want to involve as many people as possible. When there are issues to be dealt with we'll build a team to deal with that particular issue and then disband it." (PD,IDV,97,9:7)

For Killeen, paper sourcing was a very significant subject given that material represented 48% of the total cost. Clay coated and white top paper came mostly from Sweden, some from Smurfit in the UK and the remainder from Ireland.

Manufacturing required twenty-four hour drying times between corrugating and conversion before it was finally ready for print. Set-ups still involved person-specific skills and extended lead times. Rolls of paper were large and heavy and despite the recent parts renewal the corrugator machine was old and sensitive to settings and running conditions. Print was of a reasonably high quality given the available technology, but as previously mentioned the number of colours had to be reduced to allow a single pass through the printing machine.

Materials for use the next day had to be at IDV at 6pm the day before. Much double handling could have been avoided if a direct physical link could have been established between the two plants, but this was not possible because negotiations with the current owner of the intervening land had stalled.

Packaging design had significantly improved due to advances in print technique and collaboration between Smurfit, Killeen and Killeen’s ink supplier to develop the new gold colour. Communication about packaging changes was becoming quicker, but not yet as good as Killeen would have liked. Information about paper pulp price fluctuations was now shared with IDV and material cost agreements meant that IDV was getting significantly better terms than other Killeen customers.

Detailed cost information, linked to actual manufacturing and distribution was either not available to Killeen or was not actively used. The scheduling system (PCTops) provided information on an average basis but it was unclear if the production run size and variety
could be compared to best effect. Nor was it clear if there was any mapping of the manufacturing process, of the anticipated cost of set-up changes, or if information on quality standards was being adequately recorded.

4.4.6 Step Change

Both organisations were aware of their strengths and weaknesses. The further three-year agreement between IDV and Killeen was in place and this provided the opportunity to refine practices during that period. The intention was to have another strategic review to move the whole process forward. However, the general opinion, was that this particular alliance had reached its peak and a step change would be required in the future.

"I think that in the not too distant future, it's not going to be a Killeen issue at all. It's going to be a Smurfit issue." (PD, IDV, 98,1: 9)

4.4.7 Strategic Review

By October 1996, objectives and targets set out in 1994 had been achieved in large measure. Costs had been cut and stock reduced by elimination of over ordering or re-work. Deliveries were to plan and performance compared with the ideal was very good.

"We've a 100% fix on two weeks, 95% on week three and week four is a "best guess" - whatever we think is going to happen is open to change. Basically, we look at a four week horizon and run through the programme, bottling line by bottling line, examining what we are trying to do for the next four weeks and we discuss any issues which arise." (MM, IDV, 97,4: 1)

While IDV had realised more reliable deliveries and improved quality, for its part Killeen is operating machinery more efficiently and had increased production.

"We've certainly been able to put a lot more through our plant. When I came here in 1993, if we got out 300,000 square metres per week, it was a great week. Now over 450,000 is thought to be a good week and last week we did 451,000 square metres. We've achieved
Planning had improved and because of this new business had been acquired. Business has also been attracted as a result of improved print quality. Innovation in inks had made possible achievement of the lithographic quality target within the next five years, using flexographic print medium.

In the meantime, the "optimum" target appeared to be shifting and there were still concerns, highlighted by the benchmarking exercise, as to the best way of measuring IDV's improvement due to the better service contributed by Killeen. The issue was less about comfort in the knowledge of a job well done and more on generation of evidence to satisfy each parent organisation.

"Although we've taken significant costs out, we're still uncompetitive with other market players. We still face the task of demonstrating to interested parties in both organisations that the alliance has been successful. The way to do that is to establish very clear benchmarks and this is what we are trying to do. Although scepticism has disappeared we're conscious that there still are doubts and we have to demonstrate the results."

(Original: PD,IDV,97,6:6)

4.4.8 Summary 1994 - 1999

Transition between the stages was characterised by changing behaviour and attitude by the allies and it is also evident from reduced communication and enthusiasm. To date the IDV / Killeen alliance has been through three periods of what might be termed crisis, although the first two were never considered truly critical. Transitions in the alliance seemed to follow a period of uncertainty and the resulting change was the catalyst for upsets of differing degrees of severity.

The purpose of this alliance as the means of reducing IDV costs has been emphasised consistently in the study. Between 1994 and 1997, both companies acted with little
interference from parent organisations provided that managers proved to the corporate boards that savings were being achieved.

Although not proven it was always suspected that Killeen spread its overheads across its customer base. What is clear is that price reductions won by IDV were at the expense of Killeen and were achieved by eroding the latter's margins. In the long-term this was not sustainable and contrary to commercial sense. However, the positive side was that it forced Killeen to try to better understand its system for allocating overheads. Eventually in 1995, Killeen was deemed to be still pricing too high and as a consequence a joint team project was created to investigate Killeen's costs.

Some improvements were being made, especially in the logistics process and IDV continued to benchmark the corrugating packaging industry. Armed with increasing knowledge of Killeen's cost and overhead structure, as well as a better understanding of the corrugating industry, IDV appeared to be able to analyse the market in Ireland and the UK with greater accuracy.

"They know the price of the paper, they know the price of our manufacturing process, they know everything about our printing process and they know labour costs and still they are turning the screw." (SPM,K,99,4:3)

In 1997, IDV sent its packaging business out to competitive tender and what shook the alliance to its foundations was IDV's statement that it had sourced an alternative supplier in the UK who could service its requirements in Ireland. Not surprisingly Killeen countered by saying that like was not being compared with like, neither was IDV taking into consideration added value in terms of Killeen's speed of response.

The situation became untenable and this was a time of serious reflection and soul searching. The consequences of the crisis were postponed by a nine month moratorium between 1997 and 1998 due to the Diageo merger and change of senior management in Killeen. In May 1998 the boards of Guinness and Grand Metropolitan announced that they had agreed the
terms of a proposed merger of the two companies. It was intended that the new group should be called Diageo Plc., IDV then became UDV.

The effect of these incidents on the alliance was profound. The second alliance agreement aimed to give between 1998 and the year 2000 a series of cost reductions of 6%, 6% and 5%. These were to be achieved by joint effort within the spirit of the alliance.

Diageo then announced its "pay to play" policy whereby suppliers were to help cover the costs of the recent merger by paying an agreed sum to Diageo and in return they would be allowed to continue to serve the much larger group. Killeen paid UDV a further 5%.

"Diageo put a stake in the ground very soon after the merger was announced, stating that it intended to double shareholder value within five years. As a result of that it had to be seen to increase profits. There is a different outlook on our brand and a significant focus on cost reduction." (B,UDV,99,6:1)

From a procurement perspective, Diageo appointed category managers for each of the raw materials that the business required. The category manager headed a global team of procurement personnel from each UDV centre with a remit to source the most competitive price worldwide.

The MD in Killeen left the company almost simultaneously with the announcement of the merger and many other key people followed shortly after. This change came at such a critical time and the exodus meant that only one person remained in Killeen from all the original teams. Although the new teams heard how the alliance had worked in the past, they were on unfamiliar ground. Also Killeen was faced with UDV looking for more money, over and above what had been agreed.

From UDV's point of view, Killeen had gained significant value through the alliance as additional work had increased Killeen's capacity and this was bound to have had a positive impact on its other business.
"Frank inherited a difficult situation coming in on the back of an intimate working situation, as there's no doubt that Tom and Esmond were the driving forces behind the partnership. That, plus the business changes didn't provide fertile ground and it's been a bit like that ever since." (QM, UDV, 99,1:4)

From Killeen's standpoint, the alliance was in the balance.

"Killeen feels threatened now and the people on the shop floor don't have the same motivation, although they don't produce any less quality. The progress and economic viability of the company is publicised every month in the canteen. So the men know how the company is doing and all of this doesn't have a positive effect on the workforce." (SPM, K, 99,2:10)

The Killeen plant had laboured under physical constraints that contributed to its lack of competitiveness, namely, the age of the corrugator machine, small size of the plant itself and each piece of equipment does a single operation, i.e. printing, die-cutting etc. Modern plants have machinery that do all of these things in a single operation.

The UDV/ Killeen alliance stands at a crossroads. Killeen sees itself continuing to supply UDV in the short to medium term that is in eighteen months to two years. There is still a lot of good work that can be done and the challenge for Killeen is to overcome recent damaging events and plan its tactics as constructively as it did in the past.

"The whole alliance is full of contradictions but whatever happens between UDV and Killeen, it's the relations between the Jefferson Smurfit group and Diageo, they are crucial." (MD, K, 99,6:8)

At the end of the day, UDV and Killeen have a strong bond and Killeen meets the client's current requirements. There needs to be a clear strategic direction in the future for both organisations with objectives identified to suit changing circumstances. In terms of the life cycle this means revisiting Stage I and progressing from there.
Although developed by UDV and Killeen in the first place, UDV Ireland use the alliance model with others, namely local glass and label suppliers. It has changed the way many people work in UDV and aligns with the corporate strategy to reduce costs.

The future can never be certain and the importance of the UDV/Killeen alliance has moved up a notch to now involve both companies at corporate level. UDV is reviewing its packaging strategy and this involves negotiations not only with Smurfit, but also with other global players in the packaging industry.

Even if the structure of the relationship changes, the main players are UDV and Jefferson Smurfit (Killeen's parent company). It has been this alliance that has paved the way, although it is cold comfort to Killeen if it loses the UDV business.

Neither company wishes to withdraw from the alliance and indeed this was not feasible in the short term. A number of options were open at this time in both the short and medium term. However, the most important task was to improve the current situation by beginning to re-build personal relations and trust between the companies. A review of joint strategy provided the impetus for renewal, rather than considering the possibility of exiting the alliance.

Regarding the corporate agenda, the notion of partnering was initially regarded with some cynicism as the Smurfit group had had a track record of unsuccessful attempts at partnering. Managers in IDV were less pessimistic because of the level of encouragement from their directors in the early stages. However, the success of IDV/Killeen's alliance has surprised many and has quite converted the cynics. Killeen has gained a company award and as a result managers from both businesses have made a joint presentation to UDV's senior management team.

Since the Diageo merger, it has become very difficult for UDV to justify the alliance route, as driving down costs is the only way to remain competitive in a savage global market.
Although Killeen operates a shift structure in a three union environment that produces non-competitive pressures, nevertheless the company had become significantly more efficient and provided a more reliable service to UDV. Overtime and overheads were issues now being addressed as the alliance moved into a new stage. In the meantime Killeen managed to increase the proportion of its business with other customers.

The alliance had resulted in a greater awareness of the importance of customer service, by raising expectations and continuously examining possibilities for quality improvement. Increased information transfer between UDV and Killeen and accurate joint forecasting appears to have balanced out the effect of short notice changes. Reducing set-up times and rescheduling of Killeen production runs with the minimum of disruption are seen as key elements. Improving machine efficiencies has increased productive capacity and reduced quality complaints and late deliveries.

