AN INVESTIGATION INTO CLUSTERING/ LINKAGES AS A STRATEGY TO ENHANCE THE COMPETITIVE PERFORMANCE OF SMALL MEDIUM AND MICRO FURNITURE MANUFACTURING FIRMS IN KWA-ZULU NATAL

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ABSTRACT

It has been largely accepted that Small, Medium and Micro Enterprises (SMMEs) are principal driving forces in economic development (UN-ECE, 1999; Istomina, 1998; Lalkaka, 1996). However, many small, medium and micro enterprises are constrained by an array of problems such as a lack of access to finance, training services and physical infrastructure. Also, small, medium and micro enterprises are forced to operate in highly competitive environments and transition economies and this limits the ability of small, medium and micro enterprises and even large organisations to operate successfully and efficiently. Consequently, a strategy focused on inter-firm linkages and collaboration could alleviate the problems faced by small, medium and micro enterprises.

Research indicates that inter-firm **linkages** or **clustering** can lead to the emergence of collective efficiency, which facilitates the industrialisation of SMMEs and has the potential of contributing to economic development (Schmitz, 1995). A cluster would involve interaction between enterprises or networks of enterprises that produce identical or similar products. These linkages create "collective efficiency" which is critical in sustaining a competitive edge. The ability of small, medium and micro enterprises to maintain this competitive edge will ensure greater success and opportunities for specialisation and differentiation.

This research focuses on the development of inter-firm linkages between large enterprises and small, medium and micro enterprises in the furniture sector in Kwa-Zulu Natal. However, the point of departure in this research study has suggested that in order for inter-firm linkages to operate successfully, linkages between large furniture manufacturers and small furniture manufacturers (***vertical linkages***) should be established before small enterprises themselves engage in collaborative relationships (***horizontal linkages***).

A two- stage study has been undertaken: the first stage exploratory study identified specific issues affecting the furniture industry and the second stage final study, involved the administering of a semi-structured questionnaire to small, medium and micro enterprises and corporates. As a result, a general consensus on factors inhibiting competitiveness in the furniture industry, and the preference for the formation of linkages between large furniture manufacturers and small, medium and micro furniture manufacturers, was established. The outcome of this research study has highlighted that furniture manufacturers in Kwa-Zulu Natal show a preference for the formation of vertical linkage relationships over horizontal linkage relationships.

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CHAPTER I: INTRODUCTION

1.1 INTRODUCTION

As South Africa moves rapidly into the 21st Century, the call for trade liberalisation becomes a sound economic imperative. No longer can South Africa focus its efforts on a domestic market when the effects of the global economy have set in. A lack of exposure to the international economy has made many South African businesses inefficient in their ability to compete in global markets.

It is therefore not surprising that South Africa's competitiveness rating was 43rd out of 49 countries in 1996, 44th out of 52 countries in 1997 and 42nd out of 53 countries in 1998 (http://www.weform.org/publications/gcr/98). Consequently, South Africa has to progress from being under a regime of protected import-substituting industrialisation towards a vibrant economy, on a positive growth trajectory (Kaplinsky & Morris, 1997; IDC, 1998, Aniruth, Morris, Barnes, 1998). These so-called "support-side" measures are dependent on a greater degree of collaboration and co-operation between various industry organisations.

According to Darrell (1999), firms are able to derive a competitive advantage or collective efficiency through the development of close relationships and business linkages. These linkages operate on the principles of collaboration and co-operation to ensure that a market demand is being fulfilled.

The purpose of this research study is to examine the extent to which business linkages (clusters), impacts on the competitive performance of furniture manufacturing firms in Kwa-Zulu Natal (KZN). Hence critical recommendations will be proffered with regard to how business linkages can enhance the effectiveness of SMME performance.

1.2 RESEARCH OBJECTIVES

The objectives of this research study disseminate into the following:

- To gain an understanding of the main constraints to competitiveness that are being experienced by small, medium and micro enterprises (SMMEs) in the Kwa-Zulu Natal (KZN) furniture sector.
- To identify the range and nature of ***vertical linkages*** (a situation where large enterprises and small enterprises engage in a business linkage) and ***horizontal linkages*** (a situation where small business engage in collaborative business relationships with other small businesses) that exist amongst SMMEs in the furniture manufacturing sector.
- To test for an association between the existence of vertical and horizontal linkages and company performance/profitability.
- To determine prevailing attitudes towards vertical and horizontal linkages to identify the extent to which these attitudes may inhibit or promote the formation of business linkages.
- To proffer critical recommendations regarding the extent to which business linkages improve the competitiveness of SMME furniture manufacturers' in KZN.

1.3 CONTRIBUTION OF THE STUDY

1.3.1 Empirical Contribution

Research studies have been conducted to explore how collective efficiency (horizontal linkages) between firms improves or enhances competitiveness (Schmitz, 1995; Nadvi, 1998). Research has also been conducted to explore how vertical linkages, usually in the form of buyer and seller relationships contribute to improved competitiveness (Machete, 1998; Mead, 1998). However, research studies in the furniture sector are not well documented. Manning (1996) set out to examine the problems experienced by small furniture manufacturers in accessing the domestic furniture market. More recently, the research of Dunne and Morris (1999) examined the role of collective efficiency through the use of both horizontal and vertical linkages. This study suggested that research regarding linkages in the furniture industry failed to suggest how policy dynamics influence the successful operation of horizontal and vertical linkages. Further to this, a greater role was envisaged for intermediaries to be more closely involved in the promotion and establishment of horizontal and vertical linkages.

This research study is a natural extension of work already conducted in the field of business linkages. However, this particular research study suggests that although the combination of horizontal and vertical linkages is important to improve the overall competitiveness of furniture manufacturing firms, small manufacturers do not willingly choose to engage in horizontal linkages with other small businesses. This can be attributed to a lack of trust and "buy-in" into the potential advantages of the linkage concept. It is suggested that vertical linkages should be established before engaging in horizontal linkage relationships. If small businesses have gained experience and a reputation for collaborative work with large enterprises, these small enterprises may be perceived as having 'credibility'.

It is this credibility that could serve as a catalyst to the development of horizontal linkages at a later stage. This study will seek to establish that furniture manufacturers do have a preference for vertical linkage relationships over horizontal linkage relationships. An investigation has to be undertaken to identify the key factors that impede the competitiveness of furniture manufacturing firms. In addition, knowledge relating to the linkage concept and attitudes toward linkages will be investigated. The possibility also exists for South Africa to draw on international experiences of business linkage formation. As an example, the remarkable success of Japanese industry has been attributed to the intercorporate alliances and networks that exist in the Japanese economic system. Therefore, by taking into account the various issues that affect South African industry and by adapting the Japanese model to the South African situation, a vertical linkage model could be proffered.

1.3.2 Practical Contribution

- The outputs of the research study will serve as inputs for the centre for partnerships in Enterprise research and technology Transfer (CEPERTT), the Durban Manufacturing Advicsory Centre (DUMAC), the department of trade and Industry (DTI), NTSIKA, the Thekwini Business Development Centre (TBDC) and the private sector initiatives in the development of policy and practical support structures for small furniture manufacturing firms in the KZN region.
- Outputs of the research study will serve as useful input to international partners/funders seeking opportunities in KZN, e.g. Japan Co-operation Agency and the Danish Government. The formation of vertical linkages with SMMEs and horizontal linkages amongst SMMEs themselves can be promoted more effectively based on the guidelines provided by this research.

- This work is a natural extension of work already conducted in the field of linkages. The cross-fertilisation of ideas that could emerge through collaborative work is substantial.

1.3.3 Conceptual contribution

The purpose of this research is to make a further contribution to existing work relating to business linkages. This research is also important in that it adds to the body of knowledge regarding business linkages in the furniture industry. The suggestions or recommendations that have emerged from this study, could contribute towards both large and small furniture manufacturers being internationally competitive. It is hoped that this research study can assist furniture manufacturers in making practical decisions about their manufacturing strategies.

Further, this research study makes available information that is useful and relevant to industry players such as government, the community and furniture manufacturers themselves. Finally, the possibility also exist for research institutions to develop closer links with industry so that a relationship of information sharing can be developed for the benefit of large furniture manufacturers and SMME furniture manufacturers in particular.

1.4 SUMMARY OF CHAPTERS

Chapter 2:

Chapter 2 focuses on the use of an economic development model to suggest potential areas of sectoral growth. The South African manufacturing sector and the SMME manufacturing sector are also discussed. The final part of the chapter relates to competitive advantage and the factors that drive competitive advantage.

Chapter 3:

The focus of chapter 3 is on the concept of clusters. The nature and characteristics of clusters is discussed as well as the development of clusters. The advantages and disadvantages of cluster formations have also been reviewed. This chapter also includes international case studies of clusters with specific reference to Japan. Finally, clusters that occur in the context of South Africa are also discussed.

Chapter 4

Chapter 4 focuses on the international and national furniture sector. A structure of the national furniture industry is provided together with an assessment of the national industry performance. The weaknesses, strengths and opportunities affecting the furniture sector are also the focus of this chapter.

Chapter 5

Chapter 5 involves introducing the cluster methodology as a viable strategy to enhance manufacturing competitiveness of the furniture industry. This is done by reviewing the potential areas for cluster formation and introducing a South African case study of cluster formation i.e. the Saligna value chain.

Chapter 6

Chapter 6 outlines the research methodology and the research designs so as to justify the data collection methods that were used in this research study. Issues of sampling and data analysis are also discussed in this chapter.

Chapter 7

Chapter 7 outlines the statistical findings of the research data that was analysed for the qualitative and the quantitative study. Various interpretations of the data are included in this section as well as the recommendations that have been suggested / concluded from these findings.

Chapter 8

This chapter focuses on the conceptual contribution, the management and policy imperatives and the empirical contribution of the research study. The chapter concludes with suggestions for areas of future research.

CHAPTER 2: COMPETITIVENESS OF THE MANUFACTURING SECTOR

2.1. INTRODUCTION

The purpose of this chapter is to explore the state of the current manufacturing industry that exists in South Africa. By identifying the current capabilities and inadequacies of the manufacturing sector as a whole, a greater understanding of the dynamics specifically affecting the furniture industry can be achieved. This is done by exploring the economic development model that suggests the potential area in which economic growth can be achieved. This chapter also explores the South African manufacturing sector and the SMME manufacturing sector specifically in KZN. A review of factors critical to enhancing competitiveness has been undertaken in order to analyse the competitive environment in which the South African manufacturing sector operates.

2.2. THE ECONOMIC DEVELOPMENT MODEL FOR ENHANCING COMPETITIVENESS IN THE SOUTH AFRICAN MANUFACTURING SECTOR

The formation of the World trade organisation (WTO), trade agreements such as the Uruguay Round, the General Agreement on Tariffs and Trade (GATT) and the dismantling of trade barriers, have resulted in increased global competition (Business Africa, 1994; Aniruth, Morris, Barnes, 1998;DTI, 1997).

The increased pressure caused by exposure to a global economy, highlights the need for an industrial policy that allows industries in South Africa to compete in global markets, but more importantly, to do so effectively and efficiently.

2.2.1 The Dynamic General Equilibrium Model

The IDC's, Dynamic General Equilibrium Model (IDC-DGEM) has been utilised to investigate the scenarios which would affect the South African economy. The IDC-DGEM focuses on micro-economic issues specifically affecting the manufacturing sector in South Africa. These micro-economic issues, such as the identification of gaps between current and required growth paths, are used to illustrate the kind of sectoral performances that are required to achieve high economic growth rates. The methodology that underpins the IDC-DGEM, is based on the projection of three scenarios that range from a LOW (pessimistic) scenario to a BASELINE (moderate) scenario to a HIGH (more optimistic) scenario (IDC, 1998:2).

2.2.1.1 Low Scenario

A policy environment with minimal government support being offered to industry. This scenario exists in spite of and despite the major influence of globalisation. As a consequence, little effort is made towards making any significant structural changes to improve competitiveness. This aptly characterises the current South African scenario.

2.2.1.2 Baseline Scenario

A policy environment which is supported by productivity, improvements in various industries, greater domestic demand for intermediate goods and an increased demand for South African products (IDC, 1998).

2.2.1.3 High Scenario

Operates under a policy environment identical to the Baseline scenario. The major difference is seen in the level of industrial support services and human resource development, and the extent to which private economic agents respond positively to the policy directives and initiatives (IDC, 1998). Companies are more likely to develop products of added value and quality, with a focus at the upper end of the market.

If South Africa were to follow the low scenario, bearing in mind that this scenario is characterised by minimal government support and minimal structural changes, economic growth rates would not be substantial enough to direct the South African economy towards a positive trajectory. This is supported by the IDC's projection that GDP would grow by only 2,2% per annum and investment and export growth by 2,7% and 6,5% respectively (IDC, 1998). Further to this, the IDC projects that employment growth would be –0,1%.

If South Africa adopted industrial restructuring in a baseline environment, (once again, it is necessary to highlight that this scenario is better supported by structural improvement in areas of labour, productivity, product demand and government support), a more favourable economic outlook is possible. Consequently, annual exports and gross domestic fixed investment would reach levels of 7,5% and 4,5% respectively (IDC, 1998). This improved export and investment growth would be attributed to improvements in international competitiveness through currency depreciation and higher investment (IDC, 1998).

If South Africa were to follow the high scenario, this presupposes greater investment in economic growth and employment growth. The IDC (1998) projections require that investment growth be targeted at 11,47%, which would be supported by an employment growth of 3,1% and a concomitant increase in private expenditure of 4,7%. Export levels would be targeted at a higher level together with an increase in domestic production levels. Consequently, the former (export levels) is expected to reach a target of 8,2% per annum and the latter (production levels) 4,7% per annum (IDC, 1998).

The review of the three scenarios depicted in terms of the IDC-DGEM could suggest that South Africa should ideally pursue the high scenario possibility. This is supported by the projection that the two sectors that have the greatest potential of achieving high economic growth rates under a high scenario, is the manufacturing and construction sectors. This is reflected in Table 2.1 below, which reveals that the manufacturing sector could achieve economic growth rates of 4.7% and construction, 7.3% under a high scenario. Given the potential of the manufacturing sector to perform at the high scenario level, this bodes well for the furniture industry, which is a sub=sector of the manufacturing sector.

Sector	Historic 1993- 1996	Low	Baseline 1997- 2001	High
Agriculture	0.0	-0.9	-0.9	-0.9
Mining	-1.2	-0.7	0.1	1.6
Manufacturing	2.7	2.7	3.2	4.7
Electricity	4.0	2.3	3.2	4.5
Construction	-0.5	1.1	2.5	7.3
Trade	3.4	2.6	3.3	4.5
Transport	3.6	2.5	3.1	4.8
Finance	2.5	3.4	3.7	4.4
Community	1.7	1.4	2.1	3.2
Other	1.4	1.3	2.3	3.8
Government	0.9	0.9	1.3	0.7
Total GDP	**2.7**	**2.2**	**3.1**	**4.5**

Table 2.1: Output Results- Main sectors, IDC (1998)

2.3 THE SOUTH AFRICAN MANUFACTURING SECTOR

The manufacturing sector in terms of the IDC-DGEM was identified as an important sector that could generate high economic growth rates. The South African manufacturing sector comprises of a diverse range of industry types and industry size. This diversity of the manufacturing industry is reflected in the existence of a large formal enterprise sector and an SMME (Small, Medium and Micro Enterprise) sector.

The manufacturing sector makes the greatest contribution to the Gross Domestic Product (GDP) in the country (Statistics South Africa [SSA], 1997). Figure 2.1 illustrates that manufacturing contributes 23% to the national GDP, a contribution that is significantly higher in comparison to that of other sectors of the South African economy.

