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**ATTITUDE AND BEHAVIOUR DICHOTOMY IN SME STRATEGIC
ALLIANCE: A SOUTH WEST OF WESTERN AUSTRALIAN STUDY**

By

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M.Bus., Post Grad.Dip., B.Comm

A DISSERTATION

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ABSTRACT

Strategic alliances are generally perceived as cooperative relationships constrained within the parameters of bounded rationality, seeking to maximise their levels of control in a turbulent economic environment. They are also commonly conceptualised as a means of creating competitive advantage in business. In regional areas of Western Australia they are favoured by government instrumentalities as a means of making small to medium enterprises (SMEs) more competitive.

With the dominant global emphasis in the literature on big business, relatively little is known still about strategic alliances in small to medium enterprises. Moreover, the research on strategic alliances within Australia is also limited, and since 92 % of businesses in Australia are SMEs (ABS 1999), there are significant gaps in the literature about a significant contributor to economic health of the nation. For these reasons this thesis focuses attention on SMEs in Australia, in particular the South West of Western Australia. This thesis is concerned with strategic alliance propensity in selected small to medium enterprises with less than 500 employees but three or more employees including family members.

Mixed methodology data collection was used; based on an extensively validated international survey instrument, and a series of in-depth interviews. The outcome of the study was a synthesised model of SME strategic alliance decision-making which addresses the impacts on attitudes of SME Key Decision-Leaders choosing either positive or negative behaviours relating to strategic alliance formation.

The development of this model, the Strategic Alliance Participation Paradigm (SAPP) was achieved through an iterative approach to environmental exploration, literature scanning and analysis and the application of a mixed methodological approach to data collection. Chapters One to Three present the development of the research questions and the research process adopted to address important elements of the research. Chapter Four presents the major consolidated findings based on factor analysed outcomes. Variables were subjected to logistic regression statistical analysis determining support for hypothesised research outcomes. In depth interviews provide evidence of the SME domain, in the context initially of the regional area under review. Conclusions are further reviewed in the context of a recent significant Norwegian culturally based survey.

The Strategic Alliance Participation Paradigm reflects the work carried out by a small group of earlier researchers, and further, empirically tests the determinants of SME Key-Decision-Leader strategic alliance behaviour. Recommendations for future research developed from the research findings are presented in Chapter Five supporting the conclusions and implications of this study for future SME strategic alliance research both regional and global. Benefits from this process will be seen in the enhanced ability to benchmark at source regional

differences and similarities, and thereby to further enhance the value of the outcomes to scholars and practitioners.

Researchers could do well to pursue understanding of identified gaps in knowledge and to cooperate with industry to enhance positive alliance behaviour, achieving benefits through philosophy of competitive tendering. Significant within the outcomes however, was the identified need to research ways to support and grow the largest sector of Australian business, the small to medium enterprise.

I certify that this thesis does not, to the best of my knowledge and belief:

- (i) incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education;*
- (ii) contain any material previously published or written by another person except where due reference is made in the text: or*
- (iii) contain any defamatory material.*

ACKNOWLEDGEMENTS

Outcomes of this thesis development have been at a number of levels, both professional and personal. One single outcome for me, which eclipses all others, is my own recognition of how many people were there for me when the work and the environment in which I was working became too hard. People both overseas and locally based, who are not named here will recognise their role in this endeavour, and I hope that I have begun to thank them by in turn providing support to their causes and endeavours. My principal supervisor Elizabeth Hatton came into my life and my dissertation like a breath of fresh air one year ago. Her encouragement rekindled a dying ember of a thesis and fanned it back into life. Her sustained support throughout the last year of the dissertation process was a singular inspiration and her professionalism kept me striving for a better way and a more appropriate method of enhancing the thesis through a series of iterative drafts encouraging meetings and positive advice. Elizabeth is a unique and valued friend, and has been an inspirational supervisor.

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Robyn Morris deserves particular thanks and immeasurable gratitude for her unflagging dedication to sustaining me and supporting my thesis objectives. Without her tenacious inquiry in support of valid and reliable outcomes, this document would lack the rigor and the clarity required for this thesis. Robyn is a consummate

educator, and her role in this thesis has reflected this skill and her high level of statistical knowledge. These values, and her commitment have been greatly appreciated throughout. Our years of collaboration on regional research have provided Robyn with a clear understanding of my weaknesses and strengths, she has used this knowledge to focus her support on areas of greatest need.

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CHAPTER 1

THE PROBLEM

INTRODUCTION

The business community is operating in an environment of intensity, which is globally evidenced by the levels of competition, rate of growth, and speed of technological and environmental change. To help cope with this environmental uncertainty, industry and commerce have appropriated a geo-political tool in the form of strategic alliance: that is, a relationship based on co-operation constrained within the parameters of bounded-rationality, seeking to maximise their levels of control in a turbulent environment.

The most significant gap in the understanding of strategic alliance activity is that of the small to medium enterprise (SME) participation. Some limited emphasis has been directed at remedying this omission over the past decade, with Weaver, Solomon and Fernald (1992) proposing that representing SME imperatives in a model format would provide a basis for more reliable exploration of SME Strategic Alliance. One element of this approach has been

the development and application of a generic survey instrument, designed to be applied internationally with minor adjustments (Dickson, 1997).

Literature concerning research into corporate strategic alliances is addressed in this thesis. Unlike studies of SME strategic alliances, approaches taken in corporate relationships are well documented. Also considered is the recent survey of Norwegian manufacturing SME strategic alliances, completed by Dickson (1997) which is based on the Weaver *et al.* (1992) survey instrument. These studies reflect attitudes and behaviour of the corporate and SME manufacturing industry cohorts. The core aim of the current thesis is the development of an increased understanding of regional SME strategic alliance development. This has been achieved through the development of an augmented SME strategic alliance model.

This study is conducted within the South West region of Western Australia, and as such, provides a discrete snapshot of SME strategic alliance in this regional area of Western Australia. The aims of this thesis are directed toward increasing understanding of SME strategic alliance formation, the decision-making process which underpins this process and the inhibitors and promoters of this form of networking. As a result of this research, enhanced information about Strategic Alliance imperatives of SMEs is made available to researchers and practitioners alike through the elements of the SME Strategic Alliance

Participation Paradigm (SAPP) reflecting general strategic alliance formation imperatives, issues and identified findings of the research¹.

In this chapter attitudes and behaviour of regional small to medium enterprises (SMEs) in relation to their participation in strategic alliances are addressed. As indicated earlier, the strategic alliance phenomenon has been addressed academically at the level of corporate big business, where considerable research has been applied to the conceptualisation of the corporate strategic alliance relationship. This relationship has been represented through the construction of models of the determinants of corporate business strategic alliance formation (Frankel, 1995). The model addresses the decision-making of SMEs and incorporates key decision-leader, firm/industry and environmental issues. The model has also been designed to reflect the potential for impact of the power of the parties along with political influences affecting relationship design.

BACKGROUND TO THE PROBLEM

Strategic alliance participation behaviour reflects the ability and willingness of decision-makers to expand the economic and strategic horizons of the firm,

¹ The Strategic Alliance Participation Paradigm consolidates findings of earlier studies into SME decision-making process. It was developed from the earlier SME decision-making schema validated in studies undertaken in Canada (Blatt, Wingham and Newby, 1995). The model incorporates research into alternatives available to the SME key decision-leader in the process of strategic alliance decision-making.

and to learn new ways of achieving competitive advantage through cooperation and synergy. Most of the body of knowledge available currently about strategic alliances has arisen from research focussed on large firms in Europe, the U.S.A, and Japan. Small to medium enterprise strategic alliances have been studied sparingly, and Dickson (1997) maintains that researchers have relied largely upon small sample groups (an average of 86 participants), or upon government and media archival reports reflecting bureaucratic and media values. Other researchers such as Frankel (1995) have also relied heavily upon case studies, with limited generalisability.

There are relatively few studies of strategic alliance with a SME focus, principally because research attention has focussed on major business interaction and relationship formation. Perhaps this focus is understandable because these areas are perceived to be of interest to the broader base of investors. Also, from an academic perspective, SMEs lack critical mass to attract industry based research attention. There have been therefore, relatively few studies with a multi-industry, regional SME focus.

The concept of modern business aligning for growth and survival is not new, and as early as the 1970s, it was suggested based on research in the area of industrial economics, that a 'network of relationships with other firms is a *sine qua non* for success'. As Richardson, (1972, p. 883) points out:

We must not imagine that reality exhibits a sharp line of distinction. What confronts us is a continuum passing through transactions, such as those where the cooperation is minimal, through intermediate areas to those complex and interlocking clusters, groups and alliances which represent cooperation fully and formally developed.

These reflections relate to the full spectrum of cooperative relationships from continuous cooperative buyer-seller relationships to joint ventures. One survival/growth mechanism which has been adopted by SMEs, is participation in strategic alliances; that is, the formation of a strategic partnership among firms that cooperate to attain some goal or goals.

STATEMENT OF THE PROBLEM

Australian business operates in a unique economic, social and political context. Models reflecting influences, relationships and dependencies are therefore potentially different in some ways to those which can be applied to businesses in either Europe or America, or to more adjacent Asian business environments. However, business environments are changing with socio-political evolution and revolution impacting economic and social structure of world economies and perceptions of economic rationalism.

The growing tendency toward economic globalisation, has forced businesses worldwide, to assess their markets and to re-evaluate their comparative market position, both in the context of geographically adjacent and global competitors. For big business, there is a wide range of information to assist in the recognition of potential international competitors which may be positioning for advantage in any changes in government legislation for example, tariff de-regulation. Implicit within the changes needed to fend off competition, are defensive tactics to protect current markets, and expansionary tactics to overcome any disadvantages created through the incursions of the expanding global marketplace.

To achieve desired growth, business relies on a number of strategic administrative mechanisms, which are addressed more fully in the following chapters. These mechanisms form the basis of strategic alliance, and as such are fundamental to the development of an understanding of strategic alliances. Principal among these is McNeil's (1980) concept of *relational exchange* which has formed the basis of much strategic alliance research which has concentrated primarily on relationships among big business.

Since the early 1980s, an almost ten-fold increase in strategic alliances (Contractor and Lorange, 1988a; Lynch, 1993) has been evident in the international business community. These alliances represent a significant change in international commerce, and research has revealed a number of

approaches to the concepts of *cooperation* (Morris and Hergert, 1987; Dwyer, Schurr and Oh, 1987).

As researchers began to recognise the implications of the changing power base which potentially results from some alliances, they began to define the implications of alignment in descriptive terms. Researchers wrote of the formation of 'clans' (Ouchi, 1980) and network formation and maintenance (Miles and Snow 1992; Thorelli, 1986). Support was found for describing the exchange in terms of 'a semi-permanent relationship exchange for value adding' (Frazier, Spekman and O'Neal, 1988; Johnston and Lawrence, 1988; O'Neal, 1989; Bradach and Eccles, 1989; Kaufman and Dant, 1992). More recently, Webster (1992) addressed the phenomena which were termed 'exchange relationships' which took place between firms. It was apparent from his research that there would be a series of these dyadic interactions over the life of the organisation, and that they were designed to enhance the organisation's competitive position.

Contemporary business is characterised by rapid change which increasingly tests the old perceptions of management style and adversarial philosophies (Frankel, 1995). Strategic alliances, the formation of partnership among firms that cooperate to attain some strategic goal (Harrigan, 1988), are evident amongst the tools which management has deemed appropriate for dealing with diversity and the resulting ambiguity. Significantly, as already indicated, strategic alliance relationships are increasing (Weaver and Dickson, 1997)

despite a perception among some researchers, that these same relationships are generally short-lived (Harrigan, 1985).

Although there is a growing interest in strategic alliances recorded in the literature, there are still many who do not share the enthusiasm for this new wave of cooperation. Horton (1992), for example, identifies a critical problem with strategic alliances. She says that companies are quick to form alliances, but may be reluctant to ensure their continuing success. Moreover, traditionally, strategic alliances have been viewed by business as a choice of last resort to offset competitive pressures. Hamel and Prahalad (1989) reported the development of a strategic alliance as a tool to facilitate entry into a particular or restricted commercial arena. While this may be so, cooperative relationship can also be a valuable growth and consolidation tool.

Conventional and seemingly immutable business practices which underpinned the development and maintenance of the historical corporate power-base, have been found to be unequal to the demands of the era, and are seemingly not able to protect corporations generally from the dynamic changes promoted by twentieth century business trends. It is against this backdrop that strategic alliances have gained in popularity. Today, the acknowledgment of the existence of a global marketplace is generally universal: 'Increasing dependence on critical technologies; and the high costs of research and development, are teaching many companies what nations have always known, [that] in a complex, uncertain world filled with dangerous opponents, it is best

not to go it alone' (Ohmae, 1989 p. 25). Kanter, for example, indicates potential benefits which flow from cooperative relationships:

There is something entrepreneurially appealing about cooperative arrangements among firms. These relationships can help little firms compete with big firms. They offer flexibility and speed of access to new capacity. Getting the benefits of what another organisation offers without the risks and responsibilities of 'owning' is the ultimate form of leverage (1989, p. 16).

On a global basis, with the collapse of the cold war barriers, and the realisation of the extent of the potential of a truly global marketplace, nations have in general agreed to form alliances based on economic advantage, where these had previously been defined by military might. According to Lynch (1993), the new world order of the 1990s has presented companies, both large and small, with a central strategic choice - cooperate, or face a very uncertain future. Cooperative relationships can help SMEs compete with and service big business needs. They potentially offer flexibility and speed of access to new capacity through the transfer of skills. Knowledge and skills, whether inherent or learned, are fundamental to the facilitation, development and maintenance of these relationships (Morrison, 1996).

Regional Strategic Alliance

Small and medium sized business forms the major part of the business profile in Australia. Where these smaller businesses are located in isolated or discrete locations outside the recognised boundaries of the metropolitan area, they are often impacted by marginal shifts in the availability of work which reflects significantly on the population balance in their regional community. Failure to maintain a balanced permanent workforce contributes to the regional displacement of skilled workers, and causes an unacceptable burden on population maintenance systems and structures.

Currently, in the South West Region of Western Australia, jobs are being permanently lost from industry. In part, this is seen as a reflection of the unwillingness or inability of SMEs to coordinate skills based cooperative arrangements between local suppliers and competitors (South West Development Commission (SWDC), 1996).

Since 1995, a major Federal and State Government investment in the region has begun, and a window of opportunity has been opened for local businesses to tender for capital works programmes which are scheduled into the next millennium. However, despite the efforts of the South West Development Commission (SWDC) to seek to maximise 'local content' in line with State Government directives, tenders continue to be placed outside the region. This

has potential to produce a demographic imbalance, with impacts on community services in the region (SWDC, 1996).

At the micro level, although strategic alliances are not seen as the *panacea* for these problems, federal, state and local governments have vested interests in developing and maintaining a sustainable balanced social structure, and these objectives are frustrated in part by the peaks and troughs of population changes. The South West Development Commission and several leading industrialists within the region have been vocal in their support for alliances (SWDC, 1996). They are among the bodies claiming that regional SME strategic alliances can contribute to the consolidation of local business, and could be used to retain some significant level of local content of the larger contracts, thereby contributing through synergy, to growth in the level of expertise in the region.

However, what does not currently exist, is an understanding of the way in which SME key decision-leaders make the decisions to join in or refrain from joining strategic alliances. What is required is a rational choice model, which would determine the potential for SMEs strategic alliance activity in the South West region. This thesis provides a model designed to reflect decision-making criteria of the regional SMEs key decision-leaders. An instrument and a model which had recently been applied to the situational analysis of Norwegian manufacturing SMEs across industries, was selected for

application in the South West Region of Western Australia. A modified model of SME-based cooperative behaviour that focuses on the antecedents, moderators and outcomes of inter-firm cooperation developed by Weaver *et al.* (1994), provides an understanding of the attitudinal factors which are unique to SME based strategic alliance formation. The model reflects the elements of the General Strategic Alliance Model (Frankel, 1995), and has as its foundation, transaction costs (TC) (Coase, 1937; Williamson, 1975) and resource dependency (RD) logic (Pfeffer and Salancik, 1978). However, it is of particular value to the current research, moving as it does beyond traditional explanatory vehicles to explicitly consider social control explanations described by Weaver, Dickson and Davies (1995); Podolny (1994) Blau (1964); and Larsson (1993) as trust and forbearance. Elements of this model are brought together with a conceptual schema (Wingham and Newby, 1993) developed to study owner decision-making elements, and incorporating the concept of power relationships in the context of modelled behavioural analysis (MacMillan, 1972).

Based on these elements, the research developed a profile of the cohort SME strategic alliance behaviour reflecting shifts in relationships to accommodate the political changes necessary to implement the alliance. MacMillan (1972) maintained that the basis of the industry related interaction which is at the very foundation of the strategic alliance, is dependent on power, both actual and perceived, with little if any difference in impact between its existence or

perceived existence. These issues are addressed in this thesis along with theoretical and practical modelling techniques, in the context of a number of rural/regional issues which impact on firm based relationship formation (Curren and Storey, 1993).

PURPOSE OF THE RESEARCH

Overall, the results of the recent studies undertaken by Gibson and Wingham (1999); Dickson (1997); Weaver and Dickson (1997); Morrison (1996); Frankel (1995); Horton (1992), agree with the claims of other studies addressed in Chapter Two. They support alliances as a significant format for business development in the 21st Century, and also as a vital area for research. Of significant concern for research should be the social and attitudinal/behavioural alignment of alliance participants in view of the dependence which research is finding on the element of trust and its associated forbearance, in the sustained life of alliances.

Despite the growing interest and expanding research into this form of business, there are significant gaps in the knowledge of alliance practice and theory and also in the documentation of existing knowledge. SME alliance process has for some time needed a framework for comparative study. The framework developed by Weaver and Dickson (1994) has been used as a baseline for application to the present study, and has been further developed

to reflect the regional significance of business attitudinal/behavioural dichotomy.

The stated general objectives of this research are initially to obtain valid current data on regional propensity to align in business, and second, the regional testing of a descriptive model of alliance propensity developed by Weaver, Solomon and Fernald (1992) and refined by Dickson (1997). There has been some progress made toward the development of an understanding of the attitudes and behaviours among regional SMEs, promoters and inhibitors of these relationships have also been identified (Morrison, 1996; Storey and Curren 1995). This process, supported by the current survey findings, contributes to the body of knowledge concerning business decisions with potential to affect the working lives of some of the estimated 29 percent of Australians who live in rural and remote regions of Australia (SWDC, 1996). A positive outcome of the current research should be to add to the growing understanding of the application of SME alliance parameters and more specifically, to enhance the general and SME alliance models; reflecting variables for Western Australian regional imperatives, cultural, attitudinal and structural perceptions.

This study is not concerned with serendipitously formed alliances. Cooperative relationships arise generally from reactionary formalisation of previously formed relationships. Questions addressed in the current study relate to *how* alliances are formed, seeking to contribute to a definitive

explanation of the control and creation mechanisms responsible for the calculated proactive appearance of an alliance. Equally important is *why* do small businesses enter into strategic alliances in preference to other forms of undertaking. This requires understanding not only of the inter-organisational and intra-organisational strategies, processes and operations, but how those interact, and the predictably sequential nature of the intent, decision and the outcomes (Frankel 1997). These are referred to in this study as the relationship between strategic alliance attitudes and behaviour.

A number of economic and social theories have been applied to developing an enhanced understanding of the strategic alliance behaviour of firms. Among these are two major rational choice exchange theories which view inter-firm cooperation as a means of maximising economic or perceptual benefit; transaction cost theory (TCT) (Williamson, 1975, 1985, 1996; Podolny, 1994) and, resource dependency theory (RDT) (Pfeffer and Salancik, 1978) based on the inherent drive to acquire necessary resources for providing sustainable competitive advantage (Dickson, 1997) referred to by MacMillan (1972) as the basis of the power relationship which underpins personal and firm relationships. The individual level factors which influence the decision to enter cooperative relationships were also addressed by Goshal and Moran (1996) Larson (1992), Podolny (1994), Tyler and Steensma (1995), and Dickson (1997) and are of particular interest in the analysis of small firm behaviour.

Small and medium enterprise based strategic alliances may take many forms ranging from very informal information sharing cooperatives to extremely formalised joint ventures (Ying and Korneliusson, 1992). Identification of the determinants of a successful strategic alliance formation, and how they can be encouraged, are issues of significant importance for regionally based small businesses. Increasingly, SME research is determining that there is considerable leadership input from the CEO or owner into the everyday relationship development of the SME. Leadership is the complex issue which reflects with the special relationship which exists between the small business proprietor and the business decisions which drive the firm (Williams, 1985; Wingham and Newby 1993). It is essential for planning purposes that these relationships be addressed.

Within this study it is recognised that motives for cooperative behaviour between SMEs need to be understood. Regional growth arguably depends upon the smooth and successful location of business within the rural environment. This can best be achieved based on a thorough understanding and implementation of the most efficient and effective business trends. Analysis of data gathered in the survey used in this study will contribute to this profile.

Of specific value to the region should be the identification of strategic alliance success factors as these apply to regional environments. However, the goals of this study are not to review the multitude of definitions or purposes of

strategic alliances, but rather to focus on a specific type of cooperative behaviour and to model the motives, processes and relationships which develop reflecting positive alliance behaviour. In doing this, the strategic alliances are determined to be a viable organisational form that is both understandable and useful. The initial focus is on the cooperative relationships formed between small to medium sized enterprises (SMEs) and other SMEs in pursuit of regional, state, national or international contracts, as well as alliances with other businesses as these occur.

The research which explored strategic alliance relationships in Norway (Dickson, 1997) and the USA (Weaver Solomon and Fernald, 1992) identified and explored five issues common to both regions to a greater or lesser extent, but all of substantial interest to organisational leaders and policy makers in both countries. First, they determined which SMEs in their sample were engaging in strategic alliance activity, and what form of cooperation they chose. Second, they assessed the level of key decision-leader perception of success achieved in their alliance experiences. Third, they analysed the typical attitudes of SME decision leaders regarding the role of strategic alliances as a mechanism of growth. Fourth, they appraised the extent of the tendency toward interdependent cooperation. Finally, elements which these SME decision leaders believe is essential to the success of SME based strategic alliances were discussed.

The principal contribution of the current study, is to the development of knowledge based on the improved understanding of regional imperatives in relation to these and other issues. A further contribution is to enhanced understanding of inter-organisational processes developed to promote strategic alliance relationships. These findings provided direct evidence of the rationale for the formation of regional strategic alliance relationships.

While much has been written about inter-firm relationships *per se*, most current research focuses on organisations which by their very definition are not SMEs. Finding common ground for studying this cohort is made harder because the definitions of small businesses in terms of mature nations differ, being somewhat larger entities than those firms included in the Australian SME definition. The bulk of Australian SMEs are in fact 'micro' small businesses by the United States and European definitions. Some areas of active research conducted globally are based on industry type, and are dependent for their research base on organisations within a specific, or closely aligned industry base. These size and population based issues make the predisposition toward large firm research understandable in view of immediate accessibility and continuity of business access. The lack of critical mass and the posited short life of SMEs affect the Australian studies, and thereby limit the volume of national surveys. This trend toward researching strategic alliances at the corporate and big business level, continues despite the growing evidence that small to medium sized enterprises (SMEs) are developing cooperative relationships at a rapid pace, and that these SME-based co-

operative relationships are in many ways unique (McGee, Dowling and Megginson, 1995).

Furthermore, research directed toward cooperative relationships between business organisations has sought principally to explain the motive forces underlying inter-firm cooperative behaviour between larger firms. Little research attention has been given to the social context of the resultant relationships. This alternative business posture is based on trust and mutual understanding rather than on traditional adversarial roles. In support of this claim that the social context is marginalised Zaheer and Venkatraman (1995) assert that rarely have the determinants of cooperative behaviour been considered in light of the social context, nor have either the determinants or social context been clearly associated with the outcomes of such behaviour. Some level of explanation was anticipated in the review and application of a model of relationship changes in organisations.

There have been significant gaps in the knowledge of SME alliance practice and theory as well as in the documentation of existing knowledge. These conditions restricted the valuable contribution of disparate SME research until the release of the results of a capstone survey of Norwegian SMEs by Dickson (1997). This study built on the international survey result coordinated out of the University of Alabama (Weaver *et al.*, 1992; Weaver *et al.*, 1994, Weaver *et al.*, 1995, Weaver and Dickson 1997) to develop and present a framework

for analysis of SMEs. While stopping well short of maintaining that SME alliances were different from larger strategic alliances, these authors have identified differences that are significant, and are inherent in the fabric of SME management philosophies. The alliance process has for some time needed a framework for comparative study.

DELINEATION OF THE RESEARCH PROBLEM

Dickson (1997) in his study of SME strategic alliance activity, explicitly considered the relationships of SME alliance participation in the manufacturing sector. The survey addressed; (a) the role of perceived environmental moderating variables influencing strategic alliance use; (b) the multi-dimensional nature of this influence; and, (c) the moderating effect of the key decision-leader in relationship to environmental perceptions and alliance use. All of these elements were considered to be fundamental to the understanding of the South West situation.

The Norwegian study of strategic alliances among manufacturing firms by Dickson (1997) focussed on unique characteristics of SME based alliance behaviour as a research topic. Among the participants, the Norwegian survey alliance behaviour and the latent propensity for opportunism were discussed; characteristics of the decision process were addressed, and of the decision-leader of the organisations under review were studied in the light of their

contribution to the strategic alliance model developed from the research. Motives for forming an SME strategic alliance were seen to be individual to each firm, and were reviewed as part of the key informant data; as were the ways in which the SME decision leaders frame their perceived needs. These issues also underpin the regional South West survey and are addressed in the research questionnaire (see Appendix A).

The research conducted in both the northern and the southern hemispheres specifically addressed three elements which were seen as specifically contributing to better understanding of SMEs strategic alliance. First, the direct impact of environmental perceptions and key decision-leader attitudes was determined based on the attitudinal variables reflected as questions within the instrument. Second, the moderating role of key manager or key decision-leader orientation was analysed based on determinants of entrepreneurial orientation, and individualism/collectivism; Finally, the impact of an array of environmental and firm-level factors traditionally agreed to be contributing determinants of alliance use, were investigated.

The issues addressed in the Norwegian survey are of particular significance to an enhanced understanding of relationship formation and change, particularly as they arise in the regional environment. For the purposes of the Norwegian study Dickson (1997) identified a sample which reflected the elements of a SME which was consistent with European standards (European Network for

SME Research, 1995), and was also compliant with the United States determination (United States Government Printing Office, 1995). SMEs were generally classified as firms with less than five hundred employees. Definitions within Australian surveys vary, as they do for small business (Wingham, 1998). However, the international definition is applied for consistency, and in fact, most of the firms responding were somewhat smaller than those in the overseas studies - the sizes of participating firms are indicated as a variable in the analysis in a recent study (Gibson and Wingham, 1999).

The Norwegian survey was distributed to 2465 Norwegian manufacturing firms, representing a balanced regional distribution of industries. The 17 percent response rate, identified almost fifty percent of these reporting some strategic alliance experience. Taking a similar perspective to that adopted in the South West survey, the level of analysis was the key decision-leader (see Lumpkin and Dess, 1996). Of the respondents questioned, over sixty percent of these revealed that they held ownership within the firm. Research findings and the conclusions drawn from the study, reconfirm the magnitude of the influence of the key decision-leader in the behaviour of the SME, and also, demonstrate the value of the strategic alliance as a research topic for further study. These factors are addressed in depth in the current study and form the basis of the comparative analysis in Chapter Four.

Additionally, the findings of the Norwegian study suggest that SME decision leaders must attend not only to the contractually mandated expectations for behaviour but also those expectations arising from the social aspects of the relationship. For example, expectations mandated by a trade or professional group to which all the parties to an alliance belong may carry over into the alliance relationship. Prescriptions regarding ethical behaviour, trade practices and product standards may all become a part of the taken-for-granted expectations in an alliance relationship.

The Norwegian research posed two general research questions regarding alliances. The first approach addressed the extent to which determinants of alliance use, structure, and outcomes, as identified by overall theory and prior research, held significance for SME-based alliances. The results of this study suggest that although the determinants generally prescribed for the alliance process hold for SMEs, the relative impacts can be quite different. The second question posed concerned the role of the individual attributes of key decision-leaders within the SME. The results indicate that the perceptions, attitudes, and orientations of the key decision-leader have a significant impact. These elements of the key decision-leader influence both how the leader views and responds to the external environment of the firm and its alliances, and are found to significantly impact the firm's behaviours within any alliance relationships formed.

Specifically, the findings of the Norwegian research suggest the key determinants of alliance use among SMEs include the following; first, the key decision-leader's perceptions of environmental uncertainty and attitudes regarding the necessity for alliances and relationships with larger firms. Second, the interest in participation in the key decision-leaders' entrepreneurial and individualism/collectivism orientations which appear to moderate the link between perceived environmental uncertainty and alliance use.

Alliance use was further seen in the Norwegian study to be influenced by key decision-leaders' perceptions of environmental uncertainty as moderated by entrepreneurial and individualism/collectivism orientations dictating the use of agreement-based or equity-based alliances. Benefits of strategic alliances were seen not only through the financial performance of the alliance, but also as a function of the level of both objective and perceived opportunism, itself a function of the power of the participants (Dickson, 1997, p. 77).

These results provide a number of implications for future research including the importance of 'level of analysis' issues, consideration of individual-level factors, the unique nature of SME-based alliances, and the importance of considering the total alliance experience of the firm. Implications for management practice include the role of alliances as hedges against uncertainty, the complexity of structural choices, the role of equity

commitments and the influence of social networks. Findings of this research extend rational choice explanations for alliance behaviour by explicitly considering the role of the decision leader, leader attitudes and orientations, and the leaders' overall experiences with inter-firm cooperative relationships (Dickson, 1997).

Researchers were generally found to concentrate their strategic alliance research on certain elements or classifications of strategic alliance, such as; 'corporate and multi-national' alliances (Ghemawat Porter and Rawlinson, 1986; Ellram, 1990). Those firms reporting involvement in 'joint ventures' resulting in a third party or entity formation were found among the cohort studied (Cory, 1982; Morris and Hergert, 1987; Beamish and Banks, 1987; Kogut, 1988; Harrigan, 1988; Ellram, 1990; Geringer and Hebert, 1991). Progress toward an enhanced understanding of SME strategic alliance was made by Frankel (1995) and, Morrison (1996). Their findings supported growing evidence that SMEs contribute substantially to the growing number of businesses entering cooperative relationships (McGee, Dowling and Megginson, 1995). Further support for the entry of smaller enterprises was offered by Weaver, Dickson and Davies (1995). The perception of these researchers that these SME-based cooperative relationships are in many ways unique, reflects the decision-making aspect of performance improvement identified by Thompson (1967).

Researchers have identified the disparate forms of cooperation broadly along a stylised continuum from 'any form of cooperative linkage entered into for strategic reasons' (Lynch, 1993) to a dependence upon formal contractual agreement described by Paap (1990). The relationships represented within this study, refer to the two levels of control and are delimited to represent definable strategic alliances. These exclude the *ad hoc* customer/supplier relationship, and those relationships that are structured as separate third party entity ventures. Independent entity joint ventures are explicitly excluded by this definition. Bowersox Daughy, Droze, Rogers and Wardlow. (1989) and Bowersox and Cooper (1992) suggest that the degree of openly acknowledged dependence between organisational participants provides a useful basis for classifying not only markets and hierarchies but the middle ground of exchange mechanisms as evidenced in the relationship form classified as strategic alliance.

Within the extremes of discrete incidents, and relational exchange is a stratum of governance mechanisms that Bradach and Eccles (1989) describe as a growing body of non-market and non-hierarchical organisational forms, forms typically said to reside between markets and hierarchies. In particular, Bradach and Eccles (1989) discuss relationships, defining those alternative relationship forms that in many surveys are referred to as alliances and other unique contractual and non-contractual relationship arrangements. They posit that alliances represent a unique form of relational exchange in which organisations shift from an adversarial, price-based focus to collaborative

efforts that emphasise long-term² strategic goal-specific behaviour. Acknowledged dependence drives cooperative, integrative efforts that transcend organisational boundaries (Bowersox, 1990) and provide a level of inherent financial investment (Schmitz, Frankel and Frayer, 1994).

Alliances may be described as bilateral governance mechanisms. Thus the concepts of price and authority may be thought of as specialised control mechanisms created for, and attached to markets and hierarchies. Bradach and Eccles (1989) suggest, however, that a third control mechanism exists. This one is of a more general nature. It can be characterised as relational or contracting based upon trust. Arrow (1974) notes the obvious advantages of trust as a control mechanism, based on the effect of the trustful relationship being like an important lubricant of a social system. It is beneficial as an enhancement to cooperative relationships and free market negotiations when trust is present and evident.

None of the research reviewed goes so far as to claim that the relationship is always balanced, and Bowersox and Cooper (1992) maintain that interaction may be highly unbalanced in terms of participant power, particularly if one organisation clearly dominates the exchange procedures and rules. Exchange may be repeated due to buyer preference, loyalty or convenience, although it may also be discontinued at any time without notice (Webster, 1992).

² This term is relative in today's marketplace, in which technology and fashion are drivers reflecting in business involvement. 'Long-term' will be a different period in each of the industries, however, each industry cohort will have an understanding of the term in their own industry.

In line with earlier researchers (Achol, Scheer and Stern, 1990; Horton, 1992; Weaver *et al.*, 1992; Weaver *et al.*, 1994), this South West research project considers long term relationships between two or more firms to be a strategic alliance if the relationship involves ‘an exchange of critical skills, reciprocal responsibilities and obligations, and [it] impacts the core business strategy, technology or market of the partners’ (Horton , 1992, p. 3).

Ellram (1990, p. 113) and Horton, (1992, p. 99) agree that to be classified as a strategic alliance the following characteristics must be present. First, the arrangement must be long term; that is, a period of more than one year, or as long as a typical investment cycle for the resource involved. Second, there must be an agreement, which is represented by a formal, written understanding between participants. Third, there must be mutual sharing resulting in a division of both the risks and benefits that (although not evenly so) are created as a result of the agreement. Finally, the relationship having all these characteristics must be created to serve a specific purpose. This is perceived by Ellram (1990) and Horton (1992) to be (one of) the principal objectives of the relationship.

Thus, within the parameters of this dissertation, and in line with the comparative survey, alliances are defined as relatively enduring structured agreements that establish exchange relationships between cooperating firms, that do not involve the establishment of free-standing, wholly-owned organisational forms. It was considered appropriate to include alliances

between SMEs and between one SME and/or a group of SMEs and a larger organisation. These relationships exclude those between big businesses, which are outside the conceptual framework of this study, (that is, those businesses generally having a staff numbering greater than 500 employees).

SCOPE AND LIMITATIONS OF THE STUDY

As already outlined in the introduction and rationale for the study, a significant purpose of the study is the further development of a descriptive general model of strategic alliance propensity among small to medium sized companies to account for regional, cultural, attitudinal, and structural differences that may exist. This was accomplished through :

- assessment of current strategic alliance activity involving small to medium sized businesses (Alliance Use) based on data collected in an attitudinal/behavioural questionnaire;
- assessment of attitudes and opinions of the decision leaders in each of the businesses surveyed (Attitudinal variables) based on data collected in an attitudinal/behavioural questionnaire;
- descriptive analysis of businesses currently involved in strategic alliances and those who are not (Behaviour) based on interviews with selected businesses operating within the region supported by attitudinal/behavioural questions.

Of importance in the study of strategic alliance activity is the identification of the determinants of successful strategic alliances, and how they can be encouraged. These are issues of significant importance for regionally based small businesses. Increasingly, SME research has determined that there is

considerable leadership input from the CEO or owner into the everyday relationship development of the SME. Leadership is the complex issue which reflects the power over the internal environment of the firm, and the special relationship which exists between the small business proprietor and the business decisions which drive the firm (Williams, 1985; Wingham and Newby, 1993). It is essential for planning purposes that these relationships be understood. This study reflects this need for motives for cooperative behaviour between SMEs to be explained.

Regional growth depends upon the smooth and successful location of business within the rural environment. This can best be achieved based on a thorough understanding and implementation of the most efficient and effective business trends. Analysis of data gathered in the survey contributes to this profile. The goals of this study were not to review the multitude of definitions or purposes of strategic alliances, but rather to focus on a specific type of cooperative behaviour and to model the motives, processes and relationships which develop reflecting positive alliance behaviour. Thus it is assumed that strategic alliances are a viable organisational form that is both understandable and useful. The principal contribution of this study, is to the development of knowledge based on the improved understanding of regional imperatives, and inter-organisational processes developed to enhance SME strategic alliance relationships. These findings add to the evidence of the rationale for the formation of regional strategic alliance relationships.

This South West study has built upon a small but growing body of research into small and medium business alliances, which has been identified as a gap by a number of researchers, significant among them, Weaver, Solomon and Fernald (1994); Weaver, Dickson and Davies (1995) and Dickson (1997). Based on strategic alliance literature and on the findings of these international studies, it was considered appropriate to enhance the level of knowledge of Australian regional SME alliances. As a consequence, this survey has concentrated on the representative study of small and medium businesses in the context of a regional environment.

Research purpose and scope are addressed through the understanding of a model of strategic alliance formation and performance that has begun to emerge from earlier studies, and the recent Norwegian investigation by Dickson (1997). Coordinated research findings which emerged are seen as fundamental to further applied strategic alliance research.

The current study identifies the contribution made by aspects of the model in defining strategic alliances in the countries tested. It is important to recognise that model parameters may vary from region to region based on a number of issues which are addressed in Chapter Two. Typically, moderating variables of international application of the general model were identified by research across time and national borders as reflecting some or all of the following classifications. Moderating variables may reflect regional differences (Hofstede, 1980). That is, the propensity of individual nations and cultures to

act and react to environmental variables in a unique or patterned manner; Also proposed as a moderator of behaviour were cultural differences (Hofstede, 1980). That is, resistance to, or acceptance of, elements of environmental difference based on cultural norms of the nation which Hofstede defined generally as reflected in a propensity toward, and an inherent resistance to power relationships.

Industry standards are norms and mores reflected as predominant industry behavioural types (Williamson, 1991). These variables are seen as reflecting the levels of resource dependency, ambiguity (see Hofstede, 1980), environmental uncertainty, and the power balance which results from these relationships over time. Decision leader attitudes are also understood by Hofstede to vary across national and cultural borders. This classification is the fourth of the identified moderating variables addressed in SME strategic alliance studies (Volery Mazzarol and Choo, 1996; Mazzerol Volery and Thein, 1997; Wingham and Newby, 1993); that is, SME relationships between firm and the environment, which have been seen as reflecting the CEO perceptions. Attitudes of the CEO in SMEs are generally significantly reflected in the decisions and the actions of the firm.

These moderating variables are inextricably linked to relationship development among SMEs. The fourth dimension key decision-leader attitudes, has direct impact on the SME propensity to align. Observed interaction reported by researchers across the strategic alliance literature, contribute to the picture of

SME strategic alliance formation. Storey and Curren (1995) reported observable 'trust' characteristics of this cohort seen as reflecting elements of, 1) regional differences, and 2) cultural differences. Uncertainty avoidance, ability to cope well with environmental ambiguity, and industrial uncertainty have been strongly represented in all these moderating variables. In particular, these are reflected in elements of selection reasons 3) industry type and 4) key decision-leader attitude.

The location for the survey was the South West Region of Western Australia. The specific regional location selected has a broad base of primary industry, with an influential international big business representation, and has on its coastal extreme, a port city, albeit of small proportions, with a significant infrastructure, transportation, manufacturing and agricultural base. Through the cooperation of industry in the region, a questionnaire was administered reflecting the issues already outlined in the previous related studies.

This region was selected for a number of reasons.

- a. first, the researcher lives and works in the region, and has determined strategies and created networks through which accessibility problems and validity issues can be monitored;
- b. second, the region is isolated from urban Western Australia, yet is a microcosm with much of the infrastructure found in major urban areas; and,
- c. third, exponential growth is planned for the region into the new millennium (SWDC, 1996).

The latter two reasons combine to present a volatile and changing business environment, while the initial reason enables the researcher to maximise response and access for sensitive personal interviews.

The research sample was drawn from businesses identified by the local Government instrumentality - South West Development Commission. A list of potential participants was formulated on the basis of including businesses which had the following characteristics:

- a. the business employed three or more people, including the owner and family members;
- b. it had the propensity to service other markets than simply the domestic or end-user local or tourist market only ; and,
- c. the business was considered, after consultation with regional industry experts and the South West Development Commission to have use for, or potential to align strategically.

Much of the capital investment planned for the region supports extensive secondary industry infrastructure development. With disparate work units (small businesses) and keen competition for major works projects from both national and international companies, some competitive edge was needed to maximise local job retention at the skilled and technologically sophisticated levels. Major construction firms had already flagged their intention to

centralise their negotiations by reducing the number of contractor organisations with which they have direct negotiation. Each time this rationalising decision was made by government or a major contract-holder, with extensive potential to impact the employment market, it created a niche for a medium-to-large business to undertake the major contracts, leaving only the less viable unskilled or semi-skilled contracts for local firms. The alternative was the prospect of sub-contracting for regional small to medium businesses. An alternative would be for these regional businesses to cooperate in some tangible form. However, for many it seemed initially that the risks outweighed the benefits.

As an outcome of extensive regional research in the United Kingdom, Storey and Curren (1995) maintained that there will always be a high level of perceived risk involved in developing a close working relationship, particularly when this is with traditional regional rivals and competitors. However, despite a reluctance and a distrust of the process, strategic alliances which have traditionally been the big business collaborative process between corporations, in recent years have emerged as a viable strategy choice for smaller businesses. This emergence has been fuelled through the acknowledgment by large companies that small businesses have a great deal to bring to an alliance in terms of entrepreneurial capabilities, and market niches (Weaver and Dickson, 1994). On the other hand, many SMEs have become increasingly interested in strategic alliances, viewing them as the most 'profitable route to future opportunities' (Perimutter and Heenan, 1986).

MacMillan (1972) addressed changes in adversarial perspective, and his model was used to facilitate understanding of the South West SME view of alliance formation, and the decisions of the leaders to make philosophical changes in the way they viewed competitors. There was an expressed belief by researchers such as Weaver and Dickson (1994) and Perimutter and Heenan (1986) that there was a mismatch between the stated opinions and attitudes of small and medium sized businesses regarding the value of strategic alliances. This mismatch was seen in the perceived failure to reflect positive attitude in positive strategic alliance behaviour. It was proposed that the power political balance of the individual, firm, industry and the environment may potentially impact on the propensity to translate positive attitudes into positive behaviours.

This thesis extends the understanding of SME alliances in the regional context. Based on the questionnaire responses of a cohort of regional SMEs across industries, and of disparate sizes within the general definition of an SME, but clustered at the smaller business end of the spectrum, these participants reflect the norm for the business size in the region. Specifically, this research examined the experience and attitudes concerning SME business alliance formation within the confines of the definition accepted for this research, in the South West Region of Western Australia. It sought to assess the validity of a theory-based model of alliance behaviour and expectations. It is argued that cooperative behaviour propensity, and outcomes, are based not only on

environmental and firm specific factors, but also on individual level variables and perceived partner behaviour, reflecting cultural and behavioural variables consistent with an isolated regional environment.

This research contributes to the advancement of understanding of both the drivers and inhibitors of SME strategic alliance through the development of a better understanding of attitudes, which either inhibit or promote the formation of appropriate strategic alliance relationship participation behaviour. These issues are addressed in direct response to the research questions underpinning this study.

RESEARCH QUESTIONS

Specifically, the aims of the research were addressed through the following research questions which grew from general research within the field of SMEs, and the researcher perceptions regarding the dichotomy of regionally evident strategic alliance attitudes and behaviour. The following questions were formulated to be analysed through review of literature, based on published data, and empirical research.

- Question 1. How culturally appropriate are strategic alliances considered by SMEs in regional Western Australia?
- Question 2. Are transaction cost theory/resource dependency theory theoretical boundaries appropriate for describing attitudinal and behavioural norms of SMEs?

- Question 3. Are there significant inhibitors in the SME key decision-maker attitudes which reflect in negative strategic alliance behaviour?
- Question 4. Do economic and social theory models enhance the understanding of SME strategic alliance attitude and behaviour relationships?
- Question 5. What part do power and politics play in the strategic alliance participation actions of SME owners and key decision-leaders?

Hypotheses developed from these questions are presented in Chapter Two. Data collection was undertaken by two major means; namely, the administration of a mailout questionnaire, followed by interviews with key decision-leaders from a small random sample representing all industries participating in the survey. These processes provided the database for analysis. The data gathering process allowing for random interviews with CEOs from differentiated industry groupings and reflected firms which had been approached in the survey, whether or not they had responded to the initial survey. Data were reviewed in the context of the research models, and a number of relevant issues were explored, such as: *how* are alliances formed - seeking a definitive explanation of the control and creation mechanisms responsible for the serendipitous or contrived appearance of an alliance; and, *why* do small businesses enter into strategic alliances in preference to other forms of undertaking, thus forsaking opportunism for constrained cooperative behaviour.

Individual level factors which influence the decision to enter cooperative relationships, are addressed by Goshal and Moran (1996), Larson (1992),

Podolny (1994), Tyler and Steensma (1995) and Dickson (1997). The acknowledged relationship between the key decision-leader and the organisational decisions makes these particularly interesting in the analysis of small firm behaviour.

Investigations of alliance use present questions relating to individual perceptions of trust, power, and forbearance. Questions are asked about, what experience decision-leaders have of alliance? Where do key decision-leaders look for alliances possibilities? Under what circumstances, would businesses consider seriously the option of opportunism, or conversely, having found opportunism in the relationship, resorting to terms of the contract for enforcement? In general, examination of attitudes and reported behaviour of the key decision-leaders, the elements of the decision-making leading to strategic alliance was undertaken, seeking strategic alliance drivers and inhibitors. These are presented for discussion in the following chapters.

SUMMARY

This study adds to the sparse body of empirical data on SME strategic alliance activity in regional areas. The primary contribution of this chapter has been to present a general perspective of corporate strategic alliances and to present the SME strategic alliance imperatives, which drive this research. Global diversity, shrinking global market barriers and defense of regional markets are significant drivers of strategic alliance intention. This thesis focuses on SMEs

within a regional area of Western Australia, and addressed the issue of trust, power and forbearance, all elements of the applied questionnaire. Between the available big business strategic alliance literature and that dealing with SMEs, there is a major gap. This research addresses this gap, and in this chapter, the researcher has outlined both the existing position, and the approach taken to incrementally enhancing SME strategic alliance understanding. Also explained within Chapter One was that at the macro and micro levels, the region of the South West of Western Australia stood to benefit from clarification of strategic alliance promoters and the identification of inhibitors to growth of alliance formation. Given the research limitations identified, it is clear that extrapolation to general SME strategic alliance formation must be undertaken with caution. This does not detract from the innate value of enhanced knowledge of a useful cooperative tool.

OUTLINE OF THE THESIS

The following chapters address the development of the body of increased knowledge of regional SME strategic alliances, outlining the research and the gaps in knowledge which will present over time as researchers become more familiar with the particular needs of small to medium businesses in Australia and internationally. Presentation of these issues continues in the following four chapters.

Chapter Two reviews the relevant literature and provides an assessment of the nature of the relationship process and theoretical foundation for the development and maintenance of strategic alliances. The chapter examines the empirical evidence supporting the philosophy and process of alliance, analysing the theoretical arguments and outcomes of earlier alliances for evidence to support the outcomes of this study. At the conclusion of Chapter Two, the study hypotheses based on specific research questions to be addressed in the research and the review of literature are formulated.

Chapter Three details the methodology and research design which was used in this thesis. The origins of the questionnaire are identified, and the value of the instrument for regional environments in Australia is discussed. In this chapter the selection of the research sample from the SMEs in the South West of Western Australia is determined. In Chapter Three, the research process and procedure used to determine the representativeness of the sample and the applicability of the instrument are discussed. The general and modified models are presented and discussed.

Chapter Four presents the major consolidated findings derived from the questionnaire, highlighting and addressing any exceptional results. Analysis of the results is presented here, with discussion of the research in the context of the hypotheses. Issues, anomalies and relationships are explored in Chapter Four, and the outcomes are discussed in the context of their representation of the South West strategic alliance activity. These outcomes are analysed

further in the context of their relationships to Norwegian findings based on the instrument (Dickson, 1997).

In Chapter Five, the research conclusions are discussed, their implications addressed and inferences are drawn. From the outcomes of the study, a number of further research issues have been identified, and the overall directions for future research are discussed here. The discussion is presented in the light of earlier studies and the progress to greater understanding of SME strategic alliance provided by this thesis.

CHAPTER TWO

LITERATURE REVIEW

INTRODUCTION

This study examines the reported attitudes and behavioural incidence of strategic alliance formation in SMEs. These cooperative behaviours among firms are characterised in the literature as structured agreements which establish exchange relationships between participating firms.

In the previous chapter, the rationale for undertaking the study was addressed and the research questions were posed. It was also explained within Chapter One that at the macro and micro levels, the region of the South West of Western Australia stood to benefit from clarification of strategic alliance promoters and the identification of inhibitors to growth of alliance incidence.

Chapter Two presents relevant literature and assesses the nature of the alliance formation process. It explores particularly, the theoretical foundation for the

alliance use. The chapter examines the empirical evidence supporting the culture and process of alliance, through the examination of theoretical arguments among global studies of strategic alliances. These studies have added significantly to understanding of alliances, and provide support for the outcomes of this current study, to provide a synthesis of the research and the foundation for development of a model of strategic alliance decision-making. The chapter concludes with a set of hypotheses which further develop the research questions presented in Chapter One.

Significant social and economic theories have been drawn upon by researchers, to explain the strategic alliance phenomenon. These studies have provided a basis for application of the analysis and discussion of alliance attitudes and behaviour in business cooperation. In general, these studies have also concentrated on the strategic alliance behaviour of big business. However, despite a big business basis for most early strategic alliance research, considerable literature has evolved in which differences in decision making between big and small firms are discussed. From this literature it can be claimed that as far as decision-making is concerned, SMEs are not smaller versions of the systems and structures which define big business. Small businesses by their very definition are 'small' they lack the infrastructure available to the big business to facilitate research and networking at appropriate levels to influence directly the decisions made by government. Medium sized businesses are in a similar position, being individually limited in the extent of their influence. SME resource dependency is more immediate (Volery, 1997), their influence is naturally more often a function of their control over scarce

resources than market share and distribution chains. Functional efficiencies are achieved as a balance of key decision-leader perceptions of success and firm needs (Dickson, 1997). Whereas large firms determine these outcomes on the basis of their contribution to overall strategic planning directions, it is claimed in this and other studies that strategic alliances involving SMEs reflect cooperative relationships at a more personal level. The gap in SME strategic alliance knowledge is being addressed in studies of alliances, and there is a growing body of research, which interprets the unique environment and the constraints of strategic alliance formation between SMEs and between SMEs and larger firms. This literature reinforces the unique nature of SME decision-making processes and the impact of the chief executive officer/key decision-maker attitudes to the behaviour of the firm.

Chapter Two explores the diversity of strategic alliance research in the literature. It is found however, that although supporting models of power and behavioural diversity are evidenced in the literature, as explained above these were restricted in their application to explaining big business variables. Despite this focus, based on big business, the studies reviewed give a broad picture of a cross section of industry types and demographic variables. These studies are analysed and their relevance to the current survey is determined. The surveys of strategic alliance development among large firms are examined also to develop a greater understanding of their reflection of underlying theoretical perspectives. The diversity and levels of involvement of the relationships covered under the rubric of 'cooperation' is demonstrated, (see Figure 2.1). The intensity of the relationship interdependency is presented

graphically to demonstrate the parameters of the cooperative relationships considered in the current study. This study specifically addresses the strategic alliance. However, it is clear from the literature that a number of relationship types represented along the continuum are referred to in reports as strategic alliances. This element in itself has added to the difficulty of comparative analysis of SMEs strategic alliance research outcomes.