UDV had become a customer with a face. More inter-personal communication reinforced the feeling of interdependence and above all it induced greater trust, so essential in the long term. Both organisations recognised that implementing an alliance could be slow and even painful and demanded a critical analysis of internal systems and procedures, as well as identification of cost drivers. Nevertheless, benefits of long-term competitiveness arising from improved efficiency far outweighed short term opportunism between the organisations. However, from a corporate point of view, the alliance could have been perceived as unsuccessful if costs were not reduced on a year on year basis.

In summary, significant investment in time and resources over the past five years, stimulated by the alliance process, resulted in outcomes that have been innovative. UDV now has a better understanding of the processes and complex technologies involved in making and printing the box. Although Killeen was at the top of the print quality table of companies in this field and had won print awards, nevertheless partnering forced Killeen, in collaboration with ink suppliers, to augment its flexographic printing capability.
It is important to emphasise the foregoing, even although the alliance had gone through difficult times. Performance was sustainable between UDV and Killeen and no longer took up any additional major resources. There was a reluctance to completely embrace the alliance because UDV/Diageo were still developing a broad strategy and this would affect Killeen's future. The latter is not prepared to invest until it is clear where it stands in the scheme of things. Circumstances may dictate a fundamental change in relations, but what was certain was that UDV and Killeen's alliance strategy had built the foundations for collaboration by Diageo and the Jefferson Smurfit group.

4.5 CONCEPTUAL DEVELOPMENT BASED ON IDV/ KILLEEN CASE

![Diagram of Conceptual Development]

Firstly, using data from observation of the IDV/ Killeen alliance, in conjunction with an ongoing literature review, the conceptual framework has been expanded by drawing on the author's observations as well as participants experience. A subsequent Stage IV, was added because of indications that the IDV/ Killeen alliance had progressed to a new stage after Stage III. As described in section 4.4.8 (page 163), the destiny of this alliance was unclear at the end of the author's involvement. However, both companies were continuing to work closely together and to make improvements.
Despite the uncertainty created by the Diageo merger, both UDV and Killeen recognised that they could still improve performance and it is proposed that this alliance was not yet at an end, new joint objectives were likely to be realised and that the cycle would be repeated. That is, the companies would loop back to the Stage I. However, whether the alliance would complete the cycle again is entirely another question. Table 4.9 illustrates the dominant characteristics in each stage as evidenced by the IDV/Killeen case study.

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<th>Stage III</th>
<th>Stage IV</th>
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<td>Compelling purpose</td>
<td>Adapting cultures</td>
<td>Cooperating cultures</td>
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<td>Commitment and leadership</td>
<td>Interdependence</td>
<td>HR assessment</td>
<td>Developing alliance skills</td>
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<tr>
<td>Communication</td>
<td>Learning and alliance skills</td>
<td>Performance plateau</td>
<td>Joint innovation and continuous</td>
</tr>
<tr>
<td>Coordination and control</td>
<td>Joint decision making</td>
<td>Process understanding</td>
<td>improvement</td>
</tr>
<tr>
<td>mechanisms</td>
<td>Personal satisfaction and innovation</td>
<td>Reflection and learning</td>
<td>Process alignment at interface</td>
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<tr>
<td>Learning</td>
<td></td>
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<td>Step change</td>
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<td>Performance metrics</td>
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<td>Strategic review</td>
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<td>Resource planning</td>
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<td>Setting Objectives</td>
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Table 4.9: Dominant Characteristics in IDV/Killeen Alliance

In order to address the emerging picture an inductive approach was used in the second field site. Such methodology became possible due to access in January 1998, to a newly started tripartite alliance, in Aberdeen, between Shell Expro UK (UESL), Seaforth Maritime Limited (SML) and ARR-Craib (ARRC) referred to as the Supply Chain Alliance (SCA). Records were made by the author from the very outset of the alliance and this, and the early conceptual framework, provided focus and orientation for data gathering.

UESL provides a full logistical service to its internal customers, the combined Brent and Northern business unit, as well as Central and partial support to the Southern business units.

Seaforth Maritime (SML) is part of Halliburton and Brown and Root, USA, one of the world's leading offshore energy support companies. The company's logistics division
provides a comprehensive range of onshore services and facilities for offshore operations. These include a “one stop shop” marine support base, pipe storage and handling, short and long distance trucking, warehousing, distribution and office accommodation.

Two local, independent Scottish companies, Aberdeen Road Runners (ARR) and Craib Transport, merged in January 1983 to form ARR Craib Transport Limited (ARRC). Aberdeen Road Runners was an oil related specialist that had developed a strong customer base of major UK and European players in the oil industry. Craib was a traditional long distance haulier serving the paper, food and steel businesses.

These proceedings are the subject of Chapter five.
Chapter Five

Findings - Part II
5.0 FINDINGS - PART II

5.0.1 DEVELOPING CONCEPTUAL FRAMEWORK

One of the findings to come out of this work was that, although the Supply Chain Alliance (SCA) agreement was formalised in January 1998, considerable time and effort had been expended by the respective parties in setting up the collaborative effort, during the nine months prior to signature of the compact itself (see appendix VII for background information about the organisations). As a consequence, a further stage had to be considered in the conceptual framework in order to capture this preliminary work and relevant information was available, both in terms of documentation and also first hand from key participants. The stage, which has been termed Stage 0, is characterised by the laying down of organisational preconditions, and analysis of motivations and market conditions prior to the alliance commencement, see table 5.1

This initial stage describes the activities undertaken by Shell Expro Service Logistics (UESL) [U= UK, E = Exploration and Production = Expro, S = Services and L = Logistics], Seaforth Maritime Limited (SML) and ARR Craib (ARRC), prior to the 1998 alliance agreement.

Table 5.1 below, shows, how characteristics drawn from the data have been distilled. It should be noted that although characteristics may not have been identical to those in the IDV/Killeen case, using the constant comparative look/feel criteria, they could be clustered under dominant themes set out in table 4.9 (see page 170) and this procedure applied to each stage of this alliance. These dominant characteristics provide the structure to the detailed description of the SCA's early development stage.
### STAGE 0

<table>
<thead>
<tr>
<th>Characteristics from SCA data</th>
<th>Dominant characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alliance Contract</td>
<td>Alliance agreement</td>
</tr>
<tr>
<td>Competitor analysis</td>
<td>Environmental analysis</td>
</tr>
<tr>
<td>Long-term contractual arrangements</td>
<td>History of working together</td>
</tr>
<tr>
<td>Formal process of selection</td>
<td>Partner selection</td>
</tr>
<tr>
<td>Strategic decision by customer</td>
<td>Previous alliance experience</td>
</tr>
<tr>
<td>Cost / benefit analysis</td>
<td></td>
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<tr>
<td>Influenced by individual experiences in parent companies</td>
<td></td>
</tr>
<tr>
<td>Vehicle to improve utilisation of resources and improve scope of business</td>
<td>Strategic intent</td>
</tr>
</tbody>
</table>

#### Table 5.1: Distilled Characteristics in SCA, Stage 0

This study concerned a leading multinational corporation with a market perception of being too big and too structured to be able to change. However, the company knew it could not continue as it had always done and that it was time to do things differently. Each department had the remit to develop its own strategy and there had to be a consensus of approach to managing the challenge.

Against a backdrop of erratic contractor /client relations the following describes the situation where a cooperative strategy was implemented instead of the client determining his preferences as a result of competitive tendering. The Supply Chain Alliance (SCA) was officially launched in January 1998 although nine months of negotiation preceded authorisation of the start.
5.1 STAGE 0

5.1.1 Alliance Agreement

The alliance was seen as an enabling contract with specific targets and milestones laid out and geared towards handing over to contractors operating and management responsibilities, in a controlled and staged manner. At the outset SML would continue to supply labour, as it had done in the past. Once milestones were successfully reached, the company would be able to take on even more responsibility.

"The contract is written so that it can be changed annually, but variations can be made as and when required. It is a live document." (SLM,UESL, 99,1:4)

No guidelines or directives were in place in the beginning.

"That's another lesson we've learned. We should have said, here are our ground rules. What are yours and which ones are we going to use? We didn't do that and we could have captured everything in one document. This should have been part of the tender exercise." (AM,AB,UESL,99,4:11)

5.1.2 Environmental Analysis

ASCO, SML’s main rival in the North Sea, had been the largest logistics operator in Aberdeen for a number of years and amalgamation with the Woodgroup made it even more formidable. Competition was fierce in the oil and gas support services sector and SML’s ambition was to be as big and powerful as ASCO.

One of ARRC’s greatest skill was market surveillance. ARRC was aware of ASCO’s internal problems, and its ineffective use of resources through over capacity, down time and injudicious subcontracting. This provided a perfect opportunity for the SCA to flourish.
Although the main competitors were obvious and well known, other competitive dangers threatened. Integrated service contractors (ISC), tied in with Shell, operated in the Brent locations administered by the Woodgroup. The Northern field was managed by AMEC and the Central field by AOC. Any of these companies could have set up a warehouse facility, taken on supply vessels and offered a less expensive service to the Shell business units.

"There's a political game going on. Don't forget that Woodgroup has a 4% stake in ASCO and that AMEC and Northern have a strategic alliance with ASCo. We've been battling this out for a year." (CM,SML,99,11:7)

The same applied to drilling contractors and others with specialised skills. All companies were now responding to the fiercely competitive environment by developing new competencies.

UESL was benchmarked against other oil companies in the North Sea. How much per passenger mile and how much per tonne mile, were two criteria. If these considerations were not at the top of the Logistics cost targets, then it meant that UESL would be unlikely to continue to win and maintain its internal clients.

5.1.3 Organisations and their History of Working Together

Both SML and ARRC had been long-term contractors to UESL.

5.1.4 Partner Selection

An internal Supply Logistics report set out the justification and strategy for taking the alliance route, rather than a traditional contract and this was submitted internally to the Shell Tender Board. The board requested further explanations and, after some adjustments, the alliance was approved in principle at a second hearing.
In January 1997, six potential partners were identified and asked if they were interested in participating in a supply chain alliance. The companies were then asked to submit tenders and were subsequently invited to individual meetings to discuss their bids. The tenders were then evaluated by UESL against criteria that included commercial and technical factors, risk and added value. Risk meant not only risk on the part of UESL but also the risk that the contractor had to be prepared to take.

"The risk is that if it does not work, you probably won't go back to square one and choose another partner, and you have to stick with the same contractor. There would also be a big question asked about partnering. Even when you have a relationship that is open with a good commercial deal, there's always the temptation to say, well we know that, but let's just go to tender and check!" (SSLM, UESL, 99,12:1)

"The risk for Seaforth was that when the contract was finished, we could kick them out of their office in Altens base." (SSLM, UESL, 99,12:3)

The preferred partner was to be provided with a separate lease agreement as a safeguard. That would allow them to continue to operate from Altens base and if the alliance broke down, they kept their independence (see appendix IX).