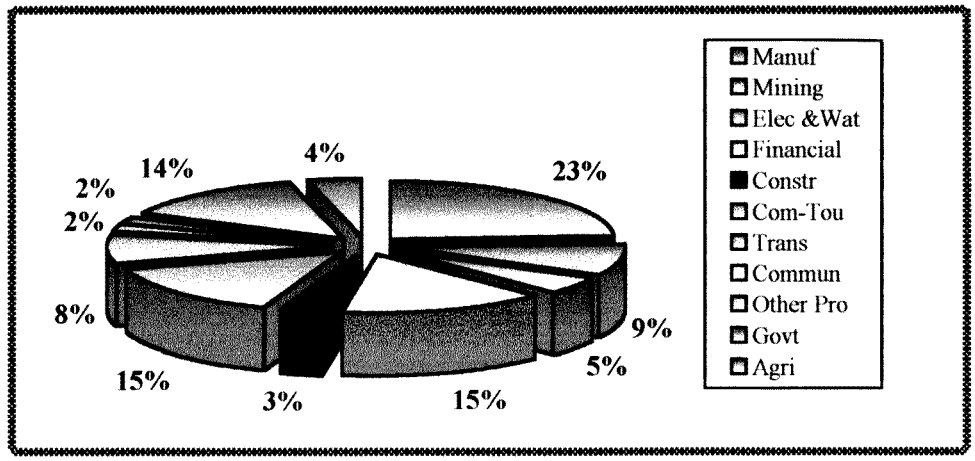

Figure 2.1: Relative Contribution of Sectors to South Africa's GDP (SSA, 1997)

The manufacturing sector is an important sector as it employs a large proportion of the national workforce (SSA, 1995). The manufacturing sector also makes a significant contribution to employment. According to the estimates of SSA (1995), 58% of employment in the manufacturing sector is provided by formal or large manufacturing enterprises, medium enterprises contribute 25% to employment in the manufacturing industry and small enterprises contribute 17% to employment in the manufacturing industry.

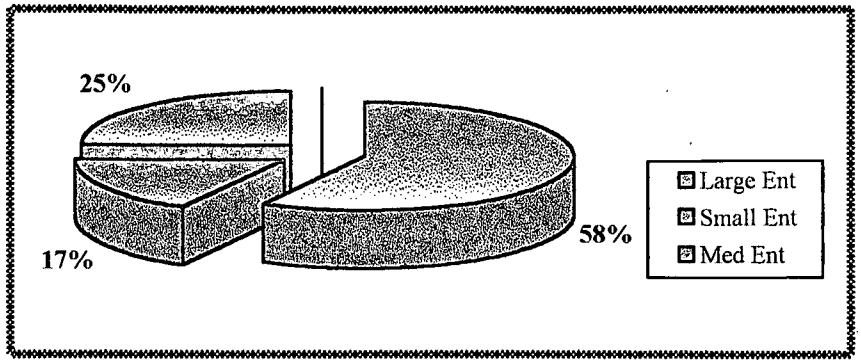

Figure 2.2: : Relative Contribution of Large, Medium and Small Enterprises to Employment in the Manufacturing Sector (SSA, 1995)

The manufacturing sector is an integral part of the South African economy as evidenced in the sector's contribution to GDP and employment. It is also a sector well poised for restructuring to improve competitiveness, due to the possibility that the manufacturing sector could achieve high economic growth rates as posited by the IDC-DGEM.

The restructuring of the manufacturing sector should to be undertaken at a provincial level as each province may have a concentration of a specific type of industrial activities. Also, each province may have problems unique to that region or have strengths in certain areas of manufacturing. For example, a large proportion of furniture manufacturing firms is located in KZN due to its location near seaports and forests (Dunne, Barnes, Morris, 1998).

KZN plays an important role in the manufacturing industry. Kwa-Zulu Natal also makes a significant contribution made toward the national GDP. According to figure 2.3, KZN contributes 17% to the country's GDP, second only to Gauteng which contributes 42% to the national GDP.

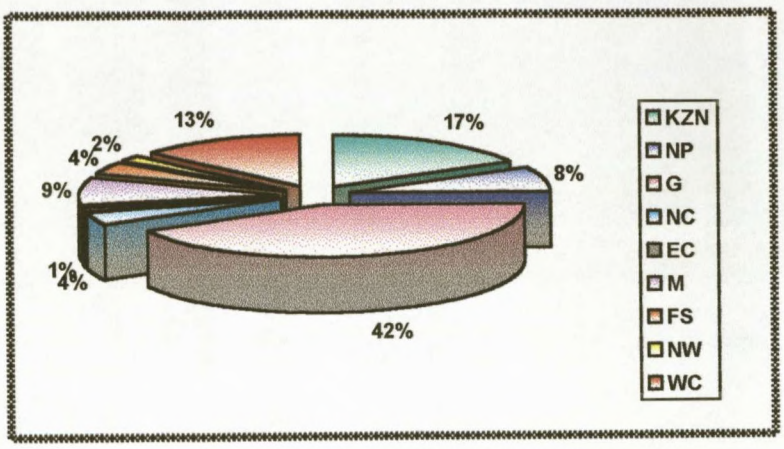

Figure 2.3: Provincial Contribution of the Manufacturing sector to GDP (SSA,1997)

Since, the KZN manufacturing sector is the second largest contributor towards South Africa's GDP, it becomes necessary to implement a strategy aimed at reduced input costs, technology transfer and effective and sustained competitiveness. In this way, KZN could make an even greater contribution to GDP and hence economic growth.

It has been widely accepted that the SMME sector can make a vital contribution to economic growth. The small business sector in South Africa absorbs nearly 44% of people formally employed in the private sector, a contribution of about 32.7% to the country's GDP (Ntsika, 1997). Approximately 10% of manufacturing activity in KZN are accounted for by the SMME sector (DUMAC and Entrepreneurial Research Unit [ERU], 1999). The presence of SMMEs in the manufacturing sector serves as an important invitation to large manufacturing enterprises to enter into business linkages with SMMEs for mutual gain.

2.4 SMMEs IN THE MANUFACTURING SECTOR

It has been suggested that the SMME sector could have a potentially important role to play in economic growth. However, a detailed discussion of the SMME sector and its role in economic development is outside the scope of this study. In keeping with the objectives of this research study (study is limited to furniture manufacturers in KZN), it would more useful to conduct a review of the SMME sector in KZN.

A comprehensive description of the various characteristics of the KZN SMME sector is summarised in Table 2.2. These characteristics could suggest problems that are unique to the province and the areas in which SMMEs experience the greatest difficulty in operating their businesses.

CHARACTERISTICS	DESCRIPTION
Demographic Socio-economic factors	Ninety seven percent of operators are 26 years of age and above. These enterprises are major sources of income for these operators. Operators express a desire to continue their business operations and only half plan to expand their existing business. The average size of the enterprises is 3.3 employees and the operator.
Education, Training and Previous Employment	- 60% of the enterprise operators have standard 8 education and above. - 30.4% have attained matric. - Formal training has been attained by 24.7% of men and 15.2% of women operators. - Most SMME operators have acquired skills on the job. - SMMEs are too preoccupied with issues such as the lack of market opportunities and competition and hence, ignore their problem of having a lack of skills.
Infrastructure, Services and Resources	- SMMEs usually operate from home or a stall in a market. - SMMEs are unable to find suitable sites or cannot afford suitable premises for their business.
Working Hours, Suppliers and Customers	- 90% of operators work 20 days or more per month with 20% working nine hours or more per day. - SMMEs source 80% of their input from large enterprises. - Sales are made to individual customers and households.
Availability of Support and Assistance	- Most assistance received by SMMEs is focussed more on training than on marketing - Less than 10% of SMMEs belong to business associations because they are unaware f the existence of such associations - SMMEs are keen to join social protection schemes especially if those schemes offer medical care and support disability
Finances and Financial Services	- SMMEs start-up capital is between R1000 and R3000, sourced by the operator, from loans and gifts by relatives and from stokvels. - 70% of SMMEs have never attempted to get a loans because they have been unsuccessful before, believe bank procedures are too complicated and costs of loans are too high. - Most operators are the only source of income to their households.
Other Issues	- SMMEs believe that regulations and government interventions are not serious problems. - SMMEs feel relatively uninhibited by political violence and crime. - Female operators of SMMEs fear assault and have the increased burden of household duties.
Perceived Support Needs	- Expansion of credit is viewed by SMMEs as the most important form of assistance. - Local Business Service Centres (LBSC's) and assistance in running Provincial Small Business Council is the next most important. - Local government can provide security from crime, assist with accreditation of LBSC's and the provision of low cost business premises.

Table 2.2: Overview of the SMME Sector in KZN

(Economic Research Unit & The Black Entrepreneurship and Enterprise Support Faculty, 1995)

Based on the summary of data in Table 2.2, the demographic and socio-economic factors suggest that SMME operators in KZN are strongly in favour of continuing their business operations. However, education and training skills are highly inadequate as only 60% of SMME operators in this sector profile have a standard 8 education and only 30.45% have matric. This limits the extent to which SMMEs can be productive and competitive in the business operations. According to Table 2.2, SMMEs face severe difficulties in their ability to access infrastructure, financial services, as well as support and assistance. Although SMMEs cite a lack of support and assistance as a factor that impacts on their business performance, the SMME sector in the KZN furniture industry is well represented by various institutions that provide a range of services from training through to export assistance. To facilitate ease of discussion, these institutions are grouped into 3 categories:

1. Business Associations: business interests, i.e Chamber of Commerce, industry and sector specific business associations.
2. Labour market institutions i.e bargaining councils, industry training boards and trade unions.
3. Government-related organisations that provide a variety of services to industry.

(Aniruth, Barnes, Morris, 1998).

2.4.1 Business Associations

KZN has 14 Chambers of Commerce, however, the focus of this research study is restricted to the Durban Metropolitan Area (DMA) in KZN. This being the case, the Durban Chamber of Commerce and Industry (DCCI) would serve the business interests of the DMA. The DCCI aims to provide services free of charge to all its members as well as provide a "user-pay basis" service according to the needs of each member (Aniruth, Barnes, Morris, 1998).

The DCCI services range from lobbying on behalf of its members to producing a Chamber Digest of information on legislation and business through to offering guidelines for labour relations (Aniruth, Barnes, Morris, 1998, Chamber Digest, 1999).

The province of KZN also includes sector specific organisations, which service the furniture industry. The Timber Products Export Association (TPEA) is an example of such an organisation (Aniruth, Barnes, Morris, 1998, South African Wooden Furniture Trade Directory, 1999). The TPEA is the export component of the furniture industry focused on promoting the export of furniture products.

2.4.2 Labour Market Institutions

Labour market institutions are grouped into three categories, namely, Bargaining Councils, Industry Training Boards and Trade Unions.

- *Bargaining Councils*

  The furniture sector is characterised by a strong presence of employer representatives and labour representatives within bargaining councils. The major bargaining council in KZN is the Furniture Manufacturing Industry (BCFMI). The BCFMI represents only 56% of furniture companies in KZN (Anitruth, Barnes, Morris, 1998).

- *Industry Training Boards*

  The Furniture Industry Training Board (FITB) services the training needs of the entire furniture industry facilitating training courses such as supervisor training, computer aided design and technical training (South African Wooden Furniture Trade Directory, 1999). The Furniture Manufacturing Association works closely with the FITB to ensure that quality standards of training are met by the training boards.

- *Trade Unions*

  The furniture industry is represented by 2 major trade Unions, namely the National Union of Furniture And Allied Workers Union of South Africa (NUFAW) and the Paper, Printing, Wood and Allied Workers Union of South Africa [PPWAWU] (South African Wooden Furniture Trade Directory, 1999). Employers are grouped into the Federation of Furniture (FEDFURN) (South African Wooden Furniture Trade Directory, 1999). It is also important to mention at this stage that the furniture associations FEDFURN, NUFAW and PPWAWU all form part of the National Furniture and Employer Forum of South Africa (South African Wooden Furniture Trade Directory, 1999). This national forum also includes representatives from the bargaining councils as well as the FITB.

2.4.3 Government -related organisations

According to the study conducted by Aniruth, Barnes and Morris (1998) the following government organisations are believed to offer services to the furniture industry in KZN.

- *Kwazulu Finance Corporation (KFC):*

  The KFC is focused on economic development in KZN. The KFC provides business loans for the purchase of plant and equipment and working capital. The KFC also promotes training through the Kwazulu Training Trust.

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- *Kwazulu Natal Marketing initiative (KMI)*

  Undertakes marketing of the province. The KMI as an organisation has as its members city councils such as the City of Durban, the DCCI, and the Business Opportunity Centre, Hibuscus Chamber of Commerce, the Italian-South African Chamber of Trade and Industries, the KZN Inyanda Chamber of Business, the Ladysmith Chamber of Business, the Pietermaritzburg Chamber of Commerce and Industry, the South Africa- Switzerland Chamber of Business, SAFCOR Freight (pty) ltd and the Zululand Chamber of Business (Aniruth, Barnes, Morris, 1998). The KMI aims to attract investment through the provision of information and support for businesses, particularly through undertaking feasibility studies of potential investments for business. The KMI is a link to the international arena in China, Taiwan, India, Malaysia, South Korea, the United Kingdom, Germany, Italy, France, Holland, USA, Canada and the Benelux countries (Aniruth, Barnes, Morris, 1998). The KMI also provides a link to facilities such as leasing or purchasing of industrial premises.

- *Durban Manufacturing Advisory Centre (DUMAC)*

  DUMAC focuses on the diagnostic evaluation of problems being faced by furniture industries in KZN. DUMAC also aims to provide marketing advice, export advice, promote linkages between firms and provide technical and information support.

- *KZN Regional Economic Forum (KZN REF)*

  The KZN REF is an organisation that promotes partnership building between organised businesses, labour, community-based organisations and non-governmental organisations. (NGO's) This partnership building activity is aimed at assisting provincial government to develop strategies and policies and the implementation thereof.

Another interesting feature of the furniture industry in KZN is the number of small enterprises that dominate the industry.

Sector	Employees/enterprise
Electrical	17.86
Leather	23.05
Metals	25.65
Machinery and appliances	26.62
Wood	27.63
Furniture	33.33
Plastic	37.60
Printing and Publishing	45.17
Other	45.75
Non-metallic Minerals	50.11

Table 2.3: Smallest enterprises (by average number of employees per enterprise)

Source: (SSA, 1993 Census of Manufacturing Statistics)

Table 2.3 highlights that the average number of workers in the furniture industry is approximately thirty workers. This confirms that smaller enterprises dominate the KZN furniture sector. The locational advantages of the DMA in KZN, that is, the access to major ports (Durban and Richards Bay) and the already strong presence of small furniture enterprises, makes the DMA an ideal area in which to attempt improvements in competitiveness, particularly in the furniture sector. "Given the presence of a wood products cluster already in place, there is little doubt that KZN is the leading location for an export-oriented investment (especially with developments in the Maputo Corridor) in wood products and furniture. KZN is well positioned to accept new technologies specifically for the furniture sector, such as moulded furniture components, which would contribute to the province's competitive advantage (The Services Group, 1997).

2.5 THE IMPORTANCE OF COMPETITIVENESS IN SOUTH AFRICAN MANUFACTURING

In 1994 the United States Department of Commerce identified South Africa as one of the world's top ten "Big Emerging Markets" (http://www.southafrica.net/economy/other/emergingmkt.html). It was recognised that South Africa has enormous potential for its market share to exceed that of the European Union and Japan combined. However, despite this positive sentiment, South Africa has been criticised for its reactive management structures, stagnant economic growth and inefficient competitive levels (Morris, Barnes, Dunne, 1998; Kotze & Kotze, 1997; Business Africa, 1995).

If South African manufacturing firms (particularly furniture manufacturing firms) are to become more competitive, key factors that allow firms to operate at high levels of competition need to be identified. Kaplinsky and Morris (1997) suggest that competitive advantage reflects the ability of specific firms to take advantage of factor endowments in order to sustain profitable market presence. It should be borne in mind that every sector is characterised by its own unique factor endowments. For example, the presence of gold mines in Johannesburg for instance is closely linked to the rich concentration of gold deposits in the area.

Based on this, Kaplinsky and Morris (1997) have highlighted the following factors as influencing competitive advantage:

- The ability to recognise the increasingly segmented and volatile nature of markets and to attune production accordingly.
- The ability of the firm to reorganise its internal operations.
- The efficiency of the whole product chain rather than that of individual firms.

- The efficiency with which the national and regional systems of innovation functions.
- The effectiveness of the producer services sector.
- The role of locational advantages.

2.5.1 The Ability To Recognise The Increasingly Segmented And Volatile Nature Of Markets And To Attune Production Accordingly

South African manufacturing companies have operated in a vacuum of isolation and protectionist trade policies (Kotze, 1997; IDS, 1997; Kaplinsky and Morris, 1997; Monitor Company, 1995; Joffe *et al*, 1995). This has contributed significantly to the inability of South African manufacturing firms to identify market needs and hence fulfil these market needs. The inability to "hear markets" cannot be overemphasised in an era of global competition (Kaplinsky & Morris, 1997).