A further issue which related to key decision-leader influence on decisions of the firm is addressed. Significantly, the literature reviewed reflects a broad based corporate strategic alliance analysis, while providing only limited reference to the characteristics of SMEs and key decision-leaders. Further, several unique issues relevant to the formation of regional/rural alliances are discussed, exploring the cultural/societal imperatives that underpin commercial relationships in regional environments. Based on studies by Curren and Storey (1991), Townroe and Mallalieu (1990) and Blackburn and Curren (1990), it is clear that regional impact cannot be ignored as a factor in strategic alliance formation propensity.

An extensive review of the literature revealed cooperative relation-based research focused on big business as one of the two significant areas of research inquiry. The type of cooperation was also generally undifferentiated as to structure. However, it was found in the current review, and reported by researchers over time, that a number of studies potentially, and in practice, included the full spectrum of relationship formality. Included among these

relationships there was particularly, a potentially high proportion of joint ventures resulting in a third party or independent entity (Cory, 1982; Morris and Hergert, 1987).

RELATIONSHIP	PERCENT REPORTING UTILISING COOPERATIVE FORMS		
RETAINED OWNERSHIP	↖ R e s o u r c e C o m m i t m e n t ↘	SOUTH WEST INDUSTRY SAMPLE Percent	
Purchaser/supplier Relationship		33.1	
Outside Contracting - short term Long term		51.5 23.0	
Export Management/Trading Co.		23.4	
Technology Alliance R and D A Process B Product		23.3 29.1	
Long term Cooperative Agreements A Marketing B Distribution C Production		49.0 43.4 42.0	
Licensing		13.8	
Equity Investments from SME from Large		9.3 8.5	
Joint Venture SME Large		28.7 20.7	
SHARED OWNERSHIP		↙	

Figure 2.1 Levels of Resource Commitment in Cooperative Relationships

This body of research is seen to have developed, based on ease of access to data, through both the accessibility to data, and the reliability, and testability of the reported events. Data in these studies were frequently located through

perusal of print media and from government reports, with, as reported by Dickson (1997) relatively infrequent empirical primary data collection. Small sample groups were frequently reported among SME researchers who relied upon this process. Frankel (1995) was among other researchers who relied on a small triadic relationship-based sample discussed in this chapter. He reported an emphasis on independent third party development among many of the cooperative relationships studied. He also reported that the research undertaken, was largely representative of big business movements, and reflected the economic impact from a transaction cost and resource dependency theory perspective. Dickson (1997) reported finding that only minimal attention had been given in research to socio-cultural elements of alliance formation.

Studies of strategic alliances between American, European and Japanese firms (Horton, 1992) showed that the surveys of large companies and multi-nationals, revealed predictive patterns of behaviour among participants. She also maintained that the largest demonstrated dependence on strategic alliance was found in the chemical, computer, metals/metal products industries (Osborn and Baughn, 1987).

As inherently valuable as this research is to the overall understanding of strategic alliances, two segments of the marketplace were not significantly represented. SME strategic alliance activity is under-represented, both in relation to the sparse regional strategic alliance research and to the lack of

SME representation in global surveys. The second category of under-represented research is the non-manufacturing industry segment. Financial imperatives of this group of SMEs have been addressed by Williams (1997) Mc Mahon (1996) and Holmes (1995), as yet, the strategic management issues not considered in transaction cost economics, remain to be addressed through empirical studies. Despite a large and expanding body of research based on economic considerations and 'big business', and a small but growing body of SME manufacturing industry-based research, there are still areas of SME strategic alliance decision-making which need clarification. This gap which is seen as being grounded in socio-economic imperatives has formed the basis for the current research.

Strategic Alliance Membership

Morris and Hergert (1987) in their longitudinal survey from 1979 to 1985, found that the most common of the big business alliances were between two participants, with only nine percent involving three or more partners. They also reported that among the differing forms of cooperation, there was a fast growing reliance on this strategic alliance structure. This perception of growing awareness of SME strategic alliances was by no means universal, Ghemewat *et al.* (1986) reporting a weak downward trend in corporate and multi-national alliances between 1970 and 1982. Ghemewat *et al.* (1986) also reported that alliances were largely the domain of the more developed nations. Whether they were achieved through horizontal or vertical integration,

strategic alliances were more likely to be formulated between firms making similar products in the same specific industry. Support for a weak downward trend in strategic alliance formation was found in Ellram's (1990) research over the ensuing six years following on from Ghemewat *et al.* (1970, 1982) studies. She found little change in the direction of the trend reported by Ghemewat *et al.* (1986). Ellram further reported that support for the major strategic alliance formation was generally located within market economies.

Large firms, were also found by Ellram (1990) to depend significantly on legal arrangements in the formulation of their relationship, and to involve a significant dependence on the formation of a third party in the structure of a joint venture. This perception was supported by Franko (1971); Beamish and Banks (1987); Kogut (1988); Harrigan (1988); Ellram (1990); Geringer and Hebert (1991); and Horton (1992). Much of the research into larger firms relied on reported interaction found in national press and industry journals (Horton, 1992). Dickson (1997, p.11) identified 'a propensity among researchers in the area of strategic alliance toward using International and National Press'. Both newspapers and trade journals were used as a source of secondary data. In studies of small groups of industry based organisations Dickson (1997) found that there were generally fewer than 82 cases in each of the studies. This severely limits the ability to extrapolate the outcomes given the diversity of methodology and the particular demographics of each study.

Modeling Strategic Alliance

It has been observed and reiterated in this chapter that researchers since the early 1900s have addressed the large organisation's propensity to align. This concentration has been significant in the development of the general model of alliance, and provides a formidable array of support for alliances *per se*. However, Frankel (1995) has reflected overall strategic alliance imperatives in his General Alliance Model (see Appendix B). He is seen to draw a broad overview of the strategic decision-making, process and operational phases of the cooperative relationship in ways that affect SMEs.

The current study seeks to explain the interaction of SMEs based on an understanding of the impact of the key decision-leader on decisions, and the impact of elements of key decision-leader perception, the firm, industry and environment on the SME's decision-making function. As addressed earlier, there are many levels of cooperation which are based on sustained continuous relationship, these are defined under the rubric of strategic alliances. Harrigan (1988b) and Williamson (1986) indicate that increasingly, SMEs perceive benefits from these forms of alignment. Much of this research interest which has been used in the development and testing of the general strategic alliance model represents multi-nationals and big business. There is, however, a growing body of concern about the specific need for SME firms to form alliances. Welch (1991) maintains that synergy is fundamental to growth of business generally. Indeed, among firms of all sizes, there is a growing recognition that implicit within the concept of business growth and longevity is

the need to focus on the long-term organisational goals. Furthermore, and fundamental to this perception, he maintains that there is a need for the pursuit of business relationships which are reinforced through the development of mutually satisfying goals.

The identified value of strategic alliances and their benefits *per se*, are not universally supported. Ghemewat *et al.* (1986) found evidence for a declining strategic alliance interest. Likewise, Morris and Hergert (1987) posit that, although a large number of alliances are being formed, they are concentrated in a minority of the industries. Explanations for this have included general market conditions (Harrigan, 1988; Mezmar and Nigh, 1995) and technological imperatives (Hagedoorn, 1993; Osborn and Baughn, 1987). Among SMEs Meyer-Krahmer (1985) found a higher percentage of 'no outward orientedness' in firms located in rural regions and a stronger preference for internal problem solving. Despite the recognition of the constraints on strategic alliance formation as identified above, there is a strong body of research supporting both the appropriateness of SME strategic alliance, and the value to the parties of such alliance formation (Dickson, 1997; Morrison, 1996; Harrigan, 1988; Osborn and Baughn, 1987). Several explanations for this have been offered based on assumptions primarily arising from transaction cost prescriptions regarding the role of environmental uncertainty in the alliance process (Devlin and Bleackley, 1988; Milliken, 1987), and including general market conditions (Harrigan, 1988; Mezmar and Nigh, 1995) and technological imperatives (Hagedoorn, 1993; Osborn and Baughn, 1987).

The model of general alliance formulated by Frankel (1995) is predicated on the belief in 'choice', 'formality' and 'depth of understanding' of both the values and the processes of alliance formation. All of these attributes potentially are to be found in big business.

SMEs are constrained in their access to these formal search and identification processes, and are dependent generally upon the philosophy and knowledge base of the key decision-leader. However, limitations imposed through small size and bounded rationality, can best be understood through analysis in the context of a strategic structure such as Frankel's (1995) General Strategic Alliance Model. Elements of this model create signposts for SMEs wishing to formulate alliance, and indicate to researchers and practitioners the necessary elements in the formation of an alliance *per se*. Clearly, control and relationship management strategies and processes will be only marginally represented in the SME cooperative relationship development process. However, the essential elements of alliance participation will be represented in outcomes and relationship management needs. Identifying and explaining this process would enhance SME strategic alliance relationship development understanding. This process was begun by researchers such as Larson (1992); Weaver *et al.* (1992, 1994, 1995); Tyler and Steensma (1995) with input from research and the resulting models of Frankel (1995) and Dickson (1997). SME models have emerged that reflect the general strategic alliance relationship phases and processes, and the separate use, type and perceived outcomes. This thesis addresses strategic alliances reflecting the economic and

the social elements of these relationships, and presents a consolidated model for analysis developed from earlier researchers and the current survey.

The propensity toward researching strategic alliances among and between large firms was understandable in the early stages of industrial strategic alliance research. This major business forum presented the largest group of relatively undifferentiated environments with a hierarchy of structure and a visible enabling strategy, able to assist, or at the very least, enhance comparative analysis. Investigation of big business persisted as a research imperative, despite growing evidence that small to -medium sized enterprises (SMEs) contribute substantially to the growing number of businesses entering cooperative relationships (McGee, Dowling and Megginson, 1995). This view is supported by literature featuring global SME research. Weaver, Dickson and Davies (1995) sustain the perception that these SME-based cooperative relationships are in many ways unique, reflecting the search, learning and decision-making aspects of performance improvement processes identified by Thompson (1967). Frankel (1995) consolidated the elements of the strategy, process and operation within his General Model. This model clearly defines the elements of alliance relationships broadly across their different phases. The current study considers key decision-leader characteristics, drivers and inhibitors in the formulation of appropriate strategic alliance entrance criteria SME.

Apart from the general studies of the extent or rate of strategic alliance participation, there have been three major approaches taken to the study of big

business strategic alliances. These are; a) the formation of strategic alliances and all that this entails from idea formulation to formalisation; that is strategic approaches (Frankel (1995); b) the management of the strategic alliance relationship with enforcing or forbearing among other activities; that is operational issues (Frankel, 1995); and, c) the dissolution and the process, rationale and implications; that is, process (Frankel, 1995).

Research into the strategic alliance imperative has had as its main thrust, an explanation of the economic motive/forces underlying the strategic imperative for alliance behaviour. This approach sees the social context subordinated to economic theories (Zaheer and Venkatraman, 1995). As explained earlier, useful economic theories have been appropriated in the attempt to explain inter-firm cooperative behaviour. For example, consider transaction cost theories in which, any activity which is engaged in to satisfy each party to an exchange ensures that the value given and received is in accord with his or her expectations. (Williamson, 1991, 1985, 1983, 1975). Throughout the literature there is evidence that studies have given considerable emphasis to economic theories such as resource dependency theory in which survival of the organisation is partially explained by the ability to cope with environmental contingencies. Negotiating exchanges to ensure continuation of supply of valued resources is the focus of much organisational action. Control is, of course, important to varying degrees to managers but Pfeffer and Salancik, (1978) claim that an organisation's control is never absolute because there are always competing claims for control of given activities. Moreover, social theories (Dickson, 1997; Zaheer and Venkatraman, 1995; Podolny, 1994;

Tallman and Shenkar, 1994; and, Larson, 1992) have been found to provide substantial understanding of the decision process of strategic alliance alignment. Social control theory (Zaheer and Venkatraman, 1995; Podolny, 1994; and Larson, 1992) reflects the impact on exchange relationships which are seen as changing over the life of the relationship to mirror actual or perceived levels of trust or opportunism as may present in the relationship.

Traditionally, big business has relied upon punitive structures to limit the impact of non-compliance, reflecting the philosophy of transaction cost economics. It is posited that many of the motives compelling cooperative behaviour are similar for all firms. However, there are important considerations unique to SMEs that impact both the antecedents and the outcomes of their cooperative relationships. There are strong arguments that joining strategic alliances can effectively deflect environmental uncertainty through the increase of all types of boundary-spanning activities by firms. Mezner and Nigh (1995) conclude that the less powerful an organisation is, the less resistance it will have to environmental pressures and the more necessary it will be to adapt in order to comply with those pressures. This is a view supported by MacMillan (1972). He posited that the power of the individual and consequently the firm is limited by a number of means, some of these actual, and others perceived. Key decision-leader perception of the impact of externalities will both be affected by personal characteristics and perceptions and, in turn, reinforce value judgements evident in the actions.

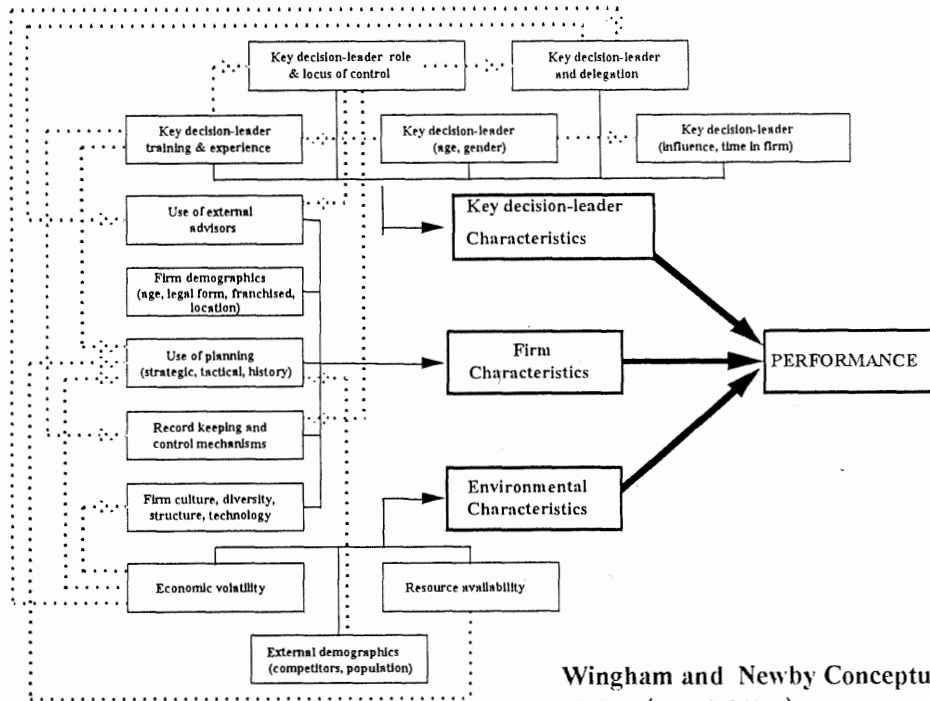
Resource dependency theory (RDT) provides a particularly useful way of understanding the unique nature of the market position of SMEs as it is the normal state of the small firm. In general, Pfeffer and Salancik (1978) assert that an organisation's size and the critical nature of its resources determine its organisational power. They further argue that the lower the power of the organisation, the greater will be its dependence upon other firms for survival. MacMillan (1972) proposed that with lack of power, firm survival will depend on a number of issues which underpin the current research. First, the ability to withstand and, in fact, embrace uncertainty is tested as an hypothesis in this study, with implications of increased or sustained uncertainty driving an increase in the instance of positive strategic alliance behaviour. Second, the potential high cost of forbearance, reflected in continued observance of the constraints of the alliance, when opportunistic behaviour is perceived as more appealing but potentially damaging to the relationship.

The relationship between the individual key decision-leader, the firm, industry and the environment are the basis for research into the strategic alliance activities of SME. Important facilitating factors in big business relationships are the organisation's need for the alliance, the readiness to participate, and the personnel to have direct carriage of the arrangement for the life of the alliance. For the SME this broad approach is concentrated into the ability and the perceptions of the key decision-leader, and the interaction of the firm with the environment within the constraints of the bounded rationality of that individual. Elements of the personal characteristics, firm characteristics and the industry within the environment and the relevance of these in the process

of performance development are depicted in the Wingham and Newby conceptual schema (see Figure 2.2).

Within this conceptual model, firm performance is represented as an outcome of the key decision-leader understanding and knowledge, the locus of control, and the personal demographics and the less tangible 'personal characteristics' driving the firm. Firm characteristics are made up of the facilities, location structures, strategies and controls which constitute the 'firm'. Using the position, location, size technology and structure of the firm, it is maintained that the domain of the firm will be defined both informally and formally. Major levels of economic volatility, are considered by Weaver *et al.* (1992, 1994, 1995) and Dickson and Weaver (1995) to significantly impact on strategic alliance behaviour. External demographics and resource availability reflect the imperatives of transaction cost and resource dependency theories.

Perceptions of power affect responses available to SMEs to offset partner and environmental influences. This perception impacts on the levels of uncertainty perceived by the SME, and is reflected in what MacMillan (1972) describes as 'political instability'. This changing political relationship at both the personal key decision-leader (Wingham and Newby, 1993) and the firm levels, is the basis of the behavioural model which is developed throughout this study. The SME decision-making conceptual schema discussed above, demonstrates the Wingham and Newby Conceptual Schema (1993).



Wingham and Newby Conceptual Schema
(1993) (amended 1999)

Figure 2.2 Decision-making Conceptual Schema

relationship between the key decision-leader, the firm/industry and the environment, and identifies the elements of subjectivity which present in firm decisions based on this interaction Tallman and Shenkar (1994) and Dickson (1997) apply strategic behaviour theory (SBT) to the analysis of SME strategic alliances, based on the underlying premise of SBT that it explicitly considers the characteristics of the decision-leader in the process. In their schema, Wingham and Newby (1993) review the implications of small business owner/CEO perceptions and the impact of these personal perceptions on decisions of the firm. This process is reflected in the strategic behaviour theories which have been applied to SME based strategic alliances. Dickson (1997) argued for recognition of the social context of SME strategic alliance based on his Northern Hemisphere study. However, he clearly establishes the need for, and actively recommends, further empirical research be undertaken to enhance the understanding of the social context of strategic alliance decisions among SMEs.

Strategic Alliance Characteristics

In assessing the literature to assist in shaping the approach to be taken in this thesis, a review was made of the study undertaken by Dickson (1997) in which he has given his reflection of the power base of SMEs. This approach was seen as providing significant value to SME analysis. Earlier studies into alliance formation by a number of researchers, among them Morrison (1996); Lumpkin and Dess (1996); McGee *et al.* (1995); Weaver, *et al.* (1994); Jarillo (1989); Tallman and Shanker (1994); Hambrick and Mason (1984); and Miller (1983;

Miller and Friesen, 1978), who were seen as supporting the significant impact of power and political influence in business relationships. This issue was also raised by MacMillan (1975), within his analysis of the dependence of the firm on the values and ideals of the entrepreneur. These issues were seen to be of particular value when undertaking a choice and establishing an alliance with another organisation. Dickson's (1997) research findings addressed in the earlier chapter, provide a frame of reference for the current research, and based on the key decision-leader decision schema alongside the political/power model of MacMillan (1972), form the basis of comparative analysis of regional responses which are discussed in Chapter Five.

Strategic alliance, is in effect a constrained relationship in which a dominant, feature is that of sharing of risk and reward, although not necessarily equally. A further overriding characteristic of a strategic alliance is that the joint activity is externally orientated in its aims. The parties are seen as cooperating toward the external market-place rather than focusing predominantly on internal efficiencies (Oliver, 1990).

Toward Co-operation: Alliances and Inter-organisational Relationships

The concept of inter-organisational cooperative relationships is best viewed from an understanding of alternative market-based and hierarchical forms for transactions governance. Traditional market forces have provided the structure underpinning the competitive marketplace. Meanwhile, common law and the classical contract law have provided efficient safeguards for governing these

transactions which have nonetheless suffered from a strong element of *caveat emptor*. Furthermore, decision-making about governance forms in the area of wealth production or of the rationing of resources among powerful and less powerful firms, have depended substantially upon opportunity cost and a rigid internal sub-system. It is this dichotomous adversarial nature of traditional business transactions which has attracted the attention of transaction cost theorists, notably Coase in the early part of the century (1937) and later, Williamson (1975, 1985, 1991). Dietrich (1994) however, has identified at least two major limitations to transaction cost theory when it is used for studying inter-organisational relationships. First, the focus on cost minimisation in the focal company, which generally neglects the interdependent relationship between exchange partners in their efforts to maximise value. Second, the focus on the structural features of the exchange act that neglects significant process issues. The process seems frequently to rely on inherently understood roles and shared belief systems, with little effort being spent establishing processural measures.

By definition, there is no attempt to assert that the strategic alliance collaborators display altruistic behaviour but Williamson (1991) maintains that where continued benefits are perceived through the maintenance of the alliance, neither would wish the relationship to be terminated prematurely as a result of one side's dissatisfaction. The relationship between two or more firms will be entered for the achievement of individual organisational reasons. Some of these reasons will be stated in negotiations, while others will remain covert. Where legal constraints are identified within the contract, there are limitations

and inhibitors to opportunism. SMEs frequently report basing their agreements on a hand-shake which provides no overt discipline to the relationship. As is demonstrated in the subsequent chapters of the thesis, this element of the relationships causes concern for the interviewed sample of key decision-leaders of regional SMEs.

A way forward to develop an understanding of the rationale for strategic alliance relationship formation was seen to be through focusing first on the extent to which the strategic alliance literature can cast light on the reasons for relationship formation and the contingencies of relationship formation. To this end, Oliver (1990 p. 243) has suggested six motives for alliance formation.

First, there is necessity; that is, an organisation often establishes relationships with other organisations in order to meet legal or regulatory requirements. These relationships can be voluntary among firms willingly seeking cooperation to ensure compliance with some local regulation. They can on the other hand be mandatory, such as entities developed with countries requiring collaborative relationships at varying levels of involvement/ownership. These relationships reflect the national requirements for a level of home country ownership or degree of control. However, parties must perceive advantage from the continued relationship. Businesses may rely upon unlikely cohorts to establish entry into restricted environments. Mazzerol *et al.*(1998) determined a lack of interest among Australian firms in undertaking this level of involvement with overseas firms, thereby limiting their market penetration into these countries.

Second, there is asymmetry; that is, an alliance results because of the gap between the amount of information possessed by various organisations. Firms may recognise benefits to be gained through the cooperation with technologically sound or research and development strong organisations to enable early entry into markets. A need or wish for control will occur accompanied by the reluctance of the other firms/organisations to relinquish control. This is a strong motivator in organisational decisions to interact. MacMillan (1972) identifies a number of ways of utilising the relationship formation to reflect needs of the firm.

Third, there is reciprocity; that is, the basis of an alliance relationship is one in which organisations consider that cooperation and collaboration will be more appropriate than dominance, control and competition. In this case organisations will seek harmony, balance, equity and mutual support as a means for achieving shared or complementary goals and maximising joint value. This is often the case in organisations of similar industries who can cooperate for critical mass. Again, MacMillan (1972) explored the identity and the alliance drivers which contribute to this form of cooperation. Curren and Storey (1993) also identified a number of rural/regional issues which impact on firm based relationship formation which depends on the concept of reciprocity.

The fourth motive, efficiency, reflects the perception that organisations might establish relationships with other organisations in their pursuit of improving

their internal input/output ratio. In essence Williamson (1991) maintains that efficiency can be obtained through finding another firm giving rise to economies on the cost of transaction. Economies of scale gained through cooperative behaviour allow firms to enhance their specific efficiency, with the flow-on impact on overall efficiency.

Fifth, there is stability. Where firms are motivated to join alliances to create a barrier that provides resistance to the complexity and uncertainty of the external environment. The need to stabilise uncertain industry environment can drive organisations into inter-organisational relationships. These cooperative forms are supposed to serve as coping strategies to forestall, forecast and absorb industrial and environmental uncertainty. There are two bodies of research into the strategic alliance drivers associated with environmental uncertainty. One of these has determined a propensity to 'stand alone' through the uncertainty, and another, which has determined that the propensity to join in strategic alliances is heightened in times of extreme uncertainty. Each approach has value, however, there is currently an overall increase in strategic alliance formation globally, and a significant increase in environmental instability.

Finally, there is legitimacy. Alliances are formed when inter-organisational relationships can be the result of firms' desire for an increase in their legitimacy and for the demonstration or improvement of their reputations. Immature firms entering the market, or into the industry may benefit from alliance with a stronger, highly respected firm. Similarly, established firms with low

technology expertise may enter into a relationship to enhance their perception in the marketplace as a leading edge firm.

Overall, there is a strong desire among firms entering alliances to achieve a measure of all or some of the benefits outlined above. It was clear that the regional firms studied in this thesis would also conform. The analysis of results (see Chapter Four) outlines the extent of conformity of South West regional firms to access some or all of the potential benefits.

Oliver (1990) has contributed substantially to the understanding of the reasons key decision-leaders lead their firms into the cooperative relationships. Although lacking the protection of strong legal and business support, and having to rely upon their own perceptions based on bounded rationality, clearly there are drivers causing the key decision-leader to participate in or to refrain from participation in this form of business relationship. These potential outcomes are being addressed here from a regional small business perspective. Literature suggests that key decision-leader influence will affect the strategic alliance participation propensity of firms, and this will reflect the diversity of key decision-leader perceptions and experiences but they are moderated by such individual level factors as the strategic and cultural orientation and attitudes of key decision-leaders (Blau, 1964; Larson, 1992). Cooperative behaviour is an outcome of key decision-leader ability to interpret the environment, based on individual level variables, perceived partner behaviour and firm specific factors (Podolny, 1994). These are seen as reflecting such things as the key decision-leader's levels of trust; tolerance of ambiguity;

extent of ego-focus, and other issues identified and developed over the years by Hofstede (1980).

The SME's resource sufficiency is proposed as being directly linked to the power held by a firm. Gulati (1993), also posited firm size, financial strength, and managerial resources as providing a link between propensity and actual participation. Within the firm options available to the SME in response to uncertainty, Meznar and Nigh (1995) see strategic alliance as a valuable alternative. A further factor is the extent of a firm's international trade (Morris and Hergert, 1987). Murray and Mahon (1989) conclude that alliances help overcome the significant economies of scale presented by an international marketplace.

As initially stated in Chapter One, the differences in sample selection, research development and industry base, have resulted in less than optimum levels of cross analysis potential among the different studies. In fact it would be possible to approach the strategic alliance phenomenon among SMEs from a number of differing directions. However, the current research sought to follow the approach taken in a earlier regional studies set in the United States (Weaver *et al.*, 1992; 1995) Costa Rica (Weaver *et al.*, 1994) and Norway (Dickson, 1997). Whereas these studies in each country represented manufacturing industries in a regional area, reporting on this cohort in the South West region would have excluded mixed industry and non-manufacturing industries alike. The sample would have been unrepresentative of regional industry mix as well as being too small to enable any definitive quantitative analysis to be

undertaken. Furthermore, this classification was seen to exclude most Australian firms, and thereby limit the applicability of important results to an already under-researched body of firms, which are claimed to be significant contributors to Australian wealth creation (Carmichael, 1995; Karpin, 1995). The South West sample therefore comprised a mixed industry group selected on the basis of their location and their perceived potential to enter a strategic alliance.

Despite findings reported by Mazzerol, Choo and Ramaseschan (1997), that Australian firms were bypassing -incremental means of accessing foreign markets such as cooperation through strategic alliances, Hine and Kelly (1997 p. 142) maintain that the purely competitive paradigm is now widely questioned by those who support strategic alliance and the development of long term relationships. These are increasingly seen as the key components of successful SME competitiveness in both domestic and international markets (Perry and Pyatt, 1995; Styles, 1995).

The Regional Perspective

As already explained, the purpose of this study has been to add to the body of international research into the phenomenon of strategic alliance, through increasing the level of understanding of SME strategic alliance formation. The focus of the current study is on the South West regional location of Western Australia, and the issues addressed were the reported behaviour and attitudes of the SMEs. The study was undertaken to determine the existence of a

pattern of attitudinal and behavioural conformity/disparity in strategic alliance interaction in the region. Curren and Storey (1993) identified a number of rural/regional issues which impact on firm based relationship formation. MacMillan (1972) maintained that the basis of the industry related interaction - which is at the very foundation of the strategic alliance, is dependent on power, both actual and perceived, with little if any difference made between the existence or perceived existence of power. These two issues, propensity to join strategic alliances and the power balance, are addressed along with theoretical and practical modelling techniques.

A modified model of SME-based cooperative behaviour that focuses on the antecedents, moderators and outcomes of inter-firm cooperation which was developed by Weaver *et al.* (1994) provides an understanding of the attitudinal factors which are unique to SME based strategic alliance formation. The model has as its foundation, transaction costs and resource dependency logic, but is of particular value to the current research moving as it does beyond these traditional explanatory vehicles. It advances the constraints of these theories to explicitly consider social control explanations described as 'trust' and 'forbearance' by Weaver, Dickson and Davies (1995); Podolny (1994) and Larson (1992). These two approaches to cooperative behaviour cut through the opportunistic approach to interaction which have shaped inter-firm relationships. They offer a win-win basis for interaction. However, as already discussed, they make no claims to equality of benefit, or to a balanced and cost neutral ability of each party to withdraw from the relationship.

Specifically, it is argued, that for SMEs, the strategic choice to form cooperative relationships, and the associated strategic goals are influenced by various environmental and organisational factors. More specifically, they are moderated by such individual level factors as the strategic and cultural orientation and attitudes of key decision-leaders. It is also argued that cooperative behaviour outcomes are based, not only on environmental and firm specific factors, but also on individual level variables and perceived partner behaviour. Further, they are seen as reflecting such things as the CEO's levels of trust, tolerance of ambiguity, extent of ego-focus, and other issues identified and developed over the years by Hofstede (1980). Models reflecting these issues are addressed in the following chapters.

The hypotheses at the end of this chapter were developed in direct response to the research questions reflect regional cultural diversity, as expressed in the macro form by Hofstede (1980); propensity to trust (Weaver *et al.*, 1992) and the power balance of the alliance participants identified by MacMillan (1972).

NATURE OF SME BASED STRATEGIC ALLIANCES.

SME cooperative relationships may take many forms, ranging from very informal, information sharing cooperatives, to extremely formalised relationships (Morrison, 1997; Frankel, 1995; Lorange and Roos, 1992; Ying and Korneliussen, 1992; Shan, 1990). The goals and purposes for these relationships can be varied. In the conjunction of cooperative relationships presented for this thesis, (see Figure 2.1) cooperation was described as

extending from the type of behaviour which is barely greater in its formalisation than an *ad hoc* interaction, through many levels of mutual dependency through to the development of a third entity or joint venture. Terms most commonly associated with all of these levels inter-firm cooperation which fall short of the development of a separate entity is strategic alliance. This terminology which is used in the current study, is consistent with most current literature, where strategic alliances are generally defined as structured agreements that establish exchange relationships between cooperating firms, but do not involve a 'free-standing' wholly owned organisational entity (Volery, Mazzerol and Choo, 1997; Frankel, 1995).

Circumstances of each strategic alliance are individual and unique. Alliances are formed with the intention of achieving specific benefits which Bowersox *et al.* (1992) define variously as one or several of the following: cost reduction, joint synergy, increased information for planning and growth, enhanced market penetration through concerted application to customer service, shared risk and uncertainty reduction. Some, most or all of these will be found as inherent requirements of all alliances. Research has determined over time that big businesses entering alliances reflect an overall proclivity toward alignment with an organisation in the same industry (Heide and John, 1990). This issue is seen in SME research to be less of an imperative when choosing a strategic alliance partner or partners than the shared goals and corporate culture of the partners (Dickson, 1997). This relationship is demonstrated in the SME strategic alliance decision model which follows later in Chapter Four, and

which shows a number of the posited influences on key decision-leader behaviour and attitudes.

SME Strategic Alliance Attitudes and Behaviours

Much of the research into strategic alliance activity has determined that there is a strong dependence on the economic theories in the explanation of the occurrence of strategic alliances. While a number of theories have been utilised in an attempt to understand alliance behaviour, two rational choice theories have been proposed as being particularly useful. The first is drawn from transaction cost economics, primarily as it was identified by Coase (1937) and is defined by Williamson (1975, 1983) and further expanded in 1991. The second is resource dependency theory, as proposed by Pfeffer and Salancik (1978). Both theories are useful in explaining SME behaviour, but as argued by Larson (1992) and others (McGee *et al.* 1995; Zaheer and Venkatraman, 1995), they fail to consider a number of important variables significant in inter-firm cooperative behaviour. These researchers have proposed a social control perspective for understanding alliances. This is seen to be very much in line with the power/political perspective proposed by MacMillan (1972). This model incorporates analysis of influences determining the relationship between the perceptions and the behaviour of organisations.

Transaction Cost Theory

Transactions form the basis of business relationships, and in transaction cost theories co-operation as a means of maximising economic or psychological benefits is part of a larger body of exchange theories which have formed to explain this aspect of business relationships (Smith, Carroll and Ashford, 1995). In general, Williamson (1991, 1983, 1975) argues that when firms which may be rivals, perceive efficiency incentives in co-operation, they will trade competition for co-operation. MacMillan (1972) was seen to use this argument in the development of his model of power and politics. The bases of both arguments are the two assumptions underlying the philosophy of transaction cost economics. The first assumption is identified as the inherent belief in the opportunistic nature of man, described as 'self-seeking with guile' (Williamson, 1975, p.6). This belief system reflects the perception that participating firms in a strategic alliance require a level of power which is designed to ensure that they retain an 'appropriate' level of control over the alliance environment. This suggests that there is a continued level of natural distrust in all agreements based on the perception of the parties as to the distribution of power, and the elements which impact the market, such as raw material and market scarcity, environmental and market instability and market maturity and the like. The second assumption is that human agents are rational, but suffer from bounded rationality indicating that there are limitations on knowledge and situation-understanding experienced by firms. These present as imperfect knowledge, which may or may not be recognised by parties.

Organisational decision-leaders need the ability to rationally weigh all of the costs associated with co-operation, bounded rationality may force them to make less than rational choices. Some decisions will be based on social factors, which it is argued, have a greater propensity to impact SMEs than the more structured big business relationships (Ostgaard and Birley, 1994; Birley, 1985).

There has been a growing opposition to the acceptance of a universal assumption of opportunism in cooperative relationships. Smith, Carroll and Ashford (1995); Parkhe (1993); Barney (1990) and Hill (1990) argue that cooperative relationships may be marked by trust which is a social control factor, rather than opportunistic behaviour (Goshal and Moran, 1996; Chiles and McMackin, 1996; Larson, 1992; Ring and Van de Ven, 1992; Ouchi, 1979). MacMillan (1972) suggests that decisions based initially on the power and politics of inter-firm relations, may lead to the development of a relationship based on trust over time, but there is a need initially to classify partners in an alliance, and thereby to determine their propensity to behave opportunistically. Opportunistic behaviour is seen in the literature as the principal indicator of a desire for the cessation of cooperative relationships between firms, and a crucial and negative sign that the end of the relationship is imminent. This activity is seen as the execution of power, which is explained by MacMillan (1972) in terms of exercise of power which may have been present during cooperative interaction, but was used at a time deemed appropriate to the perpetrator.

Resource Dependency Theory

In order to achieve stability and predictability, firms must grow, and in doing so, gain greater control of critical resources. Where control over resources is finite, as is generally the situation in SME firms, it is likely that in this context, power on its own is insufficient to affect change. The issue which influences outcomes is the operation of power based relationship - power capability - a function of power and influence is a major contributing factor to the negotiation and the management of alliances (MacMillan, 1972). This is particularly the case in SMEs, where it is argued that resources are generally obtained through the use of the key decision-leader's social network (Dickson, 1997; Ostgaard and Birley, 1994).

Interactive organisational relationships, are dependent upon the development of cooperative environments. Tyler and Steensma (1995) suggest that firms will seek out inter-organisational coalitions in order to empower the firm through controlled interdependence and to acquire resources necessary to provide sustainable competitive advantages. Resource dependency theory, as expressed by Pfeffer and Salancik (1978) establishes that, for interdependent organisations, the exchanges necessary for maintaining operations are both uncertain and unstable. The issue for the SME, is to determine the level of formality to apply to the relationship, given their lack of resources to enforce compliance (Dickson, 1997).

Social Control Theory

Social control explanations are described by Weaver Dickson and Davies, (1995) as trust and forbearance (Blau, 1964; Larson, 1992; and Podolny, 1994). Specifically, it is argued, that for SMEs, the strategic choice to form cooperative relationships and the associated strategic goals, are determined by various environmental and organisational factors, but they are moderated by such individual level factors as the strategic and cultural orientation and attitudes of key decision-leaders. (Blau,1964; Larson,1992; and Podolny, 1994). It is further argued that cooperative behaviour outcomes are based, not only on environmental and firm specific factors, but also on individual level variables and perceived partner behaviour. These are seen as reflecting such things as the key decision-leader's levels of trust; tolerance of ambiguity; extent of ego-focus, and other issues identified and developed over the years by Hofstede (1980).

Politics Power and Influence

Economic rationalist theories of resource dependency and transaction cost reflect the bases and use of power, and MacMillan (1972, p. 65) relies on both paradigms within his research. Elements of transaction cost are defined in his model as power and control over cost to the firm to be determined when the decision to align is made. He further represents the opportunity cost of failure to undertake the transaction within this paradigm. Resource dependency represented by both skills and scarce energy input are fundamental to

MacMillan's thesis. The tenet of which relies on the politics of economically based social interaction, while seeking to gain or maintain power over alternatives. Rational opinion would maintain that without authority which assumes the given right to manipulate, there would be a point at which the opportunity cost of non-compliance would optimise influence, allowing power to be exerted over others to achieve outcomes which may be inequitable but acceptable. Economic power is applied in a task environment in which the power of alliance members fluctuates. In strategic alliance formation, such movement may bring both symbionts (suppliers and customers), and commensals (competitors), into the firm's given domain. These decisions to act on the basis of influence and manipulation will be a function of the outcome of negotiation in the context of bounded rationality, based on the extent of the firm's power over the allocation and control of resources (Mezner and Nigh, 1995). The relationships formed through these strategic alliances are potentially able to control the power base of the domain. Blau (1935, p. 298) argued that 'the availability of resources is a prime determinant of power in a given situation'. MacMillan (1972) supports this thesis and identifies the control over these resources, in particular in volatile environments, or in situations of scarce resources, to have a substantial potential to impact the use of power by the parties.

Power is perceived differently by the actors in any system. The value of power to a SME strategic alliance partner depends on the ability of the key decision-maker. This will generally affect the political capability of the organisation; that is, the capacity of the organisation to further their organisation's own ends

through the judicious application of power to develop a domain in which symbionts support the firm's survival. MacMillan (1972, p. 92) identified four major relations between coalitions, and the sub-groups influencing the relationships. These are seen as reflecting the philosophies of the strategic alliance environment. The first of this category of differentiated sub-groups is the symbiont - those systems possessing the energy input required by the firm for survival (suppliers and customers); and, the second sub-group, the commensals - those systems competing with the organisation (competitors). These sub-groups interact within the environment. The firm will bargain among those parties which it identifies as 'sympathetic'. Such behaviour is reflected in the development of diverse cooperative relationships, and 'in the process of bargaining, the individual tries to reduce the uncertainty of [the outcomes of] action by attempting to create a negotiated environment' (Cyert and March (1964 p. 119). However, this is constrained by the elements of bounded rationality. This process is evidenced in the use of one or more of the following four major types of bargaining identified by MacMillan (1972, p. 99): a) simple economic bargaining based on general economic parameters; reflective of transaction cost activity; b) simple political bargaining-reflecting diversity of power-base; reflective of both transaction cost and resource dependency activity; c) mixed economic bargaining - reflecting the individual organisation and the cohort needs, and both economic and social theories are able to be used to define the relationships which result; and finally, d) coalition bargaining - which occurs when the individual or system pools its resources with others in a coalition. It is this latter power based bargaining environment

which underlies strategic alliance, and reflects the economic and the social theories of interaction.

MacMillan (1972) formulated a model of the relationships, which reflects the propensity of the sub-groups to align. He describes the symbionts and the commensals in both the congruent ideological paradigm as more likely to join strategic alliances, while the divergent ideology of some symbionts make them less likely to cooperate. The group least likely to join strategic alliances with the firm will be the commensals with a divergent ideology. These relationships contribute to the development of the model for understanding SME strategic alliances and are discussed fully in Chapter Four.

Power, in the context of the firm environment is not a general property of the individual. Conversely, it is a property of an individual in a situation (MacMillan, 1972), and is subject to the predilection of the individual to use the latent power. Literature reveals that the propensity of the individual to use power is subject to conditions of overload or stress (see, for example, Larson 1992; Wingham and Kelmar, 1989 and Mallen, 1967). Alliance use propensity is also subject to under-comprehension or failure to comprehend the potential impact of their position *vis-à-vis* the protagonist (Miles and Snow, 1986; MacMillan, 1972; Mallen; 1967). Behavioural scientists generally posit that political capability politics reflects the power, influence and authority or cognitive dissonance of the participants. Self-perception was found in this study to be a significant impact on the perceptions of power among the interview cohort.

By virtue of its grounding in the behaviour of industries, their systems and their coalitions, politics have a legitimate place in the analysis of strategic alliance. As the 'individual' in the person of the key decision-leader is seen in general SME literature as *de facto* the firm, any discussion of the firm in relation to strategic alliance would imply the individual, and *vice versa*. In seeking to defend the position in the domain, it can be expected that individuals will demonstrate political behaviour reflecting potential, real or perceived power. In accommodating to the environment, the firm will undertake actions which are jointly or severally acceptable to the partners or to the individual.

Uncertainty

Uncertainty is a major element of strategic alliance, and ambiguity another element which though not necessarily static over the life of the relationship are found to varying degrees in all business relationships. Common to understanding and managing both is the need for a level of key decision-leader tolerance of risk, uncertainty and ambiguity (Begley and Boyd, 1987). It is for this reason that there is great importance placed by both transactional cost and resource dependency theories on activities directed at facilitating the free flow of the relationship through the appropriate 'boundary spanning' activities (Thompson, 1967).

Cooperative Behaviour as a Strategic Choice for SMEs

SME decision-leaders may intend to evaluate the information at their disposal rationally, but due to bounded rationality, their decisions are often influenced by individual level variables (Tyler and Steensma, 1995). Past research has shown that the basic beliefs, values and predispositions of key decision-leaders within the firm can 'affect firm level strategic decisions' (Thompson, 1967). While economic theories assume decisions are based principally upon perceived economic efficiency, social control theory proposes that certain social issues inherent in any transaction between organisations led by human agents, cannot be ignored (Larson, 1992; Podolny, 1994; Tyler and Steensma, 1995; Dickson, 1997). In these studies, three factors appear to be particularly significant in moderating the SME's reaction to the environmental and organisational uncertainty and need as they are related to inter-firm co-operation. Weaver, Dickson and Davies (1995) identified the 'strategic posture' of a firm; 'market maturity' of both recent entries and mature established firms; and, 'technology demand' of the industry as affecting the propensity of the SME to join in alliances. Technology demand was identified as being a function of both new innovative firms based on modern technology, and evidenced in mature markets which were approaching the end of a production or technology life-cycle, which were dependent on innovative rejuvenation to advance their market share. Dickson (1997) found the propensity toward strategic alliance behaviour to be dependent on a number of variables including the cultural values of the individuals.

Strategic Posture

Covin and Slevin (1989) and Shan (1990) proposed that one variable of firm differentiation between those which choose cooperative behaviour, from firms that choose to stand alone, is the 'strategic posture' of a firm (Weaver *et al.*, 1992; Dickson, 1997). The firm's orientation as either entrepreneurial or conservative in nature, is conceptualised as the primary indicator of its strategic posture. SMEs with a strong entrepreneurial nature, or in Covin's and Slevin's (1989) terms 'an entrepreneurial spirit', are viewed as those in which the top managers are willing to take risks and to favour change and innovation if it leads to competitive advantage. Those less entrepreneurial key decision-leaders are risk-avoiding rather than risk taking, and non-innovative rather than innovative in their behaviour. Weaver *et al.* (1994) and Dickson (1997) identified a number of influences in the SME determination to join or forbear formation of strategic alliances. These are addressed by Dickson in his model of SME strategic alliance. This model emphasises the environmental and firm specific variables as key to the strategic choice of the key decision-leader. In the model, Dickson (1997) indicates the impact of the perceptual and attitudinal variables on the strategic choice to join or to refrain from joining alliances. However, a valuable inclusion is made, in the form of recognition of the potential impact of the cultural variables - individualism/collectivism and entrepreneurial orientation - on the propensity to align or to refrain.

Market Maturity

Shan (1990) supported by Weaver *et al.* (1995) argues that the 'maturing of markets' and the rapid emergence of new technologies demands that firms become more innovative. The need for innovation in turn leads to a greater willingness on the part of firms, to seek out cooperative relationships particularly those with companies that can offer a wide range of products and technologies (resource dependency theory). Placing Shan's argument within the context of Covin and Slevin's (1989) conceptualisation of the entrepreneurial firm, presents it as one that seeks out innovation, and is willing to accept change and the risk it brings. Within this approach there exists argument for the association of high levels of entrepreneurial spirit and cooperative inter-firm behaviour as expressed by the key decision-leaders.

Cultural Values

Studies undertaken subsequent to his 1980 treatise generally utilise cultural dimensions enunciated by Hofstede (1980, 1984a, 1984b) to describe relationships and the broader cultural issues. Based on his studies of managers in over fifty countries, Hofstede concludes that there are several identifiable cultural dimensions underlying decision-leader behaviour. Three of these, which are labeled by Hofstede as individualism/collectivism, power distance and uncertainty avoidance, appear to be particularly useful in the illumination of firm behaviour (Shane, 1994).

Shane (1992, 1993) has argued that organisations reflect the cultural values of the individuals that establish them. He further concludes that while managers may consider the transaction cost in decisions relating to firm level cooperative behaviour, their perceptions of those transaction costs are significantly influenced by their cultural orientations. Morris, Davis and Allen (1993) found significant relationships between cultural values and entrepreneurship across firms as well as across entrepreneurial behaviour of individuals within the firms. Cultural values have been found to be significantly associated with national rates of innovation (Shane, 1993), perceptions of transaction costs (Shane 1992) and championing behaviour (Shane, 1994, 1995). McGrath, MacMillan and Scheinberg (1992) conclude that there is a significant relationship between the proclivity of individuals to begin new ventures and their cultural orientations. Due to the proposed link between 'entrepreneurial spirit' and cooperative behaviour, there is considerable weight given the role of cultural values in moderating the SME decision-leader's reaction to environmental and organisational factors.

Individualism - Collectivism

Hofstede (1980) determined support for the concept that people with individualistic orientations, in general, believe that the self is the basic unit of survival, value independence and self-sufficiency, give priority to personal goals and place high value on self-direction, social justice and equality. This understanding was the basis for identifying individualist orientation in Dickson (1997). Collectivist cultures emphasise the importance of belonging to a stable

select in-group (Hofstede, 1980, 1984; Hui and Triandis, 1986; Hui, 1988; Hui and Villareal, 1989; Schwartz, 1990). They produce societies that are characterised by tight social frameworks in which people distinguish between in-groups and out-groups, and expect the in-group to help to provide for the welfare of the group members (Triandis *et al.*, 1988; and, Dickson, 1997). Weaver *et al.* (1995) proposed that while high levels of individualism have been found to be associated with entrepreneurship behaviours, the level of cooperative behaviour will have a positive relationship with the non ego, more collectivist approach which is required to support a strategic alliance. Shared power should therefore reflect in a reduced reliance on opportunistic behaviour.

Power Distance Orientations

Individuals with high power distance orientations, place high value on conformity and obedience, display authoritarian attitudes as a social norm, and expect decisions to be made autocratically and paternalistically. Low power distance cultures produce individuals who expect inequality to be minimised, value independence, expect power to be legitimate and value equal rights. Individuals with low power distance orientation, are not as concerned about obedience, prefer shared decision making, negatively evaluate close supervision and expect employees to show cooperativeness (Hofstede and Bond, 1989; McGrath *et al.*, 1992; Shane, 1992; and, Dickson, 1997). Shane (1993) argues that high power distance orientations discourages innovation and increases perceptions of transaction costs.

Uncertainty Avoidance

Given the national cultural dimensions identified by Hofstede (1980), and the low preferences for uncertainty avoidance, which have been found to be associated with entrepreneurship (McGrath *et al.*, 1992), and coupled with propensity toward innovation (Hofstede, 1980; Shane, 1993), it is posited, that the key decision-leaders of regional SMEs involved in alliance activities will not have high uncertainty avoidance tendencies. MacMillan (1972) supports the relationship between uncertainty avoidance, and the use of power. This he depicts as a relationship in which the imbalances are both recognised and encouraged.

Cultural Distance.

The greater the cultural distance between potential partners the greater will be the difficulties in aligning their organisational and administrative practices, employee expectations and the interpretation of, and response to, strategic issues (Kogut, 1988; Schneider and De Meyer, 1991). Casson (1991) argued that determining the performance on transaction costs, will in turn indicate the current level of trust in the organisation relationship. Not surprisingly there is a greater level of transaction cost associated with enforced compliance than with the existence of a trust based relationship between the cooperating firms. There is also some support for the clan-like behaviours as a governance structure in organisations characterised by ambiguous monitoring of goals and performance standards (Ostgaard and Birley, 1994; Ouchi, 1980).

The orientation of key decision-leaders within the SME serves as a motive toward alliance formation - an orientation either towards a regional or local strengthening (Dymsza, 1988; Ohmae, 1989). In general, the more 'globally' motivated the key decision-leader within the SME, the more likely the SME will be to form strategic alliances which for many, is the only avenue for globalisation (Murray and Mahon, 1997). They therefore concluded that a strong belief in the necessity of globalisation on the part of the SME's key decision-leader(s), reflects in the level of involvement in inter-firm cooperative relationships (Dickson, 1997).

MacMillan (1972) addressed the power political constructs of business and business/social relationships in his research focussing on the action basis for relationships focused on the attitudes of the decision-leaders associated with potential alliance participants. A recently completed project (Dickson, 1997) surveying Norwegian SMEs focused on attitudinal issues underlying alliance behaviour. Larson (1992) concludes that social control and governance mechanisms such as trust, reputation, personal relationships and reciprocity norms, are critical in understanding how firms respond to their environments and form cooperative relationships. Larson (1992 p.77) defines social control theory as encompassing 'both self-regulation with a moral dimension' and 'feedback process that is jointly determined by and diffused across multiple' This perception is supported by MacMillan (1972).

On a more transaction cost economic basis, Paap (1990) reasons that the key motive underlying alliance behaviour is certainty that a particular project is

unlikely to succeed by traditional means. Killing (1983) found several motives underlying co-operation: government regulation; one partner's need for the other's skills and or, one parties need for the other's attributes or assets. Contractor and Lorange (1988) argue that in general, the choice of behaviour is based upon three broad motives - risk reduction, cost reduction, and/or the desire to enhance revenues by entering markets closed to traditional entry mechanisms. However, the model developed for this study divides the determinants of SME based cooperative behaviour into two main groups - those evolving out of the competitive nature of the SME's environment industry and firms, and those evolving from specific organisational attributes, characteristics and perceptions of the SME.

Environmental Determinants.

Central to both transaction cost economics and resource dependency theory is the argument that environmental uncertainty motivates firm level behaviour. The more uncertain and unstable the environment, the more likely it will be that firms will seek greater control over their transactions. The form that control will take, is dependent upon the firm's assessment of the transaction costs. Auster (1987) is supported by Dickson, (1997); Morrison, (1996); Frankel, (1995); and Horton, (1992) in his contention that it is critical for SMEs, argues that the dramatic increase in alliance formation is a direct response to growing environmental uncertainty for firms. Environmental factors appear with regularity in the alliance literature.

Forrest (1990) has focused on the growth of technology-based strategic alliances. She argues that, in general, the more shortened product life cycles become, the more rapidly technology diffuses through an industry, and the more multi-disciplined the nature of new technology becomes, the greater the motives for cooperative behaviour among firms. Changing technology has resulted in an overhaul of the traditional power-base, and Devlin and Bleackley (1988) conclude that it is the rapid pace of technological development and the associated high costs that underlie the motive to co-operate. Technology serves not only as the motive for cooperative behaviour, but as Harrigan (1988b) proposes, it often becomes the most important bargaining chip that firms possess when negotiating co-operation. Pfeffer and Salancik (1978 p. 109) term this the 'criticality of the resource' and link it to the types of exchanges upon which the firm must depend. In general, firms with highly critical or unique technology will be less inclined to form cooperative relationships. Support is found for the idea that high technological complexity will be related to inter-firm cooperative behaviour for those firms with limited technology (Walker and Weber, 1984).