Evaluation of the tender documents was finally concluded in April 1997 and SML emerged as the preferred bidder. At the initiative of UESL, SML and ARRC prepared a preliminary joint business case for presentation to UESL. This proved complicated as both companies ran transport fleets in competition with one another and had been old rivals for Shell business. Nevertheless, at the alliance inception both recognised the synergy of working together and negotiations began in July 1997. Numerous meetings took place to discuss terms and conditions, how the alliance would work, the allies roles and responsibilities and sharing of rewards.
5.1.5 Previous Alliance Experience

The alliance was not a new concept for ARRC as the latter had been collaborating informally for many years, particularly with food companies. The notion of pooling resources made commercial sense to ARRC. The company acknowledged that by being an integral part of an enterprise, value was created for the benefit of customer, while at the same time it was in their own best interests.

Neither was alliancing new to Shell. In an initiative called *Win Nineties*, Well Engineering, which is another part of Royal Dutch Shell, partnered with drilling companies. On the production side, Brent, Northern and Shell Central business units had cooperative agreements with Integrated Service Contractors (ISC) companies to provide engineering support to the platforms. The Cost Reduction Initiative for the New Era (CRINE) ran seminars in conjunction with these contractors. CRINE had an up-to-date Internet web site for discussion and reference regarding supply chain issues (CRINE had subsequently been superseded by LOGIC, Leading Oil and Gas Industry Competitiveness).

Although the alliance was a corporately driven, pragmatic solution to changing market circumstances, within UESL the alliance project was influenced to a large extent by one particular logistics manager. In the past this man had managed an offshore alliance, which meant that he now brought to the project first hand expertise of alliance management.

"I came from platform operations and had seen alliances working well. When I took the job over I had the strategy in my head. I was going to introduce what I had learnt on the platform operations into Logistics." (SSLM,UESL,98,7:2)

Halliburton and Brown and Root, SML's parent organisations, were both involved with an Integrated Well Alliance, in addition to being part of a seven year association working on the Brent platform with AOC, an offshoot company of the Brown and Root group. For its part however, SML had no alliance experience.
"It's the closest alliance type arrangement we've ever had. We don't have any other alliance although we do have close relations with clients. This one is unique, a real alliance. It's more than just a contract, it is all about running Shell's own business really."

(CKSUL, 99,4:1)

5.1.6 Strategic Intent

In December 1996, Shell Expro Supply Logistics (UESL) reviewed strategic options for Altens warehouse facility and the Torry dock, so as to optimise use of these bases and at the same time reduce the cost of storage and transport to internal off-shore customers.

In the past, Altens was important to Shell for the Long Term Development Project (LTD) in the Brent field. This had come to an end and the base was only utilised to about 50% of its full potential.

A second factor that UESL had to take into account, was that in January 1999, internal customers in the Brent, Northern and Central fields, became able to put their logistics business out to tender, if a more competitive service was available. This meant UESL had to meet the competition in terms of cost and value, by optimising use of its operating bases and by reducing warehousing tariffs.

Supply Logistics understood its internal customers very well and UESL's considerable efforts meant that customer service had been of a very high standard. Logistics was not Shell's core business and there was a drive towards out-sourcing to private contractors. UESL's objective was to educate contractors (SML and ARRC) in operations to meet demanding service level agreements, which would give UESL personnel the freedom to concentrate on strategic planning and forecasting.

From its contractor perspective, SML recognised that the creation of the Supply Chain Alliance (SCA) was the ideal vehicle for securing business with greater scope, as opposed to simply providing manpower to UESL.
Another factor motivating SML, was the reduction of its cost base by greater exploitation of the UESL infrastructure. In theory, this should have increased its responsiveness and ability to offer a better service to new customers in the northern sector. SML operated on high turnover and low margins and the potential for increasing turnover was considerable.

Since 1996, ARRC enjoyed a preferred contractor status vis-à-vis Shell Expro and prior to the alliance, ARRC personnel were located in Shell offices at Torry dock. For ARRC's directors and managerial staff, the alliance made perfect business sense and indeed it was seen as the important next stage in closer working relations with UESL.

"We knew years ago that everyone was working his own patch and we had to get together. The SCA was the logical next stage." (TM, ARRC, 98, 7: 4)

During the oil industry's halcyon days in the 1970's, "operators in Aberdeen used to be paid by the tonne." This created a generation of contemptuous, lazy and uninterested workers, quite happy to go to Portlethen, fetch a load from a vendor, disconnect the trailer at the quayside and put their feet up with a newspaper." (MD, ARRC, 98, 6: 2)

These days were long gone and due to the vagaries of the market at the time the conditions were such that it was imperative to address productivity and efficiency issues.

5.1.7 Summary

In the beginning, the bases at Altens and Torry, were managed by UESL. Once the contractors demonstrated that they were able to manage the job, Shell Expro asset managers backed out and UESL released control. The idea was that the base managers should have an overseeing duty for only as long as the new SML and ARRC managers were learning the job. If there was a serious problem, the Shell managers would revert back to their old roles. In practice, this was seen as undermining the SML people and caused conflict.
The objective of the SCA, as laid out in the alliance agreement, was to provide logistical services "of the best quality at the lowest cost". As such the SCA was not a legal entity, but a way of working together to achieve that objective.

The initial intention was a customer-supplier relationship and although the contract was clearly defined, the reality was different and there were problems from the early days of the alliance. Unfamiliarity with the contract details caused misunderstandings. SML wanted to change everything straight away although it lacked the expertise to do so. SML failed to fulfill early promises, which generated distrust between the parties and exacerbated the situation.

Contractual milestones and targets had not been articulated to the SML base managers, and there was confusion about the roles of SML and Shell staff. Key personnel in SML who had been responsible for the initial contract, left the company and a completely new set of people became part of the alliance team. As a consequence, much of the valuable pre-alliance experience was diluted.

In contrast to SML, ARRC operated with state of the art trucks, whereas SML's transport fleet was a written-off asset. Shell wanted ARRC in the alliance because of the high quality of service provided between 1995 and 1998 and it was ARRC's involvement that swayed the balance in favour of UESL accepting the joint tender from SML and ARRC.

Both ARRC and SML were old rivals in the road haulage business and the antagonism that was to ensue was essentially due to this habitual competition. A proposition had been made for ARRC to purchase SML's vehicle fleet, however time had rendered the SML trucks unroadworthy so much so that the issue was quickly dropped.

Additional confusion was generated because originally most of the workforce had been employed by UESL specifically to satisfy Shell customers. SML now employed the same men who this time served a variety of different customers demanding diverse standards and requirements.
Table 5.2 summarises behaviour which signalled the transition to Stage I.

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>Transition Stimulus</th>
<th>Stage I, Transition Indicators</th>
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</thead>
<tbody>
<tr>
<td>• Alliance agreement</td>
<td></td>
<td>• Signing alliance contract agreement</td>
</tr>
<tr>
<td>• Environmental analysis</td>
<td></td>
<td>• Formal project start</td>
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<tr>
<td>• History of working together</td>
<td></td>
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<tr>
<td>• Partner selection</td>
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<tr>
<td>• Previous alliance experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Strategic intent</td>
<td></td>
<td></td>
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<tr>
<td>Managerial Action</td>
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</tr>
</tbody>
</table>

Table 5.2: Transition from Stage 0

5.2 STAGE I: Duration January - July 1998

The alliance quickly gained momentum as the companies began to better understand collaborative practices. Individuals developed closer business relations with others in the ally companies. Much time and energy was expended in the course of preparation for, and attendance at, meetings.

In May 1998, the first rumblings of discontent were heard and the focus on SCA’s work became less sharp.

One of SML’s most frequent criticisms of UESL was the latter’s insistence on controlling everything. UESL had been operating the bases for thirty years and was now supposed to hand this responsibility over to an outside contractor. This meant breaking habits of a lifetime and UESL managers found it doubly difficult because the contractor’s managers from the bases at Altens and Torry were continually absent. As a consequence UESL asset managers had to continue to direct operations at both bases, as the alternative was simply to sit back and watch everything that they had built up fall apart.
“There’s a whole history of Shell activity, building up assets, systems and infrastructure and they’ve now said, “Here, these are for you to manage.” But they had a problem pulling back, because they owned all of that development.” (OM,SML,99,4:1)

“UESL went through the pain developing a super system down at Torry. We were then pulled away from it to let the others come in. They were given a real baby. An absolutely brilliant, properly mapped system with KPI’s everybody had bought into and that was what drove the business.” (SLM,UESI,99,4:2)

Having been contractors to Shell in the past, the alliance appealed to both companies as an excellent commercial opportunity to secure continued business, quite apart from the prestige of working with such a high profile a multi-national. Two main teams were set up. The first was the SCA board, made up of senior managers from each company and the second was the operations team.

Table 5.3 below, shows, the essential characteristics drawn from first hand observation of the SCA alliance. These characteristics are not absolutely the same as those from the IDV/Killeen case, but do fall into the same clusters of meaning. The characteristics in the left hand column have been distilled into one unit of meaning in the right hand column. The dominant characteristics provide the structure to describe in detail how the SCA relationship developed in its early stage.

<table>
<thead>
<tr>
<th>STAGE I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics from SCA data</td>
</tr>
<tr>
<td>• Committing resources</td>
</tr>
<tr>
<td>• Closer working relations</td>
</tr>
<tr>
<td>• Participation in Steering Group</td>
</tr>
<tr>
<td>• Team members</td>
</tr>
<tr>
<td>• Regular team reviews- feedback</td>
</tr>
<tr>
<td>• Investment in relationship – time and resources</td>
</tr>
<tr>
<td>• Regular information sharing</td>
</tr>
</tbody>
</table>
5.2.1 Building Trust

Good personal relations took a long time to develop and were inclined to fluctuate as a result of the partners’ ambivalent attitude towards one another.

"Trust has disappeared at this moment in time, we don’t seem to be pulling in the same direction." (EA, ARRC, 98, 4: 2)
"I would say trust fluctuates. It was there originally; everything was unrestricted to start with and everyone was involved in planning. I don’t think there was a problem until the Nord Centre was pulled from Seaforth [Seaforth had to leave the Nord Base]. Then it was mad panic.” (TM, ARRC, 98, 3: 7)

"Trust will increase once they start to deliver. The whole thing is about lack of confidence. It’s got to be backed by action.” (CS, UESL, 98, 5: 9)

Matters improved when SML assigned someone to deal exclusively with the alliance business. Fortunately this person also had had experience of working as part of a long-term alliance in the Brent field. He recognised that his own company’s infrequent contact with the allies had been interpreted as a lack of interest. Thanks to him, the information log jam was cleared, personal relations and trust improved and insecurity decreased.