2.5.2 The Ability Of The Firm To Reorganise Its Internal Operations.

According to Kaplinsky and Morris (1997) firms need to organise themselves in terms of their work flow, i.e. the ability to focus on just-in-case inventories and large-lot production to Just-In-Time (JIT) inventories and single unit flow, quality procedures and work relations. In the case of South African manufacturing firms, too much emphasis is placed on maximising volume output as opposed to ensuring that production processes operate at consistent and continuous levels of output. As a case in point, sawmills focus on cutting logs for volume output. Consequently, furniture manufacturers have not been able to source consistently required quality dimensions of lumber from sawmills (IDC, 1995).

2.5.3 The Efficiency Of The Whole Product Chain Rather Than That Of Individual Firms

A greater degree of collaboration between firms along value chains would contribute towards making them more competitive.

2.5.4 The Efficiency With Which The National And Regional Systems of Innovation Functions.

Innovation should not be restricted to the firm itself. Instead, developing close links with institutions such as research organisations and other businesses would foster a climate of greater competitive efficiency.

2.5.5 The Effectiveness Of The Producer Services Sector.

The effectiveness of the producer services sector relates to the provision of services, such as consultancy services to assist firms in obtaining specialised knowledge. Such specialised knowledge could lead to the adoption of better production methods, quality controls and greater expertise. However, the presence of business associations such as the Chambers of Commerce and labour associations have been criticised for not providing specialised services to assist businesses (Aniruth, Barnes, Morris, 1998). Criticism is often levelled at these institutions for acting independently and not consulting with necessary stakeholders. The perception is that these institutions lack the resources and the capacity to provide specialist services to businesses, particularly SMMEs.

2.5.6 The Role Of Locational Advantages

There is increasing support for the belief that firms which cluster together achieve "collective efficiency" (Nadvi, 1998, IDS 1997, Kaplinsky and Morris, 1997; Schmitz, 1995). It is believed that benefits from one firm are transferred to other firms within the cluster, e.g. acquisition of new technology (Darrell, 1999; Kaplinsky & Morris, 1997; Porter, 1990). The close proximity of firms ensures that various skills are located within a specific area (Darrell , 1999; Colleye, 1998; Peart ***et al***, 1998).

Further advantages of close locational proximity equate to better production methods through the elimination of wastage because suppliers and users are adjacent to each other and firms are able to be more flexible and undertake joint activities such as marketing, purchasing, training and quality control (Darrell, 1999; Kaplinsky & Morris, 1997; Porter, 1990)

The ability to compete and to sustain a competitive advantage requires a multiplicity of factors to be taken into account. It would therefore not be totally incorrect to assume that successful businesses are founded on strong competitive capability. This will be explored in greater detail in the next chapter that focuses on the new manufacturing paradigm, founded on the basis of maintaining a competitive advantage both nationally and internationally.

2.6 CONCLUSION

IDC-DGEM as the model of economic development was discussed in this chapter and laid the foundation for the identification of specific sectors that could achieve high economic growth rates. The model highlighted three possible scenarios of economic growth, namely, LOW, BASELINE and HIGH. The manufacturing sector was identified as a sector in which high growth rates could result under a HIGH scenario. This led onto the discussion relating to the South African manufacturing sector, emphasising the advantages of the sector by reviewing its sectoral contribution to GDP and employment. The SMME manufacturing sector was also discussed with specific reference to KZN to identify the potential areas of development for the province. The final part of this chapter looked at the importance of competitive advantage and advanced the recommendations suggested by Kaplinsky and Morris (1997) to assist firms in becoming more competitive.

CHAPTER 3: CLUSTERS / LINKAGES

3.1 INTRODUCTION

Clustering as a manufacturing strategy, has the potential to improve the competitiveness of both large and small firms. Therefore, the purpose of this chapter is to examine more closely the cluster concept, the way in which clusters work, international experiences in respect of clusters and the relevance of the clustering paradigm to the South African manufacturing sector.

3.2 CLUSTERING: THE NEW MANUFACTURING PARADIGM

Porter (1990) has asserted that industries within nations compete and define national competitiveness, and further argues that a nation's competitiveness depends on the capacity of its industry to innovate and improve. Porter's "diamond" of national advantage illustrates that companies can be globally effective through the workings of four fundamental criteria for competitiveness. These include: factor conditions, demand conditions, related and supporting industries and firm's strategy, structure and rivalry (Peart *et al*, 1998; Monitor Company,1995; Porter, 1990). This cluster or diamond approach is illustrated in Figure 3.1 and its components will be explained further with reference also being made to the role of government in the "diamond".

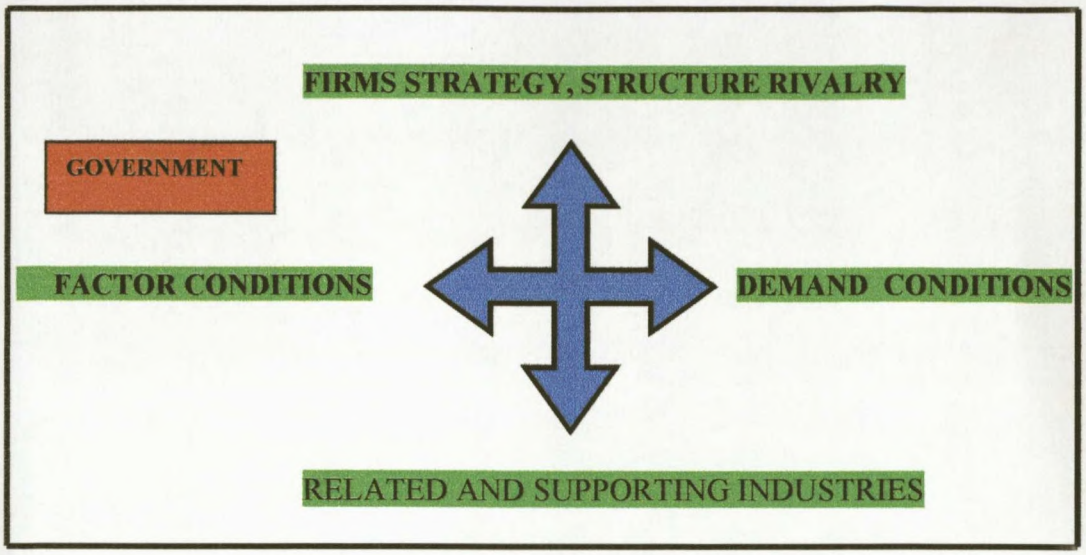


Figure 3.1: Porters Diamond of Competitiveness Monitor Company (1995)

3.2.1 Factor Conditions

Factor conditions relate to primary inputs, that is, the basic factors of production such as land, labour and capital, which is a necessary condition to compete in an industry. A distinction must be drawn between basic factors and advanced factors. Basic factors are those factors that a nation would inherit or is created through moderate investment, whereas advanced factors are those developed through sustained and sophisticated investment in both human and physical capital such as digital data, or modern infrastructure (Monitor Company, 1995). A further differentiation has to be made between generalised factors of production and specialised factors of production (Monitor Company, 1995, Porter, 1990). The former (generalised factors) relates to factors that can be applied to a wide range of industries, for example, a continuous pool of skilled university graduates, a credit guarantee system. The latter (specialised factor) is not applied to a vast range of industries, but to a single industry or a limited range of industries. For e.g., the United States leadership in the software industry has greatly benefited from the availability of specialised sources of debt and equity capital (Monitor Company, 1995).

A nation's ability to continually upgrade its factors and invest in the development of advanced and specialised factors is more likely to foster industrial success. The private sector has an important contribution to make by identifying where investment in factors should take place. South Africa has relied solely on the availability of it natural resources, but this is "notoriously vulnerable" to depletion. "An abundance of basic factor conditions may inhibit investment in and development of advanced factor conditions which is to the detriment of national competitiveness. South Africa has clearly suffered from this malady" (Peart *et al*, 1998: 6).

3.2.2 Related and Supporting Industries

Industries that provide support to industry are considered key elements in achieving national and international competitiveness. The presence of home-based suppliers and related industries in those products, components, machines, or services that are specialised and/or integral to the process of innovation in the industry influences competitive advantage (Monitor Company, 1995). Apart from access to components or technology, a benefit is also derived from firms working in close proximity to each other. Competitive advantage amongst firms is derived from the ability to exchange information and transfer technology between supporting industries.

Related industries are those that are linked to an industry by common technologies, distribution channels, skills or customers (Monitor Company, 1995). The presence of these related industries also results in the exchange and sharing of information and technology. These industries would continuously upgrade skills and create possibilities for new entrants to bring in new ideas to enhance competitiveness.

"Linkages between industries extend upstream to supplier industries where close co-operation, including demand forecasts, detailed supply requirements and scheduling, provides for just – in – time, lean production and 'kanban' systems prevalent in Japanese industries. Downstream linkages through distribution and marketing ensures that products move efficiently through the supply chain" (Peart *et al*, 1998: 7). An example of this can be seen in the Italian shoe industry where a large number of small firms support each other performing specialised functions, and they are closely situated in terms of geographical location.

3.2.3 Demand Conditions

Focusing on differing consumer preferences can develop competitive industry, as it is the effect of consumer demand that will contribute to competitive effectiveness. Consumer demand drives innovation and development of new products. This would result if consumers in a domestic market have stringent preferences for products and services, forcing firms to develop high quality standards. The pressure placed on firms to satisfy the local market could enable them to penetrate the international market with greater success, as the strong emphasis on high standards of products and services locally, could enable them to meet international demands for high standards of products and services.

3.2.4 Strategy, Structure and Rivalry

Domestic rivalry is seen as an impetus for competitiveness, as it creates pressure for industries to be innovative. The dynamism and pressure created by vibrant local rivalry is perhaps the single most important stimulus to innovation and upgrading in an industry (Monitor Company, 1995, Porter, 1990).

The presence of domestic rivals serves as a motivating factor for other firms to make investments and take risks in order to remain competitive. The close proximity of domestic firms result in fast information flows and exchanges, hence domestic firms would be forced to upgrade and develop factors than rely on basic factors. Strong domestic rivalry can result as long as there is new business creation. The role of SMME's is vital, as it is people with an entrepreneurial flair that can bring in new ideas and innovations, forcing other domestic firms to do the same.

3.2.5 The Role of Government

The role of government should be viewed in terms of how it influences the diamond. Government can play a role at national, provincial and local levels through investing in factor creation, through its role as a buyer or influence on the goals of individuals and firms, and through its competition policies (Monitor Company, 1995). Government could help stimulate the competitive environment through improving the quality of factors available by encouraging innovation and upgrading. Government's role should be an indirect one that is only involved in making sure that the conditions for proper working of the diamond are present. Government's role is to motivate industry to achieve higher levels of competitiveness, not to develop overly friendly associations with firms, which only results in reduced risk-taking and complacency towards innovation and upgrading.

3.3 THE SOUTH AFRICAN DIAMOND OF COMPETITIVENESS

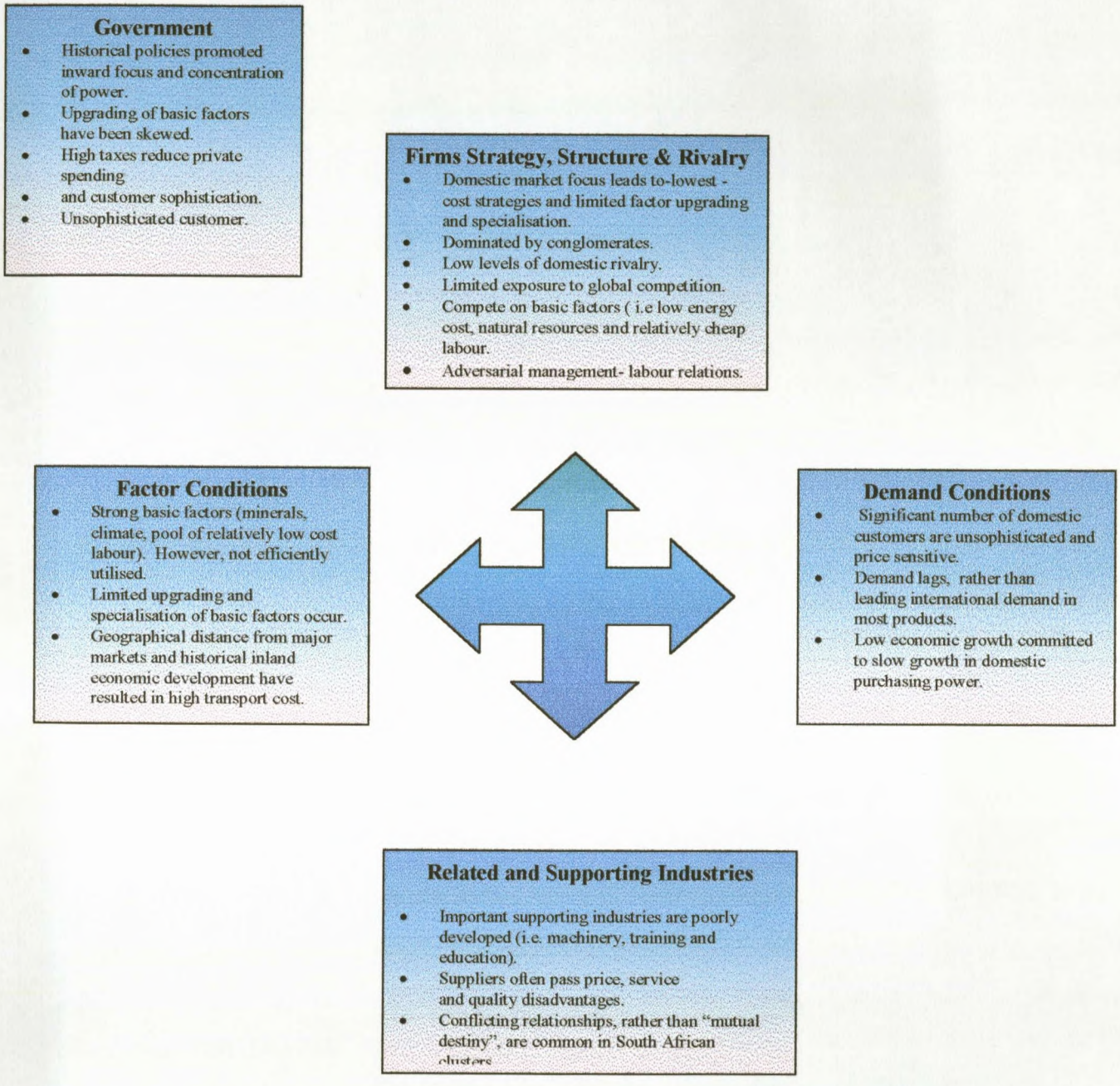


Figure 3.2: South African Diamond of Competitiveness (Kotze & Kotze, 1997)

A review of the South African diamond of competitiveness indicates that South Africa does not fare well in terms of the four criteria (factor conditions, demand conditions, firms' strategy structure and rivalry, related and supporting industries) for competing effectively as posited by Porter. Historically, manufacturing policies promoted inward focus and concentration of power. Domestic market focus leads to lowest cost strategies and limited factor upgrading and specialisation. This resulted in the over-utilisation of basic factors (i.e low energy cost, natural resources and relatively cheap labour), low levels of domestic rivalry and limited exposure to global competition.

The South African economic climate has been characterised by low economic growth and high taxes (which reduce private spending), adversarial management- labour relations and a significant number of domestic customers who are unsophisticated and price sensitive (Peart *et al,* 1998). South African demand conditions lag as a result of inward-looking policies and a greater demand for leading international products. South African manufacturing firms are geographically distant from major markets and have resulted in high transport cost and subsequently increased costs of production. More importantly, supporting industries are poorly developed (i.e. machinery, training and education). Conflicting relationships, rather than "mutual destiny", are common in South African manufacturing firms.

Porter's analysis has important ramifications with regard to the development of economic strategies in the manufacturing sector: in particular, the Porter model has been applied as a tool for sustaining competitive advantage and provides the theoretical context in which the clustering concept has emerged.

However, there are a number of shortcomings and these include its lack of predictive capability, and its difficulty in identifying and addressing the large number of variables impacting on industry competitiveness, and its failure to describe a methodology or process to undertake in order to change an industry's competitive environment [Foster – Pedley 1998; Kuper 1998, in Peart *et al* (1998)]. Further criticism focuses on the model's underestimation of the significance of the globalisation of production and markets, and it does not adequately deal with foreign – owned firms. Finally, the model ignores cultural factors, which can have significant effects on business behaviour (Peart *et al,* 1998).