Ohmae (1989) believes that for many industries, the 'relentless challenges of globalisation will not go away' (p. 154). These global demands, in his view, 'mandate alliances, make them absolutely essential to strategy' (p. 143). When faced with global competitors, in order to survive many firms must themselves become globally competitive. For SMEs, who often have limited resources and limited opportunities, strategic alliances that stretch across international boundaries often become viable strategies (Koepfler, 1989;

Contractor, 1986). For both large and small enterprises, cooperative associations help to take advantage of the significant economies of scale presented in the global marketplace (Murray and Mahon, 1993). The presence of key competitors within the SME's primary market, with international (or global) operational bases, will have impact on the SME's involvement in inter-firm cooperative relationships. The elements identified in Dickson's (1997) model, and identified imperatives of economic and social theory underscore many of the outcomes of the current research, and give the future study of regional Australian SMEs an empirical foundation for further comparative examination.

Regional Imperatives

SMEs in regional/rural areas are increasingly impacted by the incursion of national and global organisations. Dealing with this factor is a significant issue for the regional SME. Actions to benefit from this 'intrusion' will of necessity require SMEs to cooperate among themselves and/or with the larger business to establish a viable critical mass, or a valuable basis for symbionts and/or ideologically aligned commensals to formulate regional cooperation. In determining the potential of South West regional businesses to align strategically, it was necessary to look at the 'cultural dimensions' of the Australian manager based on Hofstede's (1980) cross cultural managerial values, to develop initiatives which a business could take to align strategically. This need for cooperation was viewed through the cultural paradigm

(Hofstede, 1980) in the light of research undertaken by Bottger and Yetton (1987) and Barraclough (1984).

Bottger and Yetton (1987) found that Australian managers were likely to experience difficulties when faced with changes in-group power. This was supported by Barraclough (1982, p. 19), who identified strengths and weaknesses of Australian managers, as perceived by their peers. Characteristic strengths were seen to be grouped into high and low levels of agreement. Sixty-eight percent of peers saw fellow Australian managers as being "hard working", almost fifty percent agreed that they were flexible adaptive, innovative and inventive. Considerably lower levels of technical soundness, egalitarianism, open, genuine, direct independent thinking were recorded, with honesty and ethical behaviour reported by only twenty percent of the respondents to Barraclough's survey. Perceived weaknesses were short term view reported by forty-nine percent of peers accompanied by lack of strategic perspective, inflexible/rigidity, complacency, poor team-work, lack of skills or desire to empower staff and inability to cope with differences, all were reported by upward of forty percent of the respondents as weaknesses. Finally, weaknesses were reported but with less intensity in the form of poor people skills and a lack of self-confidence.

As demonstrated by Barraclough (1984) this propensity of subordinates to challenge authority may lead to a defensive approach to innovation. If these reported perceptions, are a true reflection of the Australian manager, they are seen as having a potentially negative impact on strategic alliance within the

region. Also causing some concern is the claim by Tabakoff (1994) that few Australian SMEs have a strong orientation toward export. As a near neighbour, Asia presents challenges of cultural and linguistic barriers to managers used to the insular relatively small protected market (Miller and Leptos, 1987), Keil (1986) reinforced these findings, focussing on potential nationally based inhibitors of the development of relationships with overseas environments. First, there is excessive dependence on government support. Second, there is too much focus on short-term profit. Despite the barriers identified, Mazzerol, *et al.* (1997) found that Australian firms were bypassing incremental means of accessing foreign markets, among these strategic alliance.

The regulatory and political environment surrounding the firm can have a significant impact on both the formation of the alliance and the ultimate form the alliance will take. For Australian exporters there may well be impetus from an unlikely source as they attempt to enter foreign markets, only to learn that an alliance - a partnership with a national entity, is the expected form that incursion will take. Ownership regulations in Asian countries could well drive Australian SMEs into strategic alliance. This proposition finds support from Pfeffer and Salancik (1978). Alliances are often formed to circumvent trade restrictions erected by a particular government, or to comply with regulations governing permitted levels of foreign ownership (Auster, 1987; Contractor and Lorange, 1988b).

The review of current alliance research would seem to indicate that SMEs from certain industries are more inclined towards alliances than are SMEs in

some other industries. In particular, technology-based firms appear to have embraced this form for strategic growth (Doz, 1988; Forrest, 1990). While it is not possible, at this time, to predict the industries most likely to join alliances, in general, it is possible to determine that there is a relationship, and the direction of that relationship between an SME industry, and alliance formation. Geringer (1991) has concluded that it is the perceptions of both environmental and internal characteristics that underlie the strategy formulation process.

Strategic alliances are often formed as a result of a desire of one or more partners for access to new capacity (Kanter, 1989) such as a sharing of investment costs (Contractor, 1986), or a search for intellectual property (Matthews and Moser, 1995). Organisational resources serving as a motive for cooperative behaviour can be a two-edged sword. Resource sufficiency in an identified attractive alliance partner, may also indicate a firm not particularly motivated to participate. Perlmutter and Heenan (1986) propose that large firms often seek out alliance with SMEs in order to exploit their entrepreneurial capabilities such as the ability to move quickly and efficiently. Williamson (1981) reports that this goes some way to developing a legitimising transaction cost theory dependency. Alliance success will then depend upon the ability of the potential partners to identify similarities or shared management understanding of appropriate internal operational processes. Good experiences with alliances are determined as encouraging further strategic alliance formation.

The fact that an SME has participated in an alliance relationship in the past is an important factor in determining future use of strategic alliances. Prior experience, if positive, serves to reduce the SME's estimate of the transaction cost particularly as it relates to the assumption of opportunistic behaviour on the part of an alliance partner (Zaheer and Venkatraman, 1995). Successful prior alliance experience reduces the perceived cost of opportunism and thereby increases the level of trust between potential partners. According to social control theory, this is a strong determinant of cooperative behaviour. McGee *et al.* (1995) propose a linkage between experience and the perception of available cooperative strategy choices. Environmental uncertainty and alliance experience are also linked in Podolny's (1994) perspective. He concludes that the greater the uncertainty the more likely it will be that firms will seek out relationships with organisations with whom they have transacted in the past.

An important internal organisational variable proposed by social control theory is that of firm and individual reputation. Larson (1992) argues that personal reputations and personal friendships are often more important in explaining cooperative relationships than are economic variables. He proposes that, while it is necessary that there is some obvious mutual economic benefit in the cooperative relationship, economic benefit is not sufficient rationale for co-operation. Based upon in-depth case studies conducted with a number of SME base alliance partners, Larson concludes that as economic exchanges grow and mature, the reputations of both the organisations and the individuals involved become tightly interconnected with the economic exchange. Zaheer

and Venkatraman (1995, p. 377) argue that since, as assumed by transaction cost theory, individuals suffer from bounded rationality, therefore, 'the writing of completely contingent contracts' is impossible. Lack of total knowledge forces key decision-leaders to reappraise their cooperative situation, and without structured punitive measures to reinforce appropriate behaviour, are left with a reliance upon social controls. SME reputation, both individual and organisational, is not only important in the assessment of the transaction costs as it relates to potential opportunism, but also in the development of trust a critical component of social control theory.

It has been maintained (Weaver *et al.*, 1994) that in the development of cooperative relationships based on shared understanding of needs and goals, the core attitudes included the need for 'commonality' among partners and the necessity for a 'quality relationship'. Other attitudes included the 'belief in the necessity of cooperative relationships', the need for 'exchange relationships between alliance partners' and the 'need for growth' and the 'potential for alliances' to promote growth. The most significant attitude emerging from the literature was the SMEs perception of a relationship with a larger organisation. Doz (1988, p. 323) observed that among managers and owners there was significant level of fear that larger firm might take actions detrimental to the smaller firm. SMEs moving toward strategic alliance will demonstrate key decision-maker perceptions toward (a) the necessity of cooperative behaviour (b) growth through cooperative relationships (c) the potential exchange nature of those relationships, and (d) potentially dissimilar alliance partners are positively related to inter-firm cooperative behaviour.

The forms that an SME based strategic alliance might take vary. However, one important aspect of the alliance relationship which is directly determined by strategic goals, is the level of reciprocal investments or assets each participant is willing to contribute to the alliance. Transaction cost economics argues that committed assets as 'hostages' are critical in reducing opportunism and the associated transaction costs (Williamson, 1991). Social control theory suggests that in the long run, relationship factors such as trust and reputation, will have a greater effect, but that in the short run, economic safeguards may be necessary until trust is developed in the relationship (Zaheer and Venkatraman, 1995).

In summary, the key informant design of the current study, targeted the owner or chief executive of the SMEs selected for the study. This approach was chosen for two reasons. First, it was consistent with the level of analysis for the study and provided a single response characterising each firm. Levels of analysis assumptions are important in the present research given the association of individual-level perceptions and orientations and firm level behaviours. Hambrick and Mason (1984, p. 193) argue that organisational outcomes are 'reflections of the values and cognitive bases of powerful actors in the organisation'. Miller (1983) suggests that for SMEs the owner or chief executive acts as the 'brain' of the organisation and is the key determinant of the strategic posture of the firm. Providing additional support, Lumpkin and Dess (1996, p. 138) conclude that this type of approach is 'consistent with classical economics in which the individual entrepreneur is regarded as a firm'.

They argue that ‘the small business firm is simply an extension of the individual who is in charge’ (1996, p. 138). Second, a key informant approach was chosen to provide the type of responses necessary to test the individual-level factors hypothesised as being relevant to the alliance process. The use of individual informants has precedence in both strategic alliance and marketing research (Gordon, 1995; Frankel, 1995). Alliance-based research often ignores the outcomes of cooperative relationships, or focuses solely on economic outcomes. A number of recent writers have argued for the importance of focusing on both economic and social outcomes of alliance relationships (Larson, 1992; Weaver *et al.*, 1995; Tyler and Steensma, 1995; Dickson, 1997).

Given the findings in the literature, three general sets of factors appear to have the greatest impact on the outcomes of the alliance relationship: First, expectations placed upon the relationship as enunciated by each participant’s strategic goals, which are in turn a product of the key decision-leader’s ‘characteristics’ as defined in the model. Second, environmental and organisational factors providing the motivation for the cooperative relationship, again an outcome of the perception of the individual key decision-leader as identified in the elements of the paradigm. Finally, perceived behaviours of the alliance participants as adjudged by the key decision-leader. The Strategic Alliance Participation Paradigm (SAPP) (see Figure 3.3) reflects the expectations placed upon the relationship as enunciated by the key decision-leader, in the context of enunciated or perceived strategic goals, and reflecting externalities of environmental impact as determined in the literature.

environmental impact as determined in the literature. These operate within the boundaries of the tolerance for ambiguity and the perceived and actual sense of power of the key decision-leader. In the model, this power is presented as external to the key decision-leader personal characteristics, as it is a function of perception of the key decision-leader, and real power-base of the firm and the key decision-leader as determined by environmental and personal influences.

In the present model of SME-based cooperative behaviour, it is proposed that the most critical factors affecting the outcomes, are the perceived behaviours of the alliance participants. These are the actions and the reactions by each participant in attempting to achieve their organisational goals and in meeting their perceived environmental and organisational needs. Drawing from both transaction cost economics and social control theory, it is proposed that reflecting the Norwegian study (Dickson, 1997), four general types of behaviours are significant - a) opportunism, b) trust, c) reciprocity and d) forbearance.

Opportunism

Opportunism or the threat of opportunism in cooperative relationships is at the heart of transaction cost theory. It is also proposed that it is central to the thesis of MacMillan's (1972) relationship management, and is suggested as the central factor in an SME's determination of the cost of co-operation. There is some argument concerning the validity of a universal assumption of

opportunism in cooperative relationships. In practice, it is quite difficult and costly for managers to distinguish between potential partners that will behave opportunistically and those that will not (Barney, 1990; Hill, 1990) thereby making the threat of opportunism as costly as its actual existence. Parkhe (1993a, 1993b, 1993c) has proposed breaking the concept of *opportunism* into four distinctive but intertwined behaviours - opportunism, trust, reciprocity and forbearance. Three of these behaviours - trust, reciprocity and forbearance - are, in fact, central concepts for social control theory (Larsons, 1992; Dickson, 1997).

Curren and Storey (1996) found that there was a strong pressure to forbear, with socio-cultural pressure exerted through the closeness of community links reflected in constrained behaviour. The propensity toward opportunism may deter some firms from entering potentially profitable alliance relationships. The self-governance nature of SME-based alliances provides that the self-interest orientation of alliance partners may lead to actions, which for the individual firm may be rational and efficient, but for the cooperative, will prove to be detrimental (Parkhe, 1993a). Hill (1990) argues that firms are tempted to behave opportunistically when they believe that the returns from such behaviour outweigh the value of future co-operation. While an alliance partner may believe that her or his own opportunistic behaviours when weighed against future co-operation, are worthwhile, they rarely judge the opportunistic behaviours of their alliance partner in the same light (Parkhe, 1993a).

Trust

Trust is proposed by Dickson (1997) and Weaver *et al.* (1994, 1995) as the inverse of opportunism (Parkhe, 1993a; Smith *et al.*, 1995) and is central to the concept of *social control*. While Williamson (1985) argues for the presumption of opportunistic behaviour, he acknowledges that trust rather than opportunism must prevail to sustain a cooperative relationship. This can be viewed as a matter of timing in the SMEs relationship. Relationships characterised by trust, according to Williamson, will be much more adaptable and stress resistant. Ring and Van de Ven (1992, p. 379) define trust as ‘an individual’s confidence in the goodwill and collective concern of others in achieving group rather than personal goals’. They conclude that trust grows out of a strong sense of reciprocity and forbearance. They reason that the higher the level of trust, the lower the perceived transaction cost and the greater the willingness to substitute cooperative relationships for hierarchical control. Consistent with these conclusions, it is claimed that high levels of trust between alliance participants will be positively related to the expressed satisfaction and perceived effectiveness of the inter-firm cooperative relationship. Curren and Storey (1993) report trust to be an issue in regional areas. Lack of trust can cause the firm to seek advice from an impartial body outside the region. This view is widely supported by interviewed respondents to the current study.

Reciprocity

Where SMEs are able to demonstrate potential for high levels of reciprocity, the 'fear of possible retribution against those who engage in self serving and devious behaviours' (Provan and Skinner, 1989, p. 205) provides a strong protection against opportunistic behaviour. The guarantee of an equal exchange of both benefits and penalties, while reducing the participants' willingness to behave opportunistically, also affects the expectation of cost associated with such behaviour from alliance partners (Kogut 1989) alerting them to the need for potentially costly controls. Whereas no key decision-leaders interviewed reported reliance upon legal determination of the problems, there were reported threats of reciprocity, and one actual act of reciprocity reported among the South West sample.

Forbearance

The ultimate outcomes of a cooperative relationship, characterised by trust and viable reciprocal structures, is the willingness on the part of alliance participants to forbear (Oliver, 1990). This will necessitate abstaining from unilateral self-seeking behaviour. Behaviour associated with forbearance, primarily emerges when alliance partners take a long-term view of their relationships (Buckley and Cason, 1988) and believe that future gains from present cooperative behaviour outweigh the potential immediate gains of cheating (Parkhe, 1993a; Dickson, 1997). The limited performance of Australian managers in relation to strategic perspectives, as identified by

Barraclough (1984) potentially mitigates against forbearance. As perceived by their peers, Australian managers appear to lack the self-esteem, judgement, long term vision and trust that are so essential for the development of a substantial strategic alliance. These identified perceptions of Australian managers are addressed in following chapters.

MODEL ROLES AND IMPLICATIONS.

Pfeffer and Salancik (1978) argue, from a resource dependency perspective, that when faced with environmental uncertainty, lower power organisations which by definition include SMEs (MacMillan, 1972) must of necessity, adapt and through adaptation, acquire sufficient resources to obtain a sustainable competitive advantage. Transaction cost theory posits that firms will seek the resources they need through cooperative relationships only when they understand the potential cost of opportunistic behaviour (Williamson, 1991). The opportunity, and therefore the potential for opportunistic behaviour within a cooperative relationship may be lowered through the use of highly structured relationship formats, or 'asset as hostages' from a transaction cost perspective (Williamson, 1991). High levels of trust engendered by prior experience or reputation were posited as the basis for cooperation, from a social control perspective (Zaheer and Venkatraman, 1995). These core concepts form the basic assumptions supporting the proposed model of SME-based cooperative behaviour. Beyond these core assumptions, the model specifies key environmental and organisational antecedents of cooperative behaviour. These are important individual level factors which shape the decision to form a

cooperative relationship, and the form that it will take. Finally, both organisational and individual factors may to a substantial extent determine the outcomes of the alliance relationship. For organisational researchers it suggests the importance, particularly as it relates to SMEs, of looking beyond economic factors to also consider the critical role of social controls on cooperative relationships.

DEVELOPMENT OF RESEARCH HYPOTHESES

Hypotheses have developed from the research questions formulated in the South West study to reflect SME imperatives. The purpose of the research was to investigate the incidence of small and medium enterprise business based strategic alliance in the South West of Western Australia. This was undertaken with a view to determining the individual and environmental strategic alliance drivers and inhibitors which impacted on SME decisions surrounding participation in a strategic alliance. Investigation was based on the shared understanding developed within the literature, that there is a relationship between the two organisational elements. On one hand were the perceptions and the characteristics of the decision-leader in an SME, and, on the other hand, the activities of the organisation relating to the behaviour of the firm in the marketplace.

It is maintained in this earlier research (Weaver *et al.*, 1992, 1994, 1995; Weaver and Dickson, 1997) that a direct link exists between the modifying variables which affect SME level of active participation in strategic alliances,

and the decision-leader's level of education, and managerial maturity. It is also evident throughout prevailing literature that results reflect findings in line with the Hofstede (1980) model relating to the individualism-collectivism, power distance and uncertainty avoidance inherent in national characteristics. It therefore appears appropriate to use this internationally researched tool in the current study to determine the fit of SMEs in the South West of Western Australia, based on cultural conformity with this model.

In earlier research, which enhanced the usefulness of this instrument, Dickson (1997) addressed the SME manufacturer characteristics using this model reflecting Hofstede's (1980) cultural variables, and found it to reflect identified cultural behavioural norms for the Norwegian cohort. Australian characteristics reflecting the national outlook as generalised by Hofstede (1980), are addressed in Dean, Holmes and Smith (1996) and Hine and Kelly (1996). However, they make no distinction between regional and urban based populations. Recent research (Blackburn and Curran, 1993; Curran, and Storey, 1993; Townroe and Mallalieu, 1993; Curren *et al.* 1991a; and Curren *et al.*, 1991b), would indicate by contrast, that globally, a number of different aspects of business attitudinal disparity are attributed to the regionality of the organisation. Rather than imposing limitations, these findings are together seen as contributing to the validation of the selection of a regional location of businesses for study purposes.

One example of nation specific attitudes which reinforced the decision to take a regional and comparative approach to the study was the statement by Bottger

and Yetton (1987) who found that Australian managers 'were likely to experience difficulties when faced with changes in group power'. This study is directed firstly toward determining the regional propensity for SME strategic alliance participation, and subsequently to analysing the outcomes of the study in the context of a comparative analysis Norwegian findings (Dickson, 1997). Both studies were conducted data based on the Weaver *et al.* (1992) survey instrument. As national differences are inevitable, this process was seen as developing a significant link to international SMEs strategic alliance research. This characteristic identified by Bottger and Yetton (1987) is seen as having considerable relevance to the current survey, which addresses the key decision-maker as the informant and the individual's reported perceptions as the level of analysis. Dean *et al.* (1996), in research findings based on an Australia wide survey of informal and formal networking propensity, reported that in Australia, there is a level of 'informal networking' between small firms. This network is found to be facilitating the exchange of information. They further maintain, based on their survey, that a higher percentage of service than manufacturing firms reported participation in this informal networking. Dean *et al.* (1996) also identified a higher percentage of service SME firms (30 percent of respondents) becoming involved in 'formal networking' compared to only 18 percent of SME manufacturing firms. The service SMEs were also more likely than manufacturing firms to be involved in both informal and formal networking. This Australian survey also identified significant gaps in networking research of SMEs in Australia, further supporting the approach taken in the current thesis.

RESEARCH QUESTIONS

The purpose of the research was threefold. First, there was an investigation of patterns of strategic alliance attitude of the key decision-leader, and the relationship between this attitude, and the behaviour of the firm. Specifically, the question asked at the commencement of the survey was: Are there significant inhibitors in the SME key decision-leader attitudes to strategic alliance which reflect in negative strategic alliance behaviour? Second, power and politics, in the context of MacMillan's model, play a part in the SME relationships. Specifically, the question asked: In regional/rural Western Australia do these elements impact the cohort strategic alliance decisions? Third, there was a need to analyse regional strategic alliance formation in the light of international findings to add to the disparate body of SME strategic alliance research findings. The specific question which presented was: Are transaction cost theories, resource dependency theories and social theories appropriate to determine SME strategic alliance attitudes and behaviour relationships? As a subset of this purpose, was the intent to contribute to the development of a body of Australian SME research for further analysis over time based in part on the recognition of a socio-cultural imperative to the research.

The following section develops the hypotheses for demonstrating a synergy between the research into SME strategic alliance issues, modelled to reflect of the key decision-maker and the environment.

Key Decision-Leader - Firm Behaviour Impact

Analysis is predicated on the belief that outcomes are a function of the interaction between the firm, environment and the key decision-leader. Attributes of key decision-leaders within the firms significantly influence SME based alliance use, structure and outcomes. Underpinning the propositions leading to the research direction, was the understanding which has been growing over recent years, that small businesses are not simply small 'big businesses'. These explorations indicate that this form of industry structure has discrete functional and philosophical relationships that are important to the survival of the entity. Key decision-leaders in these entities are driven to make sometimes very different choices to those available to decision makers engaged in big business. The most often proposed 'choice inhibitor' is the close relationship between the perceptions characteristics and abilities of the key decision-leader (Wingham and Newby, 1993) and the need to formalise for defence in SME strategic alliance relationships (Birley, 1985).

The aims of the research were addressed through the research questions restated below. These grew from general research propositions of strategic alliance attitudes and behaviour. From this broad range of initial propositions questions were distilled. The first research question; *How culturally appropriate are strategic alliances considered by SMEs in regional Western Australia?* reflects on the perspective of national cultural norms. In particular, research reflects on those national cultural norms identified by Hofstede (1980), which underpin business activities and the tendencies to participate in or to refrain

from certain actions. In addition, this question considers the cultural propensity of SMEs to recognise the value of cooperation, and, the likelihood that key decision-leaders will select to cooperate with firms lacking the opportunistic view of interaction.

The second research question: *Are transaction cost theory/resource dependency theory theoretical boundaries appropriate for describing attitudinal and behavioural norms of SMEs?* visits the impact of economic theories -transaction cost theories and resource dependency theories on alliance decisions made by industry in general. This reflection is aimed at determining the extent to which those rational economic theories can be applied to the interaction between SMEs and between one or more SMEs and big business. Given the social contextual elements of SME key decision-leaders, and the already discussed propensity of the SME to mirror the attitudes in behaviour directed by the key decision-leader, it seems evident that where the decisions were made by a CEO with opportunistic tendencies, this would likely reflect in opportunistic behaviour. Conversely, that if the key decision-leader presented attitudinally as forbearing and trustworthy, and with a perception of others which reflected inclusive personal values, it would seem reasonable to assume that decisions made would reflect these values. This is substantially borne out in the literature and expressed in the Strategic Alliance Participation Paradigm (1999). In this model, the influences on SME decisions are identified from a standpoint of the personal values and abilities and constraints of the key decision-leader.

Economic theories have not been discarded, and nor should they be. They have been used to study the quantitative and to some extent the qualitative outcomes of this research. However, their contribution is strongly reinforced by substantial reliance on social models of business relationships such as the model identified above, and the relationships addressed in the MacMillan (1972) model of commensal and symbiont relationships in the context of power and industrial politics. Transaction cost economics and resource dependency theories are excellent tools in the analysis and in the comparative elements of the thesis.

Research question three: *Are there significant inhibitors in the SME key decision-maker attitudes which reflect in negative strategic alliance behaviour?* This question reaches to the core values of independence and self-determination which underpin SME formation and management. It is proposed that key decision-leaders make decisions based on bounded rationality, further limited by the constraints imposed through the lack of access to professional skills. By contrast, big business is seen as having extensive access at many political levels, to significant and timely information. This information is often made available through networks with other powerful bodies, and is supplemented with diversified workforce having time and skills to seek the appropriate information, and to make the right business, political and 'economic' connections.

Literature discussed earlier in Chapter Two has identified the impact of key decision-leaders on the SME decisions. This current research question seeks clarification of the negative strategic alliance impact of this construct. In the

search and establishment phase the key decision-leader may limit contact due to personally formed impressions and inherent beliefs. These personal impressions gained in the social or business arena may have potential to cloud judgement. An example may be lower than appropriate levels of understanding of core business competencies will impact the judgement of the value of matching skills in a prospective partner. Ambiguity of purpose will reflect in tentative approaches to relationship development, and thereby reflect poorly on the trust or compliance of the cooperation.

Economic and social theories have been tested in the development of enhanced understanding of strategic alliance behaviour. These theories have contributed to research initiated by Weaver *et al.* (1992); Weaver *et al.* (1994); Weaver *et al.* (1995) and latterly, Dickson (1997) who have formulated the development of a framework for SME strategic alliance study based on these economic theories and social models. The fourth research question: *Are economic and social theory models appropriate to the enhanced understanding of SME strategic alliance attitude and behaviour relationships?* considers the impact of these theories in the relationship between strategic alliance attitudes of the key decision-leader, and the impact on managerial strategic alliance decision process.

At the quantitative level, this question probes the firm expectations, whereas at the qualitative level, adherence to individual attitudinal norms are explored in the selected respondent interviews which make significant contribution to the outcomes of this study. The contention is that the questions reflect the

complexity of individual cognition, coming from common properties and reflecting Likert's (1952, p. 44) factors of cognitive, motivational and emotional material.

Question five: *What part do power and politics play in the strategic alliance participation actions of SME owners and key decision-leaders?* presents for discussion the power and politics of firm behaviour. It addresses the relationship between an organisation's identification with key decision-leader expectation and the product of self-analysis. An example of this phenomenon may reflect in the examination of the external environment in which skills may be sought to supplement and enhance quality output of the SME. The confidence, negotiation skills and the knowledge of core business are essential elements of this decision. However, the costs of opportunistic behaviour from the partner are potentially high. This question addresses the potential for successful alliance formation based on political evaluation and the identification of both competitors and collaborators to form powerful cohorts in the pursuit of business, and/or in the protection of market territory from intending assailants.

These questions address the manner in which potential alliance members manage the risks and benefits of open relationships of the most intimate and vulnerable nature with erstwhile competitors or clients, for building cooperation and trust within the relationship. Major research has indicated that in big business, which forms the majority of the research environment, these issues and the means of developing economically sound solutions will be clearly identified and explicitly planned for, negotiated, and controlled in successful alliances.

Through exploring these questions, the argument regarding inter-organisational relationships among SMEs is developed, and between SMEs and big business. These relationships are, from the SME perspective, a product of the interaction of the key decision-leader and the business. It is also argued that the relationship of the SME firm with its environment is a function of the key decision-leader's attitudes and perceptions. This argument is strongly supported in the literature and discussed here. From this literature and based on the research questions, the hypotheses have been formulated from the literature to address the research questions. They are detailed in Chapter Three.

Conclusion

The primary purpose of this study has been to present a regional perspective on a theoretical model of SME-based cooperative behaviour reflecting elements of both economic and social theories. Implications, which can be drawn for SMEs in this context, are threefold. First, they emphasise the importance of the structure that supports cooperative relationships directed toward organisational strategic goals. It is evident that these goals reflect the individual characteristics and perceptions of the key decision-leaders.

Interaction and innovation as demonstrated by the firm are a reflection of the levels of opportunism or trust that can be expected within the particular social context of the cooperative relationship. Second, as each alliance form has both benefits and limitations, the importance of choosing an appropriate

alliance form capable of meeting both the needs and expectations of the SME in stressed. Finally, when due diligence is taken in choosing potential alliance partners, social control mechanisms can be as effective as economic controls. Whether the relationship is ongoing or one-off depends on the culture and beliefs of the small business. To limit potential opportunism, it is essential that the SME determines at the earliest stage what are the intentions and values of the partner in relation to the culture and expected or planned life expectancy of the strategic alliance. It is maintained generally, that these organisations must have compatible goals and cultures, and have a willingness to share strategic and operational information.

In the context of business, strategic alliances are, in essence, an organisational form which integrates ownership with power-sharing. In effect, strategic alliances extend traditional organisational boundaries in an effort to combine, integrate and leverage inter-organisational processes and resources. While appealing theoretically, the strategic alliance has proven to be an elusive, difficult concept to execute in practice.

As discussed in this, and the preceding chapter, one level of business which has received less empirical attention than others, is the small business. As noted in the review of literature, there is a growing body of research into corporate business alliances which cross regional and national boundaries (Horton, 1992). European Community strategic alliances were studied by Urban and Vendemini (1987) who assessed the legal, technological, organisational and commercial aspects of each of these forms of cooperation.

Furthermore, they assessed the qualitative and quantitative nature and extent of such partnerships in Germany and Italy where regional distance is not excessive, but regional difference is considerable.

Australian national strategic alliances have propensity to be formed over considerable geographic distance, with minimal difference in cultural and political environment. Therefore the approach is uniform across the cohort. The methodology used to collect data and to undertake analysis in this research are addressed in the next chapter where initial analysis is undertaken. Following chapters demonstrate the decision-making, attitudinal and behavioural mix of the regional cohort.

This chapter reviewed the literature on strategic alliances at both the general and the SME levels. It began with an assessment of strategic alliances from a theoretical perspective, and throughout the chapter, the literature progressed from an economic emphasis to include a social and a relational basis. The early literature emphasised the transaction cost and the resource dependency theories, identifying the value of these economic theories to the enhanced understanding of the philosophy of opportunism, and latterly, to the changing values and the growth of social theory and behavioural research. The contributions made to the Strategic Alliance Participation Paradigm by elements of models of strategic alliances were acknowledged, and these are discussed later in the context of the current study. In Chapter Three, the methodology adopted is described.

CHAPTER THREE

RESEARCH METHODOLOGY

INTRODUCTION

Securing appropriate data for the comprehensive and comparative examination of SME issues has long been a problem. As discussed in Chapter Two, this difficulty has been exacerbated by the range of methodologies used by SME researchers. Comparison has also been limited by researcher propensity to concentrate on big business impact, and on national, or industry studies reflecting 'big picture' outcomes.

As noted in Chapter One, a move toward comparative examination was made in this thesis based on the use of an existing internationally validated questionnaire. This instrument was adopted after national validation through a pilot survey. Subsequently, with only minimal changes to the instrument, this data collection tool became the selected approach in the South West of Western Australia regional survey. International validation of the instrument contributes to the value of the outcomes of the Southern Hemisphere sample. This level of comparison

enhances the relevance of research outcomes experienced at both the levels of a discrete regional study of attitude related behaviour and as a comparative tool for viewing outcomes of international and regional results. Arguably, using the extensively validated instrument with local adaptations in both the pilot survey, and subsequently in the main survey, adds to the relevance of these research findings.

Chapter Three describes and justifies the mixed research methodology used in this study to provide advancement of knowledge. This is achieved through survey data collection complemented by the use of in-depth interviews. As indicated in Chapter One, the South West of Western Australia has inherent and unique characteristics, and these are discussed further within the section dealing with the outcomes of the survey. Restraint in broad extrapolation of the results across Australian SME strategic alliances is suggested despite the contribution of the research to knowledge and understanding of the strategic alliance attitudes and behaviour of the South West of Western Australian SMEs. Although any identified attitudes and behaviours may well apply to regions across the nation, claims made for the regional imperatives are limited in their scope to the boundaries of the designated region.

Within this chapter, the approach taken to population sampling, to the instrument format, and to the distribution and analysis of the questionnaire are discussed. Further, the interview form with sampling parameters is outlined.

In the following manner, the research purpose and objectives identified in earlier chapters are first revisited. Second, the specific research hypotheses based on questions identified in Chapter One are discussed. Third, the application of the methodology is detailed. The protocols adopted both in obtaining and analysing the data are defined, describing the application of the methodology. Identification and discussion of the specific units of analysis follows. The elements forming the basis for the comparison of the results of the South West of Western Australia study with the Norwegian research (Dickson, 1997) are introduced for discussion in the subsequent chapters. Finally, the approach to be taken in the following chapters is outlined.

RESEARCH PURPOSE

The perceived lack of SME strategic alliance information *per se*, motivated the researcher to undertake studies of the interaction of the key decision-leader and the firm. This perception that SME strategic alliances are a regional imperative, was supported by a number of researchers into SME activity. Among these researchers were Morrison (1996); Dickson (1997) Townsend (1997); Frankel (1995) Weaver *et al.* (1995); Weaver *et al.* (1994); Weaver *et al.* (1992) and Horton (1992). However, generalised SME key decision-leader linkages with, and influence over, firm activity was attracting substantial research attention. The input of the key decision-leader into firm decisions formed the basis of healthy debate globally. Attitudes of SME key decision-leaders were

being documented. Research into this cooperative phenomenon was substantial, and these studies were seen as a solid basis for the systematic examination of SME activity in the context of SME strategic alliance research.

As discussed in Chapter Two, Wingham and Newby (1993) formulated a decision-making schema that identified the influences and the driver/inhibitors for SME decision-making. This schema forms the foundation for the development of a model underlying values reflecting in attitude/behaviour relationships in the current study. The elements of the model are dynamic, reflecting the development of both the key decision-leader and the firm in the changing internal and external contexts. Key decision-leader attitudes to business form and process are not universal, nor is SME management static over time. Volery, Doss, Mazzarol and Thein (1998) were reiterating much of the findings of earlier SME startup research when they identified *valuing of freedom* among the motivating drivers of SMEs at the commencement of their business. They reported this imperative as 'a major determinant of small firm formation was the desire for independence' (1998, p. 11). However, Curren and Storey (1997) addressed regional SME formation imperatives, determining that these are dynamic, and reflect the development that potentially takes place in the key decision-leader with business growth. It is clear that the strategic alliance approach can be seen as opposing the rationale for initially beginning a business; that is the freedom to choose. Weaver *et al.* (1992, 1994, 1995) in collaborative

studies over the period of the 1990s found business maturity to be a function of strategic alliance formation imperatives. Tofler (1998) through his development of the profile of the era predicts an increasingly volatile changing global marketplace.

The SME firm approach and business direction, was found in Dickson's (1997) research into entering business strategic alliances, to be a function of the stability of the industry and the economy. He found that sustained development might allow for individualistic approaches to business growth and business activity in times of industrial and economic stability. This was supported by perceptions regarding the value of alliances borne out by researchers such as Williamson (1991) Weaver *et al.* (1994) and Weaver *et al.* (1995) and reflecting Dickson's (1997) hypothesised outcome, that environmental instability resulted in strategic alliance growth. This thesis reports on the hypothesised perceptions among South West SMEs.

Under conditions of instability, change and re-ordering, these researchers expressed the view that there was some value to be found in SME cooperation, and little or no value in working alone in a volatile marketplace. Shared perspectives of environment were acknowledged by Morrison, (1996); Weaver *et al.* (1992) and others discussed in Chapter Two as drivers toward cooperation, where there are competitors who share the same goals and aims, and are willing to forgo opportunism to affect growth and development. These cooperative sentiments had earlier

been expressed by MacMillan (1972) and were later supported by Curren and Storey (1993) and Frankel (1995).

The strength of agreement with the concept of cooperation was posited to be moderated by the perception of types of uncertainty in the industry, and in the environment. Again, this was supported in the literature Brown (1997) identifying industry uncertainty as a moderator of alliance use. Perceptions of environmental uncertainty as well as actual environmental uncertainty were identified as significant moderators of alliance use within the literature (Weaver and Dickson, 1997; Miles and Snow, 1986; Thorelli, 1986).

The researcher perceived from the literature and earlier studies discussed in Chapter Two, that there was a need to develop an understanding of the extent of support for cooperation among SMEs. In particular, there was a sense that these relationships could reflect both independent and cooperative values, through the medium of strategic alliances, which allow SME autonomy with a degree of cooperation as a basis for business activity. The understanding of cooperative relationships was vital to this study and formed a second and significant imperative for undertaking research in this area.

In Chapter Two a number of comprehensive studies of strategic alliance were discussed, among them Ellram (1990); Morris and Hergert (1987); Ghemewat *et al.* (1986); Doz, Hamel and Prahalad (1986). Common to

the majority of studies was each researcher's reliance on data from corporations and big business. Much of the data for these studies was based on collated strategic alliance information from various business publications. Researchers continued to source secondary data in this manner despite identified weaknesses in the reliance on this process, which allowed for the elimination of members of the strategic alliance participating cohort to be based on one or all of a number of subjective measures. For example, information was obtained from edited sources, which depended for documentation upon the level of 'newsworthiness' of the event. Further, the quality and accuracy of the data were dependent upon the diligence of the media researchers. Finally, inclusion was predicated on the inclusion/exclusion criteria and process in a diversity of representative countries.

A number of later researchers noted the constraints in their analysis, but continued the approach taken by these researchers, with relatively few seeking to incorporate primary data in their strategic alliance research (Dickson, 1997). Horton (1992); and Terpstra and Semonin (1992) considered a number of nationally reported relationships in their studies of diverse strategic alliance reports. Data were collected from major print sources such as *The Wall Street Journal*, *Forbes*, *Business International*, *Fortune* and *The Economist*, in an attempt to make their results more globally relevant. A concern for this thesis was the failure of SMEs to qualify for inclusion in major media business reports,

because of their lack of critical-mass, and seemingly their perceived lack of economic impact.

However, valuable information was generated from much of the research. Among some of these studies (Morrison, 1996; Frankel, 1995; Dickson, 1997) SMEs were being identified as significant participants in cooperative arrangements both inter- and intra-industry. Additionally, research contribution was being made by respected researchers in the field of strategic alliances and SMEs using a variety of data collection and analysis methods. Among these, Frankel (1995) addressed the strategic alliance data gathering through the application and validation of case study methodology. Volery (1994) undertook a significant survey of SME strategic alliances in Switzerland. Both of these studies are addressed in Chapter Five. Significantly, Weaver *et al.* (1992, 1994, 1995); and latterly, Dickson (1997) have sought to provide a foundation for future SME strategic alliance research through the development of a comprehensive instrument. The approach developed through these studies is the foundation of data gathering in this current research.

The needs of big business strategic alliance have been formed into a framework supported by researchers such as Horton (1992); Ellram (1990) Morris and Hergert (1987); Doz, Hamel and Prahalad (1986); and Ghemawat *et al.* (1986). However, models for strategic alliance for SMEs in general business have been proposed by Dickson (1997) based on earlier studies discussed in Chapter two, reflecting manufacturing firm

needs. Frankel (1995) whose General Alliance Model reflects vertical logistics relationships, based his research on an in-depth triadic interview format also discussed in Chapter Two. Supporting the development of models to describe relationships, there was also a trend toward the naming of these relationships as also indicated in Chapter Two.

In line with this trend, the developing body of SME strategic alliance research in the 1990's represents parties to the cooperative relationships collectively as *clans* (Ouchi 1980), which refers to the sense of belonging, and is seen as mitigating against opportunistic behaviour. The concept of *network* and *maintenance* is identified by Miles and Snow, (1986) and Thorelli (1986), reflecting the levels of trust which partners assume within these relationships. Formation of these networked relationships is growing (Weaver and Dickson, 1997), although clearly some relationships are short-lived (Harrigan, 1985). In her study of motivation toward cooperation, Oliver (1990) suggested the existence of six determinants of motivation toward alliance formation. Among these were, reciprocity and necessity, issues which together or severally appeared in other studies over time, are strongly reflective of the transaction cost theory and resource dependency theory approach to explaining organisational cooperation, and are addressed as a major imperative in the study.

Global literature identified a number of rural/regional issues which underpin strategic alliance formation (Curren and Storey; 1993;

Anderson, Hakansson and Johanson 1994; Morgan and Hunt 1994; Gronroos 1993, 1990; Gummerson 1991) with many of the SME strategic alliance issues reflecting national economic imperatives. More recently, the Australian business environment has been under review. Brown (1997) identified the export relations marketing imperative of this form of cooperation in his recent survey of Australian SME exporters. This was seen as reflecting a growing national interest in the relationship marketing paradigm evidenced in the research of Anderson, Hakansson and Johanson (1994); Morgan and Hunt (1994); Gronroos (1993, 1990); Gummerson (1993); and Thorelli (1980). Further SME networking for international marketing stability was reported by Carson, Cromie, McDowell and Hill (1995); Perry and Pyatt (1994); Carson and McGowan (1993); Axelson and Easton (1992); Jarillo (1988); and, Johanson and Mattsson (1987), in their reports of strategic alliances in the global environment.

Clearly, there was a need to synthesise the disparate SME strategic alliance studies into a framework. Dickson (1997), based on work carried out by Weaver *et al.* (1992) and continued by Weaver in a number of collaborative studies discussed in earlier chapters, began this task in relation to across-industry manufacturing SMEs. Their work is addressed throughout this thesis. However, despite a growing interest in networking in the SME marketing literature, there remains a shortfall in Australian national, state and regional studies of the SME strategic alliance phenomenon as a management initiative. In particular, there is a

gap in the understanding of cooperation as it relates holistically to the mixed industry (manufacturing and non-manufacturing) environment. This gap creates limitations to the application of global research to the Australian environments. As discussed in Chapter Two, strategic alliance research into big business activities has been conducted globally, reflecting regional imperatives identified by the researchers. However, Australian strategic alliance was not considered in the application of the survey results, and more specifically, Australian SME strategic alliance practitioners were not part of the research cohort. The current research addresses the economically important business group in a bench-marking Western Australian study of a regional SME strategic alliance based cohort. This sample is seen as being representative of the industry distribution found in regions of Australia clustered along the coastal plains, being both undifferentiated as to their manufacturing/non manufacturing/mixed activities, and selected on the basis which is identified in Chapter One, and discussed further in this chapter.

The gap still remaining between what is known about SME strategic alliances and what is still to be discovered, is beyond the parameters of any one thesis, and limits the meaningful analysis of the Australian SME strategic alliance attitude and behaviour dichotomy. One small segment of the deficit is addressed in this thesis, reflecting major imperatives of Dickson's (1997) nationally based research into the extent of SME participation in strategic alliances. This current thesis addresses a number of issues relating to alliance use in the regional/rural industry

cohort in a significant regional area in Western Australia. In addition, interviews conducted during the data collection process add substantially to the in-depth understanding of the nature of the interaction.

In summary, as identified earlier, the aims of this research are as follows. First, the research is designed to explore patterns in SME strategic alliance formation through the study of these cooperative arrangements in regional South West of Western Australia. Second, the research is designed to advance knowledge of SME strategic alliances in the global context through the systematic comparison with an earlier related study of Northern Hemisphere strategic alliance activity.

The researcher had identified a gap in the existing literature relating to the formulation of SME cooperative relationships, particularly alliance use in regional and rural locations. Through the adoption of a local and comparative research approach, this research contributes to the advancement of SME research and business through the augmentation of understanding of those characteristics, seen as either inhibitors or promoters of the formation of appropriate strategic alliance relationship participation behaviour.

A model for alliance use analysis was formulated to assist in this study. This model reflects the research hypotheses developed for the study and presented to explore initiating research question imperatives and extant literature. From these hypotheses and the literature reviewed, the

Strategic Alliance Participation Paradigm, was developed for analysis of the outcomes. This paradigm is discussed later in this thesis.

THE ALLIANCE USE MODEL

It is clear that Alliance Use = f (industry type, firm size reflecting in the number of employees, financial strength, and managerial resources, international involvement, firm attitudes, environmental uncertainty, entrepreneurial orientation and culture). It is evidenced in the model (see page 129) that alliance use as determined by international research and literature, is a function of the interaction of control variables (Dickson, 1997; Frankel, 1995; Weaver *et al.*, 1992, 1994, 1995; Horton, 1992). Industry classification, export activity, number of employees, financial strength and managerial resources as the control variables in this study, impact on the attitudinal variables of cooperative ventures, alliance necessity, growth opportunities, communality, reliance on large organisations and quality relationships. Also reflected is the influence of these control variables on the environmental variables: growth potential, environmental uncertainty/competitiveness, technological volatility, predictability and globalisation. A moderating impact on the relationship between environmental variables and alliance use is posited through the influence of key decision-leader entrepreneurial orientation and the relationship of individualism/ collectivism determined on the basis of cultural measures (Hofstede, 1980). Identification of the salient variables

to measure each of these constructs was undertaken through the use of factor analysis.

Factor analysis of the outcomes of this review of alliance use is presented in Chapter Four. Elements which together formed attitudinal variables are presented in Chapter 4 (Table 4.6-4.9 Factor Analysis).

The Analytical Model of Strategic Alliance Use (see Figure 3.1) reflects research hypotheses that were developed from the literature relating to the use of alliances among SMEs, and is in direct response to the research questions underpinning this study. In line with the general approach taken to this study, hypotheses were directly concerned with the influence of the key decision-leader characteristics and perceptions, on the participation of the firm in strategic alliances. This is seen to reflect earlier research discussed in Chapter Two. Within the literature, key decision-leader relationships with the elements of the firm, industry and the environment are seen as resulting in attitudes and behaviour reflecting *alliance use*. This relationship is specifically under review here, and identified through the elements of the Analytical Model of Alliance Use, in Figure 3.1.

For this study, alliance use is identified as the dependent variable in a process in which, independent variables of attitude and environment are posited as having a direct and quantifiable impact on the extent of alliance use. This impact is moderated within the context of interaction

with moderating/intervening variables reflecting entrepreneurial orientation individualism/collectivism of the key decision-leader, and controlled for by the efforts of firm/industry characteristics. These variables are identified within the model, and their constituent parts are identified for analysis through logistic regression statistics, as described in Chapter Four.

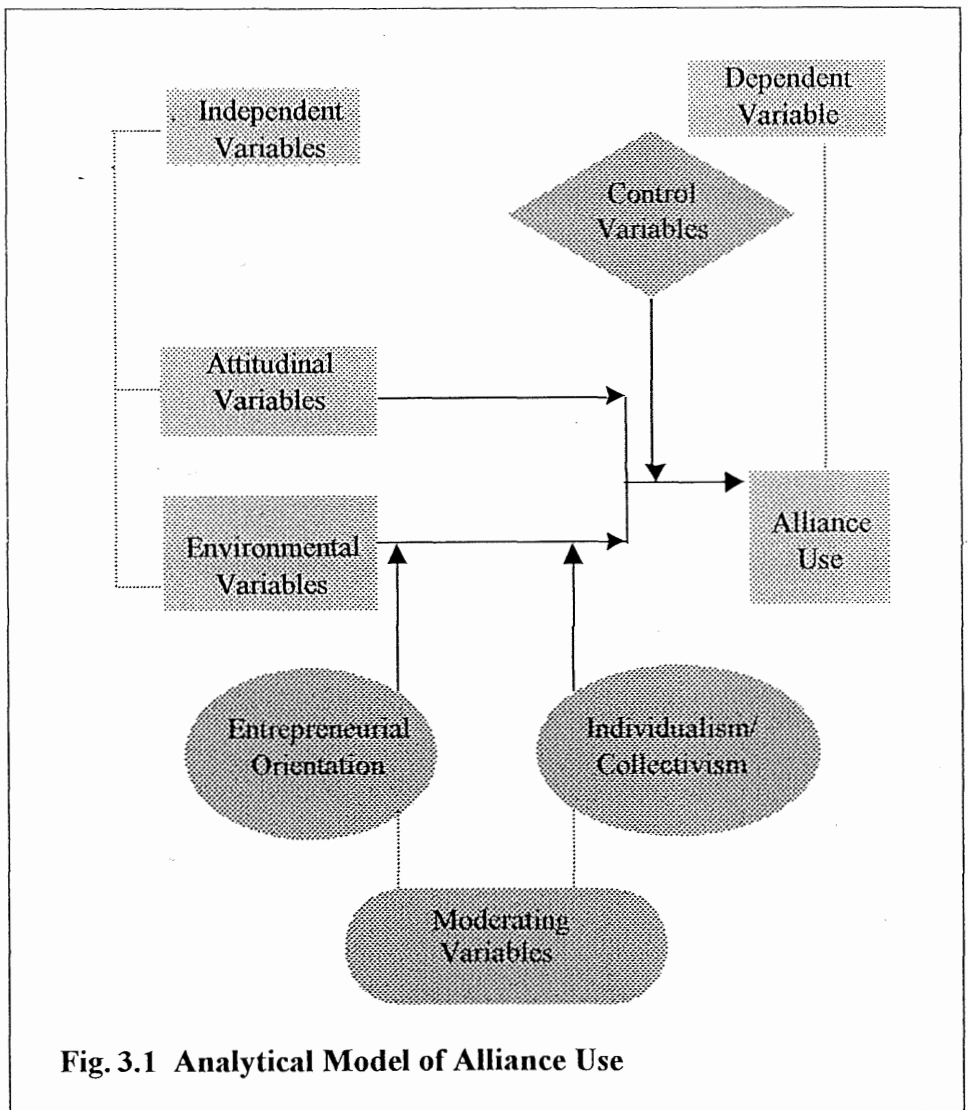


Fig. 3.1 Analytical Model of Alliance Use

RESEARCH HYPOTHESES

Factor analysis presented in the following chapter reduced the survey responses to significant variables that are subsequently used in the logistic regression analysis also in Chapter Four, as a basis for determining connectivity of variables. All Hypotheses are expressed in the Null and the alternative format.

The relationship identified between alliance use and the independent variables identified through the outcomes of factor analysis, is non-linear and expressed by the equation

$$\text{Alliance use} = \frac{e^{\mu}}{1 + e^{\mu}}$$

where μ represents the linear regression equation developed through logistic regression analysis. The following hypotheses were developed to test the significance of the variable relationships presented in the Analytical Model of Alliance Use (see Figure 3.1) to reflect the influences on the SME key decision-leader relating to alliance use.

Each hypothesis was developed to address elements of the research imperative. Chapter Four presents the research findings of the hypotheses and the level of support given to each proposition.

Hypothesis 1

Developing from the research questions, Hypothesis 1 reflects the findings among literature, that necessity for survival is a driver of strategic alliance relationship formation. Oliver (1990) was joined by Williamson (1991), a proponent of the transaction cost approach to marketing relationships, in determining that there are potentially benefits to the survival of the firm based on strategic alliance participation. They are supported by Zaheer and Venkatraman (1995).

Null Hypothesis 1.1 There is no connection between the strategic alliance activity of the firm and the SME leader attitudes towards the necessity of alliance for firm survival.

Alternative Hypothesis 1.2 Alliance use is positively associated with SME leader attitudes towards the necessity of alliance for firm survival.

The null hypothesis 1.1 predicts no relationship between the dependent variable - the use of strategic alliances, and the independent variable - attitude towards the necessity for survival. Outcomes are predicated on determination of an association between alliance use and the SME leader attitudes towards the necessity of alliance for firm survival. The alternative hypothesis proposes a positive association between strategic

alliance use and SME leader attitudes towards the necessity of alliance for firm survival. Welch (1991) maintains that synergy is fundamental to longevity and growth. Oliver (1990) determined necessity for strategic alliance for firm survival was one of the SME imperatives.

Hypothesis 2

Hypothesis 2 reflects a diversity of attitudinal variables studied over time. Much of the support for this hypothesis was found in literature reflecting power relationships and the politics of relationships (MacMillan, 1972). Big business is potentially threatening to the smaller firm's ability to retain ownership of methods of production and rights of ownership. Historically, firm relationships involving big business, are supported by legal frameworks beyond the capacity of SME negotiating and financial capacity. The perception that opportunistic behaviour is potentially an issue in relationships among larger firms, is supported by Franko (1971), Beamish and Banks (1987), Kogut (1988), Harrigan (1988), Ellram (1990), Geringer and Hebert (1991) and Horton (1992).