"Scepticism is at a high level. Trust issues bedevil the SCA board team and the operations team. Maybe about twenty people need to get these issues on the table. The most crucial part of the whole relationship is that these people begin to have confidence in each other early on. It comes down to individuals and there is a perception in Shell that we are not committed to the alliance. I expect that comes from personality problems.” (CM, SML, 99, 17: 6)

5.2.2 Commitment and Leadership

A number of factors affected the participants’ commitment to the alliance at this time. One was the historical background of the alliance tender. It was many months before the reasons for SML’s apprehension were fully understood.

"There’s definite commitment from ARRC and UESL, but I don’t see much reciprocity on the part of SML. They’re simply utilising assets, not for the benefit of the alliance, but for their own good and they want to keep their own identity.” (TM, ARRC, 98, 5: 1)
"There's a perception that we've not lived up to expectations. Perhaps not in a communication sense, but we've brought in new business and we've relocated. We're working to clear all the problem issues, maybe not as effectively as we should, but our whole future is tied in with Shell. If they think that Seaforth is uncommitted then I find that really extraordinary. We've sold the alliance so much that now there's tremendous pressure from above to make it work.” (CM,SML,98,1:3)

In the early days, there was only one senior UESL representative at the SCA board meetings. This was not due to lack of involvement, because the UESL team had been empowered to take decisions, and it had been felt that a greater presence might have been inhibiting. In SML's eyes this was unacceptable and it complained that UESL was not giving the alliance due importance. ARRC never had problems of this kind. Its directors simply discussed the pros and cons and made a decision right away.

5.2.3 Communication

There was a gap between senior managers' understanding and the workforce's perception of what the supply chain alliance was for. In the past, Shell controlled the entire logistical operation although SML managed the workforce. Now, the bases were managed by SML and individual roles and responsibilities in SML had increased in importance. It has taken some time for base managers to grasp the implications of the changes and to ease themselves into the job.

Discontent seemed to be rife, particularly as SML was concentrating on relocating its entire business onto the Altens base. The move itself had been daunting and a drain on already limited resources. Because much of the time SML managers were not at the base, the workforce continued to look to the Shell managers for direction. It was no surprise that the workforce did not know whether it was coming or going. At the time, some of the changes happening within the SML organisation included:

- the physical removal
• corporate pressure to reverse a negative cash flow
• changes in job scope and roles
• limitation of management resources
• senior staff leaving due to mismanaged vessel leasing
• loss of decision making autonomy
• the supply chain alliance
• conflict between SML and ARRC.

All in all, SML found the changes difficult to manage and consequently, the SCA was given low priority.

Some of the problems may have been due to SML’s straitened circumstances, exacerbated by its failure to secure a major contract that it had high hopes of winning. Also rushed negotiations during the move to Altens (the purpose and strategic intent of the SCA from UESL’s point of view was to optimise utilisation on both bases). In this way, the tariffs would reduce for UESL’s off shore customer. Communicating, planning and structuring the alliance tended to be treated as an afterthought.

"I’m not making excuses for them, but it might have been the mad panic to sort things out. The last thing they would have been worrying about is cascading information down. Still, that’s not how it should work and communication has to be the number one priority.”

(TM,ARRC,98,3:2)

Despite the difficulties, people were beginning to understand the logistics processes. For example, the transport manager understood why cargo had to be loaded in a particular order, that sailings had to be on time and off loaded goods needed to go onto the right rig in a planned sequence. Delays due to late delivery by third parties were investigated and reported at weekly operations meeting attended by the base managers.

Transmission of information is a critical factor in any business and it affects all people and all activities. It was dismaying therefore, when it came to light that communication within
the SML organisation was poor and even its own employees often found it hard to get information. SML’s closed culture was quite contrary to that in both UESL and ARRC where views were continually exchanged, problems shared and joint solutions thrashed out.

"We love working with Shell, we do fantastic things with them, they make changes happen. They are proactive to change and are always willing to listen. They want us to make money. So much so that I wish everyone could be like Shell." (MD, ARRC, 98,3:4)

5.2.4 Coordination and Control Mechanisms

UESL introduced the SAP information management system at much the same time that the supply chain alliance was being rolled out. There was little appreciation of the impact that SAP was likely to have or that the learning curve would be so gradual. Many customer complaints arose as a result of the SAP programme’s implementation.

Information technology issues had to be resolved before SML moved into Altens. This needed integration, not only of the Shell IT system, but also SML’s and, to make matters worse, the latter had just been converted to a new operational system imposed by Halliburton. In all, there were seven different operating environments. It was therefore of paramount importance that common IT links were in place before moving. This was one of the reasons for SML’s delay in relocating from the Nord base to Altens. Fortunately, these issues were resolved at the end of the day and company communications were made effective.

Safety indemnity procedures were very important in a high-risk environment and Shell’s high profile worldwide meant that it had a reputation to protect. An accident on the bases or at sea put Shells’ reputation at risk, not the contractors. The important safety indemnity was the Mutual Hold Harmless indemnity insurance. MMH protected every party so that they could not sue each another. The MMH was the legal mechanism which enabled the operators and contractors to share equipment. Each company, including sub contractors, was responsible for carrying its own insurance.
"I don't think our quality is gold plated, but we have a standard to live by and won't drop below that standard." We live in an environment where we can't allow accidents to happen." (SMUESL, 98,3: 1)

SML was part of the Aberdeen Marine Logistics Association (AMLA) which was a boat sharing consortium. SML was credited with having formed AMLA to promote vessel deck-space utilisation and sharing amongst operators. This had worked very well during 1997 and 1998, but the flat spot market in 1999 had reduced its effectiveness. With regards to the SCA, the more often SML shared vessels with other operators meant that the utilisation of the boats would be more efficient and less costly, generating direct savings in the logistics process.

The Tender Board was the organisational structure within Shell that challenged the standards and evaluated new contracts presented to Shell. This added discipline to the process and ensured that all contractors were aware of standards as well as particular conditions of tender. The SCA strategy had to have direct approval from the tender board.

In the early days, SML felt frustrated and constrained because it was not given the same scope by UESL that it had been by other clients. For its part, UESL wanted to make absolutely certain that SML knew what it was doing and it was some time before UESL felt able to relinquish its control and allowed SML to manage the operations.

"We've a number of clients for whom we do everything, we are able to design, control and deliver the best service. Still we don't manage the entire business for Shell, who is a major customer and also an alliance partner." (AB,SML,98,4:3)

5.2.5 Learning

Despite the fact that a great deal of thought had been put into establishing objectives set out in the alliance agreement, it was only when work began that real doubts and misconceptions surfaced regarding the methodology for accomplishing these goals.
It was fairly certain that even at the outset, the respective roles and responsibilities were not fully understood by all the players. This deficiency led to misunderstanding and friction between company representatives who suspected the other allies of inadequate personal and corporate commitment.

The entire alliance process had to be carefully thought through afresh and this was while because the allies were concentrating on dealing with the poor relationship between themselves. It was not until later that the full architecture of the supply chain was visualised and understood. Although critical, personnel responsible for procurement at one end of the chain and the Shell internal customer at the other, were not involved in this alliance. The importance of stakeholder analysis should not have been under-estimated at this stage. As the workforce and significant others were not informed before things happened, it was little wonder that as a consequence people were de-motivated and their performance affected negatively.

Learning by experience proved to be enervatingly slow and it tended to highlight negative incidents that had to be reassessed and rectified. However, despite the early upheavals, positive signs were also evident at an operational level. For example, assigning employees to other work locations facilitated the transfer of tacit and explicit knowledge. Planning and scheduling became more accurate. Collaboration in such an environment was encouraged by open communication and informal business networks.

Co-location and interfaced technologies accelerated speed of response. All three companies invested in up to date technology and a joint training programme was set up for the SAP system.

5.2.6 Performance Metrics

Performance measures had been set out in the agreement document and SCA business was to be combined in a "value pot," with 65% going to UESL, and the balance divided between SML and ARRC according to their own internal agreement.
"At the end of the day, the lessons learned were that the contract was not right. It was not aligned with where we wanted to go in the beginning and some of the KPI's, were meaningless." (SLM, UESL, 98,2:5)

Despite the turbulence in relations, performance had improved and UESL, SML and ARRC appeared convinced of the benefits to be gained from the alliance and became more committed to it, despite the problems, past, present and future.

5.2.7 Resource Planning

SML had been notified by a client that a major contract would not be renewed and the implications of this had since proved to be considerable. Failure to secure the contract had made SML homeless as it rented the Nord Operating Base from that customer. The failure to secure the contract was because the client felt that SML lacked the infrastructure to support exploration activities in that particular sector of the North Sea.

The alliance also suffered greatly from replacement of key personnel by people who did not really understand the alliance concept and who were brought into the process when it was already active. This caused a loss of personal incentive and commitment.

"Seaforth was more than a bit ambitious. They made promises that in the end they couldn't keep." (CS, UESL, 98,2:7)

"Seaforth's proposal was very well sold and we had no reason to doubt it.... But hindsight is a great thing." (CS, UESL, 98,2:7)

5.2.8 Setting objectives

In January 1998 when the Alliance officially began, the intention was that it should last for a minimum of five years. Shell Expro's objective was to optimise use of its operating bases and reduce warehousing tariffs charged to Brent, Northern and Central offshore customers.
"The SCA is about sharing and reducing costs to our internal customers... Filling the bases will allow tariffs to fall, which just now are going through the roof."

(SLM,UESL,98,3:4)

This motivation had been consistently maintained since the outset, although it might have appeared at times that everyone was not marching in step. In addition, the SCA had to reflect strength and unity to the market, as well as internally within the company.

"The thing that annoys me most is that the essential part of the agreement has never been adopted. Unless the basic formula is agreed and promoted by core people, it can't filter down to the working environment and will simply dissolve."

(MD,ARRC,98,8:5)

"At the end of the day we're all in this to make money."

(BM,SML,98,5:6)

Inexperienced individuals in the Supply Chain Alliance not only found themselves breaking new ground, but were also having to make decisions with only limited information. Although a statement of intent had been drawn up with the objective of identifying commercial aims and setting out contractual arrangements, in retrospect, targets and milestones were unclear. It became obvious early on that people were either overwhelmed, or confused and that objectives had to be re-addressed.

"It's fairly new stuff. No one had done this before and when I asked the contract specialist about profit models, they did not come up with anything. I eventually gave up on them and moved on to work it out ourselves."

(SLM,UESL,99,1:5)

Tension arose because people did not know what information could be divulged and what was confidential. This understandably put them on the defensive. Furthermore, as the parties became immersed in operations, the momentum and problems which surfaced made it difficult to keep the original performance milestones in sight.
"It was hard at the beginning. The alliance started off very easy but one month into it, there were hurdles. SML wanted to do what they did before and throw off the last ten years. Some of it is good, so let's build on that and get rid of the rubbish." (SLM,UESL,99,6:1)

"Either I'm beginning to lose sight of the objectives, or my perception is changing of what I thought the alliance was for." (TM,ARRC,98,1:5)

"The alliance is a great opportunity to open doors and to get new business. We admit that, but still have to get the fundamentals right." (MD,ARRC,98,1:4)

One of the alliance's main aims was to reduce Shell's budget. This focused the contractor's attention on manpower reduction and, despite an increase in customers, there was no intention to increase manning. Altens had been over manned for some time, but had a flexible and well motivated crew. Nevertheless erosion of the workforce, encouraged by a "beat-the-budget" incentive in the alliance contract, compromised this versatility and those left were very discouraged.