Despite the shortcomings prevalent in the Porter approach, the approach has gained global recognition in terms of the application of clusters to improve competitiveness. The advantages to clustering as asserted by Colleye, (1998) suggest that 'active clustering' offer many competitive benefits to large and small firms, particularly for small and medium enterprises. With liberalisation, globalisation and rapid technological change, clusters can be an important policy instrument for competitiveness.

3.4 CLUSTERS: A THEORETICAL CONTEXT

The key factor in developing South Africa's manufacturing industry lies in the ability of manufacturing firms to exchange knowledge and ideas, to work together to support each other, to identify obstacles to competitiveness and to address these obstacles more effectively together (Darrell, 1999; Business Day, 1998; IDS, 1997). At this stage it is important to define the term "clusters" to explore in greater depth the nature and characteristics that underpin the concept. A review of the literature has revealed various definitions of the term "clusters".

- "It is a group of firms acting collectively in order to derive enhanced competitive advantage (or collective efficiency) through the development of close relations and linkages (activities) by way of sharing, collaborating and co-operating to meet a particular market demand" (Darrell, 1999).

- "A cluster is a process, not an event" (Food and Beverage Reporter, 1998).

- "Clusters are networks of firms, industry associations, labour organisations, government departments and related and supported institutions such as input suppliers and financial institutions which are involved in all the steps of the traditional industry value chain (Agricultural News, July 1997).

- "Collective efficiency – which is defined as the competitive advantage derived from a combination of local external economies – i.e. benefits that accrue from physical proximity of firms – and through joint action" (IDS, 1997; Schmitz, 1997).

Although these varying definitions have been given for the term clustering, two common threads run throughout all these definitions:

1. Clustering is based on close relationships, trust and communication.
2. Clustering is an on-going process of co-operation and collaboration

Figure 3.3 is a diagrammatic representation of the cluster concept. According to the figure, for clusters to function effectively, there is a need for a close relationship between leading firms, networks of supplier firms and economic infrastructure.

Leading firms (key firms that export goods and services) would be involved in linkages with networks of supplier firms, that service leading firms with inputs, raw materials, parts and components. These linkages would occur where there is strong economic infrastructure, in the form of human resources, technology, finance and capital, a good business environment and physical infrastructure. However, in the case of South Africa these conditions may be lacking and this could hinder linkage formation.

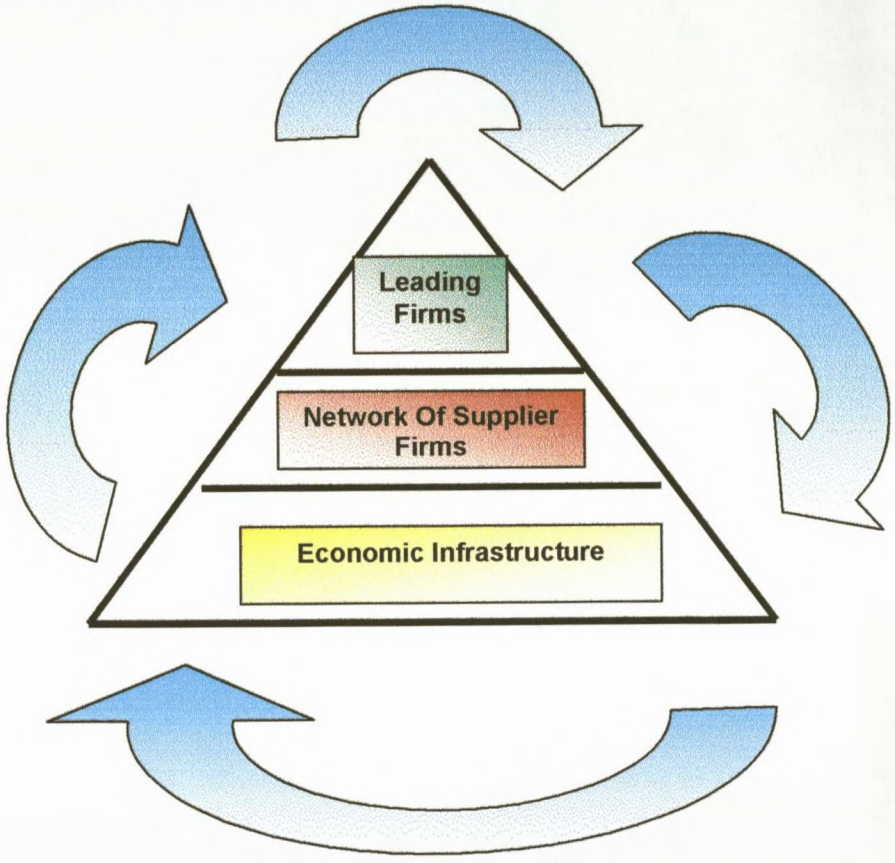


Figure 3.3: The Cluster (Colleye, 1998; World bank, 1998)

Clustering which is based on close relationships, trust and communication generally works well when firms are located within a particular geographic area (Darrell, 1999; Kaplinsky & Morris, 1997). If geographic dispersion is extensive, the ability to maintain close links and relationships with other enterprises is difficult.

Close geographic proximity is a favourable climate to induce collaboration and co-operation between SMMEs (Darrel, 1999; IDS, 1997; Heher 1997). SMME's are often characterised by their general a lack of resources and an inability to compete effectively (DUMAC & Entrepreneurial Research Unit, 1999; Economic Research Unit & The Black Entrepreneurship and Enterprise Support Faculty, 1995). The synergistic co-operations between SMMEs in close proximity to each other would allow them to be more flexible, adaptive to changes and innovative in their servicing of market needs (Darrell, 1999 ; Kaplinsky & Morris, 1997; IDS, 1997; Porter, 1990).

If firms commit to clustering on an on-going basis, this could have a positive outlook for firms in a cluster. According to research undertaken by the (Darrell,1999), the following advantages could result from on-going collaboration. This list of activities is in no way an exhaustive one.

- Sharing assets, services or products within the cluster, which could involve sharing or part ownership of a means of production, for example, use of the same piece of equipment to manufacture something. The opportunity also exists for sharing utilities, facilities and other services, such as maintenance.
- Collaborating and working together through joint efforts in buying, marketing or even sales. Collaboration to work together does not require that firms be located in close proximity although close proximity does promote greater collaboration.
- Co-operating by focusing and achieving joint goals. These could stem from joint administration activities and joint research and development activities.

- Building alliances through joint venture initiatives, partnerships, and subcontracting.
- Networking involves close links with government ministries and government related organisations, firms and organisations in similar industries in the same supply chain (Aniruth, Barnes, Morris, 1998). Network success is likely to be the result of effective interaction among small, overlapping subsets of firms. Stronger co-operative ties can develop among small clusters of firms, where a few key firms are mutually dependent and small-scale buyer-seller networks that operate in these clusters can develop among multiple firms into a broad network of firms (Provan and Sebastian, 1998; Human and Provan, 1997; Larson, 1992; Lorenzoni, 1988).

The nature and characteristics of clustering encompasses a dyadic relationship between various industry players (Darrell, 1999). Such a relationship is based on strong collaborative initiatives between various industry players, all of whom strive toward common goals. In order for clustering to evolve as a successful strategy to enhance competitiveness, a greater commitment has to be given towards forging relationships of trust, co-operation and collaboration. However, South Africa's manufacturing industry has been slow to 'buy-in' to the cluster paradigm (Dunne , 1999b; Darrell, 1999; DTI, 1997). This could be attributed to a lack of understanding underpinning how cluster processes work and even to a lack of trust. Bbenkele (1999) has suggested that unless socio-cultural dynamics are taken into account, efforts aimed at promoting links between SMMEs and other businesses is not going to succeed. Bbenkele (1999) has further asserted, that three psychoses impact on the formation of linkage relationships, namely:

- Psychosis of fear
- Psychosis of jealousy
- Psychosis of being different from other people

Firstly, the psychosis of fear can be viewed in terms of the orientation of the survivalist and micro enterprise sector. They often remain at a particular level with no ambitions of growing their business. As a result, these businesses are continuously faced with an uphill battle and are most likely doomed to failure.

Secondly, if a business performs well and another similar business is struggling to survive, a fear of jealousy creeps in, because people are scared to see another person's business prosper. This psychosis of fear is further reflected where businesses that do perform well, develop the following attitude..."I must not be over prosperous otherwise people are going to be jealous of me, they will attack me directly using physical violence" (Bbenkele, 1999)

Thirdly, is the psychosis of being different from other people. As an example, street hawkers would all arrange the same products (such as fruit) in the same way in one particular street. Marketing theory suggests, that differentiation of product offerings stimulate consumer purchases (Titman, 1995; Porter, 1980). However, in the case of many SMMEs, they still maintain that it would be better to be the same as others.

The existence of these three psychoses could inhibit the development of business linkages. The important implication from the psychoses is that promoting linkages amongst SMMEs and large enterprises cannot be done in isolation of socio-cultural dynamics. The next section of the chapter will investigate the approaches to cluster development and the structural dynamics of various cluster types.

3.5 APPROACHES TO CLUSTER DEVELOPMENT

Various approaches to cluster development have been identified. These include public policy interventions, the macro cluster and the micro cluster (Darrell, 1999).

3.5.1 Public policy interventions

With regard to public policy interventions, efforts to promote competitiveness and employment growth opportunities have been supported by strong public sector involvement through government (Darrell, 1999; Colleye, 1998; Kerr-Peterson, 1997). Government's role in promoting cluster initiatives have occurred ***directly*** through the provision of financial assistance such as seed capital, and ***indirectly*** through measures such as incentives (Darrell , 1999). In South Africa, major government efforts to promote clustering have been spearheaded by the Department of Trade and Industry (DTI, 1997; Ntsika, 1997). Government's role in promoting clustering should occur at all levels of government, viz. nationally, regionally and locally. International experience has suggested that government's role in promoting clusters should be limited to providing an enabling regulatory environment (characterised by a legal guideline or framework as to how linkages should work), and a supportive environment (provision of services such as consultancy services, mentorship and training) in which the private sector drives the establishment and further development of cluster activities (Darrell, 1999; IDS, 1997; Humphrey and Schmitz, 1995).

3.5.2 The Macro Cluster:

The South African understanding of the term clusters was viewed in terms of the entire industry (Darrell, 1999). However this holistic/macro view has somewhat distorted the understanding of the cluster concept.

Consequently, efforts by the DTI to stimulate the formation of cluster initiatives have been thwarted by an ill-informed business sector, inability of industry to understand the cluster networking, and lack of collaboration amongst industries (Darrell, 1999; DTI, 1997).

A shift from a macro focus to a regional focus is believed to have better advantages for firms that wish to engage in cluster relationships. International experience suggests that industry type clusters operate within high geographic boundaries and do not include all the industry actors at a national level (Darrell, 1999; Kaplinsky & Morris, 1997). The macro-approach to clusters involves the formation of clusters through large firms (Darrell, 1999). Large firm promotion of clusters could result in collaborative efforts with smaller businesses.

3.5.3 The Micro Cluster

Micro clusters involve a small group of firms, generally operating in similar sectors, in most cases geographically close to each other and lacking the capacity to compete on their own (Schmitz, 1995; Kaplinsky & Morris, 1997). Micro-clusters involve close relationships between firms in a climate of open communication and collaboration. Firms both large and small engage in a business relationship together without interventions through policy initiatives. In essence the micro cluster embodies a unique relationship where firms initiate efforts to ensure that the cluster operates effectively.

3.5.4 TYPES OF CLUSTERS

The macro and micro view of clusters has described the nature of cluster initiatives. However, cluster relationships involve very close relationships (especially where firms are in close proximity to each other) as well as relationships that are more informal (especially where firms are not group in close proximity to each other). Assessing the structural dynamics of a cluster has revealed four distinct types (Darrell, 1999):

- *Vertical cluster* — involves buyer-seller relationships. Such a cluster involves integration through subcontracting relationships and outsourcing of activities.
- *Horizontal cluster* — involves close relationships between firms usually in similar geographic locations. Firms generally engage in the sharing of resources, production processes and even technology.
- *Mixed cluster* — a combination of both vertical and horizontal cluster relationships. This is a more outward operation as business opportunities increase and thus become more competitive.
- *Emerging cluster* — less formal linkages between businesses but these represent the early workings of a cluster relationship. Eventually these relationships could evolve into vertical linkages, horizontal linkages and a combination thereof.

In the case of the furniture industry, the formation of vertical clusters would work best because SMME furniture manufacturers involved in the cluster would develop greater skills, experience and expertise by collaborating with larger businesses. This enables the SMME furniture manufacturer to develop a favourable reputation, and this would serve as a catalyst in the formation of horizontal clusters involving other small businesses.

3.6 THE ADVANTAGES OF CLUSTERS

Joint collaboration and co-operation is believed to bring about collective efficiency and high levels of competitive ability. With this in mind, various advantages have been observed in the literature regarding clusters.

- According to Schmitz (1995) clusters create collective efficiency by helping firms focus their resources and efforts into specialist core activities. Joint collaboration ensures that non-core activities are also resourced by firms in a cluster.
- Clustering allows firms to undertake joint activities and to pursue opportunities together. This is particularly useful where firms seek to target specific niche markets. Joint efforts are believed to reduce transactions costs which contribute towards overall competitive ability (Darrell, 1999).
- Firms that work closely in a geographic location would be able to apply just-in-time (JIT) supply techniques more effectively as joint collaboration creates an environment of information sharing, technology transfer and open communication. (Kaplinsky & Morris, 1997; SA Report, 1997/1998)
- Firms in a cluster are also believed to have greater adaptive ability in coping with changes in global markets (Agricultural News, 1997; Sunday times, 1997).

The advantages of clusters summarised above could relate to both large and small enterprises. However, since the focus of this research is on the small business sector, it is useful to outline the specific advantages of clusters that extend to small businesses.

The advantages of clusters extend to smaller enterprises in the following ways:

- access to data is facilitated, ranging from market and product opportunities to cost and production data;
- the identification, through interaction, of the challenges faced by the industry in increasing competitiveness is improved;
- the ability to identify areas where small business assistance is available and how to obtain this assistance, is enhanced;
- opportunities to influence discussions and actions to address problems or gaps in the cluster, are created;
- opportunities to form alliances with other industry players in order to increase their ability to tender for larger products, procure inputs at better prices, launch joint marketing initiatives, etc, are promoted

(Diamond News and S A Jeweller, Jan 1998).

The benefits that accrue to clustering are numerous, and all of the benefits that have been discussed in this section of the research study points to how effective the clustering methodology is. However, it would be naive to assume that there are no shortcomings that exist in the approach to manufacturing strategy. Therefore, the next section of this chapter reviews the disadvantages associated with cluster formation.

3.7 WHY CLUSTERING INITIATIVES ARE DIFFICULT IN SOUTH AFRICA

Various advantages that have been credited to the clustering methodology, strongly impacts on its potential as a strategy to enhance competitiveness, however, the implementation of clustering as a manufacturing strategy in South Africa is not commonplace. Various factors are believed to contribute to the lack of implementation of the concept.

- *Lack of local capacity and resources:* Resources displayed at government level are usually targeted at addressing socio-economic needs. This limits the degree to which government can promote the development of cluster initiatives (Darrell, 1999).
- *Narrow business mindset:* South Africa's previous protectionist trade practices have helped little in establishing a climate of openness and trust to promote cluster development. Common values and a shared vision encourages the development of trusting relationships (Tsai & Ghoshal, 1998). A climate of shared vision and values is not readily accepted in South African industry.
- *Structural dominance in industrial sectors:* South Africa's manufacturing industry is dominated by a few large firms. These firms are believed to prevent smaller firms from entering the market and hence prevents the possibility of joint collaboration. A stigma attached to these large firms relates to their inability or unwillingness to engage in competition with other firms, due to their large dominant market presence.
- *Inadequate response to globalisation:* The past protectionist policies have further contributed to South Africa's manufacturing industry being unable to expand into export markets (Engineering News, 1998).

Consequently with the opening up of global markets and trade regulations such as those instituted by the World Trade Organisation, have shifted South Africa's focus to adopt the most innovative strategies to remain competitive.