Null Hypothesis 2.1	There is no relationship between strategic alliance incidence and key decision-leader attitudes toward relationships with larger firms.
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Alternative 2.2

Alliance use is positively associated with key decision-leader attitudes towards relationships with larger firms.

The null hypothesis 2.1, predicts no relationship between the dependent variable - incidence of strategic alliance, and the independent variable namely - attitudes towards relationships with larger firms. The alternative hypothesis proposes a positive relationship between the alliance use and the SME leader's attitude towards relationships with larger firms, that is, the more positive the SME leader's attitude towards relationships with larger firms, the more likely the firm is to form alliances. It is proposed that there will be significant support for Hypothesis 2.2

Hypothesis 3

Elements of industry strength affect both hypotheses three and four, and regional studies have found varying levels of environmental uncertainty among SMEs. Based on studies by Curren and Storey (1991), Townroe and Mallalieu (1990) and Blackburn and Curren (1990), it is clear that regional impact of uncertain industry environments cannot be ignored as a factor in strategic alliance formation propensity.

Null Hypothesis 3.1 There is no relationship between strategic alliance activity of the firm and the SME leader perception of the opportunities for strong growth and profits for the firm.

Alternative 3.2 Alliance use is negatively associated with SME key decision-leader perceptions regarding opportunities for strong growth and profits for the firm.

The Null hypothesis 3.1 predicts no relationship between strategic alliance formation, and the key decision-leader's perception of opportunities for growth of the firm. Whereas, the alternative hypothesis proposes a negative relationship, that is, the greater the perceived potential for growth and profits in the firm, the lower the propensity for the firm to engage in strategic alliance activity.

Given the direction of the literature, expectations of the researcher suggest that Hypothesis 3.2 would be supported, based on reported levels of residual opportunism identified in earlier studies of the region (Wingham and Morris, 1995) and reported in the general alliance literature.

Hypothesis 4

Coase (1937) and Williamson (1975, 1986 1991) supported the benefits from reliance upon transaction cost imperatives. However, Williamson (1991) has accepted the potential for firms seeking growth in uncertain times through alliances designed to secure supply of goods or services. Dickson (1997) finds some support for the potential to progress independently during times of industry strength. However, he also determined that there is a propensity demonstrated in the literature, for the dependence on relationships in times of environmental uncertainty.

Through factor analysis, five significant factors relating to the environmental uncertainty construct were identified. These were:

- (i) general environmental uncertainty/competitiveness;
- (ii) technological volatility and demand;
- (iii) global marketing;
- (iv) growth potential of the firm's key industry; and
- (v) predictability of customer demands/competitor action;

Null Hypothesis 4.1 There is no relationship between alliance use and any of the environmental uncertainty factors.

Alternative hypothesis 4.2 There is a positive relationship between alliance use and

- (i) general environmental uncertainty/competitiveness
- (ii) technological volatility and demand;
- (iii) global marketing; and,
- (iv) growth potential.
- (v) low predictability of customer demands/competitor actions.

Based upon a scaled representation of the key environmental uncertainty factors identified through factor analysis of the variables, Hypothesis 4.2 proposed a positive relationship between the five key decision-leader's perceptions of environmental uncertainty and alliance use, namely, perceptions of: (i) general environmental uncertainty/competitiveness; (ii) technological volatility and demand; (iii) global markets, and (iv) growth potential; and (v) low predictability of customer demands/competitor action.

Moderating Variables

Entrepreneurial orientation as an element of business form has been studied extensively. Entrepreneurial characteristics have been defined in literature as an element of culture, and studied in this context by Hofstede (1980). MacMillan (1972) relates the entrepreneurial attitudes of key

decision-leaders to the power of relationships. Subsequent researchers into alliance formation by a number of researchers (Lumpkin and Dess, 1996; McGee *et al.*, 1995; Weaver, *et al.*, 1994; Jarillo, 1989; Tallman and Shanker, 1994; Hambrick and Mason, 1984; Miller, 1983; Miller and Friesen, 1978), have found support for the impact of this power as an influence in business relationships.

The hypothesized effects of two significant moderating variables, entrepreneurial orientation and individualism/collectivism, were tested based on Hypotheses 5.1 and 5.2 and 6.1 and 6.2. These moderating variables were entered into the logistic regression equation in three stages:

- 1) as a block of two individual moderating factors;
- 2) as a block of two-way interactions with each of the five environmental uncertainty dimensions; and,
- 3) as a block of three-way interactions, with each of the five environmental uncertainty dimensions.

The hypotheses formulated to test the influence of these moderating variables were as follows.

Hypothesis 5

Null Hypothesis 5.1

The entrepreneurial orientation of an SME's key decision-leader has no moderating effect on alliance use by firms.

Alternative 5.2

The entrepreneurial orientation of an SME's key decision-leader has a positive moderating effect on the firm's propensity to general alliance use.

Entrepreneurial orientation was entered in step four of the logistic regression analysis as a moderating factor, together with individualism/collectivism. Influenced by the literature, and the direction being taken generally toward SMEs, it is considered to be appropriate to explore the determinants of alliance use based on the individual's characteristics. In particular, the relationship of SME key decision-leader attitudes are acknowledged to reflect in the actions of the firm. This was one of the cultural dimensions identified by Hofstede (1980, 1984a, 1984b), and supported by extant literature among which are Shane (1992, 1993); and Wagner (1995). There is, in general, an acceptance of the differing approaches taken by individualist/collectivist individuals, representing as they do, the ability and the need for self sufficiency and conversely, the perception of the value of relationship based social cohesion as imperatives (Hofstede, 1980). Within the null hypothesis, no moderating effect for entrepreneurial orientation was proposed.

While factor analysis resulted in three factors for the entrepreneurial orientation construct, inclusion of all of these factors resulted in no solution for the regression model being generated. The factor analysis

was thus repeated restricting the results to a one-factor solution. This approach is consistent with that employed in prior studies (Dickson, 1997; Weaver *et al.*, 1992, 1994, 1995).

Hypothesis 6

Null Hypothesis 6.1 The individualism/collectivism orientation of an SME's key decision-leader has no moderating effect on the firm's propensity to form alliances.

Alternative 6.2 The individualism/collectivism orientation of an SME's key decision-leader will have a positive effect on the firm's propensity to form alliances.

Collectivism will increase firm propensity to align. While factor analysis of the individualism/collectivism construct resulted in two salient factors, the inclusion of both of these factors resulted in no solution for the logistic regression model.

The factor analysis was repeated restricting it to a one-factor solution. This factor was subsequently used in the logistic regression model as a uni-dimensional measure of individualism/collectivism testing this

hypothesis. This approach is consistent with that employed in prior studies of Norwegian SMEs undertaken by Dickson (1997).

It was predicted that no relationship exists between the dependent variable - incidence of strategic alliance, and the independent variable - orientation of an SME's key decision-leader towards individualism/collectivism as a moderating variable. The alternative hypothesis proposed a positive relationship between individualism/collectivism orientation of the SME's key decision-leader and alliance use.

Hypotheses, developed from the research questions were explored using a validated questionnaire, and industry-based interviews. The results were reported as discrete attitudes and SME strategic alliance behaviour. With preliminary findings analysed against the Norwegian research by Dickson, (1997). In Chapter Five, results are discussed.

RESEARCH PROTOCOL

The survey data collection method was selected to maximise the number of respondents to the survey, and to reinforce the value of survey outcomes through in-depth interviews. Despite the existence of a general 'big business' alliance model, the alliance process has for some time needed a framework for the comparative study of SME strategic alliances. A major development in the formation of a consolidated and reflective framework for SME strategic alliance, was made by Dickson

(1997) developed from earlier collaborative research (Weaver *et al.*, 1992; 1993; 1994; 1995; Weaver and Dickson, 1995, 1997). This method is reflected in the quantitative data gathering procedure for the South West. Using this approach, the current survey was undertaken based on a validated, multi-faceted, self-administered questionnaire selected to reflect criteria developed by Churchill (1991). In line with Churchill (1991), it is proposed that this exploratory research into strategic alliances is valuable for a number of reasons. Initially, due to its foundation in empirical research, which has outlined the priorities for further investigation based on a study of the determinants of SME alliance use, structure and outcomes. This is, effectively, a framework. For reasons of appropriateness to the subject, and for enhanced comparability, this survey addressed the framework developed by Dickson (1997). The approach for the survey was formulated as an empirical review of the 'key decision-leader effect on the firm decisions' rather than as in earlier research on the 'firm as a whole' or 'on a given industry level'.

The whole of data approach based on the survey instrument selected, was adopted to enable comparisons to be made between the South West data and the Northern Hemisphere results. The specific attitudinal and behaviour interest of the current study led to the concentration on the variables testing these constructs. Additional analysis was conducted and the results relating to the Norwegian study of alliance use are noted in Chapter Four, in the context of the local study, and developed further to enhance shared regional knowledge. Elements of this study impact in

general terms on the South West research, and as such, are reported as part of the Strategic Alliance Participation Paradigm based on data collected by the common instrument and as general analysis in Chapter Four and discussed in Chapter Five. Quantitative data collected from the sample were analysed within these parameters, and qualitative data were then sought from a selected cohort taken from the initial sample, and representing all the responding industries.

Members of the representative group were interviewed individually to obtain in-depth information about their cooperative relationship-based business experiences. Information was sought, about their experiences of strategic alliance relationships, whether or not these were successful; and, in their business experiences, where these could conceivably affect strategic alliance decisions and the expectations of the other member/s of the alliance. (Appendix C provides a list of these interview elements. Appendix D presents a table of common responses of these key decision-leaders to the unstructured interviews. The interview protocol is detailed subsequently in this chapter.)

This section describes how the research was undertaken to explore the six hypotheses proposed to explain SME's key decision-leader alliance attitudes and behaviour - Alliance Use, and supporting dimensions of the relationships. The initial approach identifies the relevant units of analysis and the sample selection process, questionnaire administration and

interview protocols. Data collection in both of these methods and the analysis processes are considered.

The selected research design was descriptive incorporating both quantitative and qualitative data collection. It was based on primary data collected using a principal informant questionnaire and a principal informant interview format. These interviews were administered to a group selected on a non-probability purposive sampling basis (Churchill, 1991) formulated from expert knowledge of the population provided by South West Development Commission and the assessment of the researcher, indication that the selected participants meet the necessary conditions for selection. These data were supported through a principal informant interview format where a selection of participants was made representing a discrete sub-group for further involvement in the data gathering process,

Population Definition

The population to be surveyed, was defined as Small to Medium Enterprises which operate within the South West of Western Australia (see map of the region in Appendix E) and identified as having some involvement or capacity for involvement in strategic alliance activity. The South West Region of Western Australia is one of nine regional divisions within the state. The Department of Commerce and Trade (1998) in Western Australia describes the South West region as having a

population which exceeded 120,000 in 1998, and an annual growth rate of 2.99 percent. This rate is almost 1.0 percent above the state average for regional areas, making the South West the third fastest growing region in the State. The Department of Commerce and Trade (1999) also indicates that this growth is 1.2 percent above that of metropolitan Perth which is the state capital. Economic and population trends indicate that people are emigrating to regional Western Australia to take advantage of economic opportunities (relating to work and business) as well as the lifestyle benefits of living outside the metropolitan area. Their movement reinforces the need for government and industry to maximise the value of this migration through establishing means of developing interface with the newer businesses, and enhanced coordination to maximise benefits from relocating skills and attitudes.

It is an important time in the growth of the region, and an appropriate one for the conduct of a benchmarking study of regional SME attitudes and behaviour in relation to strategic alliances. The researcher draws confidence from these facts, and has worked to ensure accurate representation of the regional situation, through the use of two separate and supporting streams of data collection and analysis, based on qualitative and quantitative outcomes evaluation.

Data Collection Protocols

As indicated, the research approach initially utilised a mailout questionnaire distributed to all sample firms. Following initial descriptive analysis, an undifferentiated list was extracted from each of the industry categories, and the key decision-leader from each of these firms was invited to participate in an in-depth interview. In line with recommendations of Campbell (1955), these units of analysis were selected based on their key informant role in the organisation: 1) occupying roles which make them knowledgeable about the issues being researched; and, 2) being able and willing to communicate with the researcher (Frankel, 1995).

Sample Selection Techniques

The mixed methodological approach adopted for the study required the researcher to identify two groups of respondents. For enhanced value relating to specific constructs of attitude and SME strategic alliance behaviour, and following the example of Frankel (1995) and Churchill (1991), greater depth of knowledge was sought from the interview respondent group.

Sampling Procedure

The sample for the mailout survey was drawn from the general SME business population identified by the local Government instrumentality - the South West Development Commission (SWDC). A sampling frame was developed based on criteria defining the eligibility of SMEs, and membership determined from these firms, with the assistance of the Western Australian Department of Commerce and Trade, on this basis. The cohort included only businesses with the following characteristics:

- a. The business employed three or more people, including family members;
- b. The business had the propensity to service other markets than simply the domestic or end-user local or tourist market only; and,
- c. The business was considered, after consultation with regional industry experts and the South West Development Commission to have potential to align strategically.

The South West Development Commission advised that regionally located businesses are substantially represented by small 1-2 employee retail goods and service outlets. This is borne out by the Department of Commerce and Trade (1998), and from regional surveys (Wingham and Morris, 1994).

The representative nature and quality of the sample was assessed in two ways. First, sample representativeness was explored through an assessment of the survey responses returned from the mailing process, and a follow-up interview with a limited number of SME Chief Executive Officers (CEOs) in the region. The response rate was seen to be a reflection of the population distribution. An interview with CEOs of two responding firms selected randomly from each of the identified industry types revealed that sixty-eight percent of respondents reported maintaining or having at some time participated in some form of alliance relationship.

Additionally, there was a reasonable representation of all target industries among the mail-out responses, with the largest differences seen as a marginal over-representation in the 'Industrial and Commercial Machinery Manufacturing and Fabrication' category. In general, however, the final response percentages for each industry were reflective of the broad mix of the regional SME population. Industry type is included as a control variable in the model and any significant impact is addressed in the analysis. This does not represent a problem in the interpretation of the outcome variables for the current thesis.

Level of Analysis

The sampling unit was identified as being one of the following: the SME owner or the Chief Executive Officer (CEO) or surrogate as the key

informant. The list of businesses generated in collaboration as described above was in itself a comprehensive list. A key informant design targeted the owner or chief executive of the sample SMEs selected for the study. This approach was chosen for two reasons. First, it was consistent with this unit of analysis for the study and provided a single response characterising each firm (Aldrich and Whetton, 1991). Levels of analysis assumptions are important in the present research given the association of individual-level perceptions and orientations and firm level behaviours (Wingham and Kelmar, 1987; Churchill, 1991; MacMillan, 1972). Hambrick and Mason (1984, p. 193) argue that organisational outcomes are 'reflections of the values and cognitive bases of powerful actors in the organisation'. Miller (1983) suggests that for SMEs the owner or chief executive acts as the 'brain' of the organisation and is the key determinant of the strategic posture of the firm.

Additional validation is provided by Dickson (1997), who supports conclusions of Lumpkin and Dess (1996, p. 138) that this type of approach is 'consistent with classical economics in which the individual key decision-leader is regarded as the firm'. They argue that 'the small business firm is simply an extension of the individual who is in charge' (1996, p. 139). Second, a key informant approach was chosen to provide the type of responses necessary to test the individual-level factors that are hypothesised as being relevant to the alliance use.

Judgmental Population Sampling Results

Industry Code	Industry product classifications	Estimated* Population by type	Percent of total population	Drawn for sample	Useable returns	Percent of total useable returns	** Percent reporting positive alliance attitude	*** Percent SMEs reporting alliances	**** Percent by type -with alliances currently
1	Food and food products	1906	40.15%	40	16	10.9%	31%	76%	26%
3	Wood & wood products	770	16.20%	50	17	11.6%	33%	80%	32%
4	Printing, Business services & allied industries	768	16.20%	42	15	10.1%	11%	48%	14%
6	Chemical production ,mining	208	4.40%	50	22	15.1%	36%	63%	23%
7	Electronic & Electrical manufacturing and distribution electrical ,computer equipment	193	4.03%	35	18	12.3%	26%	58%	31%
8	Industrial & commercial machinery manufacturing, fabrication	327	7.00%	65	40	27.2%	48%	78%	53%
10	Construction, building and building supplies manufacturer	575	12.12%	44	19	13.1%	45%	81%	61%
	Totals	4747		321	147	46.8%			

* Estimate* figure based on ABS Business Registration October 1998 (n= 4747 firms in the combined categories)

** Positive attitudes to Alliance Use were defined from factor scores to responses to Q12 - Q18

*** SMEs reporting alliances were developed from scores of factored responses to Q11.1

****Percentage by industry type currently with alliances developed from responses to Qs1 and Q11.1

Basing research data collection on the contribution of a single informant in a number of firms, has precedence in both strategic alliance and marketing research (Frankel, 1995, Gordon, 1995). This cohort was selected from the broad business population, on the basis of their conformity to the selection criteria, in the identified numbers for the represented industries. (See Table 3.1 Judgmental Population Sampling Results). A judgment or purposive sampling procedure was employed, generating a sample cohort of 321 firms representing 13.5 percent of the overall identified population of SMEs within the region.

Level of Theory

The level of theory used for the present analysis is the firm, while the level of measurement is the key decision-leader within each SME. This approach is consistent with the assumption stated in the previous discussion that the firm is an extension of the key decision-leader.

The key decision-leader has responsibility for the firm and is best informed to report on both the firm's philosophy and its intended and actual behaviour as surveyed in this study. This approach is also developed on the basis of research observed in earlier chapters, that significant numbers of respondent key decision-leaders are financially involved in the success of the firm.

Of the individuals responding to the South West study, sixty-four percent held some ownership in the firm, with over sixty percent of those with ownership holding a majority share. Analysis of variance procedures for each of the study's outcome variables utilizing ownership/non-ownership as a main effect revealed no significant differences in responses. Therefore, in relation to alliance use the assumption that the surveys were returned by key decision-leaders within the firms also appears to be reasonable.

While the dependent variables of the study are at the level of the firm represented by alliance usage, the process also reveals elements relating to alliance structure, and outcomes. The determinants of these outcomes are hypothesised by Dickson (1997) to exist at both the firm and individual levels. The key informant's decisions are studied in the current survey as surrogate for hierarchical strategic alliance participation decision in the larger firms.

Distribution of Questionnaire

Alternative forms for the distribution of the questionnaire by mail or through telephone calls were explored. The identification of the key decision-taker in the organisation as the informant meant that the time constraints of this person were a major limitation to participation. Considerable earlier experience conducting telephone surveys in the region had identified this as a least preferred option from the perspective

of the key decision-leader. Based on the lack of available time for key decision-leaders to respond to a telephone survey during normal access times, and perceived antipathy to the telephone method of data collection for extensive questionnaires, the researcher identified the mailout option as the more appropriate for the current research. Selection of this distribution process was made despite consideration of the recorded low levels in response rate using this method (see Dickson, 1997 and Alpar and Spitzer, 1989). However, the potential response was enhanced through the attachment of a letter of recommendation from the President of the Chamber of Commerce and Industry (see Appendix F). Individual contact was made by telephone, with all of the 321 firms in the sample. During these calls, the researcher asked to speak with the major key decision-leader. In 178 cases the researcher was directed to the CEO or her/his secretary/personal assistant. This person was asked to make a special effort to respond/ensure a response was provided.

In all other cases, the researcher advised the person who initially answered the call, that the questionnaire was being mailed, and made the same request about ensuring if at all possible, that the form was completed and returned. A forty-six percent returned completed survey response was achieved. The respondents provided the study with 147 fully completed returns. Of these, sixty-three percent were from firms where personal contact had been made with the key decision-leader or his/her secretary/personal assistant, and thirty-seven percent of responses were received from those where a message had been left with another or

undifferentiated person who answered the initial telephone call. No significant trends were identified in either group, and they were therefore consolidated for analysis.

BASIC RESPONSE ANALYSIS

Industries represent a significant representation of the overall regional industry activity (SWDC, 1996). Table 3.2 shows the ratios of the major industry classifications represented in the region throughout which data were collected.

The response rate appears at the high level of consistency when compared with that generally obtained from small, entrepreneurially oriented firms. It was noted by Dickson (1997) in his survey of Norwegian manufacturing SME firms, and also by Alpar and Spitzer (1989) that response rates for the mail-out surveys as utilised in this study, generally range from eight to twenty-six percent. The South West study achieved a forty-six percent response, which is higher than the average rate, and therefore was perceived as a sufficient basis upon which to undertake analysis. Given the small population size within the region, and the number of SMEs defined as potential strategic alliance participants, the response rate does not raise concerns related to representativeness of the sample.

TABLE 3.2
Sample Characteristics

Firm Level Profile (overall)	Percent	n=147
Percentage of firms with export sales	46.2	67
Average number of employees		9
Average number of managerial personnel		2
Average sales (in Australian Dollars \$m)		\$66.5
SMEs with alliance relationships	81.62	120
Average number of alliance relationships		4
Key Informant Profile:		
Average age		45 years
Gender: Female		1
Male		146
Education: With formal university studies	67.00	98
Key informants - with ownership	68.00	98
- with majority ownership	61.00	90

Measures of Analysis

The questionnaire presented sets of structured choice questions designed to elicit value-based responses, through their evaluative nature. Demographic questions were wide-ranging throughout the instrument, seeking a profile of the key decision-leader, the firm, the industry, and the broader environment.

Much of the survey instrument required response through the application of a five point Likert Scale. Of particular value were those questions addressing attitudinal and environmental variables, and individual orientation variables. A number of reasons account for the use in this thesis of the Likert scale. First, these scales have been found to communicate interval properties to the respondent, and therefore produce

data that can be assumed to be intervally scaled (Moore and McCabe, 1993; Churchill, 1991). Second, in business literature, Likert scales are almost always treated as interval scales (Kaplan, 1987).

Factor Analysis

From the research variables addressed in the questionnaire, the initial phase of analysis was to reduce the data through factor analysis. Four of the variables developed to reflect elements of attitude and behaviour were factor analysed to identify the salient items measuring the four dimensions - attitudes, environmental perceptions, entrepreneurial orientation and individualism/collectivism orientation. The results of this process were the identification of six attitudinal factors, five environmental factors, three entrepreneurial orientation factors and two individualism/collectivism factors. Both moderator variables - entrepreneurial orientation factors and two individualism/collectivism factors - were subsequently restricted to single factor solutions to enable a logistic regression solution to be attained and for comparative purposes with the Norwegian study (Dickson, 1997). The six attitudinal variables were cooperativeness, necessity for alliance, communality, attitudes towards large firms, growth opportunities of the firm, and quality relationships. Variables identified as growth potential of the industry, general environmental uncertainty/competitiveness, technological volatility, low predictability of the customer - demand/competitor action

and global uncertainty constituted the dimensions of environmental perceptions.

Alliance use was determined through questions directed at identifying both the use of this business form to-date, and future projected propensity of the firm to enter alliances. These data were supported through a series of questions concerned with seeking key decision-leader opinion of current and past alliance usage and quality of these relationships.

Correlation analysis was undertaken for all items extracted through factor analysis to check for evidence of multicollinearity. Reliability analysis was conducted on each set of factor items and an alpha value determined. Outcomes of these analyses are presented in Chapter Four, where they contribute to the understanding of other methodological elements. Based on the factored outcomes of these elements, logistic regression statistical analysis was conducted.

Logistic Regression Analysis

Logistic regression analysis of the data collected in this study was selected as an analytical methodology primarily because the dependent variable is dichotomous, and the independent variables a mixture of categorical and interval elements. The choice of logistic regression enabled analyses of this mix of types of predictors (continuous, discrete and dichotomous), with discrete, categorical and continuous variable

outcomes reflected. Further, this technique has the propensity to allow for the measurement of the interaction impact of the moderating variables of entrepreneurial orientation and individualism/collectivism on the use of strategic alliances among SMEs. The six separate steps of the process allowed the determination of the extent of the impact of the predictor variables, moderating variables and control variables both as individual variables and in blocks, the results are presented in Chapter Four.

Six separate logistic equations were calculated in order to establish the individual influence of each set of independent variables with the β coefficients for each separate industry category presented. The significance of the β coefficient values of the regression variables in the model were tested using the Wald Chi-Square statistic. This testing procedure is considered suitable since none of the coefficient values has a large absolute value. This issue is perceived as constraining the validity of this testing procedure when such a condition exists. The predicted outcome group is alliance use in the logistic regression analysis; thus the variable coefficients resulting indicate the improvement in the log odds that the respondent will be in the alliance use category. Step 1 provides the base model with only control variables including managerial resources. Step 2 introduces the six variables including to decision-leader attitudes toward the necessity for alliances and attitudes towards larger firms. Step 3 includes the five environmental uncertainty measures. In Step 4 the measures of entrepreneurial orientation (E/O) and individualism/collectivism (I/C) are added. When undertaking the

logistic regression analysis, these two moderating variables were restricted to only one factor each despite the initial factor analysis employing the criterion of eigenvalue ≥ 1 and a correlation coefficient ≥ 0.5 resulting in three factors extracted for E/O and two factors for I/C. This was done to enable the development of a regression solution given the size of the sample, and an opportunity for direct comparison with the Norwegian study. In Step 5 all two-way interactions between the environmental uncertainty scales and the two individual orientations hypothesized as moderators are included. Finally, in Step 6 all three-way interactions are included.

The variables were entered in this manner for three reasons. First, this approach follows the format best suited for later comparative analysis, Second, this methodology allowed the impact of each independent variable group to be analyzed separately. Finally, the perceived environmental items and the hypothesized moderating variables for these were entered consecutively because of their proposed linkage. Because the inclusion of interaction items increases the potential for multicollinearity, the interaction items were entered as a block to provide a clear picture of the impact of the individual and higher order interactions. The coefficients for the industry categories are reported separately for clarity. The notation for the industry variable indicates whether the variable is significant in the logistic equations calculated at each step. The coefficients for each category of the industry variable allow a

comparison of the relative impacts of each category. Each category is compared to the average effect of all categories.

The selection of logistic regression was made to ensure the satisfactory adoption of a process that was appropriate to the mixed methodology, and relatively free of restrictions. There was some concern over the potential for problems to occur with analysis presenting too few cases in relation to the number of predictor variables. This concern however, only materialised to the extent that the moderating variables needed to be restricted to one factor solutions.

As indicated, firms were selected for the study based on expert advice. Each selected firm was contacted by telephone and advised that the instrument was being dispatched, and seeking the assurance that every effort would be made by the principal informant to apply time and attention to the completion and return of the questionnaire.

The instrument was distributed through the mail with an accompanying letter addressed to the named key decision-leader within the organisation. In this, the purpose of the data gathering, along with the basis of the research were made clear along with the absolute anonymity of the participant individual responses. In the interest of gaining informed consent from participants, the letter from the researcher outlined the parameters of the research, and sought within university guidelines for respondents to express their consent by their participation in the program.

(see Appendix G). The collection instrument design was, in essence, prescribed due to comparative nature of the second phase of the research. This was however ultimately, a conscious choice made by the researcher and the instrument was sought for its inherent value, based on the stated aim of the research to enhance SME research comparability.

The extensive validation of the survey instrument and the value and level of overall reliability reported in the earlier studies (ninety-three percent) and in the pilot survey (ninety-eight percent) reinforced the researcher's perception that this was a suitable choice. The questions were designed to seek the information from key decision-makers of SMEs. These responses were obtained through the selection of possible choices from a fixed set of alternative answers based on a Likert Scale, and accompanied by general questions relating to the economic and market positioning of the firm. Except in later interviews, there was no provision within the questionnaire for additional comments to be made by the respondent.

The distinctive merits of the instrument adopted for this survey lay in the general match of the grouped issues within the questionnaire with those research outcomes sought to the thesis research problems outlined in Chapter One. Through a number of iterations, the Weaver *et al.* (1992) questionnaire had been tested internationally, and had been found with inclusions in the early surveys to enhance data value, and to provide valid explanations to the issues proposed in SME strategic alliance problems. These issues were discussed in the earlier chapters.

Of particular interest in the questionnaire elements, were the determinants of issues based on the nationally significant orientations identified by Hofstede (1980). In the formulation of the thesis, it was assumed by the researcher that national norms were likely to impact on the attitudes and behaviours of Australian SMEs in line with Hofstede's classification. Hofstede (1980) was also to provide the basis for the development of enhanced attitudinal measures for similar reasons.

Data Analysis Protocols

Within this study, analysis of the cohort within the regional setting has been undertaken at both the firm and the individual levels. The model evolved through this process reflects the impact of each of the major actors in the cooperative relationship.

The variables measured depend for their validity upon their ability to reflect accurately the perceptions of the responding key decision-leader. No problem is perceived in the fact that constructs were developed for the earlier studies based on extensively tested sets of variables, and combinations of data gathering tools. These tools took the form of pre-tested sets of issue related questions developed iteratively through earlier research discussed below.

These elements of the questionnaire reflect organisational perceptions regarding a broad range of imperatives. Particular attention given to the Alliance Use elements reflects the overall direction of the current research. Valuable contribution was made by the other variables, which enhanced understanding of the firm from a number of economic perspectives. Discussion of these elements assists also in the comparative analysis of the Northern and Southern Hemisphere studies.

The South West survey instrument reflects elements formulated by Dickson (1997) for the survey of Norwegian SMEs and are imperative to the comparative analysis of the outcomes of the two studies. The South West survey addresses specifically the alliance use elements of the data, and relies upon the general satisfaction and outcomes details for enhanced understanding of the alliance use results. The Norwegian study set the pattern for an in-depth alliance use study, through a broad overview of SME strategic alliance activities addressed in the three models presented to describe the separate survey directions. The specific variables described below reflect the alliance use imperative of the South West study.

Dependent Variable

As identified in the Analytical Model of Alliance Use (see page 129), the dependent variable *alliance use* was a dichotomous variable which reflected relationships among independent, moderating and control

variables. These are discussed below. This dependent variable alliance use, is seen by the researcher as an outcome of the interaction of the measures of the Strategic Alliance Participation Paradigm, which reflects the interaction of the individual, firm, industry and environmental influences.

- **Environmental uncertainty.**

Environmental analysis has been undertaken at both the firm and the individual levels based on evaluative strategies. Within the analytical environment of the Strategic Alliance Participation Paradigm, this element reflects both the objective and effectively consequential elements of the general environment, and the subjective related and overt interaction between the firm and the domain. Objective or perceptual measures have traditionally been used to measure information about the firm's environment. However, evaluative strategies earlier perceived as 'subjective have been utilised in this approach. Boyd and Fulk (1996, p. 3) support this approach. They argue that it is not surprising 'because objective measures characterise external constraints imposed on a firm, while perceptual measures are more appropriate for studying managerial behaviour and decision-making. Only weak to moderate correlations have been reported between objective and perceptual measures of the environment'.

Clearly, the perceptions of the key decision-leader will influence to decisions taken, and this will impact on firm outcomes/behaviour. Understanding of these processes is achieved through the application of an instrument with inherent comparative scales.

In support of the use of a validated questionnaire survey instrument, enhanced and used by Dickson (1997), analysis of its parts suggests appropriateness for application in this thesis. Questionnaire elements have as their basis already developed comparative scales. One of these is the environmental perception scale brought together by Covin and Slevin (1989) and Schultz, Slevin and Covin (1995). This scale has in turn as parts of its construct, items taken from a number of studies. Five items which were drawn from Miller and Friesen's (1982) measure 'environmental dynamism'; five items from Khandwalla's (1977) measures 'external environment'; and five items developed originally by Schultz, Slevin, and Covin (1995) are represented in the questions. They formed part of the scale developed by these researchers comprised of behaviourally anchored items assessing perceptions of uncertainty relating to markets, competitors and technology. Because none of the items in the Covin and Slevin (1989) scale addresses issues relevant to internationalisation as a source of environmental uncertainty, Dickson (1997) incorporated two original items addressing this environmental aspect. These were retained among the control variables of this study. All scale items utilised a 5-point Likert-type response format, which was discussed earlier. In the South West study, all 17 items measuring

environmental uncertainty were factor analysed employing varimax rotation. Sixteen of the seventeen items were retained in the five significant factors extracted.

- **Attitudinal measures.**

In the South West study, a direct relationship between two individually held attitudinal factors and alliance use was proposed in the elements of the Strategic Alliance Participation Paradigm. In this model, the dynamic relationship between key decision-leaders and the social and business based environments are acknowledged through the feedback loop allowing for change and development of the perceptions and the relationships to be factored into the analysis of the interaction. The first attitudinal variable was the key decision leader's attitudes towards the *necessity of alliances for firm survival* and the second variable was the decision leader's *attitudes towards larger firms*. These two attitudinal variables were measured through the use of eight items developed originally by Weaver *et al.* (1994). All thirty attitudinal items in the questionnaire (of which, eight related directly to the two key attitudinal variables) were included in the factor analysis of the attitudinal measures in the South West study. The decision to include all items rather than to restrict analysis to the eight items used by Dickson (1997) reflected the approach to the study in the South West in-depth alliance use emphasis. The rationale for the unforced use of all thirty items is found in the value of allowing free analysis by the program. Factor analysis of the extended

set of thirty items that resulted in a six factor solution incorporating the two attitudinal measures discussed here. The significant factor extracted consisted of twenty of the thirty items, with an additional item removed due to cross loading. The key decision-leader's attitude towards larger firms was seen as a key variable. The approach taken is further supported by results, with more significant outcomes from the logistic regression analysis being achieved with the inclusion of the extended set of variables.

- **Entrepreneurial orientation**

As a direct outcome of the Dickson (1997) survey, the SME decision leader's entrepreneurial orientation is proposed as a moderator of perceived environmental uncertainty. The strength of key decision-leader entrepreneurial orientation is reflected in the model through the elements of the domain impacting on power relationships. Also, entrepreneurial orientation is postulated as affecting actions and decisions of the key decision-leader based on this perception of locus of control as a function of comfort of the individual with the status of power. Again based on the scales developed by Covin and Slevin (1988, 1989, 1994), the key decision leader's entrepreneurial orientation is sought in the study through the use of an eight item scale which identifies the firm management tendencies towards risk taking, innovation and proactiveness towards competitors. In proposing the value of these elements of the scale, Dickson (1997) identified as significant, the

argument of Covin and Slevin (1989, p.79), that the items are 'empirically related and constitute a distinct, uni-dimensional strategic orientation'. This provided a strong recommendation for considering the use of these items in the South West survey.

The South West survey results failed to present a uni-dimensional outcome, causing the researcher to restrict the factor analysis to a single factor outcome comprising the most salient items.

- **Individualism/collectivism orientation**

The social orientation of the key decision-leader is represented in the model, and reflects the key decision leader's *individualism/collectivism orientation*. This propensity was measured through the use of a scale developed by Erez and Earley (1987). Earley (1989) argues that these value-anchored measures have been shown to be psychometrically valid by past research. Likewise, Dickson (1997) was able to offer support for Wagner (1995) who has shown an individualism/collectivism orientation as identified by Hofstede (1980) to have a significant moderating effect upon cooperation within groups.

In the South West study, it was decided to subject an extended set of twenty questionnaire items (including the ten items developed in the earlier studies) to factor analysis. Again, the rationale for the unforced use of all twenty items is found in the value of allowing free analysis of

the program and in the significance of the outcomes. This procedure failed to present a uni-dimensional outcome as occurred in the Norwegian study (Dickson, 1997), with two significant factors being extracted.

To enable a logistic regression solution to be achieved, and to allow for comparison with the Norwegian study, the researcher restricted the factor analysis to a single factor solution comprising the most salient items.

Control Variables

Based on the South West results, the control variables relevant to SME's involvement in alliance formation represented five elements which were entered into the logistic regression analysis as a block. Individually, these are; industry type, export intensity, firm size; firm financial strength and managerial resources. Firm and industry elements are identified within the Strategic Alliance Participation Paradigm, and again are reflective of the feedback loop necessary to account for the changes in these elements, and in the firm resource and market status. Measurement of size of the firm was based initially on the total number of employees. Following the example of Dickson (1997), and reflecting regional specific experience of the researcher, data collection was based on the perception that small and often closely-held firms would be more willing to provide more accurate information regarding employment, than other indicators of size such as firm assets or gross income. Earlier

research in the South West region by Wingham and Morris (1994) supported this perception.

The SME's financial strength was measured by means of a scale developed by Gupta and Govindarajan (1984) and adapted by Covin and Slevin (1989). The fourteen item measure includes seven items which tap the degree of importance the firm leader places on such financial performance criteria as cash flow, net profit, return on investment, and ability to fund growth through profits. Seven additional items assess how satisfied the respondents are with each of the financial criteria. Adjustments for perception are made in the analysis. Support was found through the determination of the number of managers. Dickson (1997) supports findings that indicate, 'although generally correlated with the number of employees, this is often a better indicator of the firm's ability to manage relationships external to the organisation than is the number of non-managerial employees' (Mohr and Spekman, 1994 p. 132). The respondent firm distribution was identified earlier, and further presented in Table 3.1. Firm size was based on the number of employees, firm financial strength on Covin and Slevin's (1989) fourteen-item scale, and managerial resources on the number of managers listed by the respondents.

- **Industry Type**

The self-determination of the firm's principal industry classifications was used in order to assess the impact of the firm's principal industry in determining alliance use. The type of industry was considered to be an important element of the model, as it enabled the conceptual location of the firm, based on the data collected, and on the peripheral knowledge of the researcher. In addition to these control variables, the respondents were asked to list the number of alliance relationships held, and further, to identify the level of retained control and ownership, from among the identified cluster of scaled inter-dependencies (see Figure 2.1 Levels of Resource Commitment in Cooperative Relationships. p. 29).

THE MODEL

The environment of the cohort under surveillance in this study is resource rich, and stable, environmental turbulence is driven by external factors such as the economic drivers of politically marginal regions, and the accessibility of minerals. The region is a microcosm reflecting values of regional rural Australia and supported by extensive infrastructure as befits a City region. These elements of the environment are reflected in the paradigm, as 'Environmental Characteristics'. Firm characteristics are depicted by the demographics of the firm, and the audit control mechanisms in place to ensure tactical and strategic objectives are congruent. Elements of the originating Schema have formed the basis of

surveys of SME decision-making in Australia and Canada. Here they are presented in the context of their usefulness in defining the impact of key decision-leader decision-making on firm strategic alliance behaviour (see Figure 3.3 Strategic Alliance Participation Paradigm).

Application of the Strategic Alliance Participation Paradigm

Despite its origins within the study of SMEs that are generally undifferentiated by size within the mixed industry cohort, limitations to the use of this model are believed to exist within the context of size, reflecting the level of direct key decision-leader influence on decision-making. The level of key decision-leader control is seen to be significant at the level of smaller SMEs. A major contribution made by this model is seen therefore to be the applicability of a model for SMEs strategic alliance activity including smaller firms at the level of fewer than 20 employees (Gibson and Wingham, 1999). The particular needs of the large group of SMEs in Australia, those of fewer than 20 employees, has particularly lacked a model that was designed to include reference to their decision-making processes, and ABS (1998) figures indicate that the smaller firm size is strongly represented in both the regional and metropolitan businesses in Australia. The model is seen to apply at the level of direct decision-making of the key decision-leader, however, its potential is recognised as a means of developing understanding of and concurrently increasing the knowledge of the smaller firms.

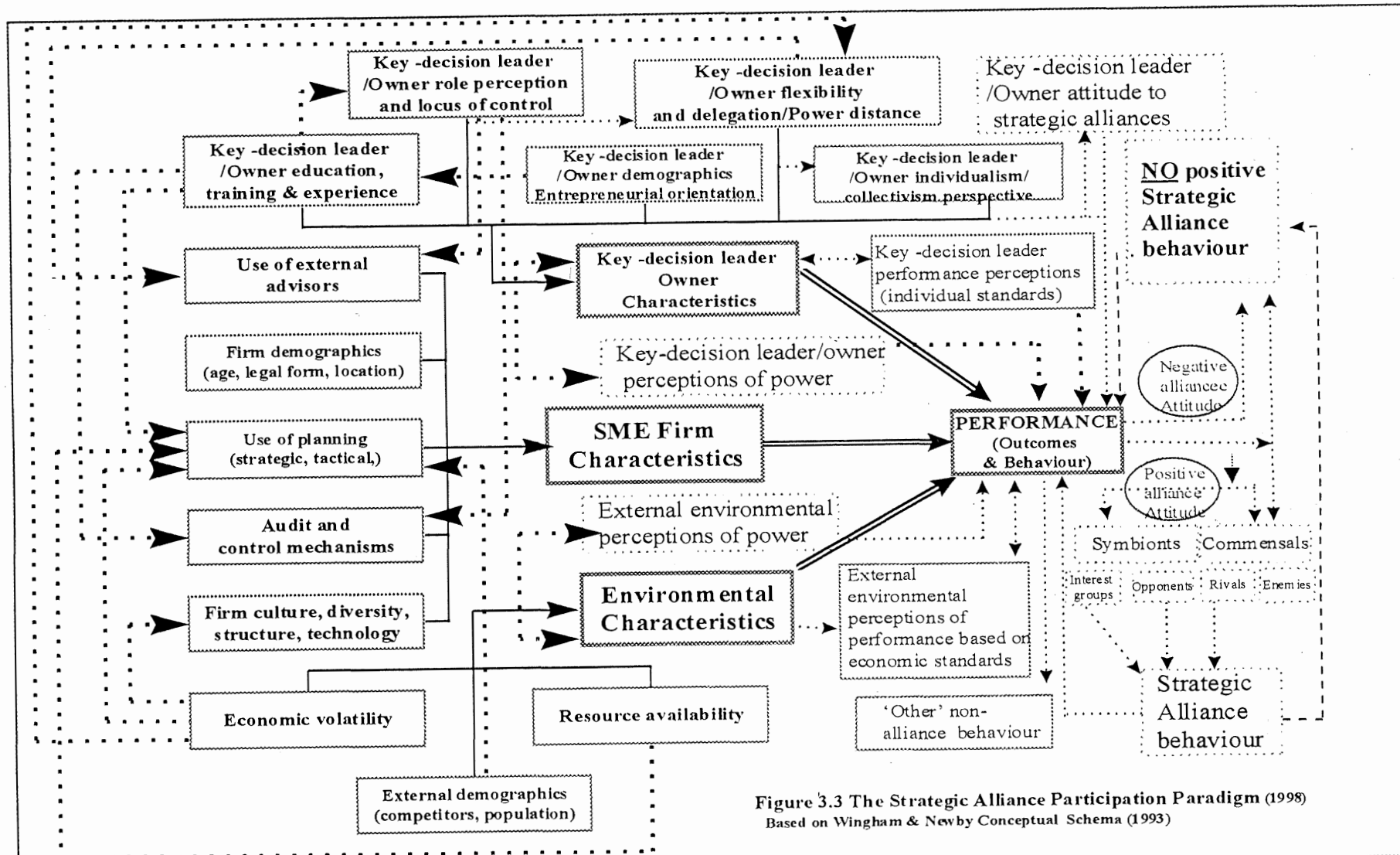


Figure 3.3 The Strategic Alliance Participation Paradigm (1998)
Based on Wingham & Newby Conceptual Schema (1993)

This Strategic Alliance Participation Paradigm has been developed as a model, which can adequately reflect both smaller and larger SMEs. It is presented in an exploratory phase, having been applied to a limited regional cohort only. Development of the paradigm reflects a growing perception of the researcher that the economic elements of business relationships are not alone as imperatives for success. Key decision-leader judgments reflect personal attitudes and patterns of behaviour which have developed over the life experiences of the individual.

These experiences impact the ability/willingness of the key decision-leader to interpret and to act on firm, industry and environmental pressures in pursuit of chosen goals. Analysis at this level is made more difficult by the wealth of perceptions and characteristics within each individual key decision-leader. Yet it is these elements and the way in which they impact business decisions which makes understanding their elements a research imperative for enhanced understanding of SME strategic alliance drivers and inhibitors. Therefore, the Paradigm has been applied on a developmental basis and in the knowledge that limitations apply to the level of extrapolation of the completed model to SMEs outside the sampling region.

A number of important implications are found within the model which indicate its value in spite of the limitations identified above. The impact of the environment and the industry are significant within both a market economy and within collaborative relationships. Generally, decisions

reflect the key decision-leader input, however, the strategic alliance activity of the key decision-leader is impacted by more than the economic factors, and is based on a number of external and internal elements of the key decision-leader's characteristics, personality, perceptions and propensity.

Development of the Research Model

The Decision-making Schema (Wingham and Newby, 1993) formed a basis for the Strategic Alliance Participation Paradigm, presenting the elements impacting on the general decisions of the key decision-leader in SMEs. However, decisions made in relative isolation by a firm in the open market have further elements which dictate the outcomes, either through their encouragement, or in their inhibition of the desired results. A firm's survival in the society depends on the support of certain other sub-systems (to exchange input for output) The relation between a firm and the sub-system on which it depends for support, or between a firm and those sub-systems which depend upon it for support, is a symbiotic relationship, and the participants or symbionts of the firm as determined by MacMillan (1972, p. 28) influence the outcomes. Simultaneously, there will also be other sub-systems in the society which compete with a firm for the support of the symbionts, (customers and suppliers) and the relationship between a firm, and the sub-systems which compete with the firm for symbiont support within a commensal relationship (MacMillan, 1972). These sub-systems comprising competitors from all

logical environments, are commensals of a firm, and as such have power over the environment of social system or subsystem. Commensal and symbionts relationships interact in the domain, between the firm and the related systems.

With the appropriate characteristics and an innovative approach to inter-firm relationships, the key decision-leader can affect changes to this environment so significant as to make it a source of goal attainment. (Parsons and Smelser, 1968 p. 48). As with all open systems, it is from the external environment only that the system can obtain its energy inputs which serve to fulfill the goals of the system and sustain its elements. The innovative interaction demonstrated by the studied cohort seeks organisational goal fulfillment. What are important to this research, are; first, the selection made by the key decision-leader, from the choices available; and, second, the necessary attributes, skills and perceptions of the key decision-leader, as identified through the literature reviewed. This process underpins the strategic alliance formation decision potential for SMEs which is of interest in this thesis. MacMillan (1972) reports that this complexity of political sub-systems of a social system primarily concerns the attainment of the system's goals -this general capacity he termed 'power'.

Carlswright (1966, p. 159) expressed support for the existence of a broad concept of power, including the processes of 'applying' power. Underpinning all power relationships is the retained need to be able to

develop and sustain the relationship. This is a complex and multifaceted issue, with the complexity and diversity of these relationships being difficult to manage. Key decision-leaders face difficulty dealing with the control and the balance of power changes introduced with the development of new relationships, and this fear was reinforced through the fear of failure. Potentially, fear is an issue for respondents with a perceived difficulty in sustaining trust long enough to secure and grow the relationship.

Key decision-leaders who were interviewed for this study were asked to comment on the degree of difficulty sharing the control of the client relationship, and in particular, the vertical relationship where they had previously been the client. Even among these relationships, there are degrees of difficulty, with dyadic relationships by definition the simplest, albeit with some significant inhibitors, and n-adic, high complexity relationships compounding the uncertainty through their complexity. These relationship issues are addressed in any strategic alliance cooperation, particularly SME based cooperative undertakings where each participant is potentially subject to uncertainty and low power-base generally considered in the literature reviewed in Chapter Two, to be the norm for SME firms.

In the course of the firm-to-firm interactive relationship, the individual, and by definition the organisation which reflects to such a large degree

the characteristics of the CEO/key decision-leader (Wingham and Kelmar 1990), will seek to defend a domain (MacMillan, 1972, p. 54). This will be achieved through one or a number of strategies. MacMillan (1972) suggests that manipulation - changing the others perception and causing them to promote the idea to achieve 'ego-oriented' (individualistic) outcomes. These are explored within the questionnaire and the industry cohort interviews. The key decision-leader may be accommodating based on 'other oriented' power (collectivism) making the conditions mutually beneficial are the means of using power which is characterised by MacMillan (1972, p. 65) 'as the capacity of an individual to use coercion and inducement to manipulate the situation to his own ends'. This pre-supposes that the key decision-leader has access to these skills. It also assumes that these can be used in a diversity of environments where the key decision-leader sees benefit to the firm. Clearly many of the respondents to the questionnaire while recognising the need to be assertive in some situations, lack the skill and the political ability to benefit their firm from their actions. It could be assumed that they did not enjoy this level of power or conversely, they had power, but did not recognise their power. Either way, the outcome is potentially similar, the felt threat by the 'perceived' lack of power potentially tempts the weaker firm to act opportunistically to defend their position.

Naturally, power on its own is insufficient to affect change, the issue which influences outcomes is the operation of power or power capability

which is a function of power and influence (MacMillan, 1972) this ultimately in the political chain is a major contributing factor to the negotiation and the management of alliances. The Schema and the resulting development into the Strategic Alliance Participation Paradigm is based on the ability of the key decision-leader to operate in the environment with all its inherent constraints. However, a basic tenet of the model is that perceptions and the characteristics of the key decision-leader are reflected in firm behaviour. In particular, this influence is posited in SMEs to be toward positive alliance behaviour where positive characteristics are expressed and demonstrated by the key decision-leader. The position of the power elements within the model, is selected to indicate that they are an influence both at the level of key decision-leader characteristics, and at the level of the discrete alliance participation decision level.

In line with economic rationalist theory of resource dependency and transaction cost, the bases of power, and their use are identified as the possession of power resource. This resource is seen in the South West cohort as skills and scarce energy inputs; effectively, the control of alternatives. Often this naive relationship leads to the development of a positive correlation of the greater level of compliance to the increasing level of dependency (MacMillan, 1972, p. 65). This is a situation that supports resource dependent industries.

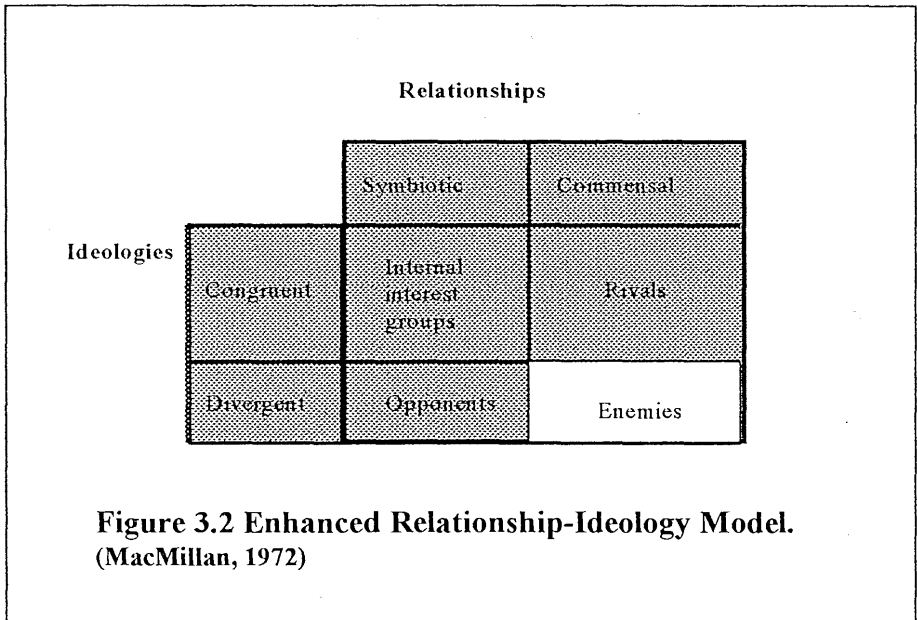
Rational analysis would potentially identify a point at which the opportunity cost of non-compliance would optimise, where 'influence' or power exerted over others to achieve outcomes that may or may not be inequitable but are acceptable; and, 'authority' (the given right to manipulate), would each eventually generate non-compliance (MacMillan, 1972). This would suggest that opportunism *per se* is not beyond the dependent firm, simply that opportunism is perhaps reduced when the imbalance in power over resources and reserves is accompanied by significant disruption to the firms' partnering arrangements.