5.2.9 Summary and Transition to Stage II

There was a notable, almost palpable, difference in atmosphere after SML moved to the Altens base. The transition from Stage I to Stage II was marked by a change in attitude. Communication was unrestricted, outlook and behaviour had become more positive. Key people were now taking part in regular dialogue. Discussions were future orientated, not pessimistic, or fixed in the past. It was also evident operating costs were being reduced.
Table 5.4 summarises behaviour which signalled the transition to *Stage II*.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Transition Stimulus</th>
<th>Stage II, Transition Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Building trust</td>
<td>Crisis followed by</td>
<td>• change of attitude</td>
</tr>
<tr>
<td>• Commitment and leadership</td>
<td>Managerial Action</td>
<td>• communication and open</td>
</tr>
<tr>
<td>• Communication</td>
<td></td>
<td>• friendly behaviour</td>
</tr>
<tr>
<td>• Coordination and control</td>
<td></td>
<td>• better understanding of</td>
</tr>
<tr>
<td>mechanisms</td>
<td></td>
<td>logistics process.</td>
</tr>
<tr>
<td>• Learning</td>
<td></td>
<td>• building trust</td>
</tr>
<tr>
<td>• Performance metrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Resource planning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Setting objectives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.4: Transition from Stage I to Stage II.

5.3  **STAGE II: Duration July to December 1998**

The oil crisis imposed even greater internal pressure on UESL to provide the most cost-effective service to its internal customers. In the past, Shell had done very little marketing to promote awareness of the breadth and quality of its service. In order to change this, a number of internal cross-functional teams were set-up. These included a customer group to identify exactly what the customer required now and in the future, a contract group to support service contracts, a business improvement team and a planning team.

1998 was a time of market uncertainty when, by and large, contractors had to reduce prices. Shell, leaner and more efficient, was undergoing internal re-organisation and the SCA was seen as the vehicle to meet corporate efficiency targets with projected savings for 1999 of £7m. Attitudes needed to change, especially in the Business Units, which represented the internal customer. This was an ideal opportunity for the Shell Business Units to work with the alliance.

The alliance seemed to be racing ahead and people were becoming anxious mainly because milestones in the alliance agreement were being ignored. Before long, UESL reviewed the
agreement and took immediate action to regain control. This was called the “Pause Plan” and was met with relief by all concerned. The main points addressed were contract details, methods of payment, apportionment of profit and health and safety issues.

Table 5.5 below, shows how characteristics describe the events in Stage II.

<table>
<thead>
<tr>
<th>STAGE II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics from SCA data</td>
</tr>
<tr>
<td>• Motivation high, but sometimes fluctuates</td>
</tr>
<tr>
<td>• High energy</td>
</tr>
<tr>
<td>• Common mission</td>
</tr>
<tr>
<td>• Growth of commitment</td>
</tr>
<tr>
<td>• Inter-organisation teams identified</td>
</tr>
<tr>
<td>• Steering committee and Core team</td>
</tr>
<tr>
<td>• Dialogue to resolve issues</td>
</tr>
<tr>
<td>• Joint problem solving</td>
</tr>
<tr>
<td>• Sharing market information</td>
</tr>
<tr>
<td>• Information exchange</td>
</tr>
<tr>
<td>• Joint planning</td>
</tr>
<tr>
<td>• Established joint performance measures</td>
</tr>
<tr>
<td>• Team skills</td>
</tr>
<tr>
<td>• Understanding joint processes</td>
</tr>
<tr>
<td>• Understanding partner business</td>
</tr>
<tr>
<td>• Problem solving</td>
</tr>
<tr>
<td>• Joint communication plan and revised budget</td>
</tr>
<tr>
<td>• Social interaction</td>
</tr>
<tr>
<td>• Team achievements</td>
</tr>
<tr>
<td>• Improved communication behaviour</td>
</tr>
<tr>
<td>• Individual’s responsibility increasing</td>
</tr>
</tbody>
</table>

Table 5.5: Dominant Characteristic in Stage II

194
5.3.1 Compelling Purpose

SML increased its management team by two and people in the organisation were beginning to realise the potential of the alliance.

Inter-organisational improvement teams had to identify the resources and time needed to achieve the tight schedules imposed by the SCA core team. Each team determined success according to anticipated savings and now the core team authorised people to be assigned to do so. For example, boat related projects came top of the list because a lot of money was likely to be saved in this area; possibly as much as £3m. Shell was to be the custodian of the project, and of its plan and schedule. The SCA was widening the projects by bringing in these additional people. Instructions to the teams were roughly along the following lines:

1. Identify the project, tasks, champions and team members.
2. Plan target dates in outline and propose realistic time frames.
3. Identify how the tasks can be completed. Avoid over commitment or under estimation.
4. Assign responsibilities.
5. Hold two weekly review meetings attended by champions and SCA board representatives.

The slump in oil price reinforced the importance of the SCA in terms of helping UESL reduce its 1999 budget. At the same time, the SCA was equally important to the participating contractors who required to secure business in difficult economic times. The first objective was therefore to identify where potential cost savings could be generated, bearing in mind maintaining a balance between a reasonable service and price.
Cost savings were seen as coming from the following broad areas:

- Optimisation of assets by retaining Altens and Torry bases and increased tonnage throughput. Maximum utilisation of the yard for warehousing, plant, equipment and boats.

- Increased market share by offering "best" value. Areas of potential reductions included - fleet, containers, security, cleaning, catering, building maintenance, harbour board and tank cleaning. Pooling Halliburton resources was also suggested, for example Seabase Quay and the pipe yards. Such a move would have directly affected rates and yard usage.

- Business Improvement Projects and new business (income)

5.3.2 Conflict Management

This alliance suffered from conflict which was manifested by angry discussions at meetings, exposing lack of unity between supposedly collaborating allies. This was probably due to a misfit between goals and tactics, as well as a basic lack of understanding and direction. There had been an overwhelming dearth of trust throughout the course of the alliance and continual friction between SML and ARRC, nevertheless, relations were improving in certain areas, in particular at the Torry Dock, where all parties were co-located. Although conflict was often evident in this alliance, intense dialogue and individual commitment was the response for resolving conflict.

One small but unhelpful point, was that SML bypassed personnel in UESL and tried to play individuals in other companies against each other, which caused annoyance and mistrust.
5.3.3 Interdependence

By its very nature, managing an alliance is hard to do well and in this case, three independent companies were learning how to foster co-dependency. The core team set a rigorous schedule during October and November 1998 and tasked itself with establishing a set of common objectives for 1999. Once the objectives were confirmed the next milestone was a three way contract that stressed the importance of mutual reliance and which should have, but did not, clearly lay out the allies respective roles and responsibilities.

The agreement was built around a sound commercial model that made sense and was accepted by the companies. The intention was that the agreement should be flexible enough to allow people the freedom to innovate and be creative. This was easier said than done and the original contract proved difficult to understand, principally because targets and performance criteria had not been adequately quantified and were liable to misinterpretation. One of the criticisms of the first set of performance measures was that it was open to selective interpretation.

Supervisors were tasked to jointly develop a scorecard, in order that each person would be aware of the performance specification and measurement. Key Performance Indicators and Performance Indicators were finally fixed and became the target for a monthly management report. The resulting scorecard was a difficult challenge for the SCA, as performance criteria were set when the price of oil was $14 per barrel. Notwithstanding the extraordinary increase in the oil price since 1999, at the time, turbulence in the oil industry demanded continuous discipline to mitigate the impact of the slump.

"There were too many versions of what the agreement was all about. . .you could not understand how the original contract worked." (CM,SML,99,3:7)
5.3.4 Learning and Alliance Skills

"Shell showed the contractor the importance of being able to measure and document. They (the contractors) taught us that there are certain things you can’t do when you are dealing with a number of different operators. We’ve learned to look at the way other people do things. If it’s reasonably acceptable, we go with it, rather than putting our foot down and saying this has to be done to the Shell standard." (SSLM,UESL,99,4:8)

Lessons had been learned and there was a strategic document and review procedure in place. Team implementation was well defined and the alliance companies were actively involved. All parties openly discussed current and future objectives and recognised the importance of teamwork in an unstable environment.

The allies began to formalise procedures specifically covered the following:

- Communication, including performance reports, updated monthly and presented at board meetings.
- Procedures to report on income, contributions and sharing.
- Operational meetings regularly held and minutes circulated. There was an emphasis on teams knowing exactly what it was they had to achieve.

5.3.5 Joint Decision-Making

A core team of six senior managers, with two from UESL, three from SML and one from ARRC, was established and a strategic plan developed to monitor SCA project performance on a monthly basis.

Main objectives for the year 1999 were:
- save £7m to meet Shell Expro reduced budget target of £31.8m
- ensure KPI performance
- deliver a minimum of 90% performance on the Service Level agreements
The principal strategy to achieve these objectives included the following:

- flexible use of marine assets by pooling fleets
- exploiting spot markets
- joint boat sharing
- ensuring "fit for purpose" service to customers
- developing and maintaining client base
- optimising use of assets and developing service contracts to support Altens, containers, fleets, cranes etc.
- promoting teamwork, common work practices and goals
- delivering Business Improvements Proposals (BIP's)
- monitoring and controlling programme of KPI deliveries
- market surveillance and exploitation
- clear cost reporting and forecasts

All parties contributed to drafting the revised budget and reward model. A communication plan, defining the SCA reporting structure, was incorporated in the strategy. Team members and leaders were chosen and fifteen business improvement projects were launched.

UESL arranged a meeting with SML and ARRC as well as other main contractors to discuss how to reduce costs by taking concerted action.

In late October 1998, the first SCA joint workshop took place and it went a long way in aligning the goals of the three organisations. A SWOT analysis was conducted followed by the formulation of a statement of common purpose. A joint strategy outline included the framework for an HR and finance plan and core team members were nominated to implement the strategy.
From an operational perspective, the SCA was running quite smoothly. One UESL specialist was transferred to SML with the intention of gathering data and reporting on performance and base utilisation. Although the information was supposed to be in the system, it seemed to be quite difficult to track. Nevertheless, the core team was now in a better position to more accurately calculate the SCA “value pot”, contribution and reward share than any time in the past.

Recognising the importance of controlling the process, a communication strategy and reporting structure was established. Schedules of meetings were drawn up as fora for discussion, reporting and reviewing. Business improvement teams prepared project plans for each subject under review and UESL personnel became custodians of the procedures.

Each team prepared a plan to evaluate the project and defined milestones. Every month project team leaders reported the current status to the core team. Actions and comments were recorded and circulated. Team development was documented by a single business improvement coordinator.