- *Clustering know-how:* Clustering as a methodology is not well understood and hence, implemented. Greater effort is needed to learn more about the methodology and its effects on the South African manufacturing industry.
- *Lack of credibility:* There is no evidence of any organisational body or person driving the process of cluster development. Government's effort (mainly through the DTI) has been viewed with much suspicion by the business sector, which does not spur on the cluster development initiative (Business Day, 1998; Business Day, 1997).
- Small firms are ***too supply-oriented*** and too focused on inputs for production such as skills, technology, raw materials, and not sufficiently concerned with who would buy the outputs (IDS, 1997)
- Small firms are ***rarely sustainable***: the cost or reaching out to a multitude of small firms is high and cost recovery for support services tends to be poor. (Humphrey and Schmitz, 1996)
- ***Non-financial efforts*** to improve the performance of enterprises have a once-off effect on the performance of enterprises and rarely lead to these enterprises being focused on continuos improvement.

Despite the difficulties that may exist, the advantages to clustering far outweigh the disadvantages. However, the clustering methodology is not being implemented as extensively as it should. The best way in which South Africa's manufacturing industry can relate to the cluster methodology is to view real-life experiences of successful clustering.

3.8 CASE STUDIES OF CLUSTER INITIATIVES

Many examples exist of competitive clusters where success can be traced to benefits of co-operating. Such comparative exercises, especially in relation to clusters, is useful to identify actions that can be taken to enhance competitiveness not only in the industry but in the firm as well (Miliken, 1998). A review of international best practice helps to improve current strategy formulation and focus efforts more clearly towards achieving the most competitive position possible in industry.

Cluster programmes are currently running in over 30 countries and have been successful in countries such as Poland, Colombia, Northern Ireland, New Zealand and several states in the United States (Peart *et al,* 1998, DRI/Mcgraw, 1996). The cluster approach has been applied at a regional level (e.g. Chihuahua in Mexico and Silicon Valley in the United States) and industry level (e.g. wheat, milling and baking industries in South Africa) (Peart *et al*, 1998: 24). In the United States, 350 clusters employ 57 percent of the workforce, generate 61 percent of the nation's output and produce 78 percent of exports (Heher, 1997). If South Africa draws on the international experience in clustering, the key success factors that drive competitiveness, such as strong leadership to steer cluster initiatives, collaboration aimed at technology advances and product development could be utilised to enhance the competitiveness of South African furniture manufacturing firms. In addition to this, a strong governmental role is required to lend support to the initiative, which includes representing the views of the region's population, communicating success stories and structuring institutional policies to support regional cluster development.

Chile and Pakistan were chosen as case studies as they represent collaborative initiatives in developing economies. The case studies of Austin and Japan are representative of collaborative initiatives in developed economies.

Of particular importance is the Japanese model of engagement, which will be utilised to formulate guidelines for the implementation of vertical and horizontal linkages amongst furniture manufacturers in the KZN region.

3.8.1 Chile

The government in Chile had identified that the SME sector needed major upliftment. The most appropriate vehicle used to accomplish this task was based on the development of clusters of networks of firms. It was believed that co-operation between firms would:

- Have a positive impact on regions and localities as a whole.
- Facilitate public-private partnerships as an essential tool to develop economies at a local level.

The entire effort of uplifting the SME sector was founded on clearly diagnosing problems, developing problem-solving ability, maintaining common vision and ensuring that a change agent or co-ordinator facilitated effective working of the cluster (Darrell, 1999; Humphrey and Schmitz, 1995). The major thrust of co-operation was instilled through the co-ordinator (via company visits and workshops), who ensured that efforts aimed towards developing joint ventures and firms working together resulted in firms improving their overall competitive ability.

Government's role throughout the restructuring effort of the SME sector was limited to a three year funding period (Humphrey and Schmitz, 1995). This sent a clear message to the various groups of firms: self-sustainability was a priority that had to be established as early as possible. "Over a two year period ten projects were run, seven were considered successes and a further 4 were very successful, securing contracts from large mines in the vicinity. A number of firms had increased their market share and gained access to other domestic and export markets" (Humprey and Schmitz, 1995).

3.8.2 Sialkot, Pakistan (Nadvi, 1998)

Sialkot's wholly export-driven surgical instruments cluster consists of some 300 SMEs and over 2000 ancillary units providing specialised services on a sub-contracting basis. There are over 200 suppliers of inputs and over 800 service suppliers (transport, communications, couriers, finance insurance, customs, cargo handling etc). There is also a range of support institutions (public and private). The region has experienced sustained growth of approximately 10% a year since the mid-80's. Over 80% of exports are to high quality markets in the US and Europe.

Aside from the benefits of strong sectoral and geographic concentration that provide a natural synergy, the success of the cluster is also achieved through extensive collaboration and interaction with their end-users i.e. the surgeons and health-care professional that use the products. Indicative of this approach is the comment by one of the local producers:

"...*our ties with clients are our jugular. If you cut it we will die*" (Humprey and Schmitz, 1995). These links are fostered through a number of sources: foreign buyers, German manufacturers who subcontract part of their production to Sialkot-based firms, foreign sales offices for Sialkot firms and independent sales agents. The ties with buyers are long-term and frequent.

The exchanges revolve around discussing product quality, developing technical capability, researching product developments and accessing new technology. In other words all these activities are targeted at meeting market demands. Forcing producers continuously to maintain and upgrade quality standards is also not seen as a negative, but provides vigour and vitality to the cluster operations, keeping large and small firms at the cutting edge of maintaining their competitive advantage.

3.8.3 Austin Texas

The technology sector in Austin, Texas developed during the post-war period (DRI/ McGraw, 1996). The Austin technology sector developed strong links with the university in its area. This proved to be a vital relationship as the university achieved excellence in creating new technologies for emerging industries, educating and training the workforce, pioneering regional development technologies and improving the quality of life and culture (DRI/McGraw, 1996). The major interaction of the companies involved linkages of large technology firms with research organisations and smaller firms utilised new technologies developed by the research organisations. A strong feature of the Austin technology sector is its focus on collaboration between these institutions.

The creation of linkages in Austin was characterised by:

- Austin Technology Incubator- space and management assistance for start-ups.
- Texas capital Network Inc- a matching service for investors and entrepreneurs.
- MOOT Corp- a forum for entrepreneurs to present business plans.
- IC^2 Institute- a research centre for the study of innovation.
- The Know-How Network- a network of key suppliers (e.g. lawyers and accountants) that offer low cost services to start-up firms.
- The Centre for Technology Venturing- a regional networking umbrella group.

(DRI/McGraw, 1996)

3.8.4 Japan's Model of Engagement

General Situation of SMEs in Japan

Small and Medium Enterprises (SMEs) contribute significantly to economic development in Japan, this is reflected by the fact that:

- 99% of all enterprises in Japan are SME's.
- 78% of the total employment is provided by the SME sector (Kato, 1999; White Paper on Small and Medium Enterprise in Japan, 1998; Japan Small Business Corporation, 1999)

The majority of SMEs use high technology and are well equipped with research and development facilities. Apart from this, the Japanese workforce is characterised by a high level of skills amongst workers. However, recent economic recession in Japan has thwarted the efforts of some SMEs to stay afloat. The current environment in which SMEs operate seems to be highly challenging and access to finance is becoming difficult. There is also a decline of the life-time employment system in Japan, which has had a major influence on the development of SMEs.

3.8.4.1 Structure of SME Policies in Japan

Government in Japan provides the major support of SME's. There are various government institutions in place that offer a wide range of services to SME's. The Ministry of International Trade and Industry (MITI) in Japan is sub-divided into 8 regional Bureaus of International Trade and Industry. These regional bureaus are responsible for the implementation and promotion of various policies of MITI in various prefectures (equivalent to provinces) across Japan.

A characteristic of Japanese SMEs is the existence of specific laws that guide, promote and sustain the existence and development of SME's (White Paper on Small and Medium Enterprise, 1998; SME Basic Law, 1963; MITI, 1996)

The SME Basic Law defines what Small and Medium enterprises are. The SME Basic law also outlines the important role of SMEs in the Japanese economy and aims:

- to promote the growth and development of SMEs
- to enhance the social and economic well-being of SMEs (SME Basic Law, 1963, MITI, 1996; Kato, 1999).

In order to achieve the aims of the SME Basic Law, 8 specific measures have been identified to assist SMEs. (Kato, 1999; Shigematsu (a), 1999; Outline of Small and Medium Enterprises in Japan, 1999).

These measures include:

1. Modernisation of equipment
2. Improvement of technology
3. Streamlining management
4. Modernisation of management systems
5. Appropriation of the terms of business dealings
6. Projection of exports and increased market demands
7. Adjustment of the enterprise fields between large enterprises and small and medium enterprises
8. Securing workers and improving the welfare of workers.

The existence of these 8 measures to assist SMEs has been further sub-divided into 3 areas of policy (Outline of small and Medium Enterprises in Japan, 1999; MITI, 1996).

1. Strengthening the management base
2. Supporting structural reform
3. Measures for small scale enterprises

Due to the complexity of the structure in which the small business measures are organised, tables 2, 3 and 4 have been put together to facilitate easier understanding of the Japanese support system for SMEs. This has been accomplished via extensive review of literature and knowledge gained from attending a 3 month policy promotion course for SMEs in Japan between February and April 1999.[1]

3.8.4.2 Strengthening The Management Base

An important assumption made in the Japanese system is that SMEs have disadvantages and need an environment, which allows them to develop as excellent competitors through self-help measures. Table 3.1 below outlines the various measures of assistance offered to SMEs, provides a description of these measures and the organisations that offer these services to SMEs.

[1] *The various literature sources include: (Kato, 1999; Shigematsu a; Credit Guarantee Corporation Law, 1953; Credit Guarantee System in Japan, 1997; Japan Small Business Corporation, 1997; Guide to Venture research and Development Workshop, 1999; Outline of the Chubu District, 1999; Promotion of Small and Medium Enterprises, 1999; MITI, 1996; Outline of the Small and Medium Enterprise policies in Japan, 1999; Shigematsu b, 1999; White paper on Small and Medium Enterprise, 1998; Q and A on Subcontracting Enterprises, SME Basic Law, 1963, Law on the Promotion of Subcontracting Small and Medium Enterprises, 1970)*

Type of measures	Description of Measures	Institutions Offering Measures
Financial Measures	◦ Financing: upgrade and sophistication of equipment ◦ Capital increases: increases in capital owned by SMEs ◦ Credit Guarantees: SMEs generally have difficulty raising finance, hence the credit guarantee scheme guarantees loans offered to SMEs	Japan Finance Corporation for Small Business, Shoko Chukin Bank
Tax privileges	◦ Reduced corporate tax rates ◦ Exemption firm income tax	Tax Administration Agency, The Society and Chamber of Commerce for a prefecture,
Organisation	◦ Guidance services for co-operatives	National Federation of Small Business Associations for a prefecture, JSBC, Shoko Chukin Bank
Management guidance	◦ Diagnosis and guidance ◦ Training of employees ◦ Information system ◦ Prevention of bankruptcy	Prefectural governments and trained management consultants, JSBC, Regional Information Centre for Small Business Corporation, Regional Information Centre for Small and Medium-size Enterprises, Chambers of Commerce
Rectification of unfair transactions	◦ *Law on the Promotion of Subcontracting Small And Medium Enterprises* ◦ Measures for fair subcontracting contracts under the *Law On The Prevention Of Delay Of Payment Of Subcontracting Charges And Related Matters*	Prefectural Subcontractors Promotion association, Small and Medium Enterprise Agency and Fair Trade Commission
Orders from government and other public agencies	◦ Promotion of SMEs to receive orders through the policy governing procurement	Cabinet council

Table 3.1: Measures to Strengthen the Management Base

3.8.4.3 Supporting Structural Reform

Measures for structural reforms are set in place to allow SMEs to deal with volatile economic and social environments. Table 3.2 below summarises the measures targeted at structural reform, together with a description of these reform measures and the organisations that offer them.

Type of Measures	Description of Measures	Institutions Offering Measures
Development and extension into new business	• Facilitating the opening, research and development and commercialisation of research and development results • *Law For Promoting Creative Projects Of Small And Medium Enterprises*	Credit Guarantee Association, Small Business Corporation, Small and Medium Enterprise Agency, Bureaus of international Trade and Industries, prefectural governments, JSBC, Institute for Small Business Corporation, Chambers of, Commerce, Prefectural Federation of Commerce and Industry
Supporting technical improvement	• *Law For Promoting Creative Projects Of Small And Medium Enterprises* • Technical training and technical exchange • Technical guidance services • Technical development based on public testing and research institutes	JSBC, prefectural government, prefectural testing research institutes
Modernisation and sophistication	• Financing for modernization • *Promotion Of The Small And Medium Enterprise Modernization Promotion Law*	JSBC
Reduction of working hours and procurement of manpower	• Measures to reduce the hours worked by SMEs • *Manpower Procurement Law*	JSBC, Small and Medium Enterprise Agency
Streamlining of distribution	• Measures for small and medium wholesalers • Wholesale parks • Measures for small and medium retailers • Support for projects such as shopping districts • *Law On The Promotion Of Small And Medium Retail Business* • Develop infrastructure • Retail support centre and other software supports • Card user promotion project and information system development • Establish common distribution systems • *Small Business Distribution Efficiency Improvement Promotion Act* • Creation of guidelines for the promotion of an affluent lifestyle supporting services trades and life-time learning promotion projects	JSBC, Small and Medium Enterprise Agency
Environmental protection	• Finance and guidance to solve environmental problems	Regional Information Centres for each prefecture
International expansion	• Small business investment into overseas markets • International communication • Access foreign trainees in business • Consultation with foreign governments regarding measures to promote SMEs	Japan External Trade Organisation (JETRO), JSBC,
Measures for regional small and medium enterprises	• *Law On The Promotion Of Regional Industry*	Federations of Co-operative Associations, Societies of Commerce and Industry

Table 3.2: Measures to Support Structural Reform

3.8.4.4 Measures for Small Scale Enterprises

Table 3.3 summarises measures that are used to support SMEs that have small sales volumes, and few employees.

Measures	Institution lending Support
Management improvement and construction of infrastructure	Chambers of Commerce and industry, Small and Medium Enterprise Agency, local bureaus of international trade, prefectural governments, JSBC
Financial system of management improvement funds for SMEs	
Equipment modernisation loans and equipment leasing systems	
Mutual aid system for SMEs	
Consulting and guidance services for small scale enterprises	
Research and advertisement: Information collection, investigation, analysis and annual reporting regarding business conditions of small and medium enterprises. Propagation measures including to broadcasting, brochures and a one day small business corporation.	

Table 3.3: Measures to support Small Scale Enterprises

3.8.4.5 Relationships between Japanese Firms

Japanese firms are characterised as having highly co-operative relationships with their suppliers (Edwards and Samimi, 1997). There are two primary forms of Japanese business organisation which exist: horizontal *keiretsu* and vertical *keiretsu*. (Edwards and Samimi, 1997; White paper on Small and Medium Enterprise, 1998, Q and A on Subcontracting Enterprises, 1998). The former (horizontal *keiretsu*) relates to conglomerates from various industries such as banking, manufacturing, and construction that conduct business with each other. The latter (vertical *keiretsu*) is industry specific with strong evidence of networking among separate firms (Edwards and Samimi, 1997).

Due to the strong presence of SME's in the Japanese economy, the vertical *keiretsu* relationship is an extremely important form of business linkage.

The vertical *keiretsu* relationship usually takes the form of a subcontracting relationship between a parent company, for e.g. Toyota, Honda, and Mitsubishi with various SMEs (Q and A on Subcontracting Enterprises, 1998; The Law on the Promotion of Subcontracting Small and Medium Enterprises, 1970). The subcontracting relationship such as those that exist between Toyota and SME's involves the manufacture of specific components, which is assembled by Toyota itself. Toyota's activities is then focused and highly specialised in assembly and design (Toyota Motor Corporation, 1999, Edwards and Samimi, 1997; Q and A on Subcontracting Enterprises, 1998).

3.8.4.6 Human Resource Development

There are various institutions for management training and vocational training such as the Seto institute and the JSBC (JSBC, 1999; Seto Institute, 1999). However, the standards set amongst potential entrants is extremely high, fostering high levels of competition amongst potential entrants. An active role of the private sector in human resource development is prevalent within Japan. Institutions in Japan place strong emphasis on engineering and technical training combined with applied product and process research.