This economic power is a reflection of the power possessed in a task environment in which symbionts are members of the organisation's domain, and commensals are competing against the organisation for the support of a given domain. The decision to act to manipulate the relationship will be a function of the outcome in the context of bounded rationality. As early as 1935, Blau (p. 298) argued that the availability of resources is a prime determinant of power in a given situation. Power is perceived differently by the actors in any system; by the symbionts, defined as those systems possessing the economic/social input required by the system for survival (suppliers and customers); and, commensals, described in this and earlier studies as those systems competing with the organisation (competitors). Ascendancy will generally depend upon the political capability of the organisation - the capacity of the organisation

to further their own ends through the judicious application of power to develop a domain in which symbionts support the firm's survival.

As a basis for current power relationships, the researcher has reverted to MacMillan (1972, p. 92) who identifies four major relations between coalitions, and these are seen as reflecting the philosophies of the strategic alliance environment. These relationships are circumscribed by the domain of the firm that is, the environment in which the key decision-leader needs to access powerful alliances to facilitate firm growth. Power at this level is still a political tool, and it is for this reason that these elements and the relationships they form are incorporated into the Strategic Alliance Participation Paradigm. They explain a great deal and in a straightforward way. They are also based on a significant and reliable research over time with Blau, 1935; Coase, 1937; MacMillan, 1972; Williamson, 1975; through to Weaver *et al.* (1994) and Dickson, (1997) reflecting in their research, the importance of power and perception within their studied relationships. The following Relationship-Ideology diagram presents a reflection of the relationships of the firm with its cohorts in the industry environment. Using this enhanced knowledge of the domain allows the key decision-leader to have understanding of the potential for alliance with individuals or groups of individuals within her/his domain. MacMillan, (1972) had earlier identified the environment where the firm operates as the domain for this model. The definition of the 'domain' is seen by the author as

reasonably representative of the parties in a potential strategic alliance situation.



It would appear from the above model that relationships with all but one of the quadrants (Enemies) would be possible. It was anticipated that sample members of the South West study would report similar parameters, being able to establish relationships with all but the commensals with divergent ideologies, highlighted within the above model (see figure 3.2) This group was perceived likely to continue to pursue opportunistic activities at one level, or at another level, to not be interested in the regional impact of their actions. Where the parties are seen to have congruent ideologies and either shared interests - generally vertical relationships; or to be in direct conflict - through divergent ideologies, there are grounds for strategic alliance relationship formation. There is also room for a relationship to develop between a firm and a commensal with a congruent ideology - seen as a competitor with understanding of the need to cooperate to achieve the desired level of power over the domain.

Just as in the process of bargaining, the individual tries to reduce the uncertainty of the outcomes of action by attempting to create a negotiated environment, Cyert and March (1987 pp. 119-200) maintained support for using one or more of the four major types of individual and collective forms of negotiation identified by MacMillan (1972 p. 99), each of which reflects a level and a type of power :Simple Economic/Political Bargaining; Mixed Economic Bargaining - reflecting the individual organisation and the cohort needs, and finally, Coalition Bargaining - which occurs when the individual or system pools its resources with others in a coalition, the key decision-leader of a firm will create buffers to the impact of change on her or his firm based on a cooperative relationship.

Relationship development can be represented along a stylised cluster of scaled inter-dependence featuring levels of cooperation from the individual one-off agreement through to the establishment of a vested entity. The strategic alliance is represented within this cohort, and shares a need for vigilance in the process of setting up the accord, and in operating it, as the other cooperative agreements. It is for this reason, that regardless of semantics, there is great importance placed on activities directed at facilitating the free flow of the relationship through the appropriate 'boundary spanning' activities (Thompson, 1963, p. 29)

The relative importance of these boundary-spanning activities will depend upon a similar set of issues that are addressed in the strategic alliance formation and maintenance. Of particular concern is the level of environmental uncertainty, a particular element within the study of SME strategic alliance behaviour.

The extent of the heterogeneity of the environment, and the relative power of the parties to the relationship are essential elements in the development of a relationship. Based on the MacMillan (1972) parameters, it would appear that indirect power can be exerted through a number of methods. First, through decreasing the symbiont's alternatives by acting on commensals (eg. by reaching a cartel agreement with the commensals); or, by acting on the symbionts directly (for example, by offering them special incentives to exchange only with the 'firm'). Actions need to reflect the estimates of the situation in both commensal and symbiotic relationships as with either domain. Given the bounded rationality applied by the key decision-leader of the 'firm', there will always be risks associated with relationships.

A broad view of the potential of the strategic alliance may be achieved by overlaying the political systems of a firm on its relevant commensal and symbionts. The potential to use forms of power in the relationship will become evident as the firm identifies where it can exploit its own strengths and the other firm's weaknesses (Ansoff, 1972; Katx, 1971) forbearance is the basis of the valid strategic alliance relationship.

Failure to forbear creates an opportunistic relationship more reflective of market based competition. Mergers, based on an uneven balance of power, place symbiont or commensal under the direct authority of the firm and are thereby excluded from the general alliance relationship, as they pre-suppose a transfer of authority rather than a shared responsibility. Although the 'takeover' process visits the realms of political power which underpins the strategic alliance relationship decisions, it is seen to embrace alternative structures, and to extend beyond the boundaries of this dissertation.

Simple political bargaining can be carried out with a commensal agreeing to a joint commitment. The firm and the commensal can present a united front against symbionts. MacMillan (1972) maintains that vertical alliance can be achieved with commensals and symbionts, through established exchange relationships - contracting. Coalitions formed with rivals to resist the threat of 'enemies' fall into this realm, and are represented in the lower right hand quadrant of MacMillan's (1972) Enhanced Relationship-Ideology Model (refer to Figure 3.2).

Any successful alliance depends largely upon the extent of the match between the relationship itself - whether it is symbiont or commensal by nature, and the extent of the match between the ideologies of the prospective collaborators. Common rivalries develop in the normal commercial environment. These are boundary spanning influences (see Figure 3.3 Strategic Alliance Participation Paradigm).

Where extraordinary activity occurs (such as that currently affecting the South West of Western Australia), local rivals may be perceived as less adversarial, and be approached to limit the access of the 'enemies' characterised by external organisations effectively 'poaching' the regional environment.

Respondents have identified relationships which have enabled the formation of an alliance which subsequently grew to affect an attack on the encroachment of an external firm. The firm key decision-leaders reporting these relationships reiterate the need for sustained separateness of the entities and the agreement to continue to liaise to achieve profit and market position outside the relationship, without being or perceived to be behaving opportunistically. In general terms, the basis of a strategic alliance is to limit competition, and to add to the level of industry reach, strength and power of the organisation. MacMillan (1972) maintained that any political action taken by commensals will be to limit the effects of perfect competition. Thus, the alliance allows firms to increase control over resources at a number of levels, and given congruent ideologies, to enhance the odds of market selection at marginal level of loss of power.

In this chapter the research design and methodology are explored both as imperatives of the study, and actively employed to test elements of the broad conceptual framework of the schema. Significant elements identified in the study led the researcher to a reinforced perception of the need to reflect the impact of power and political elements of the SME strategic alliance strategy in the emerging model. This approach follows MacMillan's (1972, p. 327) view that the behaviour of human beings has an inescapable political component which is characteristic of the behaviour that takes place in the firm, and between the firm and its environment. Such behaviour must be taken into account in any analysis of the firm. Moreover, that the objectives of the firm are determined by the firm's key decision-leader who endeavours generally, to maximise the political capability of the firm.

Profitability is an essential but derived element of the political objectives of the firm. This should be assessed in the light of the socio-political domain, and the general politico-economic environment based on MacMillan's comment, 'it is pointless for the firm to strive for its objectives independently if there are allies willing and able to help it' (1972, p. 306). It was proposed that South West SME's required firstly to recognise the potential benefits to be achieved through participation in strategic alliances, and then to develop skills in formulating these relationships. Situational analysis was suggested here by MacMillan (1972, p. 304) as it offers a means of determining (a.) threats to financial survival, (b.) identification of outstanding opportunities open to the firm,

(c.) political allies in each critical decision, and (d.) the political opposition in each critical decision - the latter information leads to an understanding of the political systems of the allies and opponents. These areas of knowledge are vital in bargaining for strategic alliance development, as the 'political' capability of the firm itself constitutes the bargaining base of the firm in subsequent negotiations.

The addition of the power-politics elements to the model is seen as enhancing understanding of the decision influences, through clarification of the personal and the industry impact of power in the context of the firm, and more accurately reflecting internal and external constraints to relationship formation. The model was also seen to incorporate the economic and social theories of relationships, and to reflect outcomes from each element of the study for analysis.

KEY INFORMANT INTERVIEW PROTOCOL

Based on the identified industry classification of firms responding to the quantitative mail-out questionnaire, two firms were randomly selected representing each industry within this cohort. The CEO was contacted for an appointment during which further questions were posed. All CEOs who were selected in this manner, agreed to participate, and each was allocated 45 minutes during which an unstructured approach to research questions was used. This approach allowed for differences in perception, and for the key decision-leaders to speak freely about the issues

particularly impacting their firm, and industry. Despite being free-flowing, the respondents were provided with a series of issues which had arisen through the analysis of survey responses. These issues were sorted under the heading of the general research questions they were to address. The format was distributed two weeks prior to the interview, and allowed time for the key decision-leader to formally research issues if this was considered to be desirable.

The key decision-leader was given freedom regarding the depth of the information that was offered. The specific direction of the interview was guided by the interviewer. However, as an aid to identifying essential elements of the firm's strategic alliance approaches, and to clarifying issues that had presented as significant in the quantitative data, a framework was developed identifying issues to be proposed for discussion if they were not raised by the interviewee. It was stressed that these issues in the form of a selection of questions were general, and a guide to analysis of both the literature and the current research. The key decision-leaders were invited to offer any further information, as they desired.

The areas for discussion were addressed in three discrete sections. In line with the dichotomous relationship between firm behaviour and the key decision-leader, as explained by Miller (1983), an overview of the key decision-leader's perceptions of the environment and the position and characteristics of the firm were sought. The detailed information about

key decision-leader perceptions of earlier business relationships, and the type of relationships generally pursued by the firm were seen as a reflection of the owner role perceptions of locus of control, flexibility and power. Elements of the paradigm explored through the interviews were related both to the individual's self-perception, and to the industry perception of the firm and the person with ultimate control of its functions. Concluding remarks were sought about the personal perceptions of the key decision-leader, these reflected the views of personal performance, and individual standards applied to the relationship decision described in the paradigm, and in which limitations and strengths were expected to form a significant part.

INTERVIEW ANALYSIS

An advantage of the interview technique was that it enabled the researcher to pursue in-depth attitudinal issues that presented in the questionnaire responses. This attitudinal review allowed the interviewer to develop greater understanding and to better explain trends which were apparent, and the relationship of the personal influence of the key decision-leader on the firm based behaviour. Responses were analysed in the light of the Wingham and Newby (1993) decision-making imperatives of SMEs (see Figure 2.1 in Chapter Two), and the significant elements highlighted by Dickson (1997) in his SME Strategic Alliance Model. Power and politics were understood to influence the decisions of SMEs, and these were analysed in the context of the MacMillan (1972)

power/politics paradigm, with a view to formulating an attitudinal/behavioural model of strategic alliances reflecting SME key decision-leader impact on the decisions of the firm.

Research Limitations

The researcher recognised early in the research that there were going to be limitations on the access to sufficient industry groups, and/or a sufficient representation from the responses received, to allow discussion to take place about the similarities and differences among the responding industry samples. In the event, two types of limitations were identified.

Data Collection Limitations

Two major data collection limitations were identified. First, was the generally small number of SMEs within each discrete region of Australia. The nature of Australian industry is such that the majority of non multinational businesses - approximately ninety-eight percent of firms (ABS 1999) fall within the various accepted definitions of SMEs adopted by the business disciplines of marketing, finance and management. However, these firms are located disparately across the continent with major clusters along the extensive coastline. It was this clustering around port regions which contributed to the selection of the sample population in the South West of Western Australia, and contributed to the value of

the questionnaire pilot in Australia conducted by Gibson in Newcastle which is also a port city (Gibson and Wingham, 1999).

The inherent limitation of this sampling process based on an already differentiated segment of the population prevents wide extrapolation of the outcomes. However, after controlling for these characteristics, it would be feasible to expect that the outcomes of this survey could form a benchmark against which to survey comparatively on both the Indian and Pacific coastlines of Australia. The second data collection limitation, was the generally small number of South West SMEs considered by already identified experts to have the propensity to participate in strategic alliances. This was mitigated somewhat by the higher than normally experienced rate of return. As already stated, Alpar and Spitzer (1989) based a sample of entrepreneurial research covering eight years, that response rates for the type of survey utilised in this study generally range from eight to twenty-six percent. The responses were small in number (n=147), but represented a response rate of forty-six percent.

Potential Measurement Limitations

A further issue relating to the limitation of the measurement approach used in this study was its reliance upon perceptual measures. This reliance provides the potential for common method variance. In order to minimise this potential, developers of the survey (Weaver *et al.*, 1992, 1993, 1994, 1995; Weaver and Dickson, 1995, 1997) had arranged survey

items such that the measures relating to the dependent variables followed the experimental and control variables. Salancik and Pfeffer (1977) argue this approach helps to reduce the effect of common method variance. Further validation of the data was provided by the mixed methodology adopted for data collection. The interviews were seen potentially to provide substantial support for the statistical data.

SUMMARY

Basing the data gathering on an initial self-administered mail-out questionnaire provided an opportunity for the key decision-leader participants to review their position and that of their firm in the light of these questions. Participants provided adequate responses in view of the length and the complexity. These data were supported by the results of an in depth interview with representatives from among the represented industries. The interviews explored issues and concerns along with the experiences of the key decision-leaders with earlier and current strategic alliances.

Data were studied using factor analysis to reduce the data, and logistic regression statistical analysis to determine the elements presenting as most significant in the determination of the influences on of alliance use in the cohort. Interview transcripts were scrutinised for trends in attitudes and behaviour.

The development of the Strategic Alliance Participation Paradigm allowed both the quantitative and the qualitative data to be analysed, and for a common model to represent the decision-making influences of the environment, the industry, the firm, and concurrently and separately, the key decision-leader. Elements of the model were combined in response to early global research of the relationship between the firm and the owner/key decision-leader; the impact of the industry and its constraints and economic position on the decisions made by the key decision-leader, and the impact of the environment on these same decisions.

The identification of a discrete and relatively isolated location from which to select the sample permitted the claim for a relatively homogeneous local external environment. However, this in no way negated the influences of global, state and national markets on the members of the cohort. To this was added the impact of power and the locus of control of the key decision-leader. Against the external, industry and firm environments, and with bounded rationality, the key decision-leader makes firm decisions based on her/his own characteristics and perceptions.

In Chapter Four, the results of both methodological parts are presented. Here the claims and the hypotheses are tested, and the assumptions addressed, both in the context of the local study, and in comparative analysis with the Norwegian study by Dickson (1997). Differences and similarities are highlighted for discussion in Chapter Five.

The final chapter provides a discussion of the approach taken to the research, the rationale for undertaking the study, and the assumptions posited and tested. Further, Chapter Five addresses the outcomes, both in relation to their contribution to the current study, and in the context of recommendations for future research.

CHAPTER FOUR

RESULTS

INTRODUCTION

This chapter documents the results of the study. The outcomes of the research questions and hypotheses are presented. In addition, questionnaire and interview outcomes are applied to the research questions and to the synthesised model, determining the cohort support for these hypotheses based on the posited attitude and behaviour dichotomy also observed in the sample regional business activities. Approaches presented in earlier chapters are reflected within the context of the SME - strategic alliance explanatory model developed for this study. The SME Strategic Alliance Participation Paradigm (SAPP) which was developed based on the SME Decision-making Schema (Wingham and Newby, 1993) reflecting the decision-making attitude and behaviour recognised through this study, is discussed in this chapter in relation to the current survey outcomes. In Chapter Five, outcomes of the study are reviewed in the context of their contribution to its objectives, and recommendations made for enhanced use of the findings, and for future research.

For the purpose of clarity, the initial segment of this chapter briefly reiterates the thesis and factored outcomes of this research. The second discussion develops understanding of the cohort profile through a review of cohort regional demographics. A major driver toward undertaking a study of this kind was the opportunity it presented to enhance current knowledge of Australian SME strategic alliance activity and to assist in the future contribution of Australian data to global research. The demographics of the cohort were particularly important to this purpose, being generally representative of regional diversity and industry groupings found within regional Australia and identified as in need of research attention (Hine, 1997). A mixed methodology was selected to ensure greater depth of understanding of this vital SME element of Australian business. Sections three and four explore quantitative data obtained through internationally and nationally validated questionnaires. These outcomes are discussed in context of the regional environment. In section five, further analysis of the data is undertaken for comparative purposes. The study of outcomes of the questionnaire and interviews provide a basis for comparison with the Norwegian study by Dickson (1997). This approach was developed with the objective of contributing to an enhanced global relevance of the research. This section presents further analysis of the South West survey outcomes in the context of the mixed methodological approach. Interviews provide an enhanced understanding of the quantitative outcomes reported in the previous section. The chapter concludes with a restatement of the principal findings.

SECTION ONE: CONTEXT OF THE STUDY

The objectives of this study created certain methodological problems. To examine the attitudes of the firms to strategic alliance and the behaviour of these same firms, required developing a cohort which was affected by similar economic, cultural and political forces.

The firm undertakings and actions are generally considered in SMEs to be a function of the key decision-leader characteristics and reflect her/his perceptions and attitudes. This is particularly relevant to the current study paradigm developed to demonstrate the iterative process of SME decision-making reflecting the key decision-leader, firm, industry and environment. The survey was directed toward increasing understanding of the attitude and behavioural dichotomy of firms for analysis of their alliance use, based on information provided by each key informant. The decision-making process which is the basis of the model reflects this level of investigation of the firm. The model also identifies, within the decision-making process, the promoters and inhibitors from the key decision-leader characteristics that impact to affect firm strategic alliance activity. These elements have been introduced in earlier chapters along with the rudiments of the model that demonstrates the outcomes of this study. Section three of this chapter presents the descriptive results from the questionnaire instrument, and identifies the significant issues that presented in the data. Section four incorporates the quantitative data for consolidation in section five into comprehensive supported South West regional outcomes. Highlighted in section six are the

similarities and differences between the Northern and Southern Hemisphere imperatives.

The survey aimed to explore the attitudinal/behavioural dichotomy of the firms in question. To achieve this level of understanding, the decision-making elements of the SME within the paradigm are represented as the key informant's personal attitudes, characteristics and perceptions within the model. These are identified as a significant element in the process, along with the firm/industry and the environmental elements, represented in the Strategic Alliance Participation Paradigm. The particular relationship between key decision-leader and the firm is such that it is claimed throughout literature that understanding of one enhances the understanding of the other. Therefore, it is reasonable to make the assumption underpinning this study; namely, that the key decision-leader is central to understanding the SME. To assist understanding of the SME attitudes and behaviour, descriptive statistics gathered through the survey instrument are discussed in this chapter presenting a profile of the region with SME propensity measure, in the context of the Strategic Alliance Participation Paradigm.

Churchill (1991) maintains that comparisons are best presented in a laboratory setting. However, a relatively isolated regional environment such as that found in the South West of Western Australia was seen to be the next best situation in which to reflect activities of firms for analysis in relative isolation from mainstream Western Australian business. As discussed in Chapter Three, such a cohort was identified within the South West with the assistance of the South West Development Commission, and a

sample of 321 SMEs from a variety of industries was selected for surveying in line with the method described in Chapter One. One advantage of identifying such a body of firms in a single regional location was that they were not industry specific, but representative of a heterogeneous industry set. While the impact is individual and supported by any number of significant environmental, industry or firm based variables, the general, non-industry specific environment impacting on the Chief Executive Officer decisions is assumed for analysis to be similar across industries. Additionally, as a regional study, this sample is generally considered to be representative of the demographics of regional industry across Australia *viz.* small groups of a variety of industries developed around an agricultural base, infrastructure, big business or raw materials and mining. Furthermore, environmental variables are assumed to be similar across regional industries, differences within the cohort are assumed to be more a function of industry and size rather than location which is constant across the sample. Based on these assumptions, the sample with its variety of industries fulfilled all of the research sampling requirements.

SECTION TWO: INDUSTRY REPRESENTATION

The by-industry representation among the 147 usable responses for the region is shown at Table 4.1 (see page 200). Among these firms, the key decision-leader was selected as the key informant. This approach, reflects earlier research findings represented in Chapter Two, which defined the key decision-leader as the 'brain' and the firm as the 'body' (Miller 1983).

The measure of the respondent size is based in part on employee numbers. This measurement was chosen because of a perceived reluctance among key decision-leaders to reveal sales data.

Table 4.1

Respondents by Industry

Industry product classifications	*Percent of total population	Drawn for sample	Useable returns	Percent of Total useable Returns
• Food and food products	40.15%	40	16	10.9%
• Wood & wood products	16.20%	50	17	11.6%
• Printing, Business services and allied industries	16.20%	42	15	10.1%
• Chemical production, mining	4.40%	50	22	15.1%
• Electronic & Electrical manufacturing and distribution electrical, computer equipment	4.03%	35	18	12.3%
• Industrial & commercial machinery manufacturing, fabrication	7.00%	65	40	27.2%
• Construction, building and building supplies manufacturer	12.12%	44	19	13.1%
Totals		321	147	Response Rate 46 %

(*ABS 1998) Percent of the total population of individual industries as a percentage of the number of businesses in the South West cohort of responding industries

Regional SME Size Distribution

Figure 4.1 (see page 201) shows the distribution of firm size based on employee numbers with all 147 firms responding. Figure 4.2 identifies the distribution of firm size based on annual sales. This includes non-responses to this question to demonstrate the extent of resistance in the group reporting such information

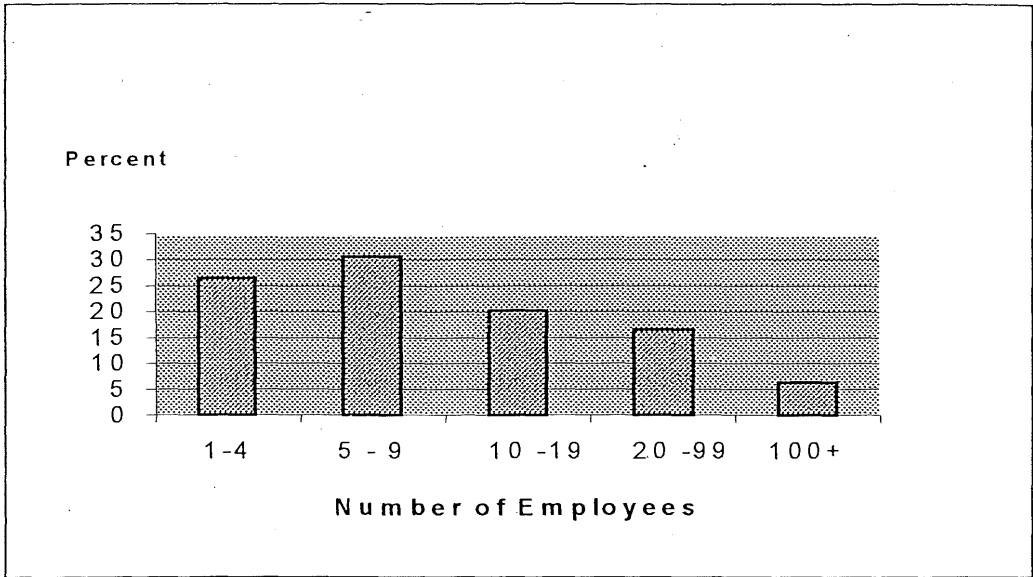


Figure 4.1 Size Distribution - Employee Numbers

Earlier South West regional surveys undertaken by the researcher reflected a reluctance to provide firm based financial reports, forcing the research to depend upon a determination of size, based in part on employee numbers. This perceived reluctance is further supported by the failure of 14.97 percent of respondents to provide any figures in response to the issue of Annual Sales requested in this study.

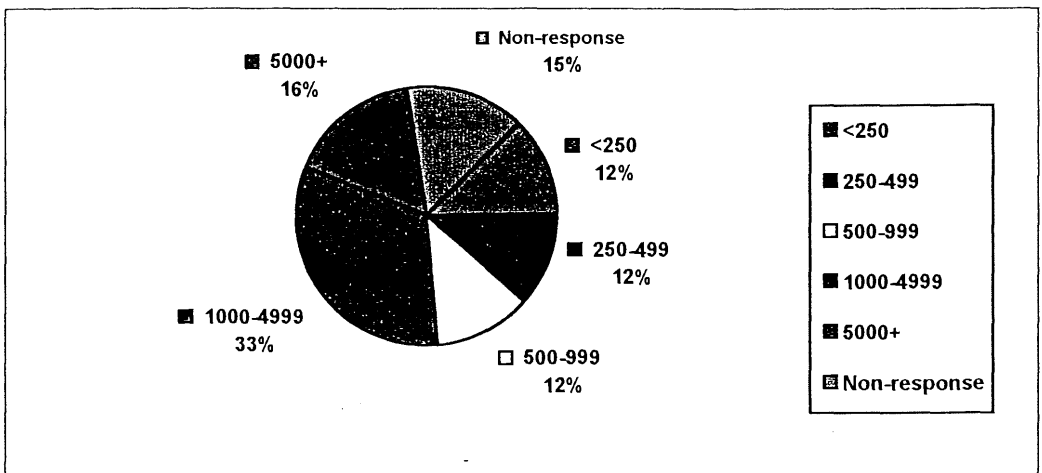


Figure 4.2 Regional SME Size Distribution-Annual Sales (\$'000)

Figure 4.2 indicates the extent of the reluctance to provide annual sales figures. By way of contrast, there was little or no resistance from the responding key decision-leaders to identifying the number and category of employees.

Employee numbers are also used by the Australian Bureau of Statistics (1998) as a measure representing SME size, and the industry distribution figures for regional industry. Similar industry distribution within the identified size range and demographics, was also reported by Blanchflower and Meyer (1991) based on reported employee numbers supported by an incomplete set of annual sales responses. The decision to adopt this measure of size was taken in view of the difficulties outlined above, and through the ease of access to the data supported by a potential for more accurate reporting on this basis.

No attempt was made to differentiate between manufacturing and service industries. However, these combined figures for annual sales when viewed against those reported by the ABS (1998) are seen to be within the statistical size distribution range for Australian regional businesses.

Key Decision-Leader - Age Distribution

As all but one of the responding key decision-leaders were male, there is no basis for gender comparison. However, the ages of the respondents were analysed, and the following distribution was determined (see Table 4.2). The age distribution for the key

decision-leaders represented a classic bell-shaped curve, with the majority of firms having key decision-leaders in the 35-44 (n=50), and 45-54 (n=47) age groups.

Table 4.2

Key Decision-leader - Age Distribution

Age	Number of Firms n = 143	Percent
22 - 34	19	12.92
35 - 44	50	34.01
45 - 54	47	31.97
55 - 66	27	18.36
Not specified	4	2.72
Total	147	100

Mean 45.255. S.D 9.417

Key Decision-Leader - Ownership Level

South West SME key decision-leaders are divided for initial analysis, into those with ownership and those without. Of the 61 percent reporting some level of ownership, 38 percent report 50 percent ownership, and in excess of 32 percent have total ownership of the organisation. This was reflected in the general ABS (1998) distribution for the region. Table 4.3 presents the Chi-Square analysis of strategic alliance participation based on firm ownership. This feature is further discussed in relation to the SME firm involvement (behaviour) in strategic alliances addressed in Chapter Five.

Table 4.3**Use of Strategic Alliances-Ownership Relationship**

	No strategic alliance use	At least one type of strategic alliance	Total
Own a share in their organisation	n = 30	n = 61	n = 91
YES	33.0%	67.0%	100.0%
Own a share in their organisation	n = 13	n = 43	n = 56
NO	23.2%	76.8%	100.0%
	n = 43	n = 104	n = 147
TOTAL	29.3%	70.7%	100.0%

Pearson Chi-Square 1.593

Fisher's Exact Test of Significance 0.141

No significant relationship was found between alliance use and firm ownership at the five percent level of significance. Therefore, the sample was analysed together with no difference expected due to level of ownership.

Self-Selecting Participation

Key decision-leader interview responses indicated that self-selecting for participation in the questionnaire survey was based on pressure of work and time available. The researcher sought to reflect non-response reasons in the findings. A key decision-leader representative from non-responding firms in each of the seven industry groups,

was contacted by telephone. The reasons for non-participation were equally distributed between a) 'having insufficient time, to ever participate in questionnaires' and, b) 'the questionnaire was too long and involved'. The final reason was given as an inability to see any relevance benefit for the firm in responding to questionnaires. The issues of lack of time for survey completion generally and the length of this survey, were raised by ten percent of the cohort of key decision-leaders interviewed in-depth for the study. This matter was not explored further. Possible non-response bias was examined by comparing survey respondent (n=147) demographic characteristics with those of non-respondents. The responding firms did not differ materially from non-respondents, being similar demographically, representing the South West regional industry profile and comparative industry distribution by firm size as already identified by this study.

When compared with international SMEs, smaller (micro) SME firm sizes are found to be heavily represented within the responding cohort in Australia, with over 26 percent of the sample employing 4 or fewer employees. Thirty percent were found to employ between 5 and 9 employees, and overall, greater than the 77 percent of firms, reported having fewer than 20 employees. This sample, while representing 'small' business sizes, is indicative of SME firm size across Australia.

Key Decision-Leader - Education Levels

Blanchflower and Meyer (1991) and, Evans and Leighton (1990) were among a number of researchers who found education to be a significant factor in SME business entry, joining Kirchoff (1996) in relating this variable to the elements of innovation and entrepreneurial behaviour. The education level of the respondent firm's key decision-leader was at the higher end, but within the ordinal scale of educational levels in regional/rural locations, but not rural only areas, where ABS (1998) figures indicate rural only distribution overall, to be at the lower to middle of the ordinal scale.

Table 4.4

Highest Level of Formal Education among Key Decision-Leaders

Q 5 Education level of Key-Decision-leader

Number of participants 147	Number indicating the level of education 140				
	Non-responses 7	Up to year 10 (1)	Yrs. 11 and 12 High School (2)	Yrs 11 and 12 High School (3)	University Degree (4)
n=	37	43	28	23	9
Percentage	26.4%	30.7%	20.2%	16.5%	6.4%

The sample was accepted as representative of the general profile of South West regional business (ABS 1998), and based on South West industry characteristics provided by the South West Development Commission (1998).

Summary

Descriptive statistics revealed that the 147 adequate responses were generally representative of the profile of South West regional firms. The use of the key decision-leader as the key informant enabled consistent profile determinants to be utilised in analysis based on key decision-leader reported age, education level, and firm annual sales and employee numbers.

The level of ownership figures reported in Table 4.3 (see page 204), revealed that the cohort reported sixty-three percent of key decision-leaders with ownership at some level. The reported size of firms placed the sample at the smaller end of SMEs with seventy-seven percent reporting that they employ fewer than twenty staff.

SECTION THREE: EMPIRICAL QUANTITATIVE APPROACH

Section three presents the quantitative data responses to the adequately completed questionnaires (n=147). Industry type was included as a control variable in each model researched, with varying levels of industry representation reflecting location and business concentration. The apparent over-representation of the industrial fabrication sector in the South West region survey, is reflective of the higher number of this industry classification located within the designated region. In the light of earlier research findings based on a questionnaire of this length and necessary general complexity (Weaver *et al.*, 1992, and Dickson, 1997), the industry distribution does

not appear to under-represent SMEs in the regional categories. Therefore no problems were anticipated in the interpretation of the effect of variables.

Within this section, the analysis of the data is described. Here, the thesis is concerned with the discrete regional sample, and concerned to provide analysis of alliance use data which forms the basis of the current study. Additionally, data representative of the three models of alliance use, satisfaction with alliance and equity/non-equity relationships which are intrinsic to the Norwegian study (Dickson, 1997) are addressed for comparative purposes. The description and discussion of these outcomes and their implications for SMEs are presented in the following chapter. It will be left until this final chapter to draw research conclusions make general recommendations, and to develop imperatives for future research directions.

Early models discussed in this thesis rely substantially on established economic and social theories which were applied in Chapter Three. The results are discussed in the light of the developing Strategic Alliance Participation Paradigm model of SME strategic alliance activity. These results suggest that some self selection or adjustment of the natural preferences/attitudes is affected as a result of becoming familiar with strategic alliances operating among related firms within the respondent's domain. Elements of the questionnaire and their propensity to contribute to understanding of the SME position, are discussed through the analysis of the variable measures evolved through the Norwegian study. Vital to both South West and Norwegian studies is the enhancement of understanding of the key decision-leader and the inhibitors and

promoters of decisions for the firm. In particular, those decisions relating to the participation in strategic alliances.

Alliance Use

Correlation statistics and for alliance use are presented. The correlations between variables do not suggest any problems with multicollinearity. When correlations do not exceed 0.50, Dickson (1997) and Johnston (1973) argue that multicollinearity is not normally a problem. The only pairs of variables identified as exceeding this level are managerial resources and firm size as measured by the number of employees at 0.80. Later in this section addressing statistical analysis for modelling these outcomes, these variables were entered separately providing the opportunity to assess their individual impact on alliance use.

Table 4.5

Correlation and Descriptive Statistics

VARIABLES	1 ^a	2 ^a	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
1 Alliance Use/Non-use ^a																				
2 Industry Type	.02																			
3 Export Intensity	.14	-.05																		
4 Firm Size (# of employees)	.14	-.27**	.25**																	
5 Firm Financial Strength	-.24**	.03	-.14	-.12																
6 Managerial Resources	.26**	-.30**	.37**	.80**	-.10															
7 General Uncertainty	.25**	.04	.14	.19	.31**	.17*														
8 Technological Demands	-.05	-.19*	-.00	.06	-.13	.07	.00													
9 Potential for Growth	.02	.09	.02	.04	.36**	.01	.00	.00												
10 Predictability	.11	-.16*	-.25**	-.06	.17*	-.06	.00	.00	.00											
11 International Demands	.08	.05	.25**	.21*	.16	.27**	.00	.00	-.00	.00										
12 Cooperative Ventures	-.07	-.09	.06	.03	.03	.07	-.02	-.02	-.13	.07	.23**									
13 Necessity for alliance(Att)	.02	-.12	.05	.12	-.15	.09	-.03	-.03	-.10	.01	.02	.00								
14 Growth opportunities	.05	-.08	-.09	-.13	.09	-.13	.05	.05	-.10	.15	.09	.00	.00							
15 Communnality	.04	-.06	.11	.04	-.20*	.02	.17*	-.03	-.05	-.15	-.04	.00	.00	.00						
16 Partnering with Larger firms (att)	.25**	.05	.10	.06	.15	.11	-.15	-.03	.08	.01	.07	.00	.00	.00	.00					
17 Quality relationship	.09	.16	-.02	.08	-.07	.01	-.04	.04	-.09	.04	.05	.00	.00	.00	.00	.00				
18 Entrepreneurial Orientation	.16*	-.01	.08	.13	.19*	.17*	-.05	.25**	.45**	.14	-.03	.10	.12	.04	.00	.22**	-.09			
19 Individualism/Collectivism	-.16*	-.13	.04	.06	-.07	.04	.18*	.12	-.18*	-.06	-.03	.13	.05	-.07	.17*	-.33**	.00	-.08		
23 Mean	-	-	3.69	18.72	3.78	2.41	2.85	3.19	2.89	2.77	2.15	3.65	3.24	2.90	3.70	4.15	2.90	2.96	2.83	
24 S.D.	-	-	14.44	31.67	0.47	2.82	0.85	0.71	0.74	0.86	1.01	0.69	0.75	0.77	0.77	0.59	0.77	0.93	0.90	

Factor Analysis

Initially, factor analysis was performed on the data to identify underlying triggers to SME strategic alliance use propensity. This analysis was undertaken for the four groups of variables identified as impacting on alliance use; namely, i) opinions/attitudes about alliances; ii) perceptions of environmental uncertainty; iii) entrepreneurial orientation; and, iv) individualism/collectivism.

Individual characteristics were measured using two sets of items consisting entrepreneurship orientation and individualism/collectivism orientation. As in the other international studies addressed in this thesis, the entrepreneurial orientation of the key decision-leaders was assessed through an 8-item measure developed and tested by Covin and Slevin (1989) and used successfully in similar research by Dickson and Weaver (1997) and Weaver *et al.* (1997, 1998). An extended set of items was utilised in the analysis of individualism/collectivism orientation rather than the reduced form of a scale developed by Erez and Earley (1987) which has also been validated (Dickson and Weaver, 1997; Wagner, 1995) and used in an earlier national study conducted by Dickson (1997). This extended set of items was used because it produced more valid outcomes which when used in logistic regression analysis produced significant outcomes. This level of significance could not be achieved through the limited approach used in earlier studies. The value of the explanation of the variables reinforces the chosen method.

Outcomes of these analyses are presented to indicate their contribution to the understanding of other methodological elements. To reiterate, factors were extracted based on the criteria of an eigenvalue of one or greater than one, and a correlation coefficient of at least 0.5. A varimax rotation technique was employed presenting a rotated factor matrix (refer Tables 4.6 - 4.9), explaining the percentage of the variance identified in each matrix. The reliability of the variance was tested, and with a Chronbach alpha coefficient range between .54 and .87 was considered to be valid at those levels. Correlation between model variables and the descriptive statistics for all variables follow.

Table 4.6

Entrepreneurial Orientation

	Entrepreneurial Orientation	Factor 1	Factor 2	Factor 3
19	Only minor changes to lines/Quite dramatic changes to lines	.896		
20a	There have been no new lines/ very many lines			
20b	Marketing of tried and true products and services/Technological leadership, R and D, and innovations	.841		
		.587		
21	Dealing with competitors we typically:			
a	Responds/Initiates actions		.855	
b	Seldom/Often introduces innovations		.802	
c	Avoids/seek confrontation		.728	
22	In general we prefer low/high risk projects			.849
23	In general, cautious/Bold, steps to achieve firm's objectives.			.792
	Eigenvalues	2.72	1.567	1.304
	Percent of explained variance	34.03	19.59	16.30
	Alpha	0.73	0.74	0.61

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax

Rotation with Kaiser Normalisation Rotation converged in 5 iterations

Table 4.7

Attitudes and Opinions

	Attitudes and Opinions	Factor	Factor	Factor	Factor	Factor	Factor
		1	2	3	4	5	6
16	Cooperative ventures						
a	Economic factors can encourage Cooperative ventures	.710					
b	Political factors can encourage Cooperative ventures.	.781					
c	Cooperative ventures can be encouraged by the need to gain new technologies.	.720					
d	Cooperative ventures can be encouraged by the need Toimprove management.	.764					
14	Necessity for Alliance for survival						
a	In future, small and large firms will need to join strategic alliances to be successful.		.807				
b	It will not be sufficient to be small and entrepreneurial in the future.		.627				
c	Large and small organisations will have to 'network' increasingly <i>i.e.</i> through alliances to succeed.		.841				
d	A smaller organisation without direct access to the Overseas market should seek to do business internationally by joining an alliance.		.719				
15c	Small firms seeking overseas markets should join strategic alliances		.546				
12	Communality among partners						
b	Alliances between organisations must support the clear, long term economic interests of both parties.			.513			
c	Participants in a potential strategic alliance must be committed to a 'win-win' sense of mission.			.658			
d	The various firms in an alliance must be kept separate, retaining autonomy to do what each firm does best.			.823			
e	A diverse network of separate alliances needs a common vision for building a competitive advantage.			.678			
18 a	Teaming with large organisations						
	Large organisations have become increasingly receptive to joint projects with smaller, entrepreneurial organisations.				.692		
b	Large organisations have learned how to form alliances with small businesses maintaining the small organisation's creativity and entrepreneurial strength.				.853		
c	Big Business is capable of utilising entrepreneurial capabilities of small business without diminishing the autonomy of the smaller organisation				.705		
17	Growth through strategic alliance						
c	Alliances can enhance capital potential of the business					.895	
d	Alliances offer excellent opportunities for growth					.817	
13	Quality relationships						
a	Most important in alliance relationships is key individual chemistry.						.781
b	SMEs must have big business supporters for alliance success						.789
	Eigenvalues	5.746	2.723	2.326	2.038	1.762	1.417
	Percent of explained variance	19.81	9.39	8.02	7.03	6.08	4.89
	Alpha	0.81	0.78	0.69	0.74	0.87	0.69

Rotation with Keiser Normalisation Rotation converged in 9 iterations

Table 4.8

Environmental Uncertainty

Environmental Uncertainty		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Potential for growth and profits						
29a	Average industry profits high/low.	.770				
29b	Projected industry profits high/low.	.780				
29c	Market growth rate for the last 3 years has been slow/rapid.	.848				
29d	Projected growth rate for our industry low/rapid.	.854				
Environmental competitiveness						
26a	Safety and threats to survival and well-being of the organisations.		.581			
26b	Richness in investment and marketing opportunities.		.731			
26c	Level of competition and organisational market power.		.748			
29e	Intensity of competition.		.725			
Technical volatility						
25a	Extent of changes in marketing practices.			.741		
25b	Rate of product/service obsolescence.			.502		
26d	Level of technological sophistication.			.707		
27	Level of research and development in industry			.547		
General Environmental Uncertainty						
25d	Predictability of demand and consumer tastes				.790	
25e	Level of production/service technology change				.752	
Global Perspective						
28a	Success through focusing sales and services within/outside the region.					.691
28b	Success through focusing sales services Inside/outside.					.864
	Eigenvalues	3.656	2.526	1.598	1.495	1.243
	Percent of explained variance	21.51%	14.86%	9.40%	8.79%	7.31%
	Alpha	0.86	0.67	0.64	0.54	0.55

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax Rotation with Keiser Normalisation

Rotation converged in 8 iterations

Table 4.9

Individualism Vs Collectivism

Cultural Variables Related To Individualism vs Collectivism		Factor 1	Factor 2
30b	If a group is slowing me down, it is better to leave it and work alone	.666	
30c	To be outstanding, a man/woman must work alone	.850	
30d	One does better work alone than in groups	.770	
30i	In society, people are born into extended families or clans who protect them in exchange for loyalty.		.528
30j	Only those who depend upon themselves get ahead in life.		.572
30m	Power and its use is a basic fact of life. Its legitimacy is irrelevant.		.757
30o	Equality is impossible there should be an order of inequality in this world in which everybody has a rightful place and is protected by this order.		.654
	Eigenvalues	3.442	2.128
	Percent of explained variance	17.21	10.64
	Alpha	0.76	0.59
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax Rotation with Keiser Normalisation			
Rotation converged in 10 iterations			

The salient factors resulting from the factor analysis, together with the identified control variables, were subsequently used in the logistic regression analysis.

Logistic Regression Analysis

The rationale for using logistic regression analysis on the data collected in this study, relates to the mix of types of predictors (continuous, discrete and dichotomous) *i.e.* independent variables measured on interval scales, and control variables a mix of categorical, discrete and continuous, while the dependent variable is categorical and dichotomous. The six separate steps allowed the determination of the extent of the impact of moderating effect of intervening variables as individual measures and in blocks.

Six separate logistic equations were calculated in order to establish the individual influence of each set of independent and moderating variables. These are presented in Tables 4.11a and 4.11b with the beta coefficients for each separate industry category presented in Table 4.12. The predicted outcome group is alliance use in the logistic regression analysis; thus the variable coefficients provided indicate the improvement in the log odds that the respondent will be in the alliance use category. Step 1 provides the base model with control variables only, including managerial resources. Step 2 introduces the six variables relating to decision-leader attitudes; namely, the necessity for alliances; attitudes towards larger firms; environmental forces; opportunities for growth, common goals of the partners, and lastly, quality relationships. Step 3 includes the five environmental uncertainty measures, namely the potential for growth and profits of the firm's key industry; general environmental uncertainty/competitiveness; technological volatility, predictability of demand and competitor actions and finally, the perceptions of global uncertainty. In Step 4 the measures of

entrepreneurial orientation (E/O) and individualism/collectivism (I/C) are added as moderating variables. When undertaking the logistic regression analysis, these two moderating variables were restricted to only one factor each despite the initial factor analysis having resulted in three factors extracted for E/O and two factors for I/C employing the criterion of eigenvalue ≥ 1 and a correlation coefficient ≥ 0.5 . This was done to enable the development of a regression solution given the size of the sample, and an opportunity for direct comparison with the Norwegian study. In Step 5 all two-way interactions between the environmental uncertainty measures and the two individual orientations hypothesized as moderators are included. Finally, in Step 6 all three-way interactions are included.

The variables were entered in this manner for three reasons. First, this approach follows the format best suited for later comparative analysis, Second, this methodology allowed the impact of each independent variable group to be analyzed separately. Finally, the perceived environmental items and the hypothesized moderating variables for these were entered consecutively because of their proposed linkage. Because the inclusion of interaction terms increases the potential for multicollinearity, the interaction terms were entered as a block to provide a clear picture of the impact of the higher order factors. A strong improvement is seen when the hit rate and pseudo R^2 for Step 6 (hit rate = 87.07%, pseudo $R^2 = .5617$) are compared to those of the baseline model of Step I (hit rate = 76.87%, pseudo $R^2 = .1788$). The coefficients for the industry categories are presented separately in Table 4.12 for clarity. The notation for the industry variable indicates whether the variable is significant in the logistic equations calculated at each step. The coefficients for each

category of the industry variable provided in Table 4.12, allow a comparison of the relative impacts of each category. Each category is compared to the average effect of all categories.

For clarification, and to correctly predict the category of outcomes for individual cases, the model produced by logistic regression analysis is selected to analyse the outcomes and to correctly predict the category of outcomes for individual cases:

$$\text{Outcome variable } \hat{Y} = e^u / 1 + e^u$$

$$\text{where } u = A + B_1X_1 + B_2X_2 + \dots + N$$

(linear regression equation) (Hosmer and Lemeshow, 1989).

To assess the significance of the model at each stage of the logistic regression analysis, one statistic not generated by the logistic regression procedure was calculated. This statistic is the Pseudo R^2 where R^2 is determined using the equation:

$$R^2 = 100(L_0 - L_p) / L_0$$

Where L_0 is the log-likelihood for the model containing only the intercept (constant) and the L_p is the log-likelihood of the model containing the parameters under observation (Hosmer and Lemeshow, 1989)

In addition, two base-line models were calculated as a basis for comparison of the regression hit rates generated by the analysis procedure. The first is a 'random

proportional chance model'. The hit rate for this model is calculated using the equation:

$$\text{Hit rate} = p^2 + (1-p)^2$$

Where p is the probability of an event having occurred (Gulati, 1995, p. 103). Here p refers to the probability of a firm forming an alliance and is determined by the observed proportion of SMEs reporting an alliance relationship based on the survey results. For the South West study, 104 SMEs of the 147 respondents reported having an alliance relationship. Hence: $p = 104/147 = 0.7075$ resulting in a 'random proportional chance model' hit rate of:

$$\begin{aligned} \text{Hit rate} &= p^2 + (1-p)^2 \\ &= (.7075)^2 + (.2925)^2 \\ &= 0.5006 + .0856 \\ &= 0.5862 \end{aligned}$$

The second base-line model calculated for comparison purposes was the 'simple model', in which the hit rate is calculated by predicting that all outcomes will be in the largest group (Hosmer and Lemeshow, 1989). In this study, the largest group is that using alliances for which the hit rate is 70.75 percent (that is $104/147 \times 100$).

For the logistic regression model reporting alliance use as (ALLUSE), the overall hit rate (that is the likelihood of the model making a correct prediction of alliance use) was developed during the computerised analysis. This process provided a model

which enabled the comparison of predicted to actual outcomes, as reflected in the following predicted and observed matrix:

		Predicted		
		No alliance use	At least one type	
Observed	No alliance use	19	24	44.19%
	At least one type	10	94	76.87%
				Overall 76.87%

The overall model hit rate produced by SPSS logistic regression results can be compared with the two base-line models.

An improvement in the overall hit rate and Pseudo R² values at subsequent stages of the logistic regression analysis relative to the baseline model in Step 1, gives an indication of the significance of the model variables in explaining alliance use. Further, an improvement in these model parameters over both the random proportional chance model hit rate and the simple model hit rate provides additional support for the significance of the model's independent variables in explaining alliance use. This would suggest that the study's independent variables have an impact on alliance use. An examination of the overall hit rate and Pseudo R² results in the logistic models presented at each step (see Table 4.11a and 4.11b) provide support for a number of premises associated with the Strategic Alliance Participation Paradigm. Table 4.10 identifies the logistic regression steps undertaken in the process

of determining the strength and the direction of impact of individual and blocks of variables. The symbols used reflect both the event, and the direction of the event in the analytical process.

Base Model Significance

As indicated in Table 4.10, the base model has a high level of significance. Across the steps there are changing significance levels reported for the individual and blocks of variables. The significance of the Beta coefficient values in the model were tested using the Wald Chi-Square statistic. This testing procedure is considered suitable since no coefficient value has a large absolute value. This issue is perceived as constraining the validity of this testing procedure when such a condition exists. In the base model, the set of control factors incorporating industry classification, export orientation, firm size, firm strength and the number of managers have a significant Chi-Square statistic at ($p < .001$) as is the case at all six steps of the logistic regression analysis. This base model displays a significant improvement in the hit rate (76.87 percent) over both the random proportional chance model hit rate (58.62 percent) and the simple model hit rate (70.75 percent) suggesting that the study's independent variables have an impact on *Alliance Use*. Industry category in total is not significantly associated with alliance formation ($p = 0.1189$). However, for individual industry types, only industry category six (Fabrication and Construction) has a significant Beta coefficient at a ($p < .01$) level. The variable reflecting financial strength was significantly negatively associated with alliance formation based on a significant Wald Chi-Square statistic ($p < .01$), while the number of managers was significantly positively associated at the ($p < .05$) level. The

coefficients relating to the number of employees and export orientation were not statistically significant.

Attitudes and Perceptions of SME Key Decision-leaders

Step two in the logistic regression model development involved the incorporation of six attitudinal factors into the regression model. Attitudinal factors comprised of cooperative ventures, alliance necessity for firm survival, growth opportunity for the firm, communality, reliance on large organisations and quality relationships. As a block the overall hit rate for the model at Step 2 declined slightly (see Table 4.11a) compared with the baseline Step 1 model which included only the control variables. The Pseudo R^2 value however showed significant improvement over the base model (Pseudo $R^2 = 0.2517$ in Step 2; The base model Pseudo $R^2 = .1788$). This improvement, combined with a significant Chi-Square ($p=0.0437$ for the block of independent variables and the overall model ($p<.001$), indicates the logistic regression equation results can be meaningfully interpreted.

Two attitudinal variables had significant coefficients. The key decision-leader's attitude towards relationships with large firms ($p<.01$) and opportunities for growth ($p<0.1$) have significant positive coefficients.