5.3.6 Personal Satisfaction and Motivation

More open communication and frequent dialogue signalled improving relations. There was a friendlier atmosphere at meetings and everyone contributed to discussions. Meetings became more positively structured with minutes recorded, distributed and follow up action reviewed. Inter-firm wrangles were fewer and the new member of SML’s management team was deemed to be trustworthy and accepted the SCA.

Notwithstanding this positive atmosphere, there remained an undercurrent of frustration with the Supply Chain Alliance. Some people thought the alliance was taking up too much time and had little or no impact on market share. Although this was perhaps a premature judgement, certainly SML did not expect a payoff until 1999. SML experienced major disruptions in 1998 including the move from Nord, manpower problems, a new
management team, new people at the head office and at the same time the company was expected to maintain margins and make money.

In general, people expected to see results immediately and de-motivation was the outcome because of apparently slow results.

5.3.7 Summary and Transition to Stage III

Alignment of objectives only happens when the plan has been collaboratively designed. Although everyone understood the goal, nevertheless, perceptions of lack of commitment created distrust and, as a consequence, raising of defensive barriers. Nevertheless, allowing for such peaks and troughs, the results of the first fourteen months of the SCA had been impressive.

The alliance had reduced operating costs. Savings were commonly pooled and as stated in item 5.2.6, this was split with 65% going to UESL and 35% divided between SML and ARRC. This was deemed equitable because UESL provided the entire infrastructure, i.e. is Altens and Torry bases, for the logistics operation.

Large labour cost reductions occurred as a result of the alliance. The labour budget in 1998 was £3.5m and by cutting the workforce the alliance estimated the number employed was now 18% below this figure.

The alliance was operating in a mature industrial sector and UESL's objective was to provide the best service to the North Sea platforms at the lowest cost. Inherent waste in the supply chain required to be addressed. In the fiercely competitive environment, there had to be a compromise between UESL's demand for high quality of service and SML's policy of maintaining expenditure at the lowest level.

Although the Altens warehouse utilisation had increased since SML moved to the base, what bedeviled the alliance was poor communication and a lack of cost openness.
Innovation was an important product of the alliance and currently there were fifteen business improvement teams in existence, although with overlapping membership. Some had already resulted in savings, but many had foundered due to lack of commitment, changed prioritisation, or poor leadership.

The alliance got off to a smooth start and then hit a brick wall by attempting too much too soon. Everyone thought the alliance would only take about eighteen months to set up, after which it would be plain sailing. In reality, mere enthusiasm had not been enough and the emphasis should have been first on agreeing ground rules instead of trying to make progress prematurely. What actually happened, was that team players’ motivation was difficult to sustain because initial objectives had not been explained well enough.

"Although we're so far ahead, we left fundamental things undone. We raced ahead with all the visionary concepts, and didn't have the foundation blocks in place." (MD, ARRC, 98,9:4)

The opinion shared by both UESL and ARRC was that SML was uncommitted to the alliance. From the outset ARRC and SML distrusted each another and this lack of openness reinforced defensive attitudes. It had to be borne in mind that, on the most part, people involved had not been exposed to anything like this before and learning was gradual. Also, we are talking about different kinds of trust, namely, organisational as opposed to individual trust. In this particular context there was no trust between the organisations, although, in some instances there was a high level of individual trust.

"There are pockets of friendship but on the whole there is little sign of trust in either company." (BMTD, SML, 98,5:4)

All the problems of confidence affected higher echelons in the organisations and did not feature at operational level, that is in the warehouse in Altens or on the Torry dock side. The problem at the lower levels was that the workforce failed to understand what the SCA was all about. Perhaps if people had been better informed, commitment to the SCA would have happened quicker. Even although events of the past year (1998) had been turbulent,
the SCA made a significant impact. Quick successes early in the relationship, provided encouragement during difficult times.

From the outset this alliance had been tempestuous, yet managers had worked hard and there had been significant successes. The conflict that undermined relations was mainly due to one partner’s lack of commitment to the alliance and also negative messages emanating from that company. Problems and concerns evident at the early stage were never fully addressed or resolved and consequently, people eventually lost motivation and momentum. The following descriptions in table 5.6 applied in varying degrees to people and events, as the SCA shifted into Stage III:

<table>
<thead>
<tr>
<th>Stage II</th>
<th>Transition Stimulus</th>
<th>Stage III, Transition Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compelling purpose</td>
<td></td>
<td>No formal strategic plan</td>
</tr>
<tr>
<td>Conflict management</td>
<td></td>
<td>Poor communication</td>
</tr>
<tr>
<td>Interdependence</td>
<td></td>
<td>Low trust</td>
</tr>
<tr>
<td>Learning and alliance skills</td>
<td></td>
<td>Divergent values</td>
</tr>
<tr>
<td>Joint decision making</td>
<td></td>
<td>Fluctuating commitment and confidence</td>
</tr>
<tr>
<td>Personal satisfaction and motivation</td>
<td></td>
<td>Christmas holidays – momentum lost</td>
</tr>
<tr>
<td></td>
<td>Crisis</td>
<td>Legal issues took a long time to be finalised</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Alliance resources re-allocated to other projects</td>
</tr>
</tbody>
</table>

Table 5.6: Transition from Stage II to Stage III
5.4. STAGE III: Duration January to May 1999

A typical feature of the Stage III was loss of zeal by team members and some teams failing to reach their targets. Table 5.7 illustrates characteristics in *Stage III*.

<table>
<thead>
<tr>
<th>STAGE III</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics from SCA data</td>
<td>Dominant characteristics</td>
</tr>
<tr>
<td>• Organisations very different</td>
<td>• Adapting cultures</td>
</tr>
<tr>
<td>• Divergent values cause stress in alliance</td>
<td></td>
</tr>
<tr>
<td>• HR practices not influenced by the alliance</td>
<td>• HR Assessment</td>
</tr>
<tr>
<td>• Companies maintain own policies and procedures</td>
<td></td>
</tr>
<tr>
<td>• Communication becomes increasingly routine</td>
<td>• Performance plateau</td>
</tr>
<tr>
<td>• Teams lose interest</td>
<td></td>
</tr>
<tr>
<td>• Resources stretched</td>
<td></td>
</tr>
<tr>
<td>• Internal organisational pressures shift focus from alliance</td>
<td></td>
</tr>
<tr>
<td>• Partners knowledgeable about each other's business.</td>
<td>• Process understanding</td>
</tr>
<tr>
<td>• Scheduling and planning information available</td>
<td></td>
</tr>
<tr>
<td>• In-depth process analysis identifies hidden costs</td>
<td></td>
</tr>
<tr>
<td>• Customer focused</td>
<td>• Reflection and learning</td>
</tr>
<tr>
<td>• Increased technical and commercial know-how</td>
<td></td>
</tr>
<tr>
<td>• Learning from each other and experience</td>
<td></td>
</tr>
<tr>
<td>• Understand need for structure and groundrules</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.7: Distilled Characteristics in Stage III

5.4.1 Adapting Cultures

Although the alliance partners belonged to three very different business organisations, in the first instance little thought went into their cultural fit. In essence, UESL identified the need for radical change and, although it saw the alliance as the vehicle to achieve this, it paid scant attention to the actors themselves.
"Culture mattered in the early stages, but we've been through the pain of trying to fit together and now it doesn't matter so much any more. Other things have happened that supersede organisational values. Personal relations have developed and now individual values are the driving force." (ONtSML, 99,12:5)

The greatest source of friction in this alliance was the clash of organisational cultures. A service company's approach was not the same as that of an oil company. The former was concerned with competitive price and the latter was primarily interested in quality and safety. On the other hand, ARRC and UESL had always been culturally aligned and this was also partly why there was such animosity between the two rivals (ARRC and SML).

"Craib recognised the importance of the customer and that is where we fell down. We missed the point as a company." (CM,SML,99,7:3)

"We're able to make decisions. We don't have to send forty five memos or go to a meeting about it." (EA,ARRC,98,9:2)

"We were miles apart at the start, but over the last eighteen months we have certainly got closer. We're trying to move from being reactive to proactive and to be more strategic." (ABM,SML,99,5:3)

5.4.2 HR Assessment

At the very beginning, SML's new Operations Manager was neither selected as a core team member nor was he party to discussions relating to the new strategic plan. This lack of inclusion held up the launch of the HR plan to communication the importance of the alliance internally within the organisations. Interpersonal clashes, exclusion of key personnel from strategic discussions and lack of interest further strained the alliance. The culmination was the second major crisis which happened at the end of January 1999.

Workforce morale was getting progressively worse at Torry dock. Men were waiting for conditions of employment to be altered, and this was taking longer than anticipated due to a
hold up in the legal department. Overtime had been stopped and there was also an issue concerning several employee troublemakers who had been bullying people on the dockside.

All the foregoing problems were dealt with and draft conditions of employment agreed and finally issued. Communication between the workforce and management was immeasurably better.

"We're a service company and the needs of our business are different to that of an oil company. Manning levels are always going to be less than we actually need, because it is not just down to resourcing, but what is deemed affordable by our parent, Halliburton." (OM,SML,99,9:5)

"To be fair, we gave SML the incentive to drive costs down and it has done so; probably too far. It has reduced manning to such an extent that it can't provide a proper service. Quality was never the issue, only how to reduce costs." (ABM,UESL,99,2:6)

Despite the disturbance, there was never any doubt in the minds of management that the alliance would eventually be a success. In fact, benefits had already been demonstrated and the monthly management report provided a record of ongoing performance improvement.

5.4.3 Performance Plateau

A number of factors contributed to lack of enthusiasm, slower pace, and over stretched resources. In addition, Halliburton’s legal department held up the lease and this affected transfer of contracts from UESL to SML to manage. It was eighteen months into the alliance before the foregoing agreement was eventually signed.

Combining UESL and SML marine fleets, an area where pooling of resources was to produce anticipated and immediate cost savings, seemed pointless when it emerged that different chartering agreements were likely to increase UESL’s costs. SML was very keen to use the UESL boats, which would have provided huge economies of scale, while at the
same time hedging its own risk. At the end of the day, due to reduced activity in the North Sea, the spot market proved to be a more economical way of chartering boats.

Resumption of work after the Christmas 1998 holiday, found SML fully committed to tendering and this further delayed the strategic document. UESL’s contract specialist moved to SML offices to boost its management team. Core team members took on extra work to help SML complete the strategic plan and the 1999 cost model. Merging the marine fleet and the boat sharing were to be addressed as separate issues.

Things were coming to a standstill. Contracts could not be novated (handed over from UESL to SML) until the contract lease had been signed and until UESL had secured a guarantee. This was to come from Halliburton, the parent company, which would underwrite boats and would eventually help to resolve the impasse concerning the different cost structures. Things slowed down even further before they got better and the Halliburton legal department lived up to its reputation for procrastination.