3.8.4.7 Research And Development

Many institutions in Japan, support technology development, such as the National Research Institute, Public Researching and Testing Institutions. Direct support is given by the Japanese government for technology development and the implementation of new technologies within SME's. Hence, accelerated dissemination of results of technological developments to SME's, is considered a priority. Co-operation between industry, academics, government, and the private sector does exist and sharing of information generally occurs through technical exchange forums. Government also provides subsidies for technical research and development and provides funds for the introduction of new technology through innovation.

3.8..5 CAN THE JAPANESE MODEL OF ENGAGEMENT BE USED IN THE SOUTH AFRICAN CONTEXT?

A striking feature of the Japanese system is seen in its strong presence of SMEs. It is the very existence of these SMEs that fuel the Japanese economy and provide most of the employment in the country. In South Africa, although it is widely accepted that SMMEs contribute to economic growth, the promotion and development of SMMEs should receive greater attention.

In stark contrast to Japan, the South African workforce does not exhibit the same degree of skills and expertise, neither does South African industry utilise the most advanced technologies and research and development facilities. This may suggest that given the different circumstances, in which South African small businesses operate, the Japanese model may not be useful.

However, vertical linkages is the primary form of business linkage used in Japan, so it is possible that the model may be can be useful in a South African context.

The vertical linkage relationships characterising Japanese firms usually take the form of a subcontracting relationship between a parent company and an SME. These SMEs function within a network of other smaller businesses that are also involved in subcontracting relationships with the parent company. The parent company in the vertical linkage usually takes on the responsibility of providing support through for example, technology transfer and the sharing of information.

An interesting feature of the Japanese model, is that the small enterprises within the network, share information and technology amongst themselves, fostering horizontal linkage relationships. The point needs to be made, that were it not for the association between the parent company and an SME, the probability that SMEs would have initiated horizontal linkages, is slim. It would appear that the vertical linkage relationship with the parent company sparks off potential horizontal linkages between SMEs. Thus, South Africa should consider a gradual process to linkage development by firstly initiating vertical linkages to create support for the process and thereafter try to ignite the possibilities of getting smaller businesses to work together.

Subcontracting enterprises in Japan focus on differentiating their functions from that of parent enterprises or other subcontracting enterprises and in this way support domestic production (Q and A on Subcontracting Enterprises, 1998). The production processes of subcontracting enterprises are very specialised and this has resulted in the formation of two types of specialisation structures. These structures can be best described using examples of the industry in which these structures are applied.

In the automobile industry an automobile manufacturer organises manufacturers of parts and processing manufacturers in a multilayered structure of subcontracting enterprises (Q and A on Subcontracting, 1998). The subcontracting enterprises become responsible for part of the production process, which is ultimately, controlled by the automobile manufacturer. This model is mainly observed in machinery-related industries (Q and A on Subcontracting Enterprises, 1998). Figure 3.4 is an illustration of the multilayered structure of subcontracting enterprises in machinery-related industries.

As is evident from the figure, the automobile manufacturer subcontracts an automobile parts manufacturer, who inturn subcontracts to various other enterprises, thus maintaining a multilayered subcontracting system.

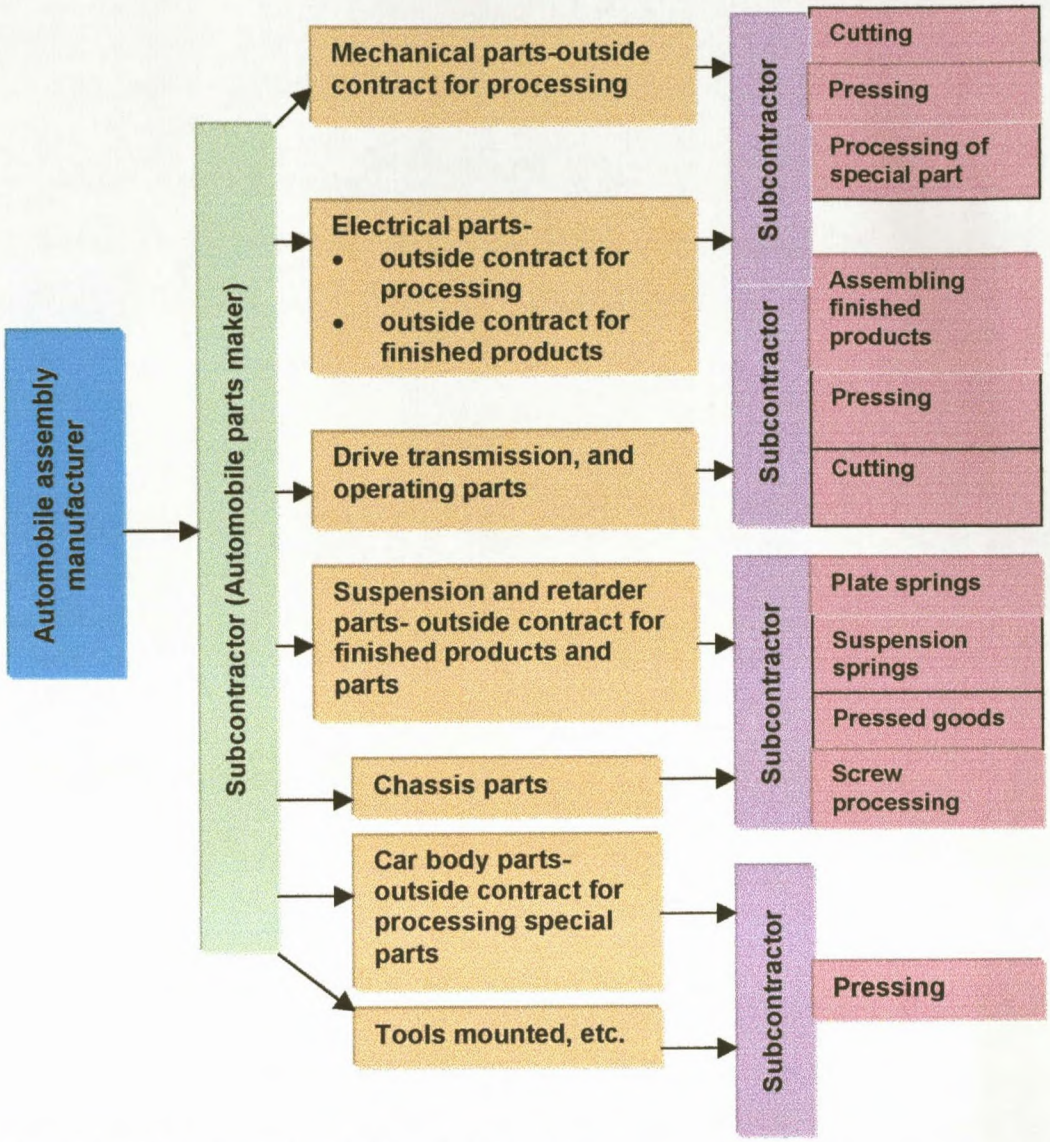


Figure 3.4: Multilayered Subcontracting Structure

(Q & A on Subcontracting Enterprises, 1998)

The second type of specialised structure involves a wholesaler, trading house, or any other distributor, that utilises its planning and sales capabilities to organise small and medium enterprises as subcontracting enterprises (Q & A on Subcontracting Enterprises, 1998). This model is observed in the textile and furniture manufacturing industry. This model could be useful in the context of South African manufacturing firms.

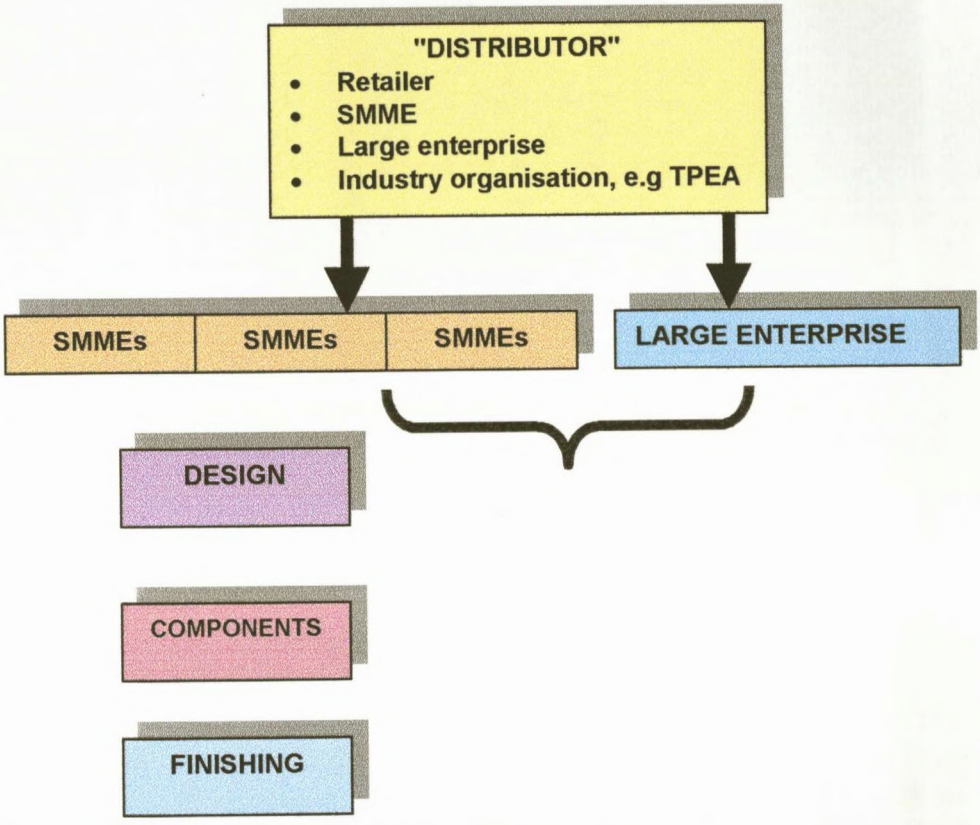


Figure 3.5: Adaptation of Japanese Model of Specialisation for Furniture Manufacturers

Figure 3.5 illustrates how the Japanese model of specialisation can be applied in the context of the South African situation. Under the category "distributor', potential "change agents" have been identified that could promote linkage formation. These include retailers, SMMEs, large enterprises and industry organisations. These change agents can utilise their current resources and planning capabilities to identify and organise SMMEs and large enterprises into linkage relationships. Within the South African furniture sector, retailers wield a great amount of influence on furniture manufacturers. This is largely due to few retailers dominating the industry. Industry organisations such as the TPEA, FITB, could have a significant influence on furniture manufacturers by transferring knowledge about furniture products demanded in international markets and the selling capabilities of these products. SMMEs and large enterprises themselves can play a more proactive role in linkage formation, as they are able to identify important consumers trends and preferences. These "distributors" would have the responsibility of identifying where a linkage relationship could occur between SMMEs and large enterprises. However, this would be a difficult task for "distributors" to achieve on their own. Hence, government can play an important role in the development of a national strategy that outlines how linkages should develop and operate. This would assist the 'distributors" in being able to identify areas of linkage formation. Implicit in this model is that SMMEs need to specialise their operations into areas such as design, manufacturing components and finishing.

This model is useful as it envisages a greater role for industry players in linkage formation. Through proper planning and organising initiatives, the potential exists for resurrecting the furniture sector.

In essence, the "distributors" monitor the linkage relationship and continuously seek new areas for linkage formation between enterprises. The activity is carried out with limited involvement of government.

It should be noted, that the Japanese system outlined in this chapter, is not an ideal. Criticism levelled at the Japanese system, suggests that the Japanese government intervenes extensively to support SMEs. Of-course, first world standards do not necessarily translate into success for small enterprises that operate in third world countries. With this in mind, the measures used to support SMEs in the Japanese system could be used in the South African context. The availability of specialist support services and research and development facilities in Japan, is vital, to ensure that SMEs in Japan meet product quality standards expected from the parent company. Similarly, these types of services need to be made accessible to SMMEs in South Africa to ensure that participants in a linkage relationship meet the expectations for quality standards.

South African industry can prosper, provided that it also pays attention to its human resource potential. A stronger orientation in engineering, technical training and product and process research is needed. In essence, the Japanese system provides a useful case in point that helps outline what strategies or measures can aid SMMEs and make them more competitive.

3.8.6 Clusters in South Africa

Cluster studies have been a recent feature amongst research circles in South Africa. A few notable studies regarding clusters / linkages include:

- Skae (1998), explored the application of backward linkages (a large enterprise attempts to supply its products to a small buyer. This study concluded that the linkages surveyed were characteristic of a high road scenario and that significant benefits of backward linkages accrued to SMMEs.
- Machete and Anim (1998) investigated the possibility of establishing linkages between small suppliers (mainly black-owned businesses) and large buyers (mainly white-owned businesses) as a means of promoting growth of SMEs in developing countries. Although the results of the study were not adequate to prove that linkages between large buyers and small buyers could promote growth of SMEs, a number of constraints to linkage formation were identified. The study resulted in the culmination of recommendations to reduce these constraints, such as targeted access to support services from government, parastatals or the private sector and access of small suppliers to improved technologies. (Machete and Amin, 1998)
- McEwan, Mead, Ndlovu (1998) hypothesised that:
  - the behaviour and performance of SMMEs are influenced by the nature of business linkages, or a dyadic relationship
  - once a linkage is established, the linkage is affected by a "third party" leading to the formation of a "triadic" relationship.

- A study conducted by Mead (1998) explored how efficient managers find it cost-effective to specialise their production processes and sell their output to other enterprises for further processing or for marketing and distribution.

This study concluded that there is a great potential for these linkages to develop, provided that:

- A greater level of trust exists among South African businesses
- Corporations believe that a linkage could result in success.
- Corporation could take on partnerships with small suppliers as a form of capacity building to assist these suppliers in becoming more efficient in their business operations.
- Charitable linkages are only a short-term option, that makes little contribution to the development of SMMEs
- Improved institutional arrangements could expand the knowledge of opportunities available for small suppliers to sell to large buyers and to penetrate export markets.

3.9 CONCLUSION

This chapter has focused on understanding the nature and characteristics of clusters. This chapter has highlighted the various approaches to cluster development and has reviewed the advantages and disadvantages of the cluster methodology. Case studies were used as examples of clusters that operate successfully in an international context. Special emphasis was placed on the Japanese model of engagement, as the primary type of business linkage used in Japan is vertical in nature. Since vertical linkages in the opinion of the author, should be the first preference for linkage formation, the Japanese model was used as it could provide useful information for the successful implementation of vertical linkages in a South African context. The final part of this chapter focused on research conducted into studies of linkages that exist in the South African context.

CHAPTER 4: THE FURNITURE SECTOR

4.1 INTRODUCTION

This chapter focuses specifically on the characteristics of the furniture industry both internationally and nationally. It is usually a good idea to place the South African furniture industry in the context of the international furniture industry so that comparisons can be made about the performance of furniture industries in these situations. The low road and high road scenarios will be explored for the furniture sector specifically, to determine the best route South African furniture industries should follow in order to be competitive. This chapter also focuses on the performance of the furniture sector in South Africa.

4.2 THE INTERNATIONAL FURNITURE INDUSTRY

In order to understand the factors that impact on the furniture industry in South Africa, it is useful to explore the international furniture industry. The furniture industry is believed to be on a positive growth path, characterised by high growth rates between the period of 1961 and 1990 (Maskell, 1998, www.amcblement.com). Industrialized countries largely dominate the international furniture industry. Table 4.1 illustrates the dominance of industrialised countries in the furniture trade in 1992 and 1996. However, developing countries such as Poland, Malaysia and Indonesia featured amongst the top 15 exporting countries in 1996. This serves as a strong signal to other developing countries, like South Africa, that penetration of global markets is possible.

Rank	1992	1996
1.	Italy	Italy
2.	Germany	Germany
3.	USA	USA
4.	France	Canada
5.	Denmark	France
6.	Belgium-Luxembourg	Denmark
7.	Canada	China
8.	Netherlands	Belgium-Luxembourg
9.	United kingdom	United kingdom
10.	Sweden	Sweden
11.	China	Poland
12.	Austria	Spain
13.	Spain	Malaysia
14.	Switzerland	Austria
15.	Indonesia	Indonesia

Table 4.1. Top 15 Exporters between 1992 and 1996

Source: http://www.intracen.org/itc/infobase

Firms that operate in the international furniture industry are also limited in how efficiently they able to operate. The competitiveness of firms in the international furniture sector is affected by the availability of raw materials, technology management, human resource development and financing (Dunne a,b, 1999, Dunne and Morris, 1999). Further to this, developing an export orientation is hindered by environmental issues, transport complications, international marketing and distribution networks (Dunne a,b, 1999, Dunne and Morris, 1999; Danida, 1996). Although industrialised countries are challenged by these factors to remain competitive, trends in the performance of industrialised countries suggest that they have been able to cope with these challenges and add value to their products. Trends in the unit value of furniture exports are believed to impact on the long-term strategies of furniture manufacturers. (Dunne a,b, 1999, Dunne and Morris, 1999).