Table 4.10

Logistic Regression Steps

MODEL X ²	STEPS						
	1	2	3	4	5	6	
Significance	0.0004	0.0002	0.0001	0.0000	0.0000	0.0000	
CONTROL VARIABLES							
Industry category	} .004						
Export		√-	√-	√-	√-	√-	
Number of Employees		√+	√+	√+	√+	√+	
Strength		√-					
Managers		√+					
ATTITUDINAL FACTORS							
Cooperative Ventures	} 0.0437						
Alliance Necessity							
Growth Opportunities		√+					
Communality							
Reliance on Large Organisations		√+	√+				
Quality relationship							
ENVIRONMENTAL FACTORS							
Growth Potential	} 0.0475		√+	(p<0.1)	√+	√+	
Environmental Competitiveness							
Technical Volatility							
Predictability		√+		√-	(p<0.1)	√-	√-
Globalisation							
MODERATORS							
Entrepreneurial Orientation.	} 0.003		√+		√+	√-	
Individualism/ Collectivism			(p<0.1)	√-		√-	
2-WAY INTERACTIONS							
Growth Potential x Entrepreneurial Orientation.	} 0.0313						
Environmental Competitiveness x Entrepreneurial Orientation.							
Technical Volatility x Entrepreneurial Orientation.							
General Environmental Uncertainty x Entrepreneurial Orientation							
Globalisation x Entrepreneurial Orientation.							
Growth Potential x Individualism/ Collectivism					√+	√+	
Environmental Competitiveness x Individualism/ Collectivism						√+(p<0.1)	
Technical Volatility x Individualism/ Collectivism							
Globalisation x Individualism/ Collectivism					√+(p<0.1)		
3 - WAY INTERACTIONS							
Growth Potential x Entrepreneurial Orientation x Individualism/ Collectivism	} 0.0288						
Environmental Competitiveness x Entrepreneurial Orientation X Individualism/ Collectivism							
Technical Volatility x Entrepreneurial Orientation x Individualism/ Collectivism							
General Environmental Uncertainty x Entrepreneurial Orientation x Individualism/ Collectivism							
Globalisation x Entrepreneurial Orientation x Individualism/Collectivism							

√+ = Significant positive coefficient; √- = Significant negative coefficient

Table 4.11a

Logistic Regression Analysis for Alliance Use/Non-Use

Variables	Step 1	Step 2	Step 3
Constant	5.0368***	6.5656***	8.4705****
Industry Type ^a	(cat.)	(cat.)	(cat.)
Export intensity	.0048	-.0063	.0103
Firm size	-.0026	-.0008	-.0044
Firm financial strength	-1.4217***	-1.8084****	-2.2896****
Managerial resources	.6524**	.6817**	.7183**
Cooperativeness (attitudinal)		-.1837	-.0228
Necessity for alliance (attitudinal)		-.0056	.0578
Growth opportunity		.3716*	.3412
Commonality		.0524	.0584
Attitude to big business		.6458***	.6636***
Quality relationships		.1749	.1657
Growth Potential			.5173*
Environmental competitiveness			.3416
Technical volatility			-.2978
Predictability			.4626
Global uncertainty			.1298
Entrepreneurial orientation (E/O)			
Individualism/collectivism (I/C)			
Growth Potential x E/O			
Environmental comp x E/O			
Technical volatility x E/O			
Predictability x E/O			
Global uncertainty x E/O			
Growth Potential x I/C			
Environmental competitiveness x I/C			
Technical volatility x I/C			
Predictability x I/C			
Global uncertainty x I/C			
Environmental competitiveness x E/O x I/C			
Technical volatility x E/O x I/C			
Predictability x E/O x I/C			
Global uncertainty x E/O x I/C			
Growth Potential x E/O x I/C			
-2 logarithmic likelihood	145.922	132.963	121.758
Chi-Square (model)	31.768****	44.728****	55.932****
df	10	16	21
Overall hit rate ^b	76.87%	74.15%	79.59%
Pseudo R2	.1788	.2517	.3148

^a Beta weights for individual industry types are reported in Table 4.12

^b Random proportional chance model hit rate = 58.62%; Simple model = 70.75%.

*p < .10, **p < .05, ***p < .01, ****p < .001; N = 147.

Table 4.11b

Logistic Regression Analysis for Alliance Use/Non-Use

Variables	Step 4	Step 5	Step 6
Constant	8.3929***	7.2645	8.8058**
Industry Type ^a	(cat)	(cat.)	(cat)
Export intensity	.0191	.0208	.0473
Firm size	-.0098	-.0192	-.0081
Firm financial strength	-2.2587****	-1.8942**	-2.3960**
Managerial resources	.8329**	1.0634**	1.6313**
Cooperativeness (attitude)	-.0613	-.2926	-.2809
Necessity for alliance (attitude)	.1127	-.0996	-.2350
Growth opportunity	.2962	.2403	.2021
Commonality	.0636	-.0085	-.0938
Attitude to big business	.4026	.3375	.2490
Quality relationships	.2659	.3860	.6564
Growth Potential	.0283*	-.5013	-1.0829
Environmental competitiveness	-.5587*	1.3677***	2.3223***
Technical volatility	-.5726*	-.8876**	-1.6300**
Predictability	-.3301	.0459	.5119
Global uncertainty	.1978	.4926	.8625
Entrepreneurial orientation (E/O)	.8999**	1.6108***	2.0684**
Individualism/collectivism (I/C)	-.6762**	-.7138*	-.2614
Growth Potential x E/O		-.0949	-.2129
Environmental comp x E/O		-.0365	.3367
Technical volatility x E/O		.6793	.8524
Predictability x E/O		-.2167	-.3114
Global uncertainty x E/O		.6556	1.0781
Growth Potential x I/C		1.1521***	1.4973**
Environmental competitiveness x I/C		.5325	1.7715*
Technical volatility x I/C		-.4140	-1.4453
Environmental uncertainty x I/C		-.0895	-.2511
Global uncertainty x I/C		.7605*	.9843
Growth potential x E/O x I/C			-.4533
Environmental competition x E/O x I/C			2.2902
Technical volatility x E/O x I/C			.5910
Predictability x E/O x I/C			.1353
Global uncertainty x E/O x I/C			-.3891
-2 logarithmic likelihood	110.153	90.364	77.888
Chi- square (model)	67.538****	87.32****	99.803****
df	23	33	38
Overall hit rate ^b	80.95%	82.99%	87.07%
Pseudo R2	.3801	.4915	.5617

^a Beta weights for individual industry types are reported in Table 4.12

^b Random proportional chance model hit rate 58.62%; Simple model 70.75%.

*p < .10, **p < .05, ***p < .01, ****p < .001; N = 147.

Table 4.12

Logistic Regression Analysis - Beta Weights by Industry Type

Variable	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Industry type ^a	.1189	.4156	.4849	.3919	.3679	.4851
1. Food and Food products	.3039	.1514	.2015	.4400	.7198	.2443
2. Wood and wood products	-.6988	-.5917	-.6195	-.1503	-.1278	.7911
3. Printing, Business services and allied industries	-.5307	-.5243	-.8758	-1.3525*	-1.4720	-1.4934
4. Chemical production, mining	-.3637	-.2066	-.1516	.1743	-.3417	-.6304
5. Electrical computer electronic manufacturing,	.3923	.3683	.6849	.9280	1.2275	1.0460
6. Industrial and commercial machinery manufacturing and fabrication	1.2626***	1.0969**	.8947*	.7002	.8175	.9140
7. Construction, building and building supplies manufacturing	-.3656	-.2940	-.1342	-.7417	-.8233	-.8716

^aA deviation coding scheme was utilized. The logistic regression coefficient provides a comparison of each industry type in relation to the average effect of all types.

*p < .10, **p < .05, ***p < .01, ****p < .00

HYPOTHESES

All Hypotheses are expressed in the Null and the alternative format. In general, hypotheses 1, 2 and 3 were directly concerned with the influence of the key decision-leader attitudes and perceptions on strategic alliance participation, with the first two reflecting earlier research. Specifically, two attitudinal elements of particular interest

were, attitude towards alliance use for firm survival, and attitude towards relationships with larger firms.

Null Hypothesis 1.1 There is no connection between the strategic alliance activity of the firm and the SME leader attitudes towards the necessity of alliance for firm survival.

Alternative 1.2 Alliance use will be positively associated with SME leader attitudes towards the necessity of alliance for firm survival.
(not significant)

The null hypothesis 1.1, predicted no relationship between the dependent variable - attitude towards the necessity for alliance and the incidence of strategic alliance. The association between alliance use and the SME leader attitudes towards the necessity of alliance for firm survival was tested using logistic regression analysis. The alternative hypothesis proposed that alliance use would be positively associated with SME leader attitudes towards the necessity of alliance for firm survival. Hypothesis 1 was tested on the entire data set of 147 firms using a one tailed Wald Chi-Square statistic at the .05 level of significance. The one tailed test was used because the alternative hypothesis predicted a positive association between the incidence of strategic alliance formation and SME leader attitudes towards the necessity of alliance for firm survival. The Wald Chi-square statistic for the 'alliance necessity' factor was found not to be significant, thus the null hypothesis stating no relationship between alliance use and SME attitude towards the necessity of alliance for firm survival could

not be rejected. That is, there exists no support for the belief of a positive association between these variables. In fact, the β coefficient on this variable actually suggested a negative association as demonstrated in Table 4.10. However, this negative relationship was not found to be significant.

Null Hypothesis 2.1 There is no difference in strategic alliance incidence based on the key decision-leader attitudes toward relationships with larger firms.

Alternative 2.2 Alliance use will be positively associated with SME leader positive attitudes towards relationships with larger firms (significant positive relationship at the $p < .01$ level)

The null hypothesis 2.1, which predicted no relationship between the dependent variable - incidence of strategic alliance, and the independent variable - attitudes towards relationships with larger firms, was tested using logistic regression analysis. The alternative hypothesis proposed a positive relationship between the alliance use and SME leader's attitude towards relationships with larger firms, that is, the more positive one's attitude towards relationships with larger firms, the more likely the firm is to form alliances. Hypothesis 2 was tested on the entire data set of 147 firms using a one tailed Wald Chi-Square statistic. The one tailed test was used because the alternative hypothesis predicted a positive association between the incidence of strategic alliance formation and the key decision-leader attitudes towards relationships with larger firms.

A positive relationship between alliance use and the decision-leader's attitudes towards larger firms, is significant at the 5 percent level of significance ($p < 0.01$), consequently the alternative hypothesis 2.2 is supported.

Null Hypothesis 3.1 There is no relationship between the strategic alliance activity of the firm and the SME leader perception of the opportunities for strong growth and profits in the firm.

Alternative 3.2 Alliance use will be negatively associated with SME leader perceptions regarding opportunities for strong growth and profits for the firm.

The alternative hypothesis proposed a negative relationship between these two variables. Hypothesis 3 was tested based on the entire data set of 147 firms using a Wald Chi-Square statistic. The hypothesis is not supported as the β coefficient had a p-value less than 0.1, but reported as a positive not a negative relationship. Thus, in conducting this as a lower one-tailed test due to the proposition of a negative association between alliance use and SME leader perceptions of opportunities for strong growth and profits for the firm, the null hypothesis could not be rejected.

Perceived Environmental Uncertainty

At Step 3, the five perceived environmental dimensions, confirmed as separate dimensions through the factor analysis, were entered into the model. All model

parameters were improvements over both Steps 1 and 2, and the significant Chi-Square value for the model ($p < .0001$) and this block of independent variables ($p < .05$) indicated that the variable coefficients could be meaningfully interpreted. At Step 3, the coefficients for the attitudinal variables do not change significantly, supporting the assumption that the attitudinal variables and perceived environmental variables are independent with little or no confounding (Aiken and West, 1991). The results of Step 3 suggest that not only do key decision-leaders distinguish between the perceived sources of environmental uncertainty, as proposed by Hypothesis 4.2 and supported by the results of the factor analysis, but these perceptions in combination, also have a significant relationship with alliance use. While none of the dimensions were significant at the ($p < 0.05$) level, two dimensions *growth potential* and *environmental uncertainty/low predictability* were significant at the 10 percent level of significance, both having positive Beta coefficients.

Null Hypothesis 4.1 There is no relationship between alliance use and any of the environmental uncertainty factors.

Alternative 4.2a There is a positive relationship between alliance use and the environmental uncertainty dimensions of:

- (i) General environmental uncertainty/competitiveness;
(Not supported at step 3; supported at Steps 4 - 6)
- (ii) Technological volatility and demand; (not significant)
- (iii) Global marketing (not significant)
- (iv) Growth potential (significant at the ($p < .1$) level)
- (v) Low predictability of customer demands/competitor actions
(Significant at ($p < .1$) level)

The null hypothesis 4.1 which predicted no relationship between the dependent variable - incidence of strategic alliance, and the independent variable key decision-leader's perceptions of environmental uncertainty, was tested in all five instances using logistic regression analysis. This was based upon a scaled representation of the key environmental uncertainty factors identified through factor analysis of the variables. The alternative hypothesis proposed a positive relationship between the key decision-leader's perceptions of environmental uncertainty and alliance use. The one tailed test was used because the alternative hypothesis predicted a positive association between the incidence of strategic alliance formation and the key decision-leader perceptions of the various sources of environmental uncertainty. Step 3 introduced the five perceived environmental uncertainty measures. Although all model parameters improve, at this step only perceptions of growth potential and customer/competitor predictability are significant. At Step 4, with the introduction of the individual and entrepreneurial orientation measures and at Steps 5 and 6, with the introduction of the 2-way and the 3-way interactions, other environmental perceptions also emerge as having significant coefficients, namely environmental competitiveness and technological volatility. At Step 4 only environmental competitiveness is significant and at Step 5 the technological demands variable is significant although in a direction contrary to that hypothesised. The two-way interaction between perceptions of potential for profit and growth and the key decision-leader's individualism/collectivism impacts the choice of alliance use only in relationship to her/his perception of potential for profit and growth. The results of Step 6, with the full range of moderating relationships included, suggest that perceived uncertainty regarding environmental competitiveness is the most prominent determinant of the use of alliances when the individual orientations of the SME's key decision-leader

are considered. The lack of significance for the growth and profits variable and the technology variable at Step 6 suggests the higher order factors introduced at Step 6 are the primary source for variation in responses. The fact that technological demands only become significant when considered in the presence of the individual leader orientations, suggests that the primary influence these individual orientations have on alliance use, is through the variation created in the leader's perceptions of technologically based uncertainty. As hypothesised, when individual orientations are concerned, there are no significant positive coefficients reported for technological demand and volatility.

Through the use of the 147 firms Hypothesis 4 was tested for individual environmental uncertainty variables based on a Wald statistical test. i) At step 3 of analysis, general environmental uncertainty/competitiveness was found not to be significant ($p=0.2187$). ii) Technological volatility and demand, was not found to affect alliance use, identified as having a negative coefficient in the analysis, ($p=0.2647$); iii) Global Marketing was not statistically significant ($p=0.6466$); iv) Growth potential reported having a significant positive coefficient at the 10 percent level ($p=0.0938$); and, v) low predictability of customer demands/competitor action associated with alliance use, was tested and supported at a 10 percent level of significance ($p=0.0753$). In summary, partial support was found for hypothesis 4.2.

Moderating Variables

At Step 4 of the analysis, the hypothesised moderating variables, entrepreneurial orientation, and individualism and collectivism were introduced. The improvement in

the model parameters over Step 3 as well as the significant beta coefficients for both measures indicate that both orientation variables have a direct impact on the model's outcome variable (alliance use). Entrepreneurial orientation of the SMEs key decision-leader has a significant positive influence on the firm's propensity to align, while the individualism/collectivism characteristic has a significant negative effect. Both variables are significant at the five percent level of significance.

In order to test for the hypothesised moderating influence of these variables, at Step 5 all two-way interactions between these orientations and the five dimensions of the environmental uncertainty were introduced. The addition of these interactions resulted in SME perceptions of other environmental uncertainty factors emerging as significant. The model parameters at both Steps 5 and 6 showed improvement indicating the regression result can be meaningfully interpreted.

At Step 4 general environmental uncertainty/competitiveness (envcomp) has a significant positive coefficient, and became significant at $p < 0.05$. The two-way interaction between perceptions of potential for profit and growth in the firm's key industry and the key decision-leader's individualism/collectivism is significant ($p < 0.05$). This interaction suggests that the decision-leader's individualism/collectivism moderates the relationship between the choice of alliance use and the perceived potential for profit and growth in the firm's key industry. A second significant two-way interaction also emerged at Step 5 at the ten percent level of significance; individualism/collectivism moderated the relationship between the SME key decision-leader perception of global uncertainty, and alliance use. At Step 6, with all three-way interactions included. While

none of these higher order interaction had significant coefficients, the results suggest that perceived uncertainty regarding the external environment is the most prominent determinant of the use of alliances when the individual orientations of the SME's key decision-leader are considered. The loss of significance for the perceived potential for growth and profits variable at Step 6 suggests the higher order factors introduced at this stage are the primary source for variations in responses. The fact that technological demands only becomes significant when considered in the presence of the individual leader orientations suggests that the primary influence these individual orientations have on alliance use is through the variation created in the leader's perceptions of technologically based uncertainty.

Null Hypothesis 5.1 The SME's key decision-leader entrepreneurial orientation will have no moderating effect on the alliance use.

Alternative 5.2 The entrepreneurial orientation of an SME's key decision-leader will positively moderate the firm's propensity to general alliance use.

Based on a logistic regression model, the moderating effect of this dimension was tested. The moderating factor of entrepreneurship orientation was entered in step five together with that for individualism/collectivism. As a block, these variables were significant in their effects on the model, with the Chi-Square statistic having a p-value of 0.0345. Under the null hypothesis, no moderating effect for entrepreneurial orientation was proposed. The alternative hypothesis is only partially supported by the

results, there being a ($p < 0.05$) level of significance for the entrepreneurial orientation of the key decision-leader as a direct influence on alliance use, but not in having a moderating effect on the dependent variable, incidence of strategic alliance, in its relationship with perceptions of the various dimensions of the environmental uncertainty.

It is considered to be appropriate to carry out studies reflecting the determinants of alliance formation based on attitudes. In particular, SMEs which are acknowledged to represent the attitudes of the key decision-leader in the actions of the firm, are particularly vulnerable to this influence. This was one of the cultural dimensions identified by Hofstede (1980, 1984a, 1984b), and supported by other researchers among which are Shane (1992, 1993); and Wagner (1995). There is general acceptance of the differing approaches taken by individualist/collectivist individuals. Hypothesis 6 measures this moderating dimension.

Null Hypothesis 6.1 The individualism/collectivism orientation of the SME's key decision-leader will have no moderating effect on the firm's propensity to form alliances.

Alternative 6.2 The individualism/collectivism orientation of the SME's key decision-leader will have a positive moderating effect on the firm's propensity to form alliances.

It was predicted in the null hypothesis that no relationship exists between the dependent variable, incidence of strategic alliance, and the independent variable,

orientation toward individualism/collectivism of an SME's key decision-leader. The alternative hypothesis proposed a positive moderating effect of individualism/collectivism orientation of the SMEs key decision-leader on the relationship between alliance use and the environmental uncertainty measures. The moderating effect of this dimension was tested using logistic regression analysis. Hypothesis 6.2 was tested on the entire data set of 147 firms using a one tailed Wald Chi-Square statistic, and received partial support.

Step 5 of the logistic regression analysis involved entering the two-way interactions between the moderating variables and the environmental uncertainty factors. Moderating variables entered into the equation in Step 5 as a block have a significant two-way moderating effect on alliance use with the Chi-Square statistic being significant at a ($p < .05$) level. Individualism/collectivism had a significant positive higher order moderating effect in its interaction with growth potential on alliance use at the ($p < .05$) level and with perceptions of global uncertainty at the ($p < 0.1$) level. The significance of this interaction indicates that the relationship is stronger for more collectivist key decision-leaders. At Step 6 all three-way interactions were entered. The results of Step 6 indicate no individually significant three-way coefficients, although these higher order interactions were significant as a block at $p < 0.05$.

Control Variables

While the relationship of the control variables to alliance use was not of primary interest in the present analysis, two variables were found to be significant and merit

discussion. The financial strength of the SME was found to be significantly negatively related to the use of alliances across all six steps of the analysis at the five percent level of significance and across the first four steps at a one percent level of significance. This indicates that the greater the financial strength of the firm, the lower the propensity for strategic alliance use. The managerial resources of the firm were found to have a significant positive coefficient across all six steps of the analysis at a five percent level of significance. The industry of the SME, included as a measure of the objective environment of the firm, was not found to be significant at any step of the analysis. Table 4.12 lists the logistic coefficients by industry. A cross tabulation of the propensity to align with industry classification, revealed a Pearson chi-square two sided p-value of .372, indicating no industry groups are more likely *ceteris paribus* than others to join in a strategic alliance. Industrial and commercial machinery manufacture and fabrication (82.5 percent) food and food industries (81.3 percent) and wood and wood industries (70.6 percent), had a marginally higher propensity to use alliances than construction, building and building supplies manufacture, printing, business services and allied industries, also than chemical production and mining. However, this difference was not statistically significant. This finding confirms the researcher's postulation of mixed industry type not being an issue in the analysis.

Summary

In this section, the preliminary statistical outcomes have been presented. These have provided an explanation of the outcomes as they affect SME responses to firm, industry, environmental impact, and the effect of key decision-leader characteristics

reflected in attitudes and behaviour of the firm. In sum, the findings of the logistic regression analysis indicate that the following relationships were determined. Hypothesis 1 posited a relationship between alliance use and SME attitudes towards necessity of alliance for firm survival. The hypothesised direction of the relationship was positive. The South West sample outcomes determined no relationship. In Hypothesis 2 a relationship between alliance use and SME attitudes to large firms was predicted. The hypothesised direction of the relationship was supported with a significant positive relationship. The hypothesised negative direction of the relationship tested by Hypothesis 3 is a relationship between alliance use and SME attitudes towards growth opportunity for the firm. A negative relationship was predicted however, the study identified a significant inverse relationship (contrary to prediction). A relationship between alliance use and SME perceptions of environmental uncertainty was anticipated in Hypothesis 4. With all elements reporting positive relationships. Results based on classified factor reduction elements determined a significant positive for 'growthpo' representing the relationship between industry growth potential and alliance use. No relationship was found for alliance use with 'techvol' or 'envcomp' and 'global' in support of Steps 5 and 6. 'Envuncert' was found to have a positive relationship at $p < 0.1$.

Hypothesis 5 addressed the relationship between entrepreneurial/orientation as a moderator and SME alliance use. A significant positive effect was determined, providing partial support for the variable as a moderator of behaviour. Entrepreneurial orientation was found to be significant, with a mild moderator effect. Contrary to prediction, Hypothesis 6 determined a significant positive effect with an additional partial moderator support for the relationship between individualism/collectivism as a

moderator and SME alliance use. A significant negative coefficient for the individualism/collectivism orientation resulted.

In the following section, the results of the unstructured interviews are presented. Section five consolidates the outcomes for comparison, and in section six, the results of the two hemisphere studies are compared in relation to the strategic alliance attitudes and behaviour.

SECTION FOUR: KEY INFORMANT INTERVIEW PROTOCOL

The elements of the key informant interviews reflect the need to ensure that the quantitative data expressed the attitudes of the participating SMEs, and thereby, potentially the SME strategic alliance cohort within the region. The actual interrogation was performed through the administration of a substantially validated questionnaire described in Chapter Three. This was supported by an industry representative personal interview with almost 9.5 percent (n=14) of SME key decision-leaders. Through this mixed methodology it was posited that more reflective outcomes would be achieved, and that the interviews would allow the researcher to explore in greater depth the drivers and inhibitors to strategic alliance formation as well as unique or new issues that are not addressed in the questionnaires. It was also proposed that this approach would provide a further measure of the significance of these issues to key decision-leaders and thereby to SMEs.

The interview gathered information about the industry from the two selected representatives from each industry group. Details of the industry environment were

sought, and the impacts of the defined levels of uncertainty, risk and ambiguity, all identified as significant issues in the previous section, were explored. The individual attitudes of the interviewee regarding opening the firm to scrutiny of either symbionts or commensals are a revealing element of the information obtained, and are presented later in this section.

First among the issues considered was the purpose of the alliance, and key decision-leaders' reasons for seeking to participate with others were multiple. In seeking clarification of this purpose, the respondents were asked to consider the outcomes sought in their initial consideration of this business form. The outcome sought was generally one or several from among the following outcomes posited; expanded markets, critical mass, economic or social pressures. A further issue addressed through the interviews was the description and the force of the drivers toward alliance formation. In short, the respondents were asked about personal decision-making approaches, and the needs being fulfilled by the alliances. They were also asked about the constraints that present most frequently in the development of alliances. In line with the claims identified in the earlier chapters that the key decision-leader is the 'brain' and the SME the 'organism' (Miller, 1983), there was a need to identify whether the key decision-leader would report awareness of the extent of this symbiotic relationship.

The value of having access to the interview group for an extended and open interview, was that it allowed the researcher to develop profiles of the industry and the organisation based on the key decision-leader's own description of these, and in

response to the questions outlined above. This process permitted the interviewer to draw information from the participants to clarify issues, and consider trends that presented in the questionnaire responses. Information provided this way also explained some trends of the key decision-leader toward positive alliance perceptions, which were not evident in the reported and current behaviours.

Data gathered from the interviews are represented in the SME Strategic Alliance Participation Paradigm presented later in this section. This grew from the issues identified in Frankel (1995) and Dickson (1997) models, and is based on the Wingham and Newby Schema (1993). This Strategic Alliance Participation Paradigm also allows for recognition of the impact of power and politics in and reflecting the impact of the interaction of the key decision-leader with the power and politics of extra-organisational relationship building (MacMillan, 1972). The paradigm evolved through the analysis of data from self-administered questionnaire based on the documented contribution of earlier researchers. Each interview respondent was asked to self identify the profile of their SME and the category of their commensal/symbiotic relationships against the definition of each. These data were consolidated with quantitative data, and a profile of the relationships was developed. These are presented in the combined results of the study.

There was considerable support for questionnaire responses. However, of particular interest to the researcher was the protectionism demonstrated by many of the key decision-leaders. The sense was that work in the region should be retained for local firms. In general, firms which did not 'fear big business' were as prone to fearing

incursion from outside the region. They also expressed concern that in particular, incoming construction firms would have both the power and the intention to take new contracts and remain in the region to seek a part of the market for current contract renewals. Although many of the key decision-leaders saw value in shared capital costs and research and development, particularly in the fabrication firms, they also expressed considerable concern at the prospect of opportunism. Also, at a power/relationship level, some element of concern about sharing technological breakthroughs and management skills was expressed. There was acceptance at a general level of the need for alliance formation, which was accompanied by a trend toward protecting regional firms from external opportunism. While the opportunism of others was not ruled out, and was seen by most as a potential threat, a single respondent admitted having sought to retaliate against this action through breaking the agreement and acting opportunistically. In that particular instance, neither firm benefited, the client taking the opportunity to seek alternative supply rather than extending the contract. The firm under review remains unconvinced regarding strategic alliances.

Industry Representative Interviews

Interviews were used to establish the face validity of the framework, and significant information was obtained through the process of interviews. These were aimed at encouraging participants to talk freely about their experiences of strategic alliances and the levels of trust, forbearance, innovation and individualism they recognised in their own dealings and those of the alliance partner. Again, there are significant issues

around the research hypotheses. Throughout the interviews, respondents were contributing to the development of a profile of SMEs based on the research questions, and their attitudes toward strategic alliance participation hypothesised in this study, and which had been qualified in the questionnaire responses.

This section applies the participant responses contained in the interview transcript. The responses have been addressed collectively where shared experiences and issues predominate. However, there were some industry specific or group specific issues that are attributed to their representative industries. As noted earlier, the key informants in the interviews were the key decision-leaders. Given that the title for each such person is firm specific, these respondents are uniformly referred to under the generic title of the key decision-leader.

The interview and the resulting tables and figures are presented as a discrete contribution to the outcome, enhancing the information about SME key decision-leader strategic alliance experiences and expectations expressed in the questionnaire and reflecting established research questions. Finally in this section, the similarities and the disparities are noted for further synthesis in the ensuing section.

INTERVIEW ANALYSIS RESULTS

The interviews revealed a number of issues that contribute to better understanding of the research questions, and it was considered appropriate to present these outcomes in a manner which demonstrates this. The framework for the open interviews was

drawn up seeking information about the strategic direction of each industry. Issues were addressed reflecting the imperatives of research questions 1 to 4, while individual values-related issues reflect consolidated outcomes to research question 5.

Although interviews were generally unstructured in their form, as can be seen from Appendix D, there were issues raised in the questionnaire responses which required further clarification. All interviews covered the basic issues, however, some informants provided expanded responses that added to the value of their contribution, and enhanced understanding of the key decision-leader imperatives in these industries.

RESEARCH QUESTIONS

Specifically, the aims of the research were addressed through the research questions presented in Chapter One. These grew from general research propositions of strategic alliance attitudes and behaviour, and support this broad range of initial propositions presented in earlier chapters.

An overview of key decision-leaders' understanding of the value of strategic alliance participation was obtained from their description of their firms, and their perceptions of the environment and their strategic position within this environment. These elements are crucial to the Strategic Alliance Participation Paradigm, and add substantially to understanding the SME strategic alliance position.

It is clear from recorded responses, that the key decision-leaders believe in the need to have a strong and powerful presence leading the firm into new and innovative areas of business. The key decision-leaders generally reported their major role as a figurehead. It was also agreed that the key decision-leader should maintain high visibility in the market-place, thereby ensuring that the business would receive appropriate levels of recognition, leading to enhanced market awareness. A significant role of the key decision-leader was that of 'networking'. It was posited that strong and active networking enabled cooperative relationships to form. These networks help to identify similarities among cohort key decision-leaders and potentially, they impact through enhanced government awareness of the contribution of this cohort to the economy. The best case scenario outcome would see flow-on from positive relationships, expressed as a function of enhanced bargaining power through economies of scale.

Key decision-leaders generally reported believing that their support and proactive involvement are essential to the strategic alliance process. The responses to the research questions are grouped to demonstrate the strength of belief among the full sample cohort. They variously express the positive and negative statements shared by a number of respondents. 'Being seen in the marketplace' by other key decision-leaders, government departments and industry helps to enhance a sense of familiarity and thereby 'trust'. Relationships formed to ensure continuity of supply give our firm 'the edge over other local firms forced or choosing to operate alone'. This perception was shared across industries, and most strongly in the construction and the fabrication industries. Business and administrative industry expressed views which indicated that

they were less partial to strategic alliances than the other industries. However, there was overall a sense that strategic alliances presented opportunities for enhanced bargaining power, providing strength in numbers, through power derived from critical mass and savings due to benefits derived from economies of scale benefits. From an economic perspective, the process reflected in strategic alliance created an opportunity to defer profit taking to the final user, thus enabling prices to be lowered to advantage the parties to the strategic alliance.

Key decision-leaders were unanimous in their claims that they were their firm's drivers of the alliance formation. In food and food products, and printing, business services and allied industries there was a tendency for other members of staff to introduce the concept of alliance. However, the major driver in all cases was of necessity the key decision-leader. Responses relating to who seeks out these relationships were generally 'I do'. Several key decision-leaders recognised openly the contribution of staff to the initiation of the concept, maintaining that 'Some managers are good at identifying possible advantages of cooperation, but generally, better results are achieved if I do the driving'.

Research Question 1. How culturally appropriate are strategic alliances considered by SMEs in Regional Western Australia.

Given the expressed perception that the key decision-leader needed to appear powerful, also that the firm needs to reflect high levels of this invulnerability at least during initial negotiations, the strategic alliance business form was seen to be a challenge to the key decision-leader's political proficiency.

The first research question reflects on the perspective of national cultural norms. In particular, the question explores the impact of those cultural propensities identified among the national mores identified by Hofstede (1980), and found by him to underpin business activities and the culturally driven tendencies towards behaviours. The construct of this belief reflects four major cultural elements. Initially, individualism/collectivism, which Hofstede (1980) categorised as a measure of the individual's innate and acquired ability to coalesce relationships and dependencies. The second, power distance, he sees as addressing satisfaction of the individual with hierarchical relationships in which power is a function of advancement in the social, political, and economic hierarchy. Tolerance of ambiguity, the third element identified by Hofstede (1980), will dictate an individual or a cultural group's propensity toward structure and certainty which reflect in the proclivity toward participation in, or to refraining from joining with others. It will also reflect a tendency to act opportunistically, or to forbear. The fourth of the elements identified by Hofstede was masculinity/femininity which is seen by Hofstede (1980) to reflect the drive and the levels of self determination normal to or tolerated in a particular culture. He maintains that in Australia, a trend toward masculinity. This is perceived, however without empirical support, to be visible in the South West SME firm environment. It was clear from the respondents that these attitudes were detectable in the cohort of interviewees. Comments of this group included: 'In my opinion, the concept of strategic alliance between local firms progresses SMEs a good way to enhance local content in major tenders'. Also, 'We have done well through our strategic alliance/s and could do better with support and government commitment'. Finally, 'For small to

medium contracts participation can be enhanced with vigilance, and bigger contracts can be won by working together, but there are pitfalls’.

A trend toward positive attitudes is evidenced from the following item. In particular, firms in all but one of the industries (Business and Allied) expressed strong interest in future alliance involvement. The difficulty of attracting skilled and competent staff to the region was raised by all but Business and Allied industries. Location within the region of a regional university campus, with a strong Business Program, and a network of Technical and Further Education (TAFE) colleges may possibly impact this sector perhaps more than the others. Particular value was seen in the statements universally proffered regarding the scarcity of technical and technological skills. Collaboration based on sharing of advanced technology/computing skills was indicated in all industries.

Respondents were divided in their intention to participate with other local SMEs in future alliances. Respondents intending to participate were strongly in favour of the process, and declared themselves willing to make an effort to comply with the terms of an agreement for substantial gains they perceived emanating from these relationships. Industries reporting these higher levels of interest in future alliances were the chemical production, mining; construction, building and building supplies manufacturer; and, wood and wood products. Comments from industry representatives relating to future positive relationship formation demonstrate the strength of their positive perception. ‘Yes we see major negotiation advantages’. ‘If one [a firm seeking alliance] presents with up to date technology and a good record,

we will definitely seek to collaborate'. 'We like the concept of greater critical mass and the enhanced leverage this gives us in the marketplace'. 'We are actively seeking an alliance partner who can bring to the alliance early access to information about forthcoming contracts'.

The body of industries reporting little or no interest in alliance participation was equally emphatic in their negative perceptions. 'I cannot see real benefits from alliances' and 'We need all our manpower to deal with the current market' were typical comments. Food and food products related industries were concerned about the cost of growth without assurance of continuity of either strategic alliance relationships or markets. They made comments such as 'We haven't the capacity to seek major contracts'. We need all our technology to sustain our current growth. These [major contracts] tie our employees up for too long- lack of flexibility. We can miss out on good customers trying for the 'big fish'.

Research Question 2. Are Transaction Cost Theory/Resource Dependency theoretical boundaries appropriate for describing attitudinal and behavioural norms of SMEs.

This question sought to address the issues of control over the economic elements of the relationships, many of which impact heavily on potential strategic alliance behaviour, because the key decision-leader had excessive difficulty moving from the economic theories concepts toward relationships based on trust and forbearance. Significant numbers of key decision-leaders indicated that they would seek greater control of specific issues covered in future strategic alliance relationships. Activities that were considered by the key decision-leader, to be important to the organisational

autonomy and power within the relationship, were revealed at this time. Among these was a need to concentrate on the commitment of the partners to the delivery schedules, and the timeliness of services provided by the alliance.

Substantial consideration was given by respondents in the construction and fabrication industries, to the levels of quality control of the final product. This was coupled generally with the need to have as part of the negotiation, meetings relating to deliveries between firms. The importance of scheduling and management of holding was introduced, to ensure that they reflect just-in-time (JIT) principles rather than stockpile arrangement partners wanted with inequitable costs of purchase and storage being borne by one firm. Where an organisation was the significant financial contributor to the relationship, the key decision-leader indicated generally a need to have direct access to the end user firm, and for negotiations to be inclusive of all representative firms.

The Hardest Part of Alliance

Transaction cost and resource dependency theory concepts are key to understanding much of the influence on decision-leader's responses to the marketplace. However, they are less predictive of behaviour in cooperative relationships, dependent for their influence upon the elements of power and the control over resources among the participating firms. It would appear that there are significant aids in the determination of opportunistic or competitive behaviour. What is needed, is enhanced understanding

of the more complex (harder) non-competitive elements of the strategic alliance strategic alliance relationships.

Key decision-leaders were asked to give their views of the more difficult issues that had impacted the strategic alliance decision process, and to describe their experiences to illustrate these outcomes. Considerable comment was made about the difficulty of opening records and sharing customer information with erstwhile rivals and/or competitors. Events over the life of the alliances resulted in perceptions among respondents, relating to a number of significant changes they would make in subsequent alliance relationships. These related largely to enhanced rationality based on experiences with power exchanges. Significant among these were a perceived and actual lack of autonomy. Key decision-leaders of SMEs expressed some dissonance at the cooperative and consultative nature of the relationships. This was heightened by a lack of knowledge of the partner industry (or elements of the industry). Discomfort was expressed about knowing when to check up on jobs in their partner's firm. Acquiring skills in communication and negotiation were reported as the next step to be taken by CEOs who were interested in future alliance relationships, coupled with greater transparency of quality control.

SME key decision-leaders in general, among the firms with fewer than twenty employees, reported having difficulties managing in a cooperative relationship. Equality of control with alliance partners presented some difficulties. Where alliances were formed with firms who had previously been sub-contractors or customers with physical and managerial distance, the element of control was now internalised, and the

problem was expressed in terms indicating communication difficulties, and power relationship issues. Relationship management was described by one participant, as, 'knowing when to draw the line'. It impacted on the decisions both about continuing the relationship, and in the decisions to initiate closure, the decision relating to enforcing the terms if not the legal aspect of the contract. Reliance on litigious action was generally avoided by SMEs. In part, this is seen as a reflection of cultural norms related to individualistic attitudes; in part due to the cost of undertaking this process without guaranteed outcomes. Respondents reported lack of trust in the process which they believed would marginalise their firm.

These findings support earlier international studies of stress among key decision-leaders (Cooper, 1986; Wingham, 1997), and MacMillan (1972) who explored individual and firm power and political relationship issues. Regional customers are generally divided in each industry (and frequently across industries) into those with whom relationships appear apparently serendipitously, and those with whom an event or an environmental shift is necessary to promote cooperation. Repeated alliance experience has lessened the concern of some industry members, but the move from the market economy based opportunism, to the trust and forbearance based relationships, even among these firms is new and subject to a sense of vulnerability.

Alliance relationships, which generate positive attitudes, must add to the profile of the firm in a number of ways identified by respondents. Respondents with alliance experience represented almost 71 percent of the original sample. All interviewed key decision-leaders had experience with alliances, and despite some experience with

potentially opportunistic relationships, they generally expressed an overall perception of the value of the relationships which tends to support a claim for expanded alliance usage in the region. Advantages were seen to be an increased competitive edge, accompanied by enhancement of product development and based on relationships with suppliers demonstrating increases in supplier commitment. One CEO recommended the relationship on the basis of a reduction in the cost of production due to reliability of supply, and the overall application of the profit margin based on the share of the overall profit. He said, 'With reduced margins we also gained an opportunity of picking up more work'.

Although much of the support came from the reduced cost and greater raw material quality control, there were more significant changes in the parameters of the relationship between the parties. This was expressed as an increase in inter-firm understanding of needs and industry constraints when it was no longer 'your' problem, but now 'our' problem. However, despite a tendency towards relationship based agreements, respondents were sufficiently aware of their vulnerability to feel somewhat reassured by the fact that the close relationships had also sharpened their edge, and 'gave us ammunition to reject future pressure to increase productivity or to lower prices, based on client pressure'. Also identified was the benefit of openness of shared client information. As one key decision-leader said, the relationship 'gave us direct access to clients, these have been useful contacts for other work not connected to the intermediary alliance partner'.

Alliance failure was raised with each of the key decision-leaders. While not directly studied in this research, the failure process and effect potentially impacted future alliances. During the life of the alliance, there was a substantial support among respondents for the 'rules of the game'. However, it was clear that after the conclusion of the alliance, which in general terms are finite, increased learning and knowledge was available for use by either/any ex-member of the alliance.

Research Question 3. What significant issues in the SME key decision-maker attitude will reflect in negative/positive strategic alliance behaviour.

Events which had occurred in previous relationships and had influenced key decision-leader perception regarding future alliance participation, were illustrated through the best and worst alliance story from the perspective of the key decision-leader. In the stories, it was evident that failures were still a problem that reflected on the key decision-leader power and value of his/her decision-making skills.

Some of the responses are presented here, reflecting both a positive and a negative impact on the potential for future alliance participation. Positive responses related generally to the expanded domain, and an increase in the level of removal from the perception of being a 'micro' business into a more powerful industry role, with alliance being seen as a method for gaining industry stature rather than physical growth. Consider the following:

We were able to expand into larger contracts several years ago, and although we believed these to be short lived, we are still together, and have both grown exponentially as a result.

We have moved away from direct involvement in small jobs, but we keep an eye out for good firms in the making, and we hand on these small jobs to test them out as future alliance partners.

We obtained a government contract which has kept us in business ever since, and doesn't look like stopping. Access to planning information through external alliances has enhanced both our firm growth and market share.

Lack of professionalism among alliance partners resulted in some instances in there being little understanding of deadlines. Poor record systems were reported as impacting on the combined firms creating a sense of loss of power and business credibility. In the most traumatic relationship, the strategic alliance partner 'stole' the client from the original supplier, with detrimental effects for both the injured firm, and the cooperative relationship. At best, firms expressing reluctance to enter future alliances reported no sense of achievement, (low morale) often because the partner's logo and advertising material was used in the conduct of the relationship with the client. This was a cost cutting approach, but also served to marginalise the 'other' firm. Apart from this, firms in this category reported failure to gain a higher profile from the process.

Key decision-leaders reported some issues with partner selection. In several cases this was despite initial approaches being made to them. Others felt the need to develop supportive structures around future growth, but were unsure or uninformed as to the appropriate approach to take to achieve a tenable relationship. Any number of reasons were proffered for undertaking an alliance decision. Some of the more common of those presented, were based on a 'need for partner's expertise', or 'a need

to share financial research and development burden'. Several firms in the construction and fabrication industries were approached for their equipment and their expertise.

Of particular interest were firms reporting third party involvement in the decision to join an alliance. In three of the firms reporting this result, they were approached by a client firm, and a match suggested with another single selected firm, based on previous discussion between the client and the intended partner. Within the food industry the originator of the alliance was the supplier. In another instance, the suggestion was made for the supplier to 'team-up' with the firm to facilitate efficient processing by the client firm, reflecting resource dependency coupled in this instance with a desire to control margins. As the key decision-leader said, 'We were both competing for the same work, and losing out to larger firms both regional and national. We joined forces, and have both benefited'.

Research Question 4. Are economic and social theory models appropriate to the enhanced understanding of SME strategic alliance attitude and behaviour relationships?

Decisions affecting the transition from economic to social models reviewed in Chapter Two, were identified in general discussions with all of the firms. There was a keen understanding of the need to change at a number of levels – the issue was often where to start. Further, the concern was whether to retain the economically driven approach during this transition, or to effectively, as one respondent stated 'just throw all the cards up in the air and see what shakes out'.

Accompanying the identification of specific issues affecting their propensity to join strategic alliances, was a sense that the firms had generally sought alliance involvement to facilitate market access and market penetration. However, there was a growing realisation that the skills scarcity in the region was a viable rationale for alliance. There was broad acceptance of the major elements of an entry scenario experienced by one firm which found that issues affecting their organisation have generally been traced back to the economic and resource based problems. Increasingly, and in line with the findings of Townrow and Mallileu (1994), key decision-leaders are looking at personal relationships and internal and external networking activities in an effort to understand their needs, and where the real problems are being addressed within decisions and solutions. Training at the senior level to provide tools to enhance understanding of industry and the changes at all levels of the environment was identified by two of the respondents. Although there was some resistance to formal executive training, there was support for joining in alliances which would advance the progress towards a learning organisation.

Economic impact was addressed at various levels of commitment, by all firms in the interview cohort. Some saw their role as purely an economic one, for others, particularly within the wood and wood industries, there was a sense of seeking shared values, and to some extent philosophical support.

There was a perception at the commencement of the study, that small businesses in their relationships with larger firms may have a perception of vulnerability which would translate into the development of safeguards and protective controls. The

concept was addressed both quantitatively and qualitatively. Determined from the analysis was support for Australian cultural resistance to power distance that is reported by Hofstede (1980). There was a sense that the compliance was a function of the value of the alliance, rather than to prevent punitive action. This was explained by a firm from the Business and Allied industries as a need to get along at a number of levels. As the key decision-leader said, 'We have all (or most of us) lived in this area for a good part of our lives, and our families and kids have to work here. Family name is valuable, and easily lost'. This was not echoed universally, but achieved a level of support from the firm representing the 77 percent of the sample based at the smaller end of SME definition. Cooperation reflected in the initial decision to align is sometimes tested through opportunism of one of the parties. Legal action is generally available to the parties. However, no responding firm reported resorting to this action, and a number of firms reported that a great deal was done on a handshake and confirmed *post facto*.

Firms reporting having a legal arrangement generally referred to these internally to ensure they were adhering to the letter as well as the spirit of the contract. As one key decision-leader said, 'It was important that it was there, but it was not referred to except for clarification'. The contract was generally commented upon in terms of a deterrent, the threat of which was sufficient to return to agreed levels of compliance. Those seeking more structure to the relationship identified a need for the document to be more explicit in future alliances

Research Question 5. What part do power and politics play in the strategic alliance participation actions of SME owners and key decision-leaders.

Power over the immediate firm environment was generally threatened by the decision to join a strategic alliance. Whether the power is actual or perceived, respondents reported that the effective value of this power lies in its ability to drive or constrain exchanges of value within the alliance formation.

Respondents reported seeking strong networks to advise them of the reputation of the proposed alliance partner, and to gain support for the actions proposed. It was however revealed through interviews, that the key decision-leaders were in some ways aware of the particular needs of the regional environment, and their responsibilities within this region, to support local firms. Economic theorists may well believe that this recognition was based on self-interest. In fact, key decision-leaders reported this to be the case generally. However, the boundaries between self-interest and the good of a healthy industrial community appear to be somewhat blurred in some of the interviews.

Concerns of this study are centred on the successful development of strategic alliances for regional SMEs in the South West of Western Australia as a method of creating competitive advantage. With increased industry mobility, reluctant firms face the prospect of being marginalised by larger external firms able to handle significant elements of development projects. Respondents are aware of the tenuousness of their existence, and constantly seek ways to enhance their power base and secure contracts

for projects within the region. Strategic alliance is designed to enhance critical mass and thereby achieve structural efficiencies.

The challenge of intense external competition, is being accepted by firms differentially. However, when acceptance is achieved, firms will deal with environmental change with varying degrees of success. Cooperation allows firms to choose the element of the supply chain and specialise, through alliance, with similar businesses. It also permits vertical integration that presents greater resource control. The uncertainty which is endemic in transactional activity of all types is also evident in the regional business environment. This causes SMEs to respond in many different ways. Some SMEs seek symbiotic alignment based on a sense of trust, others venture into relationships at both the rival and the opponent levels, leveraging growth through increased risk and greater potential for gains. As reflected in the factor 'firm's external environment' this emerged as a highly significant variable in the full alliance use model. As is depicted in the Strategic Alliance Participation Paradigm, industry uncertainty is a significant factor in the decision-making domain of the SME key decision-leader.

SECTION FIVE: REVIEW OF THE APPROACH TAKEN

Complementary field research based on personal interviews with 14 key decision-leaders serves to reconcile the statistical findings with empirical evidence. Complementary analysis shows that personal management competencies are a factor on choosing to open the firm to external scrutiny. Accompanying the expressed fear

of opportunism, based on a tenuous hold on technological know-how, is the fear of failing to measure up in some ways to the expectations of the 'alliant'. Many of the initial fears expressed by key decision-leaders were later found by them to be groundless. They also reported generally that their skill in negotiating strategic alliance formation have been enhanced through practice with both negative and positive relationships.

Synthesis of the Data Gathering Methodologies.

Weaknesses inherent in the SME were recognised as being related to key decision-leader characteristics and also represented by close-management inefficiencies and generally weak market position, reflecting an inability to access economies of scale advantages (Morrison, 1995). These elements limited access to quality management and to financial, distribution and networking advantages available to larger firms.

Morrison (1995) addressed SME key decision-leader strategic alliance relationships among a single industry group. She indicated that perceptions are subject to the same personal characteristics as other firm related decisions. They are dependent upon factors such as the depth of embeddedness of the firm in socio-economic networks, the regional cultural norms and relevant industry contractual issues. This study has supported earlier conclusions relating to SME key decision-leader activities, suggesting that these elements exert greater pressure on decision-making than economic issues *per se* (Dickson, 1997; Weaver and Gibson, 1996; Morrison, 1995).

Using Factor Analysis, those particularly significant elements with the greatest level of impact on alliance use decisions were identified. These variables were analysed using the Wald chi-square statistic to determine the significance of their effect on the propensity of SMEs towards joining alliances. It was determined that three industry groups, industrial and commercial, food and food industries and wood and wood industries, demonstrated a marginally greater trend toward a propensity to align. These differences however, were not statistically significant. Based on scaled responses and logistic regression analysis, generally there were found to be no significant differences by industry classification. The need for cooperation to survive in the future, and to ensure the growth of the organisation also failed to emerge as a significant variable. Complementary field research based on personal interviews with key decision-leaders, serves to reconcile the statistical findings with sub-clinical evidence. The complementary analysis shows that personal management competencies are a factor in choosing to open the firm to external scrutiny. Accompanying the expressed fear of opportunism, based on a tenuous hold on technological know-how, is the fear of failing to measure up in some ways to the expectations of the alliant.

There are far reaching implications for strategic alliance participant management characteristics. The impact of management perceptions is felt in the strategic alliance structure, and dictates whether there is a strong reliance on legal controls for the alliance and whether the cooperating parties can rely on alliance partners to refrain from opportunistic actions. The impact of strategic alliances is also reflected in the members' external and internal behaviour, and the changed parameters of inter-firm

relationships. The degree of strategic maturity and the commitment to shared outcomes are strengths that have been found to enhance the relationship. Status and socio-economic stature are reflected in the type of relationship which can develop. They impact on the processes and the philosophy adopted by the parties, and in the best of relationships can enhance all firms at both the relationship level, and the normal business environment.

There should ideally be a shared perception of value adding through alliance, which reflects equity of outcome rather than 'equal' outcomes. As one key decision-leader expressed it, 'We are prepared to put in more, as we perceive the outcomes to be particularly of benefit to us, we expect that the other firm(s) will have the same attitude from time to time'.

Whereas the needs of big business are quantifiable and easily documented in these terms, literature increasingly supports other elements of payoff for participative relationships among SMEs or between SMEs and big businesses from the perspective of the SME. These 'other' outcomes relate to the needs of the key decision-leader, and the extent to which these are represented in the firm's decisions. These needs are personal to the key decision-leader, and are impacted by a number of elements in his/her earlier experiences both work and socially related. Additionally, the way of reading the environment impacts SMEs. These elements are presented in the Strategic Alliance Participation Paradigm (see Table 3.5).

Some respondents were concerned with changes that may result from familiarity. There was a perception that the loss of power over information and skills may be the result, without a full recognition of ownership. Evidence from the data collected in the South West points to the impact of latent perception of the need to secure ownership of skills and knowledge. These intangibles lack explicit and reliable measures, just as they are often based on perceptions. It was noted that the firm's key decision-leader reported interest in the formation of 'complementary product' alliances. Firms were seen to be selecting partners who compensated for their weaknesses and had their strengths in similar functional areas. They also chose firms which matched their strengths but in dissimilar functional areas, thus broadening their domain and enhancing their core functional base (Sengupta, 1991).

The study outcomes stand alone as a regional survey. Additionally, the data collection instrument has been substantially validated in the United States and in Norway. The results of this current survey are compared to the outcomes of the Norwegian study (Dickson, 1997). Benefits from this process will be seen in the enhanced ability to benchmark at source regional differences and similarities, and thereby to further enhance the value of the outcomes to scholars and practitioners.

In his study of Mexican and American managers, Rodriguez (1994) found that cultural impact of issues identified by Hofstede (1980) were evident in these relationships based on self report attitudes of the participants in the relationships between the Mexican and the American managers. These findings were supported by the analysis of the cultural perceptions of the key decision-leaders. In particular, the

large differences in the approach to decision-making of the dyad members revealed through this method, cultural differences reflecting diversity of trust, along with different levels of social and structural bonding needs of the two cultures.

Gulati (1994), writing concurrently with Rodriguez (1994) found greater emphasis on the social capital element of strategic alliance. This, he saw as a constantly changing set of firms. His study, which was based on large firms, revealed that relationship behaviours, are shaped by the availability of information about the capabilities and the reliability of potential partners. Whereas large firms potentially have, as has already been addressed strong networks with access into information sources, the SME is constrained by contacts, perceptions, skills and networking ability of the key decision-leader. Therefore, the issue of networking and market place visibility, are seen as particularly relevant.

Aligning in a cooperative relationship is considered to be an acceptable option to seventy-seven percent of SMEs responding to this survey. Reasons for participating in strategic alliances were canvassed among the interview cohort, and found to represent a number of imperatives which reflected the *persona* of the key decision-leader. Although the rationale for strategic alliance formation is well documented for large firms, the diversity of SMEs reasons for cooperation indicates a personalised decision-making process based on individual, firm, industry and environmental elements, which are in turn subject to differing key decision-leader perceptual determination, and therefore understanding. However, key decision-leaders seeking information and guidance on strategic alliance formation have little support in

literature providing guidance to the process. Furthermore, what little work there has been has only rarely includes reference to Australian regional environments or to SMEs, and no studies have been identified by the researcher which address the attitudes and behaviours of the South West regional industry through the SME decision-making process.