The SCA board meeting in February 1999 was uneventful possibly because, as was the case with most business improvement meetings, it was poorly attended. Many projects were on hold and only a few were moving, even if slowly. Key personnel failed to attend core team meetings and replacement members were often poorly briefed. UESL personnel, involved in internal departmental restructuring, had lost enthusiasm for the alliance.

Alliance members became frustrated and, to make matters worse, ARRC saw itself being marginalised by SML. SML was using its usual “back door” approach to bypass the UESL manager responsible for the alliance.

Eventually the situation exploded. A core team meeting was cut short and senior management had to patch up differences. As a result, a key person in SML was brought in, concentrating entirely on the SCA. Things began to normalise as far as was possible, until the legalities managed to be formalised.
"We took a little time to drew breath and gather our thoughts. We're up and running again and even may have gained a bit of momentum." (ABM,SML,99,5:5)

5.4.4 Understanding Process and Cost

Although SML completed an in-depth analysis of its own internal processes as part of a People Performance and Results (PPR) initiative, there was no attempt to map joint activities where the alliance interfaced. In fact, it was only recently that there had been any recognition of the need to do so. This happened when SML changed the shift structure of its workforce, without ARRC or UESL’s knowledge. The effect was that, although SML were seeing savings, ARRC costs were increasing due to overtime work. Communication had broken down because of changes in ARRC personnel at the Torry offices and scheduling and planning information was no longer shared.

As understanding of the supply chain improved, it became clear to SML that it was remote from, and not dealing directly with, the end user/customer. At the outset, UESL was seen as the customer and it acted as intermediary to the internal customers who were serviced by SML and ARRC. UESL considered that it was its job to promote the SCA to the internal customer and that it had to be seen as the point of contact for the alliance, addressing service quality problems. The offshore customer believed that standards of service had fallen since the start of the SCA, despite the fact that monitoring the alliance’s performance did not appear to corroborate this.

"Customers think that the Shell service at Altens has deteriorated with a corresponding benefit to a third party provider (SML) who is in here." (ABM,UESL,991:1)

"There are still fundamental flaws regarding expectations of SCA performance, not least of which is the relationship with the end user, customer and service provider. I suggest that there needs to be greater clarity within Shell. Shell Logistics has been seen as SML's customer and increasingly there’s a sense that the individual business units have their own logistical requirements." (OM,SML,99,2:1)
SML felt that UESL was acting unilaterally, by deciding what to do and what not to do. This confused SML, the service provider and SML wanted to know where its loyalty lay. The process needed to be streamlined in the interests of the end customer.

"The Brent business units have reduced the number of sailing’s without reference to us. They did not bother to identify the impact on our service. They made the savings and expect the service to remain the same without having consulted us." (OM,SML,99,3:2)

The importance of these stakeholders was becoming increasingly evident. UESL was the interface between the end customer, the oil rigs and drilling platforms and all communication from SML went through UESL. SML was frustrated because it felt that it needed to take ownership of the logistics process to benefit the SCA and optimise the supply chain.

For some time Shell Expro Procurement department and UESL had gone their separate ways and interfacing had almost entirely ceased. This was not in SML’s control, but in terms of waste reduction, too much stock held in the warehouse had been needlessly tying up capital and valuable shelf space for years.

"A huge amount of company stock is being maintained. UESP (Shell Procurement) say they don’t own it and UESL say they don’t either. This has to be thrashed out and someone needs to resolve it." (ABKUESL,99,4:1)

A new bar code information system appeared to be the missing critical link between procurement, logistics, and the SAP management. The situation was far from perfect as the stock analysts (from Procurement) independently took decisions processing goods into the Altens warehouse inventory. Because this took so long and information was out of date, the analysts got it wrong with the inevitable consequence on stockholding.

Despite this, understanding in other areas had improved. It had been generally recognised that the initial 1999 KPI’s did not accurately reflect performance and needed to be more
specific. The new series was jointly discussed to ensure that subjectivity had been removed. Operating managers and supervisors had to agree performance milestones, quality assessment, productivity, safety and environment issues. These results were to be reported monthly and posted on notice boards in the two bases.

Preliminary information concerning 1998 cost savings shared by the three companies was announced. According to SML, parts of the jigsaw were missing with particular reference to UESL's vessel costs and the final charges levied on the Business Units. UESL could never disclose these costs, to do so would have infringed anti-trust legislation.

"We don't understand the whole picture, particularly in terms of overheads against the assets. There has to be a charge for all the Shell people in Logistics and if you add all that on top of the costs then it is going to look pretty expensive to the business units."

(CKSNI, 99,5:4)

5.4.5 Reflection and Learning

The alliance motivation was to make best use of assets and reduce operating costs so as to cut charges to the Business Units. This was a pragmatic move UESL to outsource non-core business while maintaining a degree of control. UESL personnel were slow to pull back completely, because of their historic role building up systems and infrastructure, although by this time management of these assets they had officially been handed over to SML.

UESL was continuing to withdraw both physically and intellectually. Attitudes had to change and the UESL organisational structure was adjusting as well. The SCA structure was reforming to reflect the increased scope of SML's work.

One of the important things learnt was that early problems which remained unresolved, were likely to continue to arise from an absence of specific objectives. The parties also needed to agree the formalities as to how the alliance would operate. A clearly articulated and structured plan was essential, to draw on the talents of the stakeholder community. In
addition, monitoring and coordinating mechanisms were needed, to provide basic ground rules and performance expectations and to audit progress.

Alliancing was a rapidly changing scenario. As relations evolved flexibility was required to deal with unforeseen events. Common understanding and flexibility at the alliance interface helped to bridge the gap between practice and execution of the service.

5.4.6 Summary and Transition to Stage IV

Throughout the duration of the alliance, ARRC has provided a first class service to its UESL customers. Unfortunately, conflict between SML and ARRC, which had always been simmering, erupted from time to time. For its part, ARRC’s managing director spent nearly all of his time working on SCA issues and, as the latter only amounted to about 20% of his overall business, he was beginning to question the alliance concept as a whole. Lack of trust remained the major issue between SML and ARRC.

Objectives for 1999, prepared jointly by the core team in late 1998 and set out in the alliance strategic plan, aligned each organisation’s vision of the future.

By the latter part of 1998, energy, the notable feature of the SCA, had largely dissipated. This may be have been due in part to the Christmas holidays but more significantly, SML’s efforts had to return to tendering for work essential to its business.

Over-commitment by SML on boats had undermined its authority to make independent decisions within the Halliburton group. Other uncertainties resulted in a loss of morale on the part of SCA members. UESL was concerned about SML’s financial position due to over commitment on vessels, so much so that it requested a guarantee from the parent company to mitigate the risk.
SAP continued to cause problems. The warehouse SAP module required dedicated personnel and well designed methodology to work to its full potential. Lack of initial training of ISC contractors had not helped the situation.

The structure of the SCA was changing, in as much as the bulk of the business revolved around boats, leaving little in it for ARRC. It had been suggested that there were not enough clear signals to the market endorsing UESL support for pooling of the fleets. SML requested that this should change.

EU anti-trust legislation mitigated against vessel commingling (pooling) in the sense that UESL was not permitted to divulge cost information to SML and could only talk in terms of averages rather than disclosing actual figures (see 5.4.4, page 204#2). This meant that SML decisions were based on limited knowledge.

Despite the foregoing and looking at the overall picture, the conclusion seemed to be that on the whole the SCA had been operationally successful. There was a much clearer division of work now that the conflict concerning the role of asset and base managers had been resolved.

Internal restructuring in UESL had had a major impact on the SCA. The customer focus had changed requiring that UESL loosened its previously hands-on, operational role in the alliance. This did not diminish the importance of the alliance, although it could affect the SCA structurally in the sense that as UESL became less involved, allowing SML and ARRC to manage the logistical operations, which is effectively outsourcing.

From the outset UESL had been fully involved, both operationally and strategically. For the most part, the contractor had depended on UESL personnel for guidance, financial support and provision of infrastructure. Interpersonal relationships had reflected fluctuating confidence in accordance with the degree of information exchange, perception of partner’s integrity and general communication, at any one time. The champion’s role as change agent had been of paramount importance at this time.
A standardised performance report was in place, which was intended to enable ARRC and SML to get on with running the alliance and to minimise waste of time in troubleshooting. Consequently, transaction costs in terms of control was expected to reduce.

In an attempt to move away from the current method of encouragement based on budget reduction, an alternative cost model was being considered which meant a more equitable, performance related, gainshare approach.

Improved cost understanding reinforced personal relations. The glue holding the alliance together was the expectation of trust and openness. Ideally these should have allowed the client to monitor and evaluate, leaving SML and ARRC to operate and promote the alliance.

There was still a great deal of mistrust within the alliance and accusations of absence of commitment. People were being pulled out of meetings at the last minute and there was continual pressure on SML from Halliburton to divert the emphasis onto tendering for other new work. This stretched the resources of the small existing management team.

Nevertheless, the structure of the alliance was still evolving and undoubtedly would look quite different in the future. It had to be remembered how important the impact of the external environment was on the SCA and that this would continue to be so in the future.

The transition to Stage IV was characterised by a drive to formalise rules and procedures concerning collaboration, see table 5.8. Confirmation of last year's figures (1999) was currently being sought from SML. ARRC had already complied and had submitted like information.
Table 5.8: Transition from Stage III to Stage IV

5.5 STAGE IV: Duration June 1999 to January 2000

Table 5.9, illustrates dominant characteristics, inductively derived from data gathered during participant observation in the fifth stage of the SCA alliance.

![Table 5.8: Transition from Stage III to Stage IV](image)

Table 5.9: Dominant Characteristics in Stage IV

1. Changing attitudes towards the alliance in both companies
2. Some shared values
3. Problem solving and analysis skills
4. Understand operations in each company
5. Incremental problem solving
6. Joint projects produce innovative solutions
7. New capabilities developing
8. Transfer of knowledge and capabilities
9. Improvements routine in day-to-day business
10. Workforce involvement improves operations
11. Re-define goals and objectives
12. Opportunity for the alliance to become truly strategic
13. Adapt to external and internal dynamics
14. Operational objectives achieved
15. Joint strategic plan for next alliance period

Table 5.9: Dominant Characteristics in Stage IV
5.5.1 Cooperating Cultures

Evidence was growing that norms within the alliance companies were converging to align cultures and change values. This was quite a cultural shift, as initially UESL had been principally concerned with savings. Now the focus shifted towards understanding business drivers as a means of reducing cost. UESL was actually interested in the contractors' well being, how SML and ARRC were doing things and where they were going. Alliancing was now a part of the UESL culture although a few years ago no one would ever have thought it possible.