Country	% Growth in Unit Value
Japan	34
Germany	33
Italy	22
France	19
USA	6
Denmark	4
Poland	158
Malaysia	-6
Chile	-38
Brazil	-50
Indonesia	-52

Table 4.2: Growth in Unit Value of British Furniture Imports: (1989 -1997)

Source: Dunne, 1999a adapted from {Biggar, Morel and Sharma, 1999}

Table 4.2 indicates that industrialised countries such as Japan (34) and Germany (33) are showing increases in the unit value of their furniture exports. The only notable exception amongst developing countries is Poland, which has a positive growth in the unit value of its furniture exports. This could suggest that industrialised countries continuously add value to their products by continually focusing on export markets. However, the almost non-existence of developing furniture manufacturers, could suggest that these developing countries are not adding value to their products as they venture into export market segments that focus on high quality products. This ability to add value to products was considered to be of major importance when the LOW, BASELINE and HIGH scenarios were discussed in chapter 2. In the context of furniture manufacturers, the 'high road' and 'low road' scenarios can be used to describe the competitiveness route they need to follow in order to sustain a competitive advantage (Nadvi, 1998; Nadvi & Schmitz, 1994).

The low road follows the route of low wage, low cost manufacturing based on price competition and supplying the mass market (Dunne, 1999; Nadvi, 1998; Nadvi & Schmitz, 1994). If firms choose to make their presence felt in the international market, a choice has to be made regarding which 'road' they choose to follow. Although pricing issues are of vital importance in competition, this commonly trodden path of competitive strategy continually narrows competitive focus to lowering prices only. More importantly, issues of quality, design, environmental factors are now playing a fundamental role in competitive strategy as these factors are representative of the high road to competitiveness. The Danish furniture industry's success is attributed to a highly skilled workforce, the adoption of efficient production techniques and high quality standards (http://www.fdmi.dk.potrait.html).

The high road to competitiveness is built firmly on the principles of adding value to products. This was mentioned in chapter 2 where the high scenario to economic growth was considered. Adding value is best achieved through creative designs, innovative features and excellent quality, skilled and productive employees and innovative manufacturing technology and techniques (Dunne, 1999b).

Developing countries should be poised to position themselves in the export market, provided that they choose to compete on the high road. For now, developing countries seem to be adopting a low road stance, mainly because developing countries have access to large sources of labour. However, pursuing this strategy on the low road is a path to self-destruction unless developing countries adopt an ethic of innovation and quality to add value to their products.

4.3 STRUCTURE OF THE FURNITURE INDUSTRY

The furniture industry in South Africa is a component of the forests products cluster: a set of related industries in a value system consisting of sawmills, wooden panels, furniture, housing and wood packaging. (IDC, 1995, TPEA, 1997)

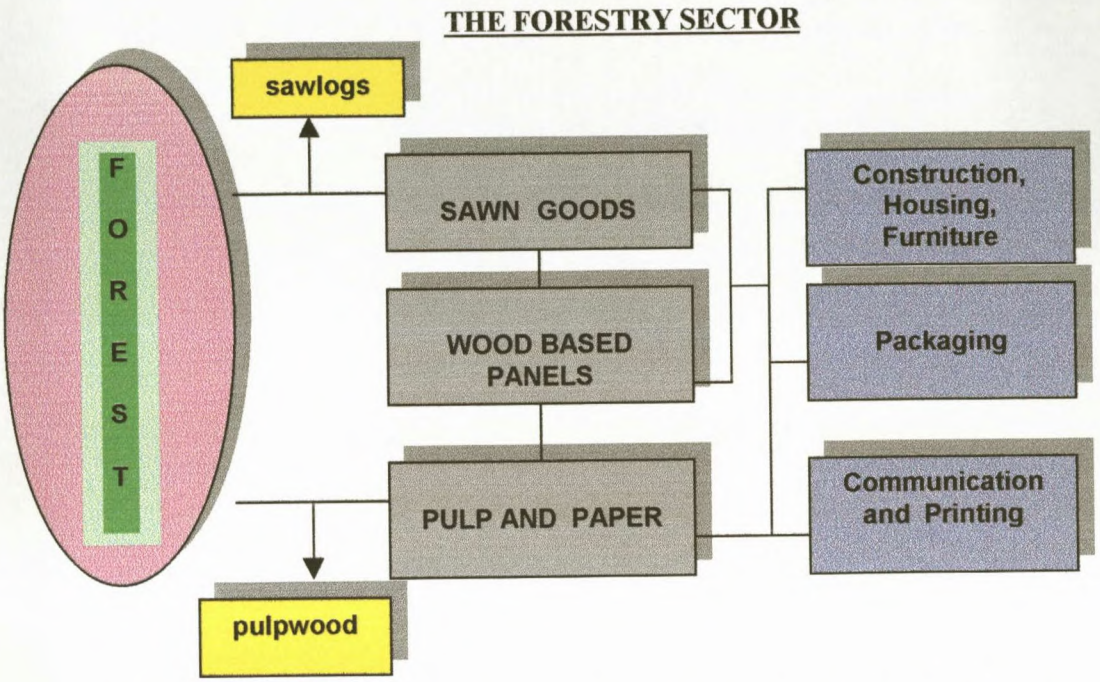


Figure 4.1: The Forestry Products Cluster in South Africa (IDC, 1995, TPEA, 1997)

The furniture sector encompasses the manufacture of furniture and fixtures for households, office, public building, professional and restaurant use, excluding steel furniture (IDC, 1998). It is estimated that the wooden furniture industry imports 40 % of its solid woods and 22% of its board products and wood based panels as primary inputs for the manufacture of furniture (South African Wood and Trade Directory, 1999).

South African furniture manufacturers sources its inputs through the use of locally produced wood, hardwood that is imported and other raw materials from plastic products and the textile sector (IDC, 1998). The furniture industry in South Africa uses varying types of raw materials depending on the specific market they serve.

Products are made from a combination of veneered board, solid hardwood such as oak, whilst others are made from locally grown pine softwood, or imported hardwoods such as oak or beech (Dunne a,b, 1999). The range of products manufactured in the South African furniture industry includes foiled products, products made with natural veneers or a combination of veneers, solid hardwood and softwood such as pine, or products made only from pine or hardwood. Table 4.3 illustrates the types of raw material used in furniture manufacturing and the target market for products made from specific raw material types.

Product Type	Target market
Foiled Products	Lower end of the market
Combination Products	Middle end of the market
Softwood Only or Hardwood Only	Upper end of the market

Table 4.3: Classification of product type and target market

It is important to highlight that Table 4.3 is based on a generalisation that the lower quality raw materials are used to produce products destined for the low end of the market and the high quality softwood (pine) or hardwood (oak) is destined for the upper segment of the market. Furniture manufacturers at the upper market segment may compromise quality of materials for design, so that it is not unusual to find these furniture manufacturers working with some type of composite board (Dunnea,b, 1999; Dunne and Morris, 1999).

The furniture industry is dominated by many small enterprises. There are 1800 furniture companies spread over seven regions in South Africa, of which 87% of these furniture manufacturers fall into the category of small businesses employing on average less than eight people (South African Wooden Trade Directory, 1999).

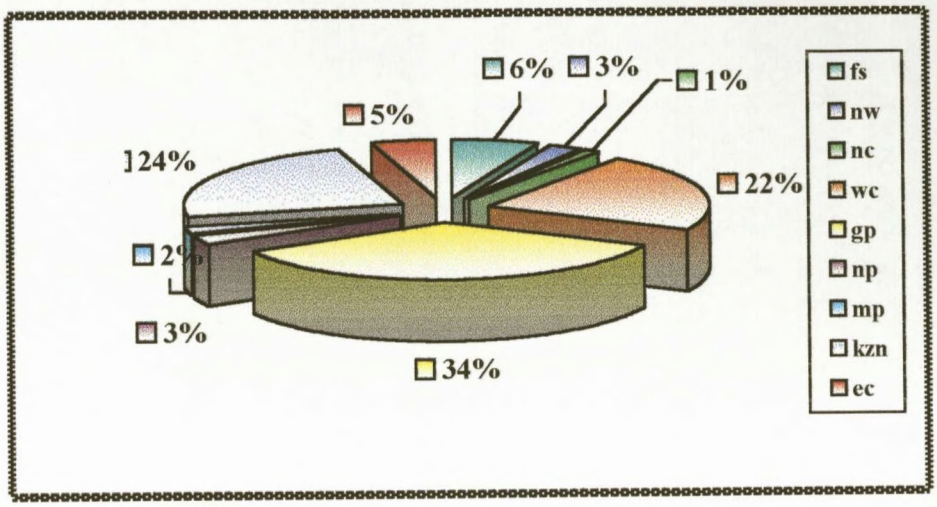


Figure 4.2: Distribution of Furniture Companies in South Africa (IDC, 1995, TPEA,1997)

Figure 4.2 illustrates the varying distribution of furniture companies throughout South Africa. It is interesting to note that the biggest concentration of furniture companies is located within the provinces of the Western Cape (22%), Gauteng (34%) and KZN (24%).

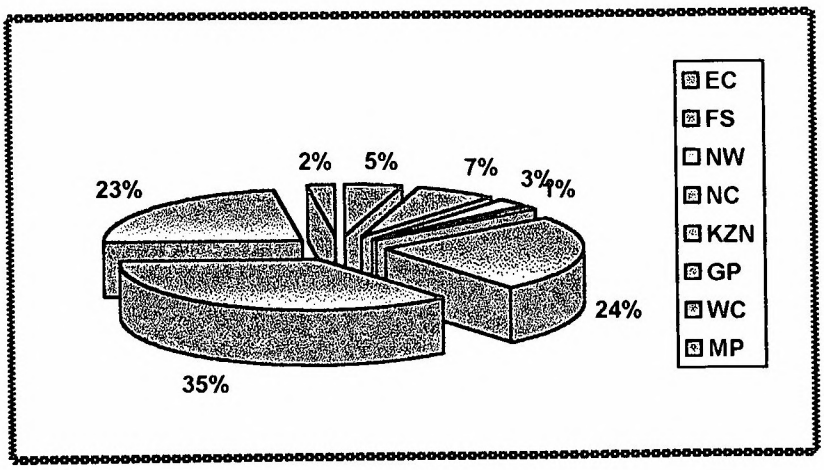


Figure 4.3: Furniture Employment by Region (IDC,1995)

Joffe *et al* (1995) have suggested that the South African furniture sector is an Important sector as it adds value to existing timber resources and remains a highly labour intensive industry. Figure 4.3 illustrates furniture employment in the Eastern Cape (EC), Free State, (FS), North West Province (NW), Northern Cape (NC), Kwa-Zulu Natal, (KZN), Gauteng Province (GP), Northern Province (NP), Western Cape (WC) and Mpumulanga (MP). The provinces of the Western Cape (23%), Gauteng (35%) and KZN (24%) provide the highest levels of employment in the furniture sector in South Africa confirming the statements made by Joffe *et al* (1995).

4.4 THE NATURE OF THE INDUSTRY PLAYERS / ACTORS

In 1996, seven retail furniture groups dominated the furniture industry, accounting for 90% of the retail market (Danida, 1996; Manning, 1996). With so few retailers dominating the market, the industry players are well known to each other. The furniture industry supplies fully assembled furniture to the local market with a few retailers dominating sales to this particular market segment (Dunne a,b, 1999; IDC, 1998; Manning, 1996). This severely constrains the ability of small furniture manufacturers to sustain their businesses and to compete efficiently.

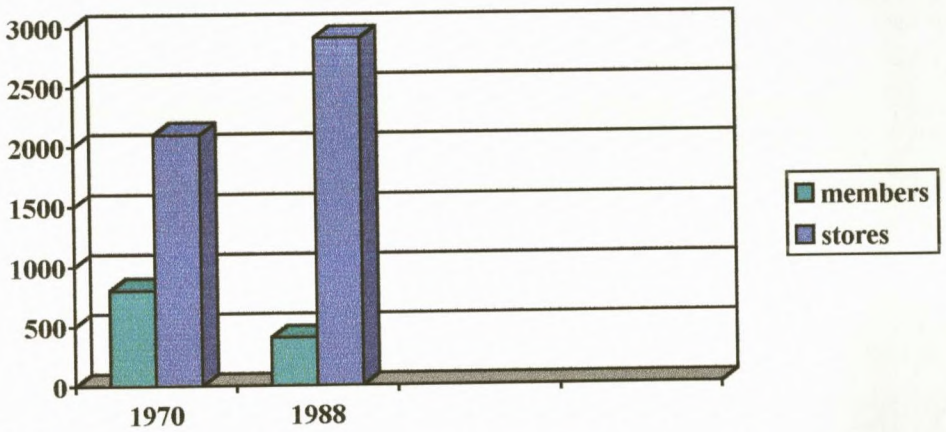


Figure 4.4: Concentration of SA furniture Industry over time (Manning 1996)

Figure 4.4 reveals the high degree of retail concentration in the South African furniture sector. The retail sector is recognised as being an important sector for increasing throughput. Formal media such as the internet, furniture fairs and agents play a minimal role in establishing contacts between buyers and sellers in the retail sector (Dunne, b, 1999). Although access to retail chains may be important to achieve throughput or profit, if one of the chains pull out, it leaves a large number of furniture manufacturers vulnerable to closure.

Although retail group of firms dominates the industry, the furniture industry also has a number of small independent retailers. These retailers allow manufacturers to ride out fluctuations in market demand. Some manufacturers may sell directly to the public whereas others may only manufacture for a specific end consumer. Demand in the retail furniture sector is slowing due to changes in the incomes of consumers and profit is not a direct result of sales, but rather credit agreements offered by retail outlets (Manning, 1996).

From the above discussion it would appear that the furniture industry is a highly segmented one. Some furniture manufacturers may choose to service the upper end of the market by proving custom-made furniture for a specific customer. The general perception is that this market is shrinking and hence, balancing quality and cost is a difficult task (Dunne, 1999b).

4.5 PERFORMANCE OF THE FURNITURE SECTOR

South Africa presents ideal conditions for low cost furniture production, due to climatic conditions being conducive to high growth plantations and in addition, the local furniture industry is in a competitive position to supply the low end of the furniture products market (IDC, 1998). South Africa has relatively cheap access to raw materials together with a large number of unskilled workers. The lack of skilled labour significantly hampers the quality of products produced, hence the competitive ability of firms. The furniture industry needs to refocus its efforts and direct itself toward extracting greater value from its furniture products.

Consequently, a manufacturing strategy must be adopted that would raise the standard of performance of the furniture industry. This presents no easy task considering the problems in which South African manufacturing firms in general operate. An analysis of the recent performance of the furniture industry would be a useful exercise to identify potential problem areas and to propose solutions to alleviate these problems.

Wooden furniture manufacturing is a downstream activity meeting both the requirements for a higher value addition and employment creation. (TPEA, 1997; IDC, 1995,) The total contribution of manufacturing in the furniture sector in 1995 was R1.5 billion. This is reflected in the Table 4.4 below.

Description	1989	Total manufacturing	1995	Total manufacturing
Employment	43 075	2.8	45 812	3.2
Fixed capital stock	R287.3 million	0.3	R282.5 million	0.3
Production	R2.6 million	1.2	R4.3 billion	1.5
Exports	R68.0 million	0.3	R289.8 million	0.5
Imports	R16.2 million	0.1	R78.1 million	0.1

Table 4.4: Contribution of Manufacturing in the Furniture Sector (IDC, 1995)

Figure 4.5 illustrates the level of employment in the wooden furniture-manufacturing sector between 1985 and 1995. The blue bar represents the level of employment in the industry in a given year and the red trend line represents the percentage level of manufacturing in relation to the number of workers employed.