A major purpose of the study was to contribute to the development of understanding of the needs of SMEs key decision-leaders through a synthesised model of SME strategic alliance decision-making processes that explains the major elements potentially addressed during decision-making behaviours relating to strategic alliance formation. This model reflects the research carried out by a small group of earlier researchers, and further, empirically tests the determinants of SME key decision-leader strategic alliance behaviour.

Conclusion

Through comprehensive study of the literature concerning research into strategic alliances, the behaviour of SMEs addressed in this thesis contributes to bridging the gap between large firm and SME strategic alliance knowledge. Based on protocols for mixed methodology environmental analysis (Churchill, 1991), issues addressed reflected the research questions, and fell generally into the following categories. a) how culturally appropriate are strategic alliances for SMEs in regional Western Australia? b) are transactional cost and resource dependency theoretical boundaries appropriate for describing attitudinal and behavioural norms of SMEs in regional

Western Australia? and c) to what extent are economic and social theory models appropriate to determine SME strategic alliance attitude and behaviour relationships. Boundaries of the research area were redefined, for cross-regional analysis in the ensuing section.

SECTION SIX: INTERNATIONAL COMPARISON

The focus of this section is to view the outcomes of this study of the South West of Western Australia in the context of the Norwegian SME strategic alliance use research results (Dickson, 1997). To achieve comparable outcomes, it was necessary to seek commonality of data collection, and this was achieved through the use of a common questionnaire base, with few only regional changes. Outcome comparison was achieved at a number of levels.

The regionally specific cohorts had similarities, in that they represented SMEs based on a common definition. Further, firm access was through the principal informant process based on questionnaires completed by the key decision-leader in firms in both regions. This comparative process was supported by a common purpose in the determination of alliance use elements of the questionnaires. At this point, variations arose due to the broad approach adopted by Dickson (1997) in his analysis of data. Three models were developed from the Norwegian data, which reflected the different dimensions of the questionnaire. Conversely, the South West data collection was as in-depth, with the elements not relating directly to 'Alliance Use' being treated as general and supporting data only. The decision to approach the research in this

manner reflects the imperatives of the South West region to determine a profile of regional alliance use, and the drivers and inhibitors of this relationship. Data collection for the South West study was substantially supported through in-depth interviews with key decision-leaders from participating industry representatives. Through this process, it was possible to explore immediately the outcomes of the quantitative data, and to develop a profile of the decision-makers individually and as a group.

Data collected through the questionnaire was comparable with the Norwegian data, and is therefore able to be analysed comparatively. The single model developed to explain the South West study concentrates on the decision-making environment of the key decision-leader and incorporates the data from both questionnaire and interview sources. It also satisfies some of the further research ideas generated from the Norwegian study relating to developing a clearer picture of the elements of a key decision-leader decision to join an alliance

The regional cohorts from Australia and Norway are valuable representatives of the different cultural mix attributed by Hofstede (1980). Each country was reported as representative but not aggressively so of those cultural norms represented in this study as individualism/collectivism, power distance and uncertainty avoidance identified by Hofstede (1980).

The two studies are addressed for comparison here, on the basis of the common instrument which served the purpose of uniformly gathering data. Analysis differs in

its emphasis, and identifies the emphasis placed on hypotheses relevant to cultural and social norms inherent to the region under review. The Norwegian study was undertaken using a cohort of SMEs ranging across industries from food - with discrete data collected on the fishing industry, to electronics and computer services. The South West data collection was also undertaken from a cohort of mixed industries. However, the sample reflected the representative nature of regional business across manufacturing and non-manufacturing industries generally typical of coastal regional centres (Hine, 1997; ABS 1999). There was no 'special' category within any of the represented industries, such as the fishing industry had been in Dickson's (1997) study. In the South West, industrial and commercial machinery manufacturing, being the largest participating industry and fabrication accounted for over 27 percent of the useable returns, with a cluster of industries at the lower representation level printing, business services and allied industries had the lowest participation contributing 10 percent.

As stated by Dickson (1997) the largest industry group in the Norwegian cohort was industrial machinery at 28, percent with commercial machinery with 20 percent. The smallest group was transportation provided only 3 percent of the sample. Size of firm based on the number of employees revealed 86 percent of Norwegian firms reporting fewer than one hundred employees. The size of firms within the cohort differs considerably from the South West cohort which reports eighty-eight percent of firms with fewer than twenty employees (see Table 4.13).

Table 4.13

Comparative Characteristics

Firm Level Profile (overall)	South West	Norway
Number of usable surveys		
Firm size - Fewer than 20 employees	147	433
- Fewer than 100 employees	88 percent	83 percent
Number of firms with past or current strategic alliance experience	104 (71%)	252 (58%)
Gender of Key informant - Male	146	408
- Female	1	21
Percentage with some ownership	46 percent	46 percent
Percentage of these with majority holding	60 percent	35 percent
Number of general industries responding:	7	11
Largest representation of industries.	28 percent (Machine fabrication)	20 percent (industrial machinery)
Smallest representation of industries	10 percent (Printing and Services)	3 percent (transport equipment)

Initial comparison determines the most used alliance form was the relatively unstructured outside contracting among the Norwegian cohort, while the South West sample reported their largest representation of technology based relationships with long-term production closely following. Both samples reported alliance experience as being substantially good or extremely good. The items factor analysed in the two studies are listed below in Table 4.14.

Table 4.14**Items Factor Analysed**

Dimensions	South West Study	Norway
Attitudinal (Q12 - 18)	(Q12 - 18) 30	(Q14 - 18) 8
Environmental (Q25 - 29)	17	17
Entrepreneurial orientation (Q19 - 23)	8	8
Individualism/collectivism (Q30)	20	6

Factor analysis was performed to formulate variables for logistic regression in both studies. The dimensions for attitudinal analysis in the South West study were addressed based initially on the two items used in the Norwegian study. However, a greater level of significance was found in the South West study from incorporating all 30 items. Similarly, individualism/collectivism dimensions in the South West study reflect greater significance through the inclusion of the 20 items in analysis. The other two dimensions of environmental uncertainty (Q25 - 29), and entrepreneurial orientation (Q19 - 23) were analysed in both studies based on the same items. Supporting these results, were the factored categories identified for both groups (see Table 4.15).

Table 4.15
Summary of Hypothesis Tests

Hypothesis	Relevant Logistic Regression Variable/s	Hypothesised Direction of the Relationship	Beta Coefficient and p-value		Decision	
					South West	Norway
Hypothesis 1. Relationship between alliance use and SME attitudes to necessity of alliance for firm survival	Allnecess*	Positive	Step 2:	$\beta = -.0056$ $p = .9794$	• No relationship	• Significant positive relationship
Hypothesis 2. Relationship between alliance use and SME attitudes to large firms	Bigbus*	Positive	Step 2:	$\beta = 0.6458$ $p = .0065$	• Significant positive relationship	• Significant inverse relationship but contrary to prediction
Hypothesis 3. Relationship between alliance use and SME attitudes to growth opportunity for the firm	Growthop*	Negative	Step 2:	$\beta = .3716$ $p = .0954$	• Significant inverse relationship but contrary to prediction	n.a.
Hypothesis 4. Relationship between alliance use and SME perceptions of environmental uncertainty	Growthpo*	Positive	Step 3:	$\beta = 0.5173$ $p = .0938$	• Significant positive relationship at $p < 0.1$	• No relationship
	Envcomp* (General uncertainty)	Positive		$\beta = 0.3416$ $p = .2187$	• No relationship (supports Step 6)	• Significant positive relationship
	Techvol*	Positive		$\beta = -.2978$ $p = .2647$	• No relationship	• Significant Positive relationship
	Envuncert* (Low predictability)	Positive		$\beta = 0.4626$ $p = .0753$	• Significant positive relationship at $p < 0.1$	• Significant negative relationship
	Global*	Positive		$\beta = 0.1298$ $p = .6466$	• No relationship (support in Step 5)	• Significant positive relationship
Hypothesis 5. Relationship between Entrepreneurial/ orientation as a moderator and SME alliance use	E/O*		Steps 4-6	$\beta = 0.8999$ $p = .0126$	• Significant positive effect. Partial moderator support	• E/O not significant. Partial moderator support
Hypothesis 6. Relationship between Individualism/ collectivism as a moderator and SME alliance use	I/C*		Steps 4-6	$\beta = -0.6762$ $p = .0298$	• Significant positive effect. Contrary to Prediction Partial moderator support	• I/C not significant. Partial moderator support

Note: * These abbreviations reflect factored groups of variables created to determine logistic regression relationships

The five common hypotheses of the two studies were analysed to determine the extent of commonality between the two sample groups in respect of these concepts. The remaining South West study hypothesis, predicting a negative relationship between alliance use and SME attitudes to growth opportunity for the firm did not have a matching item in the Norwegian study. Discussion of the outcomes is based on the hypothesised direction of the South West study as demonstrated in the Summary of Hypothesis Tests (Table 4.15 on the previous page),

The studies show quite divergent outcomes to many of the hypotheses despite posited direction of outcomes that were substantially similar. Table 4.14 demonstrates that despite a posited positive relationship between alliance use and perceptions of the need for alliances for firm survival, the South West study revealed no relationship. Conversely, the Norwegian study revealed a significant positive relationship. The environmental uncertainty item relating to low environmental predictability was posited to have a positive relationship, and in this instance was found to be an accurately predicted positive for the South West cohort, while reporting a significant negative relationship in the Norwegian cohort.

The entrepreneurial orientation and individualism/collectivism moderating relationships with SME alliance use were posited in both situations to be a positive moderating effect. Results identified the entrepreneurial orientation as having a positive moderator impact, while Norwegian outcomes determined this variable as not significant, and a partial moderator only. Individualism/collectivism was determined to have a significant negative effect, and partial support only was identified for the

hypothesis. The Norwegian study determined the individualism/collectivism as not significant, and as a partial moderator to strategic alliance behaviour.

Summary

Essentially, it is posited in this thesis that inter-organisational relationships among SMEs and between SMEs and big business are, from the SME perspective, a product of the interaction of the key decision-leader and the business. It is argued that the relationship of the SME firm with its environment is a function of the key decision-leader's attitudes and perceptions. Through the data collection and analysis, support is found for the proposition that strategic alliance decisions are a product of bounded rationality, culture and political attitudes and aptitudes of the key decision-leader, within the context of the firm, industry and environmental forces. Findings supporting the elements of the SME Strategic Alliance Performance Paradigm based on this relationship based decision-making present new areas of exploration for future researchers. A problem underlying this research is the determination of which if any of the four major theoretical paradigms best explain the SME strategic alliance behaviour. Based on data from the questionnaires and the interviews, it would be reasonable to conclude, that a trend exists toward the social models. Contribution by SME key decision-leaders based on characteristics, attitudes and environmental impact significantly influences the direction of the firm in other matters.

Making choices on strategic alliance participation is dependent upon personal characteristics reflecting in firm behaviour. Support is found in this thesis for a

broader agenda for future research. This could well reflect cross discipline research which opens the strategic alliance research to the influence of power and politics in the SME industrial domain. It is anticipated that this approach could support the findings of the two studies reflected above, and enhance understanding of the trends and influences.

The primary purpose of this study has been to present a regional perspective on a theoretical model of SME-based cooperative behaviour reflecting elements of both economic and social theories. Some important implications can be drawn for SMEs in this context. Among these, the emphasis on the importance of a structure that supports cooperative relationships is to be found. These reinforce the need to be directed toward organisational strategic goals. It is essential that these goals reflect the individual traits of the key decision leaders, and the levels of opportunism or trust that can be expected within the particular social context of the cooperative relationship. Second, as each alliance form has both benefits and limitations the importance of choosing an appropriate alliance form which is capable of meeting both the needs and expectations of the SME is stressed. Finally, when due diligence is observed in choosing potential alliance partners, both social control mechanisms and economic controls can be as effective in explaining decisions, and predicting decision-making. To limit potential opportunism, it is essential that the SME determine at the earliest stage the intentions of the partner in relation to the culture, beliefs and life expectancy of the strategic alliance. Whether the relationship is ongoing or one-off depends on the culture and beliefs of the small business.

It is maintained generally, that the SMEs actively involved in strategic alliances must have compatible goals and cultures, and have a willingness to share strategic and operational information.

In the context of business, strategic alliances are, in essence, an organisational form, which integrates retained ownership with power sharing. In effect, strategic alliances extend traditional organisational boundaries in an effort to combine, integrate and leverage inter-organisational processes and resources with a synergistic outcome. While appealing theoretically, the strategic alliance has proven to be an elusive, difficult concept to execute in practice (Gibson and Wingham, 1999).

As noted in the review of literature, there is a growing body of research into corporate business alliances which cross regional and national boundaries (Horton, 1992). Among the European Community, strategic alliances were studied by Urban and Vendemini (1987) who assessed the legal, technological, organisational and commercial aspects of each of these forms of cooperation within research findings. Furthermore, of comparative interest to the Australian research, they assessed the qualitative and quantitative nature and extent of such partnerships in Germany and Italy where regional distance is not excessive, but regional difference is considerable.

Conversely, given the resistance of Australian managers to aids to the development of connections with overseas organisations reported by Ramaseshan *et al.* (1997), Australian strategic alliances have a propensity to be formed over considerable geographic distance, with minimal difference in cultural and political environment.

This current study addressed the regional imperatives, and enhanced the knowledge base for future researchers in the anticipation that this knowledge will enhance future collaborative ventures.

Throughout the study, the research emphasis progressed from an economic foundation to include social and relational elements. The early literature emphasised the transaction cost theory and the resource dependency theory, identifying the value of these economic theories to the enhanced understanding of the philosophy of opportunism, and latterly, to the changing values and the growth of social theory and behavioural research. These behaviour and perception based theories enable the relationship between the firm and the key decision-leader in an SME to be understood more clearly. They to some extent allow the cultural and philosophical mores of this person to be addressed in their role as principal influence on the SME activities relating in particular to the strategic alliance participation decisions. Quantitative measures which have been applied in earlier studies are supplemented here with in-depth interviews. Section five presented the analysis of these interviews and the benefits arising from them. The analysis of the two hemisphere outcomes provides greater understanding of the extent of the impact of key decision leader, firm, industry and environmental interdependence in the determination of SME outcomes.

Chapter Five addresses the research undertaken in this study, and discusses outcomes and recommendations. Significant elements of the study are discussed in some depth,

and supporting data presented to enhance understanding of regional South West SME strategic alliances.

CHAPTER 5

CONCLUSIONS

INTRODUCTION

This thesis has been an exploration of the relatively under-represented research area of SME strategic alliance behaviour, based on research undertaken among a variety of firms representing both manufacturing and non-manufacturing segments of the market within the South West of Western Australia. Outcomes of this study are reflected within the context of the SME strategic alliance decision-making model which depicts the expressed perception of the firm and the key decision-leader as sub-sets of each other and suggests an impact of this dichotomous relationship on the decision-making influences. This duality of relationship is supported by other findings the research of Miller (1980) and Frankel (1995) among them.

Chapter One provided an overview of the study. Through identifying the research questions and providing an understanding of why the researcher undertook to explore the research ideas, the chapter provided definitions to enhance

understanding of the issues being addressed. Chapter One also presented the rationale for undertaking the study. The advantages of emulating an earlier study were raised, as also were the limitations of utilising a small and heterogeneous population for sampling. The difficulty of determining an appropriate sample group was discussed, and the eventual reliance on the expert knowledge of the South West Development Commission was explained. The research questions to form the basis of hypothesis development were outlined.

In Chapter Two, the relevant literature on collaboration was explored, and a strategic alliance taxonomy was determined. The research hypotheses developed from the general research questions were introduced, forming the basis for the Strategic Alliance Participation Paradigm in which the processes, constraints and promoters of key decision-leader strategic alliance decisions are modelled. Formulation of the hypotheses was determined from the initial research questions, addressed through the review of literature. The approach to quantitative analysis was to some extent prescribed by the need for a robust data collection tool for comparative purposes. However, the literature provided substantial support for the selected approach, and assisted in the clarification of core research values underpinning the unique relationship between the key decision-leader and the firm. Following earlier researchers, this study explored the impact of key decision-leader relationships upon firm activities, specifically the propensity of the firm to participate in strategic alliances.

In Chapter Three, the research methodology was explored and, the research purpose and objectives were presented. Research questions identified in Chapter One were reiterated, and the underlying rationale and methodology was described. Finally, the identification of the sample was discussed within the relevant general findings. In Chapter Four the research findings are presented and provide a basis for discussion in this chapter, where these results are explored, and their reflection of the hypotheses debated.

Reflecting the methodology outlined in Chapter Three, the results of the study were documented in Chapter Four and questionnaire and interview outcomes were applied to the research questions and to the synthesised model. The cohort support for these determinations based on the posited attitude and behaviour dichotomy are also reflected in Chapter Four, based on a sampling report of regional business activities. The model reflecting the existence of drivers and constraints within the decision-making process was presented in Chapter Four. Within this Paradigm, the pivotal role of the key decision-leader is recognised, and the performance of the SME firm is represented as the outcome of the decisions and therefore the actions of the key decision-leader for discussion here in Chapter Five.

The socio-economic elements of the environmental relationships are presented as a function of the power of the individual, both perceived and actual. Power is represented within the model, and is reflected at all phases of the decision. It is evident that the key decision-leader is seminal to the philosophy of the firm and therefore to the determination of the opportunities within the domain of the firm.

The basis of this relationship is also fundamental to strategic alliance participation decisions made by the firm based on the ideological congruence with the symbionts and commensals of the firm. The decision-making process, impacts the key decision-leader, firm, industry and the environment, each in isolation, and as a combined interface of the firm with the domain. Each of the elements also impacts the way the key decision-leader thinks about the environment and her/his ability to manage for growth or to sustain life.

RESEARCH FINDINGS

In this chapter, outcomes of the study are reviewed in the context of their contribution to its objectives, and recommendations made for enhanced use of the findings, and for future research.

An opportunity presented for the researcher to enhance current knowledge of Australian SME strategic alliance activity and to assist in the future contribution of Australian data to international research through undertaking the current study. The demographics of the cohort were particularly important to this purpose, being in general terms, representative of regional diversity and industry groupings found within regional Australia (Hine, 1997). Supported by a global literature review of SMEs strategic alliance activity, this study provided outcomes for reflection against the Norwegian study by Dickson (1997) (see Chapter Four). The mixed methodology of a validated questionnaire and interviews, ensured greater depth of understanding of this vital SME element of Australian business, providing an

opportunity to pursue special issues of alliance use for clarity and depth of understanding in context of the sample environment. This approach was developed with the objective of contributing to an enhanced global relevance of Australian SME research.

The Gap in SME Strategic Alliance Research

Despite a general perception among researchers and practitioners of the gap in the research to date, a review of the documented studies of the particular area of SME research was undertaken, accompanied by a review of the research into strategic alliances. As documented in Chapter Two, the literature search was fruitful in producing support for the need for Australian research in relation to SME strategic alliance behaviour, and in the identification of the research undertaken into big business strategic alliances and the methods adopted to produce the reported outcomes. Substantial reliance on secondary data was noted among the many big business studies. There was a propensity among researchers to concentrate upon big business at the larger end of that scale, thus providing little frame of reference for studying SME behaviour either in the context of the whole, or as an isolated body, based on their methodology. It would be wrong to suggest that SMEs have none of the same determinants as big business. However, it is a contention of the researcher, based on the work of others such as Miller (1980), Birley (1985), Weaver (1992, 1997) and Dickson (1997) that while the two categories of business share some of the same needs, SMEs have unique characteristics and limitations. From the literature, it was evident that this was true from the

perspective of general SMEs behaviour. A substantial body of literature documented in Chapter Two, supports the existence of a difference between big business and SMEs (Borch and Arthur, 1995; Harrison, 1994; Bull and Winter, 1991; Castrogiovanni, 1991; Koen, 1990; Parkhe, 1989; Covin and Slevin, 1989; Doz, 1988; Auster, 1987; Birley, 1985; Brockhaus, 1982).

A gap was found in the knowledge of SMEs strategic alliance behaviour, and in particular the social or mixed socio-economic strength and impact of strategic alliance participation drivers. Fundamental to the problem created by this gap was the lack of empirical data, and the failure of many researchers to apply mixed methodological data collection to explore qualitatively the questions raised quantitatively. Support was therefore found for undertaking this study, and from the literature, research hypotheses were developed.

Chapter Four described the research conclusions, and based on the structure of the thesis, explored these to identify their implications, through the development of Strategic Alliance Participation Paradigm. This model provides a synthesis of the outcomes of the research and underpins the discussion of the implications as the conclusions of the current study. The model has potential to affect understanding of the elements impacting on decision-making. Decisions are made by the key decision-leader, in the context of self as firm, the industry and the environment, reflecting the interaction of the power and politics of these relationships in strategic alliance formation. The hypotheses reflect the initiating research

questions, and provide insight into the key decision-leader cohort perceptions, potential and actual behaviour.

This section presents a discussion of the the results of the hypothesis testing in the context of literature, and the in-depth interviews. As discussed earlier, all Hypotheses are expressed in the Null and the alternative format. In general, hypotheses 1 and 2 being directly concerned with the impact of key decision-leader attitudes and perceptions on strategic alliance participation, reflecting earlier research. In line with literature (Toffler, 1998; Weaver, 1997) two attitudinal elements were specifically of interest, attitude towards alliance use for firm survival, and attitude towards relationships with larger firms. According to the literature, the breaking down of global barriers and the technological volatility of the age are currently, and potentially, accelerating. Changes will be needed to accommodate differences in business processes, and to this end synergy is seen by the researcher to be a necessary approach to managing future change. The following hypotheses were presented reflecting questions of future dependency.

Null Hypothesis 1.1 There is no connection between the strategic alliance activity of the firm and the SME leader attitudes towards the necessity of alliance for firm survival.

Alternative 1.2 Alliance use is positively associated with SME leader attitudes towards the necessity of alliance for firm survival.

The null hypothesis 1.1, predicted no linear relationship between the dependent variable - attitude towards the necessity for alliance - and the independent variable incidence of strategic alliance. The alternative hypothesis proposed that alliance use would be positively associated with SME leader attitudes towards the necessity of alliance for firm survival. The association between alliance use and the SME leader attitudes towards the necessity of alliance for firm survival was tested using logistic regression analysis.

Hypothesis 1 was tested on the data set of 147 firms based on a one tailed Wald Chi-Square statistic at the .05 level of significance, reflecting a predicted positive association between the incidence of strategic alliance formation and SME leader attitudes towards the necessity of alliance for firm survival. However, with the Wald statistic for the 'alliance necessity' factor presenting as not significant, the null hypothesis stating no relationship between alliance use and SME attitude towards the necessity of alliance for firm survival could not be rejected. That is, there exists no support for the belief of a positive association between these variables. Conversely, the β coefficient on this variable actually suggested a negative but not significant association, though the coefficient does become positive in subsequent steps of the analysis. In this, the results support findings of Ellram (1990) and Ghemawat *et al.* (1986). From the perspective of the interview cohort, in the initial stages of change, it is considered expedient to wait to see the impact of the change. For this reason, the researcher believes it to be appropriate to undertake a longitudinal study based on this research, to further explore the

impact of elements, and specifically, the perceived delays, to determine the lag and lead behaviours of SMEs.

Much of the SME literature (see, for example, Curren and Storey, 1993; Townroe, 1991, and to a greater extent, Hofstede, 1980) has indicated a level of wariness among smaller firms when dealing with big business (larger firms). These perceptions are explored in Hypothesis 2.

Null Hypothesis 2.1 There is no relationship between strategic alliance incidence and key decision-leader attitudes toward relationships with larger firms.

Alternative 2.2 Alliance use will be positively associated with SME leader attitudes towards relationships with larger firms.

The Null Hypothesis 2.1, which predicted no linear relationship between the dependent variable - incidence of strategic alliance, and the independent variable - attitudes towards relationships with larger firms, was tested using logistic regression analysis. The alternative hypothesis proposed a positive relationship between the alliance use and SME leader's attitude towards relationships with larger firms, that is, the more positive the key decision-leader's attitude towards relationships with larger firms, the more likely the firm is to form alliances. Hypothesis 2 was tested on the entire data set of 147 firms using a one tailed Wald Chi-Square statistic.

Findings did not produce significant support for Hypothesis 2.1. Conversely, a positive relationship between alliance use and the decision-leader's attitudes towards larger firms, is significant at the $p = .05$ level, consequently the alternative Hypothesis 2.2 is supported in the quantitative analysis as it is in the interview responses.

Hypothesis 3 addresses the attitudinal variable relating to growth opportunities of the firm, subjected to a process of Wald Chi-square analysis. Within the context of the literature, the opportunities for strong growth, was reported to be negatively related to cooperative behaviour (Williamson, 1975, 1981; Ouchi, 1990). The following hypotheses were developed testing the impact of growth potential.

Null Hypothesis 3.1 There is no relationship between strategic alliance activity of the firm and the SME leader perception of the opportunities for strong growth and profits for the firm.

Alternative 3.2 Alliance use will be negatively associated with SME leader perceptions regarding opportunities for strong growth and profits for the firm.

Hypothesis 3 was tested based on the entire data set of 147 firms. The hypothesis is not supported as the beta coefficient had a p-value less than 0.1, but contrary to prediction, reported as a positive not a negative relationship. Thus testing of the relationship between alliance use and SME leader perceptions of strong growth and profit opportunities in the firm resulted in the Null Hypothesis could not being

rejected. This result does not support earlier findings in the literature. The alternative hypothesis proposed a negative relationship between these two variables, that is, viewed from an individual perspective, opportunities for firm growth were seen as enhancing opportunities for individual achievement in business. The position determined by MacMillan (1972) as a situation of enhanced power presented dangers inherent in taking on a partner. There may be less than enthusiastic support for sharing the profits seen to emanate from the individual firm's level of power and profit. At a time of strong growth, propensity toward cooperation would turn on the ability of the firm to retain the benefits of an upswing in the firm's position. The benefits of sharing would not appear to be great.

Null Hypothesis 4.1 There is no relationship between alliance use and the environmental uncertainty factors.

Alternative 4.2 There is a positive relationship between alliance use and:

- (i) General environmental uncertainty/competitiveness;
(Not significant at step 3)
- (ii) Technological volatility and demand;
(Determined not to be significant)
- (iii) Global marketing
(Determined not to be not significant)
- (iv) Growth potential
(Found to be significant at the $p < .1$ level)
- (v) Low predictability of customer demands/competitor actions
(Determined as significant at ($p < 0.1$)).

The Null Hypothesis 4.1 which predicted no relationship between the dependent variable - incidence of strategic alliance, and the independent variable - key decision-leader's perceptions of environmental uncertainty - was tested, reflecting environmental uncertainty factors identified through factor analysis of the variables. The five environmental uncertainty variable coefficients as a block were found to have a significant Chi-square value ($p < 0.05$) indicating that in combination, they have a significant effect on alliance use. This therefore suggests support for the alternative hypothesis which proposed a significant relationship between the key decision-leader's perceptions of environmental uncertainty and alliance use.

Through the use of the responses of all 147 firms, Hypothesis 4 was tested for individual environmental uncertainty variables based on a Wald Chi-square statistical test. (i) General uncertainty/competitiveness; was found not to be significant at Step 3. This was supported in the literature. (ii) Technological volatility and demand; was not found to affect alliance use, determined as having a negative but not significant beta coefficient in analysis. Technological volatility and the resulting uncertainty were found to be negatively related to the propensity for strategic alliance formation. (iii) Global markets; were not found to be significant, although the literature from Europe, the USA and Asia tend to reflect positive relationships between alliance use and global market activity (Horton, 1992; Hui, 1990). However, literature indicates a reluctance among Australian SMEs to enter strategic alliance relationships (Volery *et al.*, 1998; Mazzerol *et al.*, 1998). Growth potential was reported as significant at the ten percent level of significance. This result was weakly indicative of a trend among SMEs toward cooperation to defray

the potential negative impact of exponential change which accompanies industry and environmental growth. v) low predictability of customer demands/competitor actions; was found to be significant at the $p < 0.1$ level. Over all, these results provide partial support for Hypothesis 4.2, indicating that SME key decision-leader perceptions of different sources of environmental uncertainty influence their decision to form alliances.

Moderating Variables

Individually, the entrepreneurial and individualism/collectivism orientations emerged in analysis as significant moderators at the five percent level of significance. It was indicated based on Wald Chi-square Statistics, that both variables have a direct effect on the model's outcome variable; entrepreneurial orientation having a significant positive effect and individualism/collectivism having a significant negative effect.

Although all model parameters that is, the overall hit rate and the Pseudo R^2 values improve during the analytical process, when interaction of the moderating variables with the five perceived environmental uncertainty measures is introduced, elements of environmental uncertainty are significant. This interaction suggests that the decision-leader's individualism/collectivism impacts the choice of alliance use in relationship to her/his perception of potential for profit and growth within the industry. With the full range of moderating relationships included, the results suggest that two-way interactions growth-potential with individualism/collectivism, and

global markets and individualism/collectivism, are significant. Introduction of three way interactions identifies the moderating effect of individualism/collectivism on the relationships between growth potential and alliance use as significant at the 5 percent level; the moderating effect of individualism/collectivism on general environment significant at the 10 percent level. Environmental competitiveness and entrepreneurial orientation with individualism/collectivism, is not quite significant but warrants reporting (with a significance level of $p=0.1$).

Entrepreneurial orientation of SMEs key decision-leaders has been studied extensively in the past two decades. Based on the general findings of the literature, Hypothesis 5 posited a relationship between entrepreneurial orientation, and alliance use.

Null Hypothesis 5.1 The entrepreneurial orientation of the SME's key decision-leader has no moderating effect on alliance use by firm.

Alternative 5.2 The entrepreneurial orientation of an SME's key decision-leader has a positive moderating effect on the firm's propensity to general alliance use.

It is considered to be appropriate to carry out studies reflecting the determinants of alliance formation based on attitudes. In particular, SMEs which are acknowledged to represent the attitudes of the key decision-leader in the actions of the firm, are particularly vulnerable to this influence. This was one of the cultural dimensions

identified by Hofstede (1980, 1984a, 1984b), and supported by other researchers among which are Shane (1992, 1993); and Wagner (1995); Gordon, (1995).

Based on the logistic regression model, the moderating effect of this dimension was tested. Under the null hypothesis, no moderating effect for entrepreneurial orientation was proposed. The alternative hypothesis was partially supported, with there being a ($p < 0.05$) level of significance for the entrepreneurial orientation of the key decision-leader as a moderating variable having a direct influence on the dependent variable, incidence of strategic alliance. No two-way or three-way interactions of entrepreneurial orientation with the various environmental uncertainty factors however were significant.

The final hypothesis addresses the individualist 'key decision-leader characteristics' identified in the Strategic Alliance Participation Paradigm. There is general acceptance of the differing approaches taken by individualist/collectivist individuals. Hypothesis 6 measures this moderating dimension.

Null Hypothesis 6.1 The individualism/collectivism orientation of an SME's key decision-leader has no moderating effect on the firm's propensity to form alliances.

Alternative 6.2 The individualism/collectivism orientation of an SME's key decision-leader has a positive moderating effect on the firm's propensity to form alliances.

The alternative hypothesis proposed that individualism/collectivism orientation of the SME's key decision-leader would have a positive moderating effect on the relationship between environmental uncertainty and alliance use. The moderating effect of this dimension was tested using logistic regression analysis. Hypothesis 6 was tested on the entire data set of 147 firms using a one tailed Wald Chi-Square statistic. Individualism/collectivism had a significant negative β coefficient value as an individual moderating factor, indicating an inverse impact directly on alliance use by firms. However, there is a significant positive higher order moderating effect in its interaction with growth potential on alliance use at the ($p < .05$) level along with a significant higher order positive interaction with environmental uncertainty /competitiveness ($p < 0.1$) and global uncertainty ($p < 0.1$). The significance of these interactions indicate that the relationship between alliance use and these independent variables is stronger for more collectivist key decision-leaders. The literature reflects this perception. Hofstede (1980) identifies elements of a collectivist philosophy within such concepts as working together, group benefits which are reflected in the collectivist cohort. These overall results provide partial support for Hypothesis 6.2.

Control Variables

As one of the control variables, the financial strength of the SME was found to be significantly negatively related to the use of alliances. This indicates that the greater the financial strength of the firm, the lower the propensity for strategic alliance use. Similarly, managerial resources had a significant positive relationship

with the propensity to form alliances at all levels of the analysis. While, industrial and commercial machinery manufacture and fabrication (82.5 percent), food and food industries (81.3 percent), and wood and wood industries (70.6 percent) reported a marginally higher propensity to use alliances than construction, building and building supplies manufacture, printing, business services and allied industries, also than chemical production and mining, a cross tabulation of this propensity revealed a Pearson chi-square two sided p-value of .372, indicating that no industry groups are more likely *ceteris paribus* than others to join in a strategic alliance. The industry of the SME, included as a measure of the objective environment of the firm, was not found to be significant at any step of the regression analysis. There is no significant industry representation of firms with a greater propensity to align.

Quantitative results were supported by an industry representative personal interview with almost 9.5 percent (n=14) of SME key decision-leaders. This approach provided a measure of the significance of these issues to key decision-leaders and thereby to SMEs.

Details of the industry environment were sought from the representatives, and the impacts of the defined levels of uncertainty, risk and ambiguity, all identified as significant issues in the previous section, were explored. The individual attitudes of the interviewee regarding opening the firm to scrutiny of either symbionts or commensals identified some special concerns regarding opportunistic behaviour and trust. This was very much in line with the literature, and reflected issues

which were also identified in the Norwegian study (Dickson, 1997) (see Chapter Four, Section Six).

First among the issues considered was the purpose of the alliance, and key decision-leader reasons for seeking to participate with others. The stated outcome sought was generally one or several from among the following posited benefits: expanded markets, respondents sought to enhance market penetration, and to ensure a personally acceptable level of work through cooperative endeavour. Critical mass, provided the major projects with an integrated approach to the segments of the contract, based on cooperation, and enhanced contractual benefits. Economic or social pressures were reported as a positive outcome by firms achieving higher than previous levels of local acceptance among the business community as a result of alliance, and thereby becoming a part of the decision, or at the very least hearing about opportunities earlier. A further issue addressed through the interviews was the description and the force of the drivers toward alliance formation. Specifically, the personal decision-making approaches taken, and the needs being fulfilled by the alliances were investigated. Subsequently in the development of alliances, the constraints that present most frequently in the process were explored. There was a need to identify whether key decision-leader would report awareness of the extent of this symbiotic relationship. In line with the claims identified in the earlier chapters it was evident throughout the interviews that key decision-leaders recognised the pivotal role they played in their organisations and the impact of their attitudes and limitations on the decisions

made. Key decision-leaders repeatedly affirmed their position as the 'brain' and the SME as the 'organism' (Miller 1983),

The value of having access to the interview group for an extended and open interview, was that it allowed the researcher to develop profiles of the industry and the organisation based on the key decision-leader's own description of these, and in response to the questions outlined above. This process permitted the interviewer to draw information from the participants to clarify issues, and consider trends that presented in the questionnaire responses. Information provided this way also explained some trends of key decision-leader toward positive alliance perceptions reported.

Data gathered from the interviews are represented in the SME Strategic Alliance Participation Paradigm presented in Chapter Four. The Strategic Alliance Participation Paradigm grew from the issues identified in Frankel (1995) and Dickson (1997) models, and is based on the Wingham and Newby Schema (1993). This Strategic Alliance Participation Paradigm also allows for recognition of the impact of power and politics in and reflecting the impact of the interaction of the key decision-leader with the power and politics of extra-organisational relationship building (MacMillan, 1972). The paradigm evolved through the analysis of data from self-administered questionnaire based on the documented contribution of earlier researchers. Each interview respondent was asked to self identify the profile of their SME. They were also required to identify the quality of the industry environment in the context of the model dimensions. Supporting this

information was an analysis of the category of their commensal/symbiotic relationships current and potential for their growth. These data were consolidated with quantitative data, and a profile of the relationships was developed. These are presented in the combined results of the study.

There was considerable support among the interviewed key decision-leaders for the benefits from the survey, identifying the extent of the need for equitable unbiased quasi government advice. The studies undertaken by Curren and Storey (1993) and Townroe, (1991) developed a profile of regional SMEs seeking advice from outside the region, in just this manner. However, greater clarity, was possible through descriptions of such events as opening up the ledger to clients who are now potential collaborators.

Of particular interest to the researcher was the protectionism demonstrated by many of the key decision-leaders. The sense was that work in the region should be retained for local firms. In general, firms which did not 'fear big business' were as prone to fearing incursion from outside the region. They also expressed concern that in particular, incoming construction firms would have both the power and the intention to take new contracts and remain in the region to seek a part of the market for current contract renewals. Although many of the key decision-leaders saw value in shared capital costs and research and development, particularly in the fabrication firms. They also expressed considerable concern at the prospect of opportunism; that is the propensity of the partner to operate in breach of the agreement between the parties, to achieve an explicit personal advantage for her or

his firm. The action can be small or devastatingly large, the criteria for action to be defined as opportunistic, is that it is performed in contravention of either or both the letter and the spirit of the relationship. Also, at a power/relationship level, some element of concern about sharing technological breakthroughs and management skills was expressed given the difficulty of establishing ownership of a process and or a system.

There was acceptance at a general level of the need for alliance formation, which was accompanied by a trend toward protecting their firms from external opportunism. While the opportunism of others was one cause of concern among respondents, and was seen by most as a potential threat, a single respondent admitted having sought to retaliate against this action through breaking the agreement and acting opportunistically. In that particular instance, neither firm benefited, the client taking the opportunity to seek alternative supply rather than extending the contract. The firm concerned, remains unconvinced regarding strategic alliances.

Summary

Interviews were used to establish the face validity of the framework, and significant information was obtained through the process of interviews. These were aimed at encouraging participants to talk freely about their experiences of strategic alliances and the levels of trust, forbearance, innovation and individualism they recognised in their own dealings and those of the alliance partner. Throughout the interviews, respondents were contributing to the development of a profile of

SMEs based on the research questions, and their attitudes toward strategic alliance participation hypothesised in this study.

REVIEW OF THE APPROACH TAKEN

Complementary field research based on personal interviews with 14 key decision-leaders serves to reconcile the statistical findings with empirical evidence. Accompanying the expressed fear of opportunism, based on a tenuous hold on technological know-how, is the fear of failing to measure up in some ways to the expectations of the 'alliant'. Many of the initial fears expressed by key decision-leaders were later found by them to be groundless. They also reported generally that their skill in negotiating strategic alliance formation have been enhanced through practice with both successful and non-compliant relationships.

Synthesis of the Data Gathering Methodologies.

Weaknesses inherent in the SME were recognised as being related to key decision-leader characteristics and also represented by close-management inefficiencies and generally weak market position, reflecting an inability or unwillingness to access economies of scale advantages (Weaver *et al.*, 1997, 1994; Morrison, 1995). Morrison (1995) addressed SME key decision-leader strategic alliance relationships among a single industry group. She indicated that perceptions are subject to the same personal characteristics as other firm related decisions. They are dependent upon factors such as the depth of embeddedness of the firm in

socio-economic networks, the regional cultural norms and relevant industry contractual issues. Her study has supported earlier conclusions relating to SME key decision-leader activities, suggesting that these elements exert greater pressure on decision-making than economic issues *per se* (Dickson, 1997; Weaver and Gibson, 1996; Morrison, 1995).

Reductive elements of factor analysis used to identify those elements with the greatest level of impact on decisions, identified particularly salient variables. These were analysed using logistic regression techniques employing the Wald Chi square statistic to determine the significance of the effect of these variables on the propensity towards joining alliances. It was determined that three industry groups, Industrial and Commercial, Food and Food Industries and Wood and Wood Industries, demonstrated a marginally greater trend toward a propensity to align. However, these differences were not statistically significant, based on an analysis of β coefficients for industry classification in the logistic regression equations. The need for cooperation to survive in the future, and to ensure the growth of the organisation also failed to emerge as a significant variable. Complementary field research based on personal interviews with key decision-leaders, serves to reconcile the statistical findings with sub-clinical evidence. The complementary analysis shows that personal management competencies are a factor in choosing to open the firm to external scrutiny. Accompanying the expressed fear of opportunism, based on a tenuous hold on technological know-how, is the fear of failing to measure up in some ways to the expectations of the alliant.

There are far reaching implications for strategic alliance participant management characteristics. The impact of these is felt in the strategic alliance structure, which dictates whether there is a strong reliance on legal controls of the alliance behaviour. It is also felt in the formulation of the strategies that determine whether the cooperating elements can speak in true unison and depend on the non-opportunistic actions of the partner(s). The impact is also felt among other elements which reflect in the members' external and internal behaviour, and the changed parameters of inter-firm relationships. The degree of strategic maturity and the commitment to shared outcomes are strengths that have been found to enhance the relationship (Weaver *et al.*, 1992, 1994, 1995, 1997; Dickson, 1997). Status and socio-economic stature are reflected in the type of relationship which can develop as SMEs seek to maximise their business profile by choosing firms with high levels of visibility. Against this type of relationship, the key decision-leader must weigh the potential cost of loss of power (MacMillan, 1972). They impact on the processes and the philosophy adopted by the parties, and in the best of relationships can enhance all firms at both the relationship level, and the normal business environment. Along with the power balance which is a reflection of the personal perceptions of the key decision-leader, is the value from the relationship.

There should be ideally a shared perception of value adding through alliance, which reflects equity of outcome rather than 'equal' outcomes. As one key decision-leader expressed it, 'We are prepared to put in more, as we perceive the outcomes to be particularly of benefit to us, we expect that the other firm(s) will have the same attitude from time to time'.

Needs of big business are quantifiable and easily documented in these terms. However, literature increasingly supports other benefits from participative relationships among SMEs or between SMEs and big businesses from the perspective of the SME. These 'other' outcomes relate to the needs of the key decision-leader, and the extent to which these are represented in firm decisions. These needs are personal to the key decision-leader, and are impacted by a number of elements in his/her earlier experiences both work and socially related. Additionally, the environmental impacts on SMEs is a function of the strength of the firm, and that of the key decision-leader based on power and perceived levels of power over the firm, the industry, and the environment. These elements are presented in the Strategic Alliance Participation Paradigm (see Figure 3.3).

Some respondents were concerned with changes that may result from familiarity. There was a perception that the losses of power over information and skills and intellectual property. This latter item was identified by Kohn (1991) intellectual property infringement was found to be an issue in the sample of both large firms and SMEs. However, intellectual property infringement protection was significantly under-utilised by the SMEs. She determined that may be the result, without a full recognition of ownership. Evidence from the data collected in the South West points to the impact of latent fear of opportunistic behaviour which generally lack explicit and reliable measures, just as they are often based on perceptions. It was noted that the firms' key decision-leaders reported interest in the formation of 'complementary product' alliances. Firms are reporting selecting

partners who compensate for their own weaknesses and have strengths in similar functional areas. They also choose firms which match their strengths, but in dissimilar functional areas, thus broadening their domain and enhancing their core functional base (Sengupta, 1991).

CONCLUSIONS

This research has seen the exploration of SME strategic alliance attitudes and behaviour in regional Western Australia. The principal aim of the research was to provide a better understanding of regional strategic alliance activity, and this chapter addresses the conclusions and the implications arising from the study. The discussion of regional imperatives commences with a discussion of the research conclusions as these affect the practitioner, followed by a discussion of the implications for academics and public policy makers.

The form and application of the General Alliance Model and the amended SME Model have been considered from a number of different perspectives. First, each was discussed in the light of the economic theories, and their contribution to the improved understanding of the attitudes and behaviours underpinning SME strategic alliance formation noted ; second, a further perspective was created with the impact of the power and political model (MacMillan, 1972) naming relationships and identifying the impact of each symbiont or commensal on the propensity to join alliances.

The SME strategic alliance exhibits a number of differences creating a unique cooperative environment which is in several ways unlike the alliance formed by its larger competitor. These differences have been addressed in the research questions. SME alliances, regardless of size do however, exhibit some needs which are common to all alliance participants, although, clearly the larger organisation will have greater power, and be better able to defend itself against opportunism. The result for both larger and smaller organisations will generally be the same, and a financial loss and a break in organisational momentum will result from a failed alliance. These are two things few businesses can afford to have happen. Big business will generally seek to insure against losses acquired in this manner, and may also impose punitive costs on the partner. Due to cost and skills constraints, punitive action is not generally available to the SME, and other approaches are explored, aiming at securing 'safe' alliance partners, through enhancing the level of trust in the relationship.

This research has found that each of the represented industries is involved to some extent in cooperative relationships. Although, researchers vary in their perceptions as to whether this level of cooperation is increasing or not, it was maintained by Horton (1992) that secondary data obtained from media sources was reliant for representativeness on the philosophy of the person or the body undertaking the data collection. Inclusion in a media strategic alliance data-set was a function, to a large extent, of the source of the data being analysed. Horton found that news media from differing continents presented alliance data in a biased

manner. She maintained that media sources collected data selectively, potentially omitting SMEs altogether.

Horton (1992) maintained, based on a comprehensive global news media study, that some industry types, such as computer/semi-conductor/electronic groups, along with aerospace, have a comparatively high propensity to align. These groups have an innately high research and development and setup cost and a technologically volatile environment. Collaboration among these firms was found to be a way of reducing exposure (Auster, 1990).

In support of this perception, alliance has also been found to take place more often in market economies. Horton (1992), Auster (1990), and researchers of the stature of Birley (1985) identified a number of critical findings about the propensity of alliances to fail. Although failure in and of itself is outside the scope of this research, these issues can be read as warnings by the SMEs intending to enter alliances. Horton (1992) maintains that despite being a favoured type of relationship, joint ventures are the legal form most likely to fail.

South West SMEs contemplating strategic alliance are generally directing their attention within the regional locality of the firm. Alliances are also likely to have been formulated informally, with minimal legal reference. However, some firms interviewed indicated an earlier access to legal advice would be sought if future ventures into strategic alliance were contemplated. To date, the relationships are formalised on a 'handshake'. The alliances reported generally, are big business

based, and often reliant upon legal imperatives. As identified earlier, in both the Australian questionnaire pilot and South West studies, there was identified a propensity among SMEs to participate in less structured forms of alliance, and the forms of alliance which are unlikely to result in the development of third party entity.

The findings of this current research related to strategic alliance formation behaviour of SMEs, have identified a number of issues which support the need for care in undertaking this form of business. The perception of participants that there is a strong relationship between the key decision-maker characteristics as defined in the Strategic Alliance Participation Paradigm, and the propensity to join strategic alliances was also reiterated. Researchers are increasingly identifying the need for the development of trust in the formation of the strategic alliance relationship. Frankel (1995) describes this as one of the four 'building blocks' of strategic alliance development and maintenance of long term alliance relationship. In this, he is supported by Dickson (1997); Morrison (1995); and Weaver *et al.* (1994), and to a limited extent by Williamson (1991) who acknowledged a role for non-opportunistic behaviour. The significant value of these four elements is their contribution to the achievement of initial alliance success, enabling alliance partners to develop a set of activities, perspectives and skills that focus primarily on current capabilities and needs. These elements are of particular interest to the current study which concentrated on promoters and inhibitors for SMEs with the option of strategic alliance participation.

The four requirements supported by Frankel (1995) are firstly, an understanding the influence of previous business relationship history. This element was found in the current study to be important as the network of information and knowledge at a social and industry level provides support for cooperative decisions. This element was found to significantly influence at the 95 percent level the perceived potential value of the strategic alliance. There is a key decision-leader perception that a balance needs to be maintained to ensure personal and business activities are seen to have high levels of congruity. Frankel's (1995) second requirement related to the key decision-leader's ability to recognise benefits expected from the alliance and to sustain a level of forbearance in achieving these. This was supported by the current research, being proposed in the interviews as an important element of managing the relationship formation and maintenance.

SMEs reported being satisfied when they received equity of outcomes, and did not in general seek equality of outcomes. The benefits to the partners may or may not be equal. What is essential to the life of the alliance, is that the parties have an equal or a sufficient commitment to the formation and the continuation of the alliance based on mutual satisfaction and forbearance. Across the literature, Morrison (1995), Larson (1992) and Harrigan (1985) determined that the commitment of the firm to a strategic alliance must emanate from the CEO key decision-maker who is aware of the cost and the outcomes of the venture. The sample cohort generally reported progressing toward a sense of trust, and a perception that their partner may forebear. However, a single 'poor' experience was sufficient to reinforce the old opportunistic market force based relationships

with reluctance to become involved in future alliances. Frankel determined further, that strategic alliances need to be based on a high level of trust, which grows from some of the relationships may be character-based reflecting the philosophy or organisational culture of the partner; or, competence-based, trust which is built upon the behaviour and operating competence of the partner.

Although trust is strategically intangible, it is an intuitive response that may cause a relationship to grow, and reflects a willingness to refrain from opportunistic behaviour. Trust in a strategic alliance relationship reflecting in the actions which enhance the relationship and promote further interaction over time has been reported in the current study. Trust was reported as being perceived as resulting from deliberate acts of forbearance and failure to act opportunistically. It was noted that simply failing to undertake undermining action against the strategic alliance was not a basis for growth of trust. The event was more specific, and related generally to the active forbearance and the deliberate refusal to undertake opportunistic behaviours. Frankel's (1995) fourth dimension of strategic alliance related to the building 'block' of SMEs strategic alliance referring to the development of a culture which encourages the firms to utilise organisational learning. The two are inherently mutually supportive, and conversely have potential to destroy the alliance. Initially as the parties learn and grow in the skills and the activities which originally drew them together, there may be a pressure to use this knowledge opportunistically, and break with the partner taking critical skills away from the alliance. Incidents were reported in which the key decision-leader appreciated the opportunity to learn, and the organisations reported

synergy in the preparation for more complex contracts over the extended life of the alliance. However, these alliance participants reported an unexpected level of trust, other alliances have not been as successful. The propensity towards organisational learning is reported particularly among firms experiencing 'big business' cooperative relationships. Learning was described firstly as the one way passage of information from the big business to the SME. However, in general, this was followed by an exchange of knowledge. During the initial stages, the SME key decision-leader reported the need for a deliberate seeking of information, and the encouragement of staff to become actively open to the messages and the knowledge available to them in the relationship. Once 'permission' was given to staff to learn from the cooperative partner and the relationship in general, staff were able to develop filtering systems and were not generally sidetracked.

In the course of the firm-to-firm interactive relationship, the key decision-leader and by definition, the organisation seeks to manage the relationship (Wingham and Kelmar, 1992). Initially, the firm will seek to defend a domain (MacMillan, 1972 p. 54) and this will be achieved through one or a number of strategies. MacMillan (1972) suggests that manipulation - changing the others perception and causing them to promote the idea to achieve 'ego-oriented' (individualistic) outcomes. This propensity was explored within the questionnaire and the industry cohort interviews. It was determined, that the key decision-leader may be accommodating, based on 'other oriented' power (collectivism). Making the conditions individually beneficial is one way of using power which is characterised

by MacMillan (1972, p. 65) 'as the capacity of an individual to use coercion and inducement to manipulate the situation to his own ends'. This pre-supposes that the key decision-leader has access to these skills, it also assumes that these can be used in a diversity of environments where the key decision-leader sees benefit to the firm. Clearly many of the respondents to the questionnaire while recognising the need to be assertive in some situations lacked the skill and the political ability to benefit the firm from their actions. They did not enjoy this level of power or conversely, they had, but did not recognise their power. Either way, the net outcome was similar, they felt threatened by the 'perceived' lack of power and were tempted to act opportunistically to defend their position.

Naturally, power on its own is insufficient to affect change, the issue which influences outcomes is the operation of power or power capability which is a function of power and influence (MacMillan, 1972). This ultimately in the political chain, is a major contributing factor to the negotiation and the management of alliances. The Strategic Alliance Participation Paradigm is formulated on the ability of the key decision-leader to operate in the environment. However, as a basic tenet of the model is the understanding that the perceptions and the characteristics of the key decision-leader are reflected in firm behaviour.