SML is growing intellectually, as we both are. At one time, although we were urging SML to look for new business, it soon became apparent that its first priority was to retain the business it already had. It was very frustrating from our point of view until we realised that if SML hadn't kept that core business, costs would have gone up for us. Now that they've re-bid for existing contracts, they're again starting to search for new business”

(SSLM,UESL,99,17:4)

5.5.2 Development of Alliance Skills

“Alliances are interesting, if only that lots of people learn many things. They stretch people's imaginations and the way they think about things. That's what adds value.”(SSLM,UESL,99,18:5)

As a result of the alliance, UESL personnel who possessed excellent technical skills, learned a new sets of skills, including innovative thinking and teamwork. For its part, SML grew in confidence and developed its management capability. Competencies were continuously improving. Not only was SML improving performance in terms of management skills and professionalism but it was also honing its ability to measure performance. SML had learned from UESL how to become more competitive and had taken on board some of UESL's management techniques for safety on the bases. For its
part, UESL developed business improvement skills by learning to analyse and evaluate new ideas and convincingly sell business cases.

It took SML a long time to understand what the big gain would be. Initially, the prize was sharing cost savings between the partners. The real value for SML was that it had developed skills to be used to manage not only UESL's, but other multi-nationals logistics business as well.

Shell personnel learned to understand how alliances evolved and how to manage them.

"At the beginning, we helped the contractor to change from being just a body shop to become a management contractor. Then we moved to the first set of incentives. We went from crisis to a period of relative stability and to the next stage of growth and development." (SSLM,UESL,99,14:7)

In general terms, the development could be simply summed up by saying that UESL's approach had been transferred to the partners. The alliance introduced its own culture and helped transform customer/supplier relations for the better. UESL learned that there had to be hands on involvement by the Business Units and that it needed to re-align the entire logistics department to customer requirements. The alliance had demonstrated that, in the absence of alignment of goals, there was no real alliance. This was the common thread that ran through all activities involving the parties in the alliance.

5.5.3 Joint Innovation and Continuous Improvement

Innovation was a function of maturity and the business improvement teams were the vehicles to drive innovation.

While all three parties, UESL, SML, and ARRC had a long standing reputation and experience of this industry, all were keenly interested in improving initiatives within their particular organisations.
During the early stages of the alliance, the main effort was to reduce costs. By cutting labour and imposing strict controls, savings had been realised. All three parties were continually monitoring processes to ensure that they continued to improve and add value. These principles had to be transferred to alliance activities. Opportunities had been seized by pooling resources, and harnessing and unifying the separate strengths of the allies.

Many UESL people (2000) were now working on aspects of logistics that added value, rather than on day to day logistical operations; one of the reasons for embarking on the alliance. Things had changed dramatically within the alliance. Initially the objective was to get SML to move onto the base, so as to reduce costs and manage Torry and Altens. Now relations had improved to such a degree that UESL was suggesting that SML worked in direct contact with the Business Units. UESL would have been just be another client rather than an active SCA member and discussions had taken place regarding transfer of Shell staff to SML. The idea was that these UESL employees would assist SML in developing expertise, while at the same time UESL’s skills would, if anything, have been sharpened.

In general terms, the alliance had promoted improvement and challenged people’s thinking. It had made them look closely at other contracts and instigated new ways of working, as well as providing a stimulus to other aspects of current activities.

5.5.4 Joint Tacit and Explicit Learning

So far, much of the knowledge gained in the alliance had been tacit. This included, but was not only limited to, details of the alliance partners business, communication, joint objectives and tactically how to achieve them. Of crucial importance were accessible comprehensive accounts and performance indicators.
5.5.5 Process Alignment at Interface

SML and ARRC realised they needed to work more closely together. A monthly informal forum was in place where the workforce could air its views. Attended by SML’s operations manager and the MD of ARRC, it was aimed at smoothing the change process. It also allowed a two way dialogue between the workers and management, to explain to the workforce the purpose of the SCA and how important its contribution was. So far, the meetings had worked well and as long as management attended and took action to resolve real issues, it would continue to be an effective medium for exchange.

Communication was much better and the operations team met weekly to discuss key issues from the past and for the future, listing actions and assigning personal responsibilities for resolving problems.

UESL and SML had proved that they were able to work together. The time had come to concentrate on the stability of the alliance by broadening SML’s scope and by concentrating on management of supply vessels.

5.5.6 Strategic Review

SML was now well established in Altens Base. ARRC had made significant investments in transport and improvements were expected in the near future.

Logistics required to have a longer term planning horizon and it proposed to achieve financial targets by more closely aligning services with the Business Units needs. In the past the Business Units had had a bad reputation for not planning and for criticising Logistics. As part of radical internal changes, the Business Units had resolved to be more coordinated and were now looking at service requirements for the coming years. This experience would enable UESL to design incentives to reward alliance contractors fulfilling the Business Unit requirements.

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For the first time, UESL internal customers were determining what they wanted from the logistics service. Operators on the two types of platforms, drilling and non-drilling, had different priorities. In the case of the former (drilling), on time and sometimes immediate delivery was demanded because 24 hour well operation was necessary due to the high level of investment.

"Rewards will depend on how fast they can get to platforms and satisfy our requirements. For example the job may only be one visit a fortnight; even so we make sure all the right stuff is on board. Another may be saying, "although I need equipment on Mondays and Thursdays, if something goes wrong on Friday you need to get a boat to us on Saturday." The cost of that boat is miles less than the loss of oil revenue if drilling stops." (SSLM,UESL,99,5:2)

The general consensus was that the management report should have been made known to a wider audience as well as to all stakeholders to raise awareness of the alliance achievements.

"The weakness in the whole set up is that we don't make the end user aware of our success in reducing costs by making savings." (ABM,SML,99,6:3)

"We haven't adequately explained either the philosophy or strategy of what it is we're trying to do with the business units. We've not explained as well as we might have what the alliance is and where it is going." (SSLM,UESL,99,14:6)

The message within SML was that the SCA was important to the company's survival.

"The incentive that people have for increasing job security is to make the SCA work. Unless there's a high level of performance then jobs will be jeopardised." (OM,SML,99,11:3)
5.5.7 Summary 1997-2000

The alliance environment had changed since the outset, due to the dramatic fall in the price of oil and the need to become leaner and more competitive. UESL was forced to re-define its entire strategy. The management structure of UESL had changed from being a series of functional departments, to becoming more horizontally and process oriented.

Cross-functional improvement teams were the principal tools for bringing this about. The teams were made up of people from both client and contractor companies and the emphasis was less on individual effort and more on team activity. This cooperative culture relied on positively motivating people and encouraging the teamwork ethos. The inter-organisational teams were constituted so that people from separate organisations could develop new strategically significant capabilities. Aligning these skills with strategic objectives, meant that supply issues and business decision-making processes were integrated to maximum effect. In one year, the business improvement teams saved £15m across the logistics function.

Challenges facing UESL stemmed principally from continued turbulence in the industry, from the complexities of managing such a tenuous network and from an increasing sense of insecurity on the part of the workforce. Attempts to put collaborative philosophies into practice proved problematic, principally because staff within UESL and the wider Shell organisation had to deal with multiple changes occurring simultaneously.

The essential ingredients of the UESL network were only partially acknowledged or understood i.e. what it was, what it was intended to do, what the costs, benefits and limitations were. Even though Logistics tried to improve supply chain relations, the adversarial attitude and behaviour on the part of UESL internal customers seemed to be aimed at exploitation of both UESL as well as contractors of long standing. That is, as long as the customer continued in the "old" way then everything was all right, but "don't ask us to change our attitude or behaviour." In consequence the natural reaction of UESL was defensive and this was also passed on through to the network as a whole.
The alliance had helped SML grow significantly. Whereas at the outset of the alliance the company struggled to survive, now it had every opportunity to be a leader in its field.

Confidence in SML and UESL had been boosted especially as savings had become apparent. Time and visible results made a big difference. Although turf protection took place, generally speaking, the relationship was good and much improved from the early days.

Despite the history of conflict between SML and ARRC, there seemed to be greater interdependence between the companies as they recognised that each had an important part to play in the alliance. Interpersonal trust had grown mainly due to the influence of one particularly charismatic person in the SML management team. Communication had improved in both formal and informal channels.

Looking to the future, anticipated changes in the external oil and gas industrial environment did not appear so radical as to upset the alliance.

SML still found itself pulled in a number of directions, in terms of the SCA requirements, service to other oil companies and loyalty to Halliburton, the parent company. It was not surprising that UESL thought that SML had not focused enough on SCA business and, because SML was clearly under resourced, this probably would not change in the near future.

Nevertheless, UESL and SML were becoming more interdependent. UESL had pulled back from the day to day operations and relied on SML and ARRC to demonstrate savings, in terms of performance.

Alliance roles were changing. It has been put to SML that it had to manage everything, while UESL paid for the materials and labour it used. This was a move to eliminate UESL's fixed costs and transfer the risk from UESL to SML.
Anyway one looked at it, the scenario was a complete turnaround for UESL and it was driven by the corporate cost cutting agenda. In order to become leaner, in reality UESL was taking the outsourcing route, using the alliance to ensure that at least some of UESL’s values were transposed to the contractor organisations. In the volatile market environment, where the pace of change had to be quick, the alliance had proved in some instances, to be too slow moving and decision making, too cumbersome.

The alliance contract had two years to run and, in terms of its development, the SCA was poised to return to the Stage I. Indicators were: -

- SML presented Project 2000 to increase scope of work in alignment with UESL’s strategy.
- SML’s internal re-organisation explicitly recognised the importance of supply chain coordination.
- SML Business Improvement Projects (BIP’s) were in place to co-ordinate with UESL BIPS.
- SCA potential was better understood.

5.6 DEVELOPING CONCEPTUAL FRAMEWORK BASED ON SCA CASE

On the basis of the evidence presented, the original conceptual framework had been enhanced in the following way. A fifth stage was added using the data from the alliance in Aberdeen, when a great deal of pre-alliance investigation took place over a period of nine months.

This stage has been termed Stage 0. The alliance contract was signed up for a five year period and still had two more years to run. As already mentioned in the previous paragraph, project 2000 was intended to increase the scope of this alliance, consequently, new objectives would be necessary to manage this change. Using the learning gained from the first cycle, the SCA alliance process was ready to return to Stage I.
Both IDV/ Killeen and SCA case studies have shown the alliance cycle to be iterative and the feedback loop, in the conceptual framework, illustrates this point, see figure 5.1.

![Diagram of the alliance cycle](image)

**Figure 5.1: Developing Conceptual Framework**

Data gathering from both sites continued to inform the study and a third research location was subsequently pursued.

The companies active in the third location were Sun Microsystems and Birkby’s Plastics. Sun Microsystems’ core products based on the UNIX operating system, are workstations, file servers, central processing units and related machines all of which are aimed at the high volume, data transaction market. Birkby’s Plastics makes mouldings at its Liversedge headquarters near Leeds, and, since 1996 in Glenrothes, Scotland.

Analysis of primary data was illustrating stages in alliance development with particular characteristics within each stage. Using this as a guide, analysis of the secondary data began. The alliance process between Sun Microsystems and Birkby’s plastic has been used to test and inform the conceptual framework and this is the subject of chapter six.