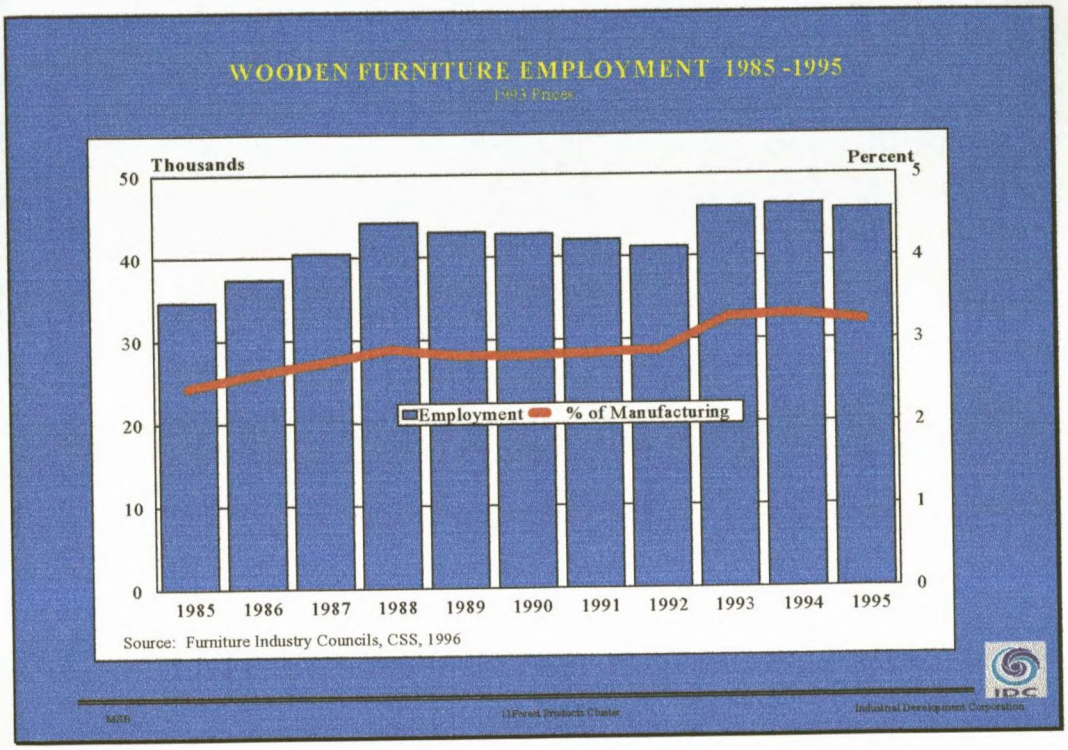


Figure 4.5: Wooden Furniture Employment 1985 - 1995 (IDC, 1995)

A glance at the level of manufacturing in relation to the number of workers reveals that the level of manufacturing is well below the number of workers employed throughout the period between 1985 and 1995. In essence, low productivity levels permeate the furniture industry with a disproportionate number of unproductive workers. This statement can be supported by reviewing Figure 4.6.

Figure 4.6 illustrates the contribution of the main input factors to production namely capital, labour and a combination of capital and labour . Figure 4.6 reveals that the most significant contribution to productivity is capital inputs, which shows a steady increase from 1985 to 1995. Interesting to note, is the significant gap between the contribution of capital and labour, suggesting that the labour contribution to the furniture sector is not at an optimal level due to low productivity.

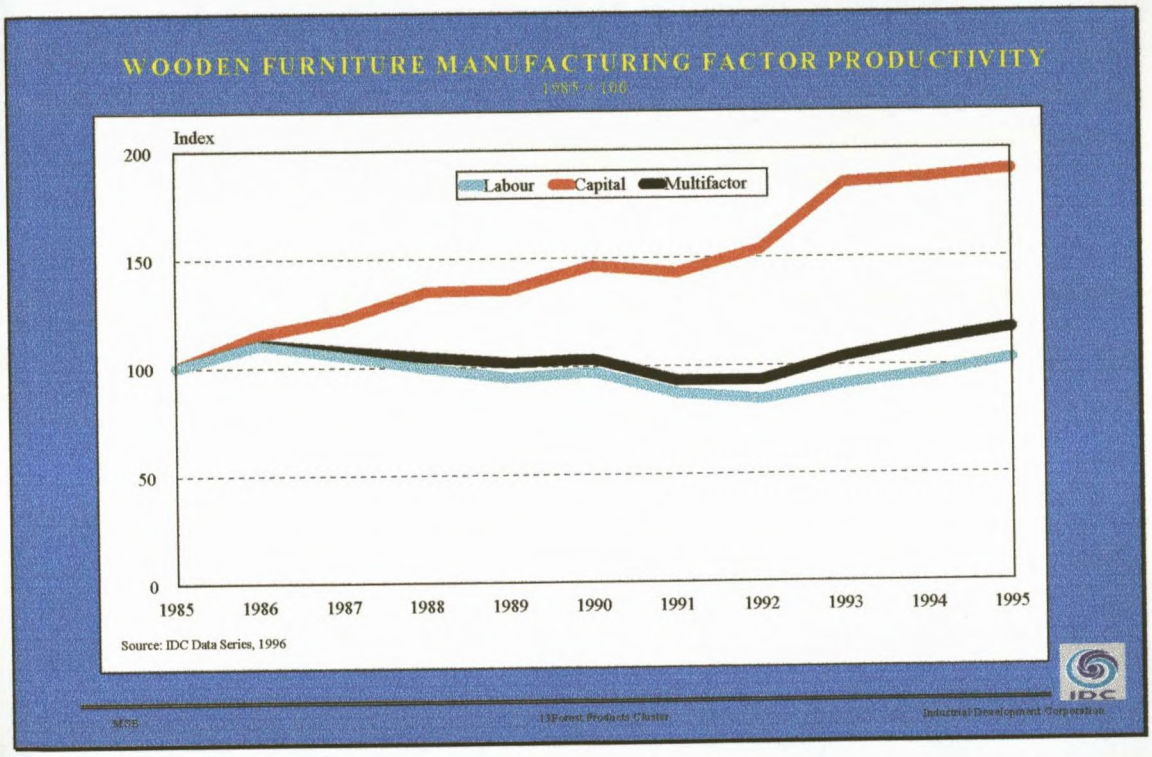


Figure 4.6: Wooden Furniture Manufacturing Factor Productivity (IDC, 1995)

A review of the level of demand in the furniture sector reflected in Figure 4.7 suggests that private demand for wooden furniture is declining and a greater emphasis is being placed on exports. This suggests that the South African furniture sector is now recognising the potential benefits that exist in supplying to an international market.

It can also be asserted that South African domestic demand in no longer adequate to ensure that furniture manufacturers remain competitive. Also, South African consumers are not as discerning about the quality of furniture products, as opposed to European customers for instance. This creates the opportunity for furniture manufacturers to concentrate their efforts on producing high quality products aimed at a high market segment within export markets.

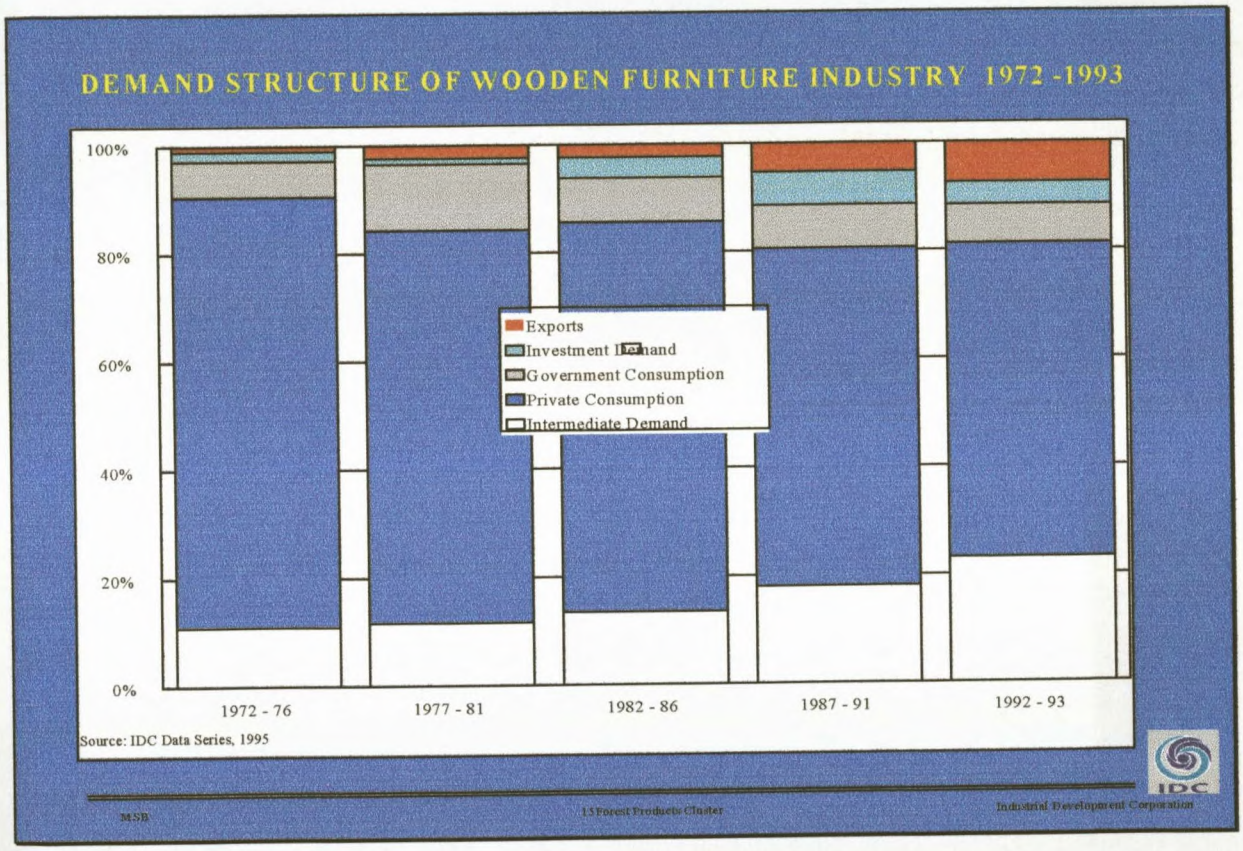


Figure 4.7: Demand Structure Of Wooden Furniture Industry 1972-1993 (IDC, 1995)

The strong export orientation of South African furniture manufacturers impacts on the type of wooden furniture that is imported. However, the South African wooden furniture industry inspite of its export orientation still relies to a large extent on domestic demand. This suggests that South Africa should still maintain its export orientation and concentrate their efforts in the potential market in furniture components, which accounts for 23% of the total demand for furniture. (IDC, 1995; TPEA, 1997, KZN REF, 1997)

The furniture sector during the period of 1998 has been characterised by low production volumes. The sector has been subject to increases in furniture prices, declining employment levels, declining production capacity utilisation and increases in input costs. The decline in employment levels serves as an indication that an important role can be fulfilled by the SMME sector in job creation. However, the ability of the SMME sector to create jobs is limited, especially in terms of the constraints that they are faced with, for example, a lack of access to finance. The introduction of business linkages between large enterprises and SMMEs could contribute toward SMMEs becoming more efficient and competitive in their operations. The ability of SMMEs to become successful and competitive allows them (SMMEs) to grow their businesses and in the process, create employment.

According to the Furniture industry Training Board (FITB), (1999) production within the sector declined by 4.2% in 1998 if compared to 1997 and the only monthly increases occurred in January (36.8%) and in December (24.9%). Declines ranging between twelve and fifteen percent occurred in July, October and November. This has been attributed to low labour outputs, high input costs to the production process, particularly high labour costs.

Apart from this, increases in the price of furniture fell below inflation rates and the usage of plant capacity was not maintained an optimal level, as a result, losses were incurred due to the high levels of wastage of resources.

The performance of the furniture sector is also judged in terms of residential building plans passed and buildings completed are regarded as the major indicators of demand in the furniture sector. The sector has shown a decline on average by 11.8% during 1998 in comparison to the decline of 10.6% in 1997 (FITB, 1999). The overall decline in production within the furniture sector has impacted on it more significantly than on the manufacturing sector as a whole. This had led to lower labour productivity for the sector as well. The value of sales increased by 3.9% in 1998 compared to an increase in sales of 14.4% in 1997 (FITB, 1999). This has been the result of interest rate hikes affecting consumer demand. Retail sales have been particularly affected by increasing interest rates. In 1997 retail sales were estimated at 15.4% but more than halved in 1998 to 6.5% (FITB, 1999).

The furniture sector has been burdened by extreme volatility in demand conditions and employment rates. Added to this, is the impact of employment rates within the sector. Interestingly, declining production of the sector has not been met with an accompanying decline in employment. Instead, salaries and wages increased by 1.7% in 1997, and only diminished by 0.03% in 1998 (FITB, 1999). Low productivity and higher average sales has increased labour costs and hence makes the industry uncompetitive (refer to table 4.5). The production utilisation has also been severely affected by volatile demand conditions. This has resulted in the under-utilisation of production capacity. The effects of high interest rates are once again impediments to the effectiveness of the industry.

Month	1997 Rand	Change %	Cumulative Rand	Change %	1996 Rand	Cumulative Rand	
Jan	1956.36	-0.3	1956.36	-0.3	1961.65	1961.65	
Feb	1845.06	1.1	3802.01	0.4	1824.19	6785.31	
Mar	1761.69	-4.6	5566.01	-1.2	1846.24	5631.70	
Apr	1950.84	5.2	7514.96	0.4	1854.02	7486.01	
May	1984.39	4.4	9497.10	1.2	1899.99	9386.05	
Jun	1941.00	12.3	11437.20	2.9	1728.91	11118.82	
July	2106.80	2.6	13544.94	2.9	2052.85	13164.17	
Aug	2106.80	5.0	15652.45	3.2	2006.27	15167.53	
Sept	2106.80	8.1	17759.79	3.8	1948.51	17115.07	
Oct	2370.91	6.9	20136.89	4.2	2217.85	19327.92	
Nov	2134.21	3.4	22274.83	4.1	2064.51	21392.97	
Dec	2589.02	16.3	24857.28	5.2	2225.28	23617.458	
Month	**1998 index 1995=100**	**Change %**	**Cumulative Rand**	**Change %**	**Year**	**Annual Amounts Rand**	**Change %**
Jan	2158.15	10.3	2158.15	10.3	1986	8472.47	-
Feb	2035.37	10.3	4193.52	10.3	1987	9305.26	9.8
Mar	1943.40	10.3	6136.92	10.3	1988	9528.89	2.4
Apr	2582.85	32.4	8719.78	16.0	1989	9524.92	0.0
May	2582.85	30.2	11302.63	19.0	1990	12059.25	26.6
Jun	2582.85	33.1	13885.48	21.4	1991	13459.61	11.6
July	2597.65	23.3	16483.14	21.7	1992	16118.18	19.8
Aug	2597.65	23.3	19080.722.1	21.9	1993	20012.62	24.2
Sept	2597.65	23.3	21768.44		1994	21542.16	7.6
Oct					1995	23337.79	8.3
Nov					1996	23617.58	Na
Dec					1997	24857.28	5.2

Table 4.5: Average Sales and Wages in the Furniture Sector (FITB, 1999)

4.6 WEAKNESSES OF THE SOUTH AFRICAN FURNITURE INDUSTRY

Despite the opportunity to enter foreign markets, developing furniture manufacturers are faced with formidable competitors from highly industrialised countries, who service the upper end of the market, characterised by consumers who demand more in the way of quality.

This suggests that no longer can price be the only basis of competitive strategy. The South African furniture industry has a number of shortcomings, and it becomes difficult for South African furniture manufacturers to target markets effectively. Although the following areas of weakness/inefficiency exist in the furniture industry in South Africa, this is in no way a comprehensive list of all weaknesses/inefficiencies. These weaknesses or inefficiencies include:

1. Quality, design and price
2. Foreign marketing and distribution
3. Capacity
4. Hearing the market
5. Labour and automation
6. Institutional issues
7. Environmental issues

4.6.1 Quality, design and price

South African manufacturers have struggled to keep pace with international trends in furniture design. South African furniture is generally functional in purpose without the quality of finishing that is expected to be found in international furniture products.

South African furniture manufacturers have yet to take cognisance of the importance of environmentally friendly inputs such as lacquers used for furniture manufacture. The quality of furniture products is affected by the sawmilling industry being extremely labour intensive, contributing significantly to the inconsistent quality of lumber being produced.

Mills often suffer from a lack of capacity, so that softwoods and hardwoods are processed on different shifts using the same machinery, rather than dedicated equipment, which has a negative impact on quality (Dunne, 1999; Dunne