Reflecting the economic rationalist theory of resource dependency and transaction cost, the bases of power, and their use are identified as the possession of power resource. This resource is seen in the South West cohort as skills and scarce energy inputs; the control of alternatives. Often this naive relationship leads to the development of a positive correlation of the greater level of compliance to the

increasing level of dependency (MacMillan, 1972, p. 65). This is a situation which presents resource dependent industry. Rational opinion would maintain that there would be a point at which despite the level of authority, the opportunity cost of non-compliance would optimise, where influence based power exerted over others to achieve outcomes that may or may not be inequitable, but is accepted (MacMillan, 1972). This would suggest that opportunism *per se* is not beyond the dependent firm, simply that opportunism is perhaps reduced when the imbalance in power over resources and reserves causes fear of significant disruption to the partner firm. In its essence, the description of the strategic alliance imperatives presented here reflect the elemental role of the Strategic Alliance Participation Paradigm in defining the decision-making impact of the key decision-leader, and support the objectives of transaction cost and resource dependency theories. Blau (1935, p. 298) argued that the availability of resources is a prime determinant of power in a given situation.

This economic power is a reflection of the power possessed in a task environment in which symbionts are members of the organisation's domain, and commensals are competing against the organisation for the support of a given domain. The decision to act on the basis of manipulation will be a function of the outcome in the context of bounded rationality. Power is perceived differently by the actors in any system; by the symbionts or suppliers and customers, defined as those systems possessing the economic/social input required by the system for survival; and, commensals, or competitors described in this and earlier studies as those systems competing with the organisation. MacMillan (1972) determined that ascendancy

will generally depend upon the political capability of the organisation, or the capacity of the organisation to further its own ends through the judicious application of power to develop a domain in which symbionts support the firm's survival.

Members of the South West interview group reported room for a relationship to develop between a firm and symbionts and a commensal with a congruent ideology, seen as a competitor with understanding of the need to cooperate to achieve the desired level of power over the domain. However, difficulties were expressed with the role for individual and collective forms of negotiation, each of which reflects a level and a type of power. Based on relationships represented within a stylised cluster featuring levels of cooperation from the individual one-off agreement through to the establishment of a vested entity (see Figure 2.2). It was agreed generally that the free flow of the relationship was necessary through the appropriate 'boundary spanning' activities (Thompson 1963) in each level of the alliance.

Of particular concern are the level of environmental uncertainty and entrepreneurial orientation, a particular element within the study of SME strategic alliance behaviour. The extent of the heterogeneity of the environment, and the relative power of the parties to the relationship are essential elements in the development of a relationship exchange with another 'firm'. Given the bounded rationality of the key decision-leader of the 'firm', there will always be risks associated with relationships. These risks are reported in the study as creating

greater impact where there is less than concrete agreement on the separateness of the entities and the parameters within which they liaise to achieve profit and market position.

In this study the broad conceptual framework of the general alliance model was used to develop a schema which took political elements of the SME strategic alliance strategy into account. This approach follows MacMillan's (1972, p. 327) view that the behaviour of human beings has an inescapable political component which is characteristic of the behaviour that takes place in the firm, and between the firm and its environment

Based on MacMillan's comment, 'it is pointless for the firm to strive for its objectives independently if there are allies willing and able to help it' (1972, p306). It was proposed that South West SME's required firstly to recognise the potential benefits to be achieved through participation in strategic alliances, and then, to develop skills in formulating these relationships. These areas of knowledge are vital in bargaining for strategic alliance development, as the 'political' capability of the firm itself constitutes the bargaining base of the firm in subsequent negotiations with potential strategic alliance partners, and with policy-makers. Through the research process and outcomes of this study, it is evident that the paradigm has potential to provide a link between actors in the strategic alliance relationship, by identifying the influences on decisions.

For academic research, practitioners and public policy-makers who may address the SME strategic alliance issues in the future these elements are important guides to enhanced levels of strategic alliance formation, where this is an economic and social benefit. There is, however, in some quarters a dislike of researchers from universities helping to solve problems of industry (Savery, 1975). Therefore, there may be a need to use other forms of research such as action research, so that the SMEs key decision-leader group becomes involved in solving its own problems.

Comparative Overview.

As explained throughout the thesis, the attention of the researcher looking into the South West cohort to test their decision-making drivers and inhibitors, were continually reflecting on the potential differences and similarities of the Norwegian and the South West cohorts.

The approach taken in the South West study has been discussed in detail within the body of this thesis. Alliance Use, which formed the core of the Australian study was only one of three elements under review in the Norwegian survey. Both studies were analysed using logistic regression analysis, with analysis of moderator variables. Six step logistic regression statistics were used in both studies with the hypothesised outcome differences and similarities identified in Chapter Four.

To reiterate, the Norwegian study had a specific industry cohort (fish products) which was isolated from food products for analysis. All industry groups remained within a reasonable range in the South West study, with no single product group requiring special attention. Based on significant improvements in hit rates, the impact of the independent variables in both studies was addressed. Norwegian outcomes determined a significant positive relationship between alliance use and SME attitudes to the necessity of alliance for firm survival. However, the South West study found no significant relationship. This disparity between the studies continued throughout the analysis of the alliance use hypotheses, with opposing significance of entrepreneurial/orientation and individualism/collectivism in the studies, which nevertheless both reported partial moderator support.

As was demonstrated in the logistic regression statistical analysis, there were significant differences in the responses to the questionnaire, and in the trends they indicate. Despite an hypothesised belief in the relationship between alliance use and SME attitudes to necessity of alliance for firm survival, and a Hypothesis 1. posited positive relationship for the South West sample, this result was achieved through the Norwegian study, but results of the Australian study revealed no significant relationship between the attitudes and the reported alliance use of the firm. Differences in the reported levels of support for similar hypotheses continued throughout the tests. It is possible that these differences were not in themselves significant, however, they suggest potential for greater understanding, which should be addressed through future investigation into the samples and categories of theory underpinning global research.

Implications for Academic Research

The literature was reviewed from the transaction cost economic perspective, and reflecting resource dependency theories. These were found to impact both to limit the formation of strategic alliances, and to promote relationship building in uncertain environments. There are implications of the different approaches. Socio-economic dimensions of relationship formation provided the third general approach to enhanced understanding of strategic alliance relationships. Implications of the different approaches are addressed, and their role in developing an understanding of strategic alliances is outlined in the context of support theories.

Transaction Cost Perspective

Transaction cost analysis has traditionally reflected the choice between transactions undertaken through the firm, or through the marketplace (Horton, 1992; Williamson, 1981). This research has addressed the issues of transaction cost theory, and found them wanting in their satisfactory description of SME strategic alliance activity. Throughout the study, there has been a significant contribution by transaction cost perspectives. However, there are many elements of the relationship with the market-place which do not respond to analysis within these parameters, particularly when over time, opportunism may not always be present in SME relationships. Further, key decision-leaders seeking to satisfy

personal values through sustained relationships may be prepared to participate in good faith for future benefits. However, not all associations are formulated on an equity basis. Both of these elements indicate the need for an alternative measure of interactive value. Economic rationalists may well determine the alternative approach to be found in resource dependency parameters.

Resource Dependency Theory

A posited basis for relationship formation in the literature has been the scarcity/dependency-based relationship. The resource dependency approach argues that the scarcity of resources will lead to dependency between firms. MacMillan (1972) in his model identifies relationships seen as reflecting the power of the alliants. Despite a significant reliance of these forms of relationships, reflecting power over supply, there were still other considerations to the relationship. Where technology is seen as a resource, there is a strong perception expressed among the participants, that interdependency on this basis is an important driver towards alliance formation. This study found considerable support for accelerated growth through cooperation rather than in isolation.

Strategic Alliance Socio-Economic Perspective

The socio-economic approach to understanding strategic alliance behaviour reflects the duality of relationships bridging the gap between market economy and

cooperative interaction. This approach addresses the interaction at a humanist level, identifying the impact of attitudes and preconceptions along with key decision-leader characteristics as drivers and inhibitors of strategic alliance behaviour. It is at this level that MacMillan (1972) presents a key to unlocking much of the process underlying strategic alliance relationships. The recognition of classifications of relationships into ideologically and perceptually aligned sets helps to identify parameters of relationships. The contribution of these classifications allows relationships to be studied from a common taxonomy. Contractor and Lorange (1988) determined that firms can minimise the threat of a rival through alignment much as presented in the context of the Strategic Alliance Participation Paradigm. Respondents to the survey and interviewees reported valuable advances in having prior information through networked relationships, and supported Teece (1987) reporting advantages from strategic alliances with well-known firms through enhanced business profile. These relationships were described by one key decision-leader as 'getting into the inner sanctum'. Considerable actual and potential benefits were reported from these relationships.

The prospect of enhanced size to undertake larger contracts, and to provide a more comprehensive service, without undertaking extensive growth in business areas, was reported as a driver in both horizontal and vertical cooperation. As with the Contractor and Lorange (1988) findings, the South West research revealed joint production as a significant use for strategic alliance.

Horton (1992) was unable to support earlier research on the use of strategic alliances as a means of avoiding protectionism. However, Contractor and Lorange (1988) were among researchers arguing that this was an effective use for these cooperative relationships. The current study in turn cannot support Horton's (1992) findings, however, based on data that indicate the active use of strategic alliances to form barriers to entry, it is determined in this study, that strategic alliances are used by participants to facilitate a protectionist environment.

In conclusion, there are many areas of strategic alliance research where expertise in development of relationships would potentially benefit industry and society. From this study, particular issues have presented related to the need for enhanced information about the possibilities of alliance. The potential pitfalls of relationships of this nature, and the skilled sources of information about strategic alliance formation need to be addressed before the structure and maintenance of strategic alliances can be considered. It is therefore considered appropriate to recommend the continuation of the refinement of drivers and inhibitors to SME strategic alliance formation, as a research priority based on the Strategic Alliance Participation Paradigm, and supported by the models which underpin this research and add to the overall knowledge of the interaction.

This research contributed also to the public policy makers' broad based approach to addressing collaborative relationships in industries in the interests of growth. Through a consolidated approach to policy that supports strategic alliance, it is posited that there is potential for cost effective growth management, particularly

in the regional areas. This matter arose within this study, but is presented as a research topic for further study, based on the economic impact of regional stability.

Thus, despite the inability of this study to specifically examine the effects of regional policies of competition, it has presented the issues of concern to the key decision-leaders. The socio-economic environment is presented as a practical research direction for future researchers. Outcomes of this research have potential to suggest effective policy decisions affecting major economic imperatives.

Future Research Directions

Within this study, industries were found generally to have a uniform trend toward alliance formation. Industry based research developed from those participating industry groups could pursue this matter to determine the rationale for the expressed level of strategic alliance interest. Based on the Strategic Alliance Participation Paradigm, and with the data gathered to date, this research could reflect benefits in a number of ways. The understanding of the industry differences through to the development of macro and micro analysis of industries would ultimately result in the identification of discrete and the common factors of firms likely to participate in strategic alliance. These data could be used to influence economic activity, and to stimulate strategic alliance formation through the identification of what firms seek to gain through participation in alliances.

As mentioned earlier in the chapter in relation to a discrete issue, this research should be longitudinal, and would require the identification of a cohort from a single industry or a small group of industries potentially having significant impact on regional growth. Exploration of this cohort would allow researchers to explore patterns of industry behaviour within the regional cultural context. Links with other researchers could be formed based on the mutual benefit of common methodologies, and cooperative research collaboration begun in this instance by Weaver and Dickson through their research over the past decade, and their contribution to collaborative research into strategic alliance on a global and structured basis.

SUMMARY

This study had as its major objective the exploration of SME strategic alliance attitudes and behaviours. The research was a mixed methodological process with the quantitative data collection based on an internationally validated instrument. Further validation of the outcomes was achieved through the comparative analysis of South West data with Norwegian outcomes. These data were supported by in-depth interviews with a cohort of industry representative key decision-leaders. From these interviews, detailed analysis of their firm, industry, environment, and their own motives and drivers was undertaken to determine their perceptions of the impact of political and power-based elements of the domain.

The contribution to the thesis made by each of the chapters is addressed in some detail at the commencement of this chapter. This chapter has provided a discussion of the results and the implication of these findings in the context of research implications, and the potential for future research.

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Appendices

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APPENDIX A

Manufacturing

Non-Manufacturing

Office Use only

The outcomes of this survey are important to the researcher, and to trade in the region. To maximise the benefits of the research, it is appropriate that this questionnaire be completed by **the most senior manager** available in your organisation, with answers reflecting the main activities of your organisation. When completed, please return the questionnaire in the envelope provided.

GENERAL INFORMATION

1 Which of the following categories best describe the industry of your principal products or services? (Tick only one alternative)

- 1) Food and kindred products
- 2) Wood and wood products
- 3) Printing, publishing and allied industries
- 4) Rubber and miscellaneous plastic products
- 5) Chemical products
- 6) Transport equipment
- 7) Industrial and commercial machinery and computer equipment
- 8) Electronic and other electrical equipment and components, (Other than computer equipment)
- 9) Computer programming, data processing and other computer related services
- 10) Other (please specify) _____

2 Do you currently sell products or services to customers outside Australia?

- 1) Yes (Please complete questions 3 and 4)
- 2) No (Please proceed directly to question 5)

3 Approximately what percentage of your firm's current sales revenue

- a) comes from outside of Australia? _____ %
- b) comes from outside of the South West _____ %

4 Approximately what percentage of your firm's total exports went to each of the following markets in 1994/95:

- a) New Zealand _____%
 - b) Britain and Ireland _____%
 - c) Other Western European countries _____%
 - d) East European countries _____%
 - e) USA and Canada _____%
 - f) Mexico, Central and South America _____%
 - g) Japan _____%
 - h) Other Asia Pacific countries _____%
 - i) Other: _____%
- Total exports = 100 %**

- 1 _____ (up to year 10)
 2 _____ (years 11 and 12) high school
 3 _____ Some college or university education

- 4 _____ University degree
 5 _____ Advanced university degree

- 6 What is your age? _____ Years
 7 What is your sex? ___ Male ___ Female
 8 What is your title in your organisation? _____
 9 Do you own a share of this organisation? ___ 1) Yes ___ 2) No (If yes) _____%

10 How well do you speak the following languages?

	Not at all	A little	Some	Quite well	Fluently
English	1	2	3	4	5
Japanese	1	2	3	4	5
Any other European	1	2	3	4	5
Any other Asian	1	2	3	4	5
Any Other	1	2	3	4	5

ALLIANCE USE

The purpose of the following questions is to assess your organisation's current or past experience with, or knowledge of, strategic alliances. We are interested in your response whether or not your organisation has had a strategic alliance relationship. If you have had no experience with the following forms of alliances, simply circle "0", but please continue to answer the remainder of the survey questions.

11 (i) Please circle the number of times your organisation HAS USED each of the following types of strategic alliances.

	Number of times used					
	0	1	2	3	4	5+
a) Joint ventures with small organisations	0	1	2	3	4	5+
b) Joint ventures with large organisations	0	1	2	3	4	5+
c) Outside contracting						
i) Short term	0	1	2	3	4	5+
ii) Long term	0	1	2	3	4	5+
d) Licensing	0	1	2	3	4	5+
e) Long term co-operative agreements						
i) Marketing	0	1	2	3	4	5+
ii) Distribution	0	1	2	3	4	5+
iii) Production	0	1	2	3	4	5+
f) Equity investments						
i) From small to medium sized organisations	0	1	2	3	4	5+
ii) From large organisations	0	1	2	3	4	5+
g) Export management or trading affiliations	0	1	2	3	4	5+
h) Technology alliances						
i) R & D (process)	0	1	2	3	4	5+
ii) R & D (product)	0	1	2	3	4	5+
i) Alliance between purchaser and supplier (ie. Just-In-Time, T. Q. M)	0	1	2	3	4	5+

11(ii) What are the chances (%) that your firm will use each of the following types of alliances in the next 12 months? Enter 0 to 100% for each type of alliance

- | | |
|--|--|
| j) Joint ventures with small organisation _____ % | o) Equity Investment _____ % |
| k) Joint ventures with large organisations _____ % | p) Export management or trading affiliations _____ % |
| l) Outside contracting | q) Technology alliances |
| i) Short term _____ % | i) R&D (process) _____ % |
| ii) Long term _____ % | ii) R&D (product) _____ % |
| m) Licensing _____ % | r) Purchaser-supplier alliance _____ % |
| n) Long term co-operative agreements (ie. Just-In-Time, TQM) | |
| i) Marketing _____ % | ii) Distribution _____ % |
| | iii) Production _____ % |

OPINIONS ABOUT ALLIANCES

Please circle the response that best describes your opinion concerning each statement whether or not your organisation has been, or is currently involved in an alliance relationship with another organisation.

Strongly disagree =1 Disagree 2 Neutral 3 Agree 4 Strongly agree =5

12 Community among partners

- | | | | | | |
|---|---|---|---|---|---|
| a) Both partners should share in the risk and rewards in relationships between large and small organisations | 1 | 2 | 3 | 4 | 5 |
| b) Alliances between organisations must support the clear, long- term economic interests of both parties. | 1 | 2 | 3 | 4 | 5 |
| c) Participants in a potential strategic alliance must be committed to a "win-win" sense of mission. | 1 | 2 | 3 | 4 | 5 |
| d) The various organisations in an alliance must be kept separate retaining autonomy to do what each organisation does best. | 1 | 2 | 3 | 4 | 5 |
| e) A diverse network of separate alliances can only work effectively if there is a common vision of how the alliance will build a competitive advantage | 1 | 2 | 3 | 4 | 5 |

13 Quality relationships

- | | | | | | |
|--|---|---|---|---|---|
| a) The most important factor in the endurance of a strategic alliance is the chemistry between key individuals. | 1 | 2 | 3 | 4 | 5 |
| b) Small organisations must have supporters within big organisations in order to have successful alliances. | 1 | 2 | 3 | 4 | 5 |
| c) large organisations rarely behave like arrogant bureaucracies when they are involved with SMEs in alliance | 1 | 2 | 3 | 4 | 5 |
| d) The stability of contact persons within alliance partnership organisations is a key element in preventing problems. | 1 | 2 | 3 | 4 | 5 |

14 Necessity for alliance.

- | | | | | |
|--|---|---|---|---|
| a) In the future, small and large businesses will need to join strategic alliances to be successful | 1 | 2 | 3 | 4 |
| b) Small organisations must recognise that they are not "self-sufficient". | 1 | 2 | 3 | 4 |
| c) It will not be enough to be "small" and entrepreneurial in the future | 1 | 2 | 3 | 4 |
| d) Large and small organisations will have to increasingly "network", ie through alliances, to achieve success. | 1 | 2 | 3 | 4 |
| e) Small businesses have the skills to identify potential alliance partners and strike mutually profitable deals | 1 | 2 | 3 | 4 |

15 Exchange nature of alliances

- | | | | | |
|--|---|---|---|---|
| a) A strategic alliance can allow a smaller organisation to do business internationally without an enormous investment of capital. | 1 | 2 | 3 | 4 |
| b) Large organisations choose alliances with small organisations which take less time to restructure to develop and commercialise technologies. | 1 | 2 | 3 | 4 |
| c) A smaller organisation without direct access/ knowledge of the overseas market, should seek to do business internationally, by joining an alliance. | 1 | 2 | 3 | 4 |
| d) Small organisations have flexibility and autonomy to operate in international markets <u>AND</u> traditional markets. | 1 | 2 | 3 | 4 |

16 Co-operative ventures

- | | | | | |
|--|---|---|---|---|
| a) Economic factors can encourage Co-operative ventures | 1 | 2 | 3 | 4 |
| b) Political factors can encourage Co-operative ventures | 1 | 2 | 3 | 4 |
| c) Co-operative ventures can be encouraged by the need to gain new technologies. | 1 | 2 | 3 | 4 |
| d) Co-operative ventures can be encouraged by the need to improve management. | 1 | 2 | 3 | 4 |
| e) Product development should become a co- operative venture involving producers and distributors. | 1 | 2 | 3 | 4 |

17 Growth through strategic alliances

- | | | | | |
|---|---|---|---|---|
| a) SMEs typically do not enter alliances simply as lifelines | 1 | 2 | 3 | 4 |
| b) Strategic alliances can be an alternative to a 'takeover'. | 1 | 2 | 3 | 4 |
| c) Alliances can enhance capital potential of a business | 1 | 2 | 3 | 4 |
| d) Alliances offer excellent opportunities for growth. | 1 | 2 | 3 | 4 |

- a) Large organisations have become increasingly receptive to joint projects with smaller, entrepreneurial organisations. 1 2 3 4 5
- b) Large organisations have learned how to form alliances with small businesses without diminishing the small organisation's creativity and entrepreneurial strengths. 1 2 3 4 5
- c) Big Business is capable of utilising entrepreneurial capabilities of small businesses without diminishing the autonomy of the smaller organisations. 1 2 3 4 5

STRATEGIC POSTURE

Please circle the numbers in the following scales that best describes the strategic posture of your organisation. Circle "1" if the statement on the left hand side best describes your reaction to the item. Circle "5" if the statement on the right hand side best describes your reaction to the item. Circle "2", "3", or "4" depending upon your best estimate of an intermediate position.

19 In general, the top managers of my organisation emphasise...

Marketing of tried and true products or services. 1 2 3 4 5 Technological leadership, R & D, and innovations.

20 Products or services you have marketed during the past 3 years...

- a) There have been no new lines 1 2 3 4 5 Very many lines
- b) Only minor changes to lines 1 2 3 4 5 Quite dramatic changes to lines

21 In dealing with competitors, my organisation. typically..

- a) responds to actions initiate by competitors 1 2 3 4 5 Typically initiates actions and competitors respond.
- b) Is very seldom the first business to introduce innovations 1 2 3 4 5 Is very often the first to introduce business innovations
- c) Seeks to avoid confrontation 1 2 3 4 5 Holds a very competitive position

22 In general, the top managers of my organisation have a strong preference for...

low risk projects (with normal and certain rates of return). 1 2 3 4 5 high risk projects (potential for very high returns).

23 In general, the top managers of my organisation believe that...

It is best to explore the environment gradually by cautious, incremental steps to achieve the firm's objectives. 1 2 3 4 5 Bold, broad acts are necessary behaviour to achieve the firm's objectives

ALLIANCE SUCCESS FACTORS

24 How important is each one of the following factors to the success of a strategic alliance? The factors are related to alliance organisations and their joint activities. Please circle the most appropriate degree of importance.

	Not Important	Somewhat important	important	Very important	Critically Important
a) Autonomy of alliance partners	1	2	3	4	5
b) Common vision for the alliance	1	2	3	4	5
c) Free-market environment	1	2	3	4	5
d) Real-time information systems	1	2	3	4	5
e) Flexible funding and evaluation systems	1	2	3	4	5
f) Key communicators identified	1	2	3	4	5
g) Clear and similar objectives and goals	1	2	3	4	5
h) Adaptive legal agreements between alliance organisations	1	2	3	4	5
i) Similar organisational decision styles	1	2	3	4	5
j) Co-operative corporate cultures	1	2	3	4	5
k) Support of the chief executive officers of each organisation	1	2	3	4	5
l) Safeguards against an unfriendly takeover <u>by</u> any one organisation in the alliance	1	2	3	4	5
m) Alliance structures which allow rapid responses to problems	1	2	3	4	5
n) Other:	1	2	3	4	5

Please specify: _____

ENVIRONMENTAL CONDITIONS AND INDUSTRY ATTRACTIVENESS

Please circle the number in each of these scales that best approximates actual conditions in your (principal) industry. Where both statements are equally correct, circle number 3.

25 With respect to our industry....

a) Our organisation must rarely change its marketing practices to keep up with the competitors	1	2	3	4	5	Our organisation must change its marketing practices very often (eg. semi - annual)
b) The rate at which products / services are becoming obsolete in the industry is very slow (eg. basic metal)	1	2	3	4	5	The rate at which products/ services are becoming obsolete in the industry is very high (eg semiconductors)
c) Actions of competitors are easy to predict	1	2	3	4	5	Actions of competitors are quite unpredictable.

- | | | | | | | |
|--|---|---|---|---|---|---|
| d) Demand and consumer tastes are fairly easy to forecast | 1 | 2 | 3 | 4 | 5 | Demand and consumer tastes are almost unpredictable. |
| e) Stable production / service technology subject to minimal change(eg. steel production). | 1 | 2 | 3 | 4 | 5 | The modes of production / service change often and in a major way (eg. electronic). |

26 How would you characterise the external environment within which your organisation functions?

- | | | | | | | |
|--|---|---|---|---|---|--|
| a) Very safe, little threat to the survival and well-being of the organisation. | 1 | 2 | 3 | 4 | 5 | Very risky, one false step can mean the organisation's undoing. |
| b) Rich in investment and marketing opportunities. | 1 | 2 | 3 | 4 | 5 | Very stressful, exacting, hostile very hard to keep afloat. |
| c) There is little competition, and our organisation can manipulate the environment to its own advantage | 1 | 2 | 3 | 4 | 5 | A dominating environment in a which organisation's initiatives count for very little |
| d) An environment demanding very little in the way of technological sophistication. | 1 | 2 | 3 | 4 | 5 | Technologically, a sophisticated and complex environment. |

27 How much R & D takes place within your organisation's principal industry?

- | | | | | | | |
|--|---|---|---|---|---|--|
| Virtually no R&D in industry (eg. bakery). | 1 | 2 | 3 | 4 | 5 | Extremely R&D orientated industry (eg electronics) |
|--|---|---|---|---|---|--|

28 With respect to our industry... Our organisation can be successful principally focusing sales services: (please answer both a & b)

- | | | | | | | |
|----------------------|---|---|---|---|---|--------------------|
| a) within the region | 1 | 2 | 3 | 4 | 5 | into other regions |
| b) within Australia. | 1 | 2 | 3 | 4 | 5 | outside Australia |

29 Other attributes of our organisation's principal industry ... Please Circle a number

- | | | | | | | |
|---|---|---|---|---|---|---------------------------|
| a) Average industry profits are?
very low. | 1 | 2 | 3 | 4 | 5 | very high. |
| b) Projected long-term (5 years or more) industry profits probably will be?
very low. | 1 | 2 | 3 | 4 | 5 | very high. |
| c) The market growth rate for our industry for the last 3 years has been?
very slow. | 1 | 2 | 3 | 4 | 5 | very rapid. |
| d) The projected long-term (5 years or more) market growth rate for our industry indicates?
very slow growth. | 1 | 2 | 3 | 4 | 5 | very rapid growth. |
| e) The competitive intensity within our industry is?
minimal. | 1 | 2 | 3 | 4 | 5 | extreme. |

30 These questions have been designed to help in assessing the effect that cultural variables may have on management decisions to form strategic alliances. Please answer based on your personal opinion, by circling the number on each continuum that best matches your opinion.

	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly agree 5
a) Employees like to work in a group rather than by themselves.	1	2	3	4	5
b) If a group is slowing me down, it is better to leave it and work alone.	1	2	3	4	5
c) To be outstanding, a man / woman must work alone .	1	2	3	4	5
d) One does better work working alone than in a group.	1	2	3	4	5
e) I would rather struggle through a personal problem by myself than discuss it with friends.	1	2	3	4	5
f) An employee should accept the group's decision even when personally he or she has a different opinion.	1	2	3	4	5
g) Problem solving by groups gives better results than problem solving by individuals.	1	2	3	4	5
h) The needs of people close to me should take priority over my personal needs.	1	2	3	4	5
i) In society people are born into extended families or clans who protect them in exchange for loyalty.	1	2	3	4	5
j) Only those who depend upon themselves get ahead in life.	1	2	3	4	5
k) My organisation's upper management should always be accessible to our employees.	1	2	3	4	5
l) Those individuals who hold positions of power within my organisation are entitled to certain privileges.	1	2	3	4	5
m) Power and its use is a basic fact of life. Its legitimacy is irrelevant.	1	2	3	4	5
n) Individuals who hold power should attempt to look less powerful than they are.	1	2	3	4	5
o) Equality is impossible, there should be an order of inequality in this world in which everybody has a rightful place and is protected by this order.	1	2	3	4	5
p) Conflict and competition can unleash aggression and should be avoided.	1	2	3	4	5
q) For an organisation to operate successfully, there is a strong need for written rules and regulations.	1	2	3	4	5
r) One must be willing to take risks in life.	1	2	3	4	5
s) Aggressive behaviour of self and others is acceptable.	1	2	3	4	5
t) You must be willing to show your emotions.	1	2	3	4	5

31 (i) Please indicate the degree of importance your organisation's top managers attach to each of the following performance criteria by circling the appropriate number.

	Of little importance		Moderately important		Extremely important
a) Sales level (\$)	1	2	3	4	5
b) Sales growth rate (%)	1	2	3	4	5
c) Cash flow	1	2	3	4	5
d) Gross profit margin	1	2	3	4	5
e) Net profit from operations	1	2	3	4	5
f) Return on investment	1	2	3	4	5
g) Ability to fund business growth from profits	1	2	3	4	5

31 (ii) Please indicate the extent to which your organisation's top managers are currently satisfied with your business unit's performance on each of the following criteria.

	Of little satisfaction		Moderately satisfied		Extremely satisfied
a) Sales level (\$)	1	2	3	4	5
b) Sales growth rate (%)	1	2	3	4	5
c) Cash flow	1	2	3	4	5
d) Gross profit margin	1	2	3	4	5
e) Net profit from operations	1	2	3	4	5
f) Return on investment	1	2	3	4	5
g) Ability to fund business growth from profits	1	2	3	4	5

CONCLUDING QUESTIONS

3 2 **Organisation data (last financial year)**

- a) Sales / revenues \$ _____
- b) Number of managers involved alliance operation(s) _____
- c) Number of employees _____
- d) Number of managers _____

3 3 **Our organisation is...** (Tick only one alternative)

- 1) An independent organisation _____ (If a, please proceed to question 35)
- 2) A holding organisation _____
- 3) A subsidiary organisation _____

Please answer the following questions only if your organisation has been or is currently involved in a strategic alliance. If you are not currently involved in an alliance relationship, thank you for your responses to this survey, they are very important to the outcome. You need not answer the remaining questions.

1) Holding organisation _____ 2) Subsidiary organisation _____

* Co-operative associations with organisations outside the group.

35 What is your general impression of the alliance partner(s)?

Please circle the response that best matches your opinion.

	Strongly disagree = 1	Disagree 2	No opinion 3	Agree 4	Strongly agree = 5
a) They provide us with a truthful picture of their business	1	2	3	4	5
b) They seem to feel that it is acceptable to do anything within their means that will help further their organisation's interest	1	2	3	4	5
c) They carry out their duties even if we do not check up on them	1	2	3	4	5
d) They have sometimes promised to do things without actually doing them later	1	2	3	4	5
e) They usually register a complaint if our organisation fails to meet our co-operative agreements	1	2	3	4	5
f) They expect an equal exchange of benefits from our co-operative agreements with them	1	2	3	4	5

36 Alliance experience...(Circle number 1- 5)

a) In general our organisation's experience with an alliance(s) has been

Extremely poor	poor	as expected	good	Extremely good
1	2	3	4	5

b) In general, how would you characterise the financial returns produced by your strategic alliance(s)?

Large loss	Loss	Break-even	Profitable	Very profitable
1	2	3	4	5

c) In your overall assessment, how has the alliance(s) performed as compared to your expectations?

Very poorly	Poorly	As expected	Well	Very well
1	2	3	4	5

37 Other information ...(Circle number 1- 5)

(If you have experienced one or multiple alliances; - indicate the industries they are generally from)

a) **Our alliance partnerships are/have been generally from industries...**

Absolutely similar to ours	similar	neutral	dissimilar	Totally dissimilar to ours
1	2	3	4	5

b) Is there a written legal contract between your organisation and your alliance partner(s)?

- _____ 1) Yes (If Yes, please proceed to part c)
_____ 2) No (If No, please proceed to part d)

c) How often has it been necessary to utilise the contract to resolve conflicts relating to the alliance?

Never	Seldom	Sometimes	Often	Very often
1	2	3	4	5

d) In what way(s) did your organisation learn about strategic alliances?
(Tick any or all of the following that apply)

- | | |
|--|---------------------------------------|
| 1) _____ Trade publications | 5) _____ Government sponsored program |
| 2) _____ Trade associations | 6) _____ Other business alliances |
| 3) _____ Financial institution | 7) _____ Distribution network |
| 4) _____ Interest of internal managers | 8) _____ Other |

e) How was the forming of your strategic alliance partnership facilitated?
(Tick any of the following that apply)

- | | | | |
|---|---------------------------------------|---|-------------------|
| 1) _____ Trade / professional association
industry | 2) _____ Government bureaux | 4) _____ Other organisation in your own
industry | 5) _____ Customer |
| 3) _____ Financial institution | 6) _____ Venture capital organisation | 7) _____ Other third party: Please identify the facilitating source _____ | |

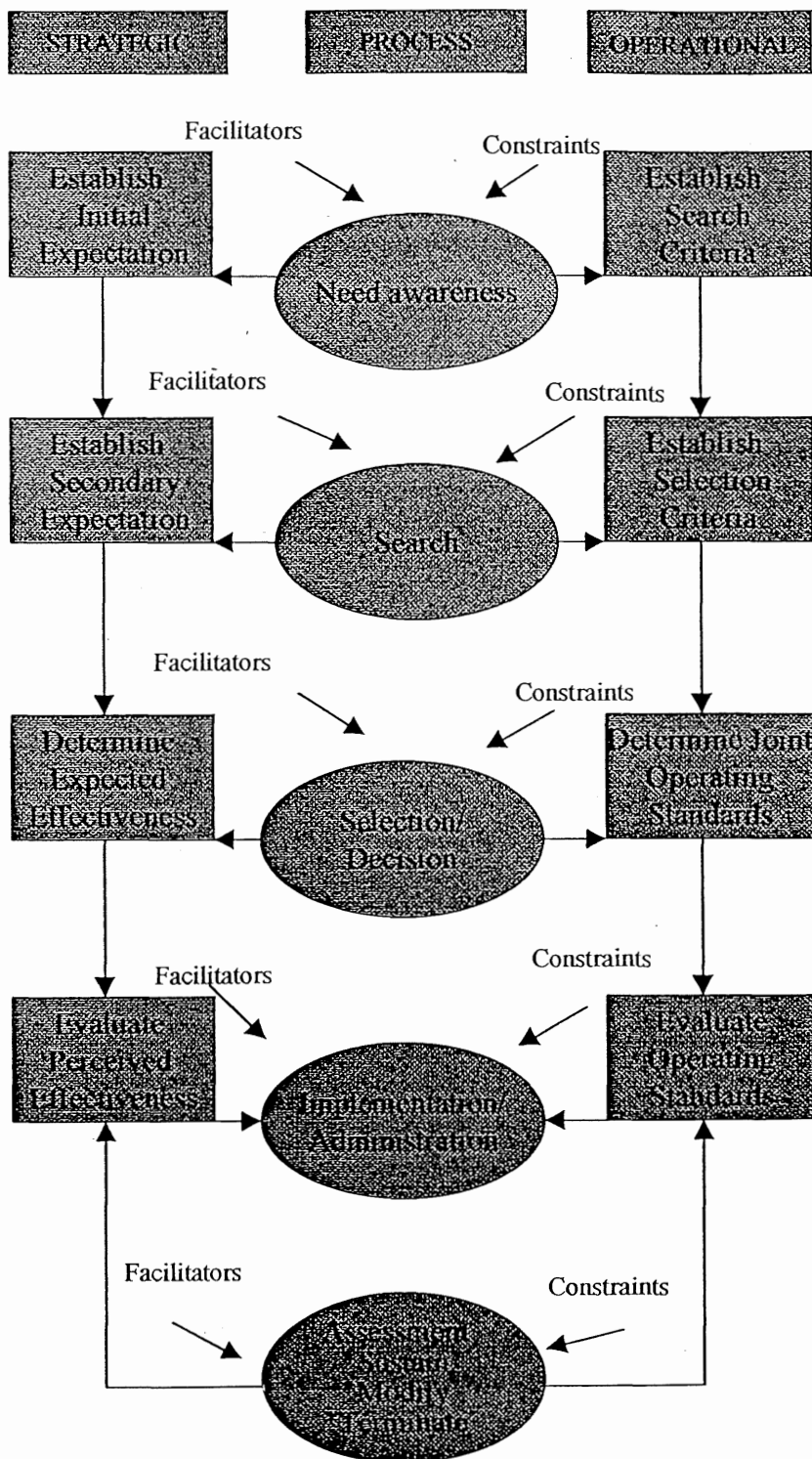
THANK YOU FOR YOUR CO-OPERATION
PLEASE RETURN IMMEDIATELY IN THE ENCLOSED ENVELOPE TO:

Graduate School of Management
THE UNIVERSITY OF WESTERN AUSTRALIA
PERTH WESTERN AUSTRALIA

APPENDIX B

A General Alliance Model

(Amended)



APPENDIX C

INTERVIEW GUIDE DISTRIBUTED IN ADVANCE TO THE KEY DECISION-LEADER

BASED ON A POST FACTO RANDOM SELECTION OF TWO FIRMS FROM EACH
OF THE INDUSTRIES REPRESENTED IN THE STUDY.

TITLE OF THE INDIVIDUAL INTERVIEWED

INDUSTRY

INITIAL RESPONDENT (to questionnaire) YOURSELF / OTHER

Format of the Interview:

The interview will be an opportunity for you to offer your perceptions of your own, your firm and your industry current and potential use for strategic alliances. Although this document is presented as a series of questions, they are provided as a guide for your use in drawing together your thoughts on the relevant issues prior to the appointment. The interview will be a free ranging exploration of the issues you would address within the strategic alliance participation decision-making process. The format is designed to help you to address important issues for you and your firm, while providing descriptive data to support your cohort questionnaire responses. The spaces provided for your notes do not reflect the true 'volume' of your responses, and are there as an aid only.

Research questions:

In formulating your participation, it would be useful for you to have an understanding of the questions being posed in this study:

- Question 1. How culturally appropriate are strategic alliances considered by SMEs in regional Western Australia?.
- Question 2. Are Transaction Cost Theory/Resource Dependency Theory theoretical boundaries appropriate for describing attitudinal and behavioural norms of SMEs?
- Question 3. Are there significant inhibitors in the SME key decision-maker attitudes which reflect in negative strategic alliance behaviour?
- Question 4. Do economic and social theory models appropriate to the enhanced understanding of SME strategic alliance attitude and behaviour relationships?
- Question 5. What part do power and politics play in the strategic alliance participation actions of SME owners and Key-Decision-Leaders?

The interviews will all be conducted by the Candidate. In the interests of comparability and clarity, the format is provided in advance, and maintained as a guide throughout the series of interviews.

Introduction to the respondent:

(Each interviewed key decision-leader will be identified by a profile):

PLEASE DESCRIBE YOUR BOTH FORMAL AND INFORMAL ROLE IN THE ORGANISATION,

.....

HOW LONG HAVE YOU HELD EACH SENIOR DECISION-TAKING ROLES WITHIN THIS INDUSTRY?

.....

Process Issues:

PLEASE DESCRIBE THE RELATIONSHIPS BETWEEN YOUR ORGANISATION AND ALLIANCE FIRMS. PLEASE INDICATE THE PRECISE NATURE OF ALL TYPES OF RELATIONSHIPS eg. Customer /supplier, Joint venture partners, formal cooperative-strategic alliance, etc.

.....

.....

.....

.....

WHICH ORGANISATION BEGAN EACH RELATIONSHIP? You or the other firm?

.....

.....

WHO FROM YOUR FIRM CURRENTLY (OR DURING THE LIFE OF THE RELATIONSHIP) MANAGES/MANAGED THE BOUNDARIES BETWEEN THE TWO FIRMS?

.....

.....

Strategic Issues:

AS YOUR FIRM BECAME MORE EXPERIENCED IN ALLIANCE FORMATION, HOW DID THE IMPLEMENTATION OF ALLIANCES CHANGE? (eg. Was there a greater or a lesser level of trust and information sharing?)

.....

.....

.....

.....

TO WHAT EXTENT WERE YOUR OWN AND YOUR ORGANISATION'S EXPECTATIONS ACHIEVED THROUGH THE ALLIANCE?

.....

.....

TO WHAT EXTENT DID THE COSTS AND THE BENEFITS IDENTIFIED BY YOUR FIRM PRIOR TO ENTERING THE ALLIANCE RELATIONSHIP REFLECT YOUR PERSONAL PERCEPTIONS OF THESE FIRMS ?

.....

.....

HAVE YOU OR YOUR FIRM MEASURED THE EFFECTIVENESS OF ANY ALLIANCES WHICH YOU HAVE ENTERED? WHAT OUTCOMES DID YOU IDENTIFY?

.....

.....

Operational Issues:

WHO FROM WITHIN THE TWO (OR MORE) ORGANISATIONS ENTERING STRATEGIC ALLIANCE FORMULATED THE RULES OF THE ALLIANCE GUIDELINES?

.....

.....

.....

.....

HOW DO YOU OR YOUR PARTNERS MEASURE PERFORMANCE?

.....

.....

HOW DO YOU DETERMINE HOW MUCH OR WHICH INFORMATION IS TO BE SHARED BETWEEN THE PARTIES?

.....

.....

IF YOU HAVE NOTICED ANY CHANGES IN THE ATTITUDES/RELATIONSHIPS BETWEEN THE ALLIANCE PARTNERS, PLEASE DESCRIBE THESE, AND INDICATE IF THERE IS ANYTHING TO BE GAINED IN FUTURE FROM HAVING THIS PARTICULAR INFORMATION.

.....

.....

.....

.....

.....

TO WHAT EXTENT DID YOU RELY UPON ESTABLISHED ECONOMIC THEORIES IN THE FORMULATION OF ANY ALLIANCES IN WHICH YOU PARTICIPATED? IF YOU RELIED ON SOME, WHAT ARE THESE?

.....

.....

.....

.....

IS THERE ANYTHING WHICH YOU WOULD LIKE TO ADD?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Thank you for participating in this interview.

Table of Common Responses

This selection of common responses demonstrates the variety of issues addressed in the in-depth interviews.

We feel that the organisational advantages of strategic alliance activities for our firm in achieving the identified strategic aims are:

- Recognition
- Being seen in the marketplace
- Strength in numbers
- Raw materials guaranteed
- Critical mass
- Bargaining power
- Control over supply
- Final customer profit taking

Who in your organisation champions the strategic alliance cause- who drive these alliances?

- I do (Key-Decision-Leader)
- Some managers are good at this, but generally, better results are achieved if I do the driving.

In my/our opinion, the concept of strategic alliance between local SMEs a good way to enhance local content in major tenders?

- In theory
- Size of cohort influences this
- For small to medium contracts
- We have done well through our strategic alliance/s
- With care, and homework bigger contracts can be won

Thinking of joining with local firms in strategic alliances in the future to tender for major contracts?

YES:

- Greater leverage
- Major negotiation advantages
- Early access to information
- Access to major elements of [split] contracts
- Critical mass

APPENDIX D

NO:

- I cannot see real benefits from this.
- We need all our manpower to deal with the current marketplace
- We haven't the capacity to seek major contracts
- These [major contracts] tie our employees up for too long- lack of flexibility
- We can miss out on good customers trying for the 'big fish'.

Activities of the partner firm I/we would claim some control of in our next strategic alliance:

- Quality control of final product
- Negotiation meetings
- Financing the project
- Delivery schedules

The hardest part of the alliance process was:

- Opening our books to erstwhile rivals/competition
- Lack of autonomy
- Managing in a partnership rather than sub-contractors
- Knowing when to check up on jobs in their firm
- Drawing the line and enforcing the terms if not the legal aspect of contract

Differences between strategic alliances and competitive marketplace.

- Reduced the competition
- Reduced cost
- Allowed greater quality control
- Reduces the competition

Partners were selected:

- They approached us with an idea which was worth the risk
- We needed their expertise
- We wanted to move to sub-contracting.
- We needed to share financial R & D burden.
- Our major client suggested the match to satisfy his needs.
- I had heard of the work they had done, and needed the expertise for a major contract.

APPENDIX D

Our best alliance story from our perspective:

- Networked with partner into solid ongoing one to one relationship with client
- Network led to several new contacts and growth through learning from partner firm
- Able to share other resources
- A proven track record for other major contracts
- Opportunity for growth

Our best alliance story from our perspective:

- Lack of professionalism
- Little understanding of deadlines
- Poor record system
- Unrealistic perception of delivery ability
- Sense of loss of power and business credibility.
- Partner 'stole' client

Professional /governmental assistance which would have made the process easier:

- Development Commission information
- Lawyers/Business Planner
- Commerce and Trade (Department)
- Bodies with local knowledge
- We would you seek this assistance in future strategic alliances?

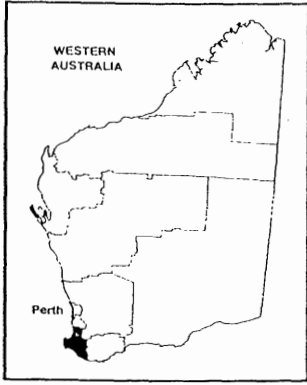
A contract was available to ensure cooperative and non-opportunistic actions of the parties?

- We didn't refer to it
- Important that it was there, but not referred to except for clarification.
- Needed to be more explicit.
- A great deal was done on a handshake and confirmed *post facto*

Words of wisdom on participation in strategic alliances.

- Network extensively and informally to get a feel for the people in your chosen industry- visit their plant see them in their own environment.
- Ask them a lot of questions.
- Formalise the credit checks and references.
- Keep your eyes and ears open.
- Gut feeling is good, but it needs to be supported with solid information an open mind.

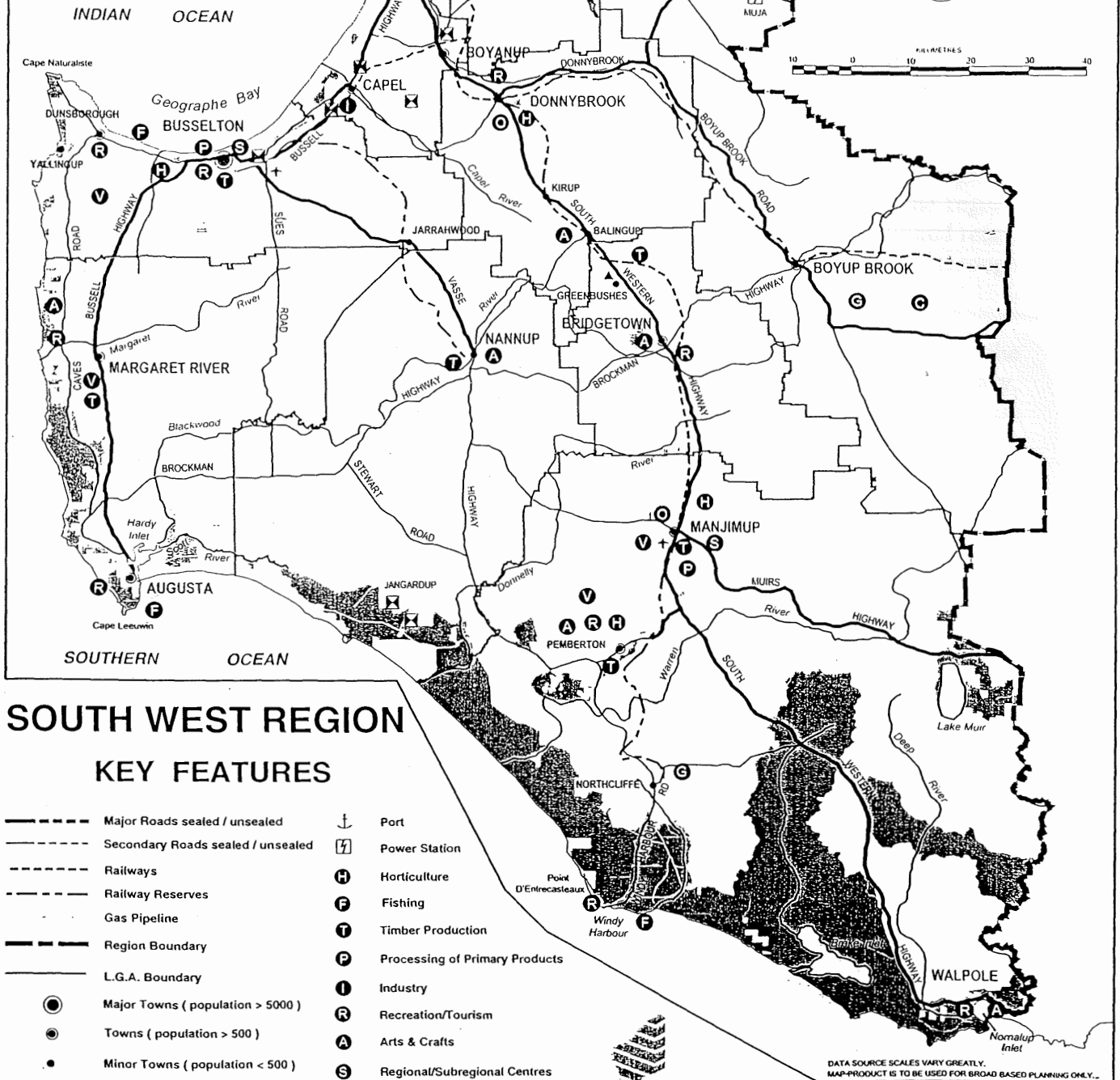
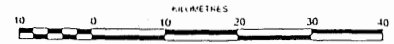
Location Diagram



Mining and Mineral Processing

Potential projects in red

- △ Alumina
- Coal
- ⊠ Mineral Sands
- ⊙ Silica
- ▲ Tin, Tantalum & Lithium
- △ Silicon
- ⊠ Titanium Dioxide
- ⊠ Gas



SOUTH WEST REGION

KEY FEATURES

- Major Roads sealed / unsealed
- - - Secondary Roads sealed / unsealed
- - - Railways
- - - Railway Reserves
- - - Gas Pipeline
- - - Region Boundary
- - - L.G.A. Boundary
- Major Towns (population > 5000)
- Towns (population > 500)
- Minor Towns (population < 500)
- ~ Rivers
- ◊ Lakes
- Conservation Estate (gazetted)
- ↑ Airport / Aerodrome
- ⚓ Port
- ⚡ Power Station
- H Horticulture
- F Fishing
- T Timber Production
- P Processing of Primary Products
- I Industry
- R Recreation/Tourism
- A Arts & Crafts
- S Regional/Subregional Centres
- V Viticulture
- C Cropping
- G Grazing/Dairy
- O Orchards

DATA SOURCE SCALES VARY GREATLY. MAP-PRODUCT IS TO BE USED FOR BROAD BASED PLANNING ONLY...



DATA DIRECTORY		
THEME	SOURCE	DATE
Cultural	DOLA/OME /DRO /W.A. Fishing Council	1987
Transport	DOLA	1987
Hydrography	DOLA	1987
Terrain	CALM	June 1995
L.G.A Boundaries	DOLA	June 1995
REVISED		March 1999

APPENDIX F

May 1997

Dear Business Person,

From time to time, we at the South West Chamber of Commerce and Industry, recognise an opportunity to enhance information about the way business is conducted in the South West. This gives us an opportunity to assist regional business through our support, and to become involved with successful projects that have potential to assist with economic growth of the region through practical projects.

In this context, it has become clear to us that there is a need to enhance regional representation among major capital works programs under consideration for the region. We can only grow our industries, in both size and diversity if we seek the skills and retain these within the region. One way of achieving this has been identified as through participation in strategic alliances.

Di Wingham is an academic, well known to many of us for her work within the Education and Training Committee of the Bunbury Chamber of Commerce and Industry, and as Chairman of that committee for the past two years. Di coordinates the MBA management programmes at the Bunbury Campus of Edith Cowan University, and is currently a PhD candidate undertaking her Doctorate with a particular focus on SMEs within the South West of Western Australia. She has sought our support through a personal introduction to those firms which fit within the parameters of her study.

I have pleasure in supporting this project, and exhort you to do the same, through participating in the mailout survey when this reaches your firm, and in the in-depth interviews should this opportunity present.

I am sure that we are all looking forward to the results of this survey, and the advice they can provide. In the interests of the South West business information collection, I encourage your full cooperation.

Should you wish to talk with the researcher, please contact her at the number provided above.

Yours sincerely,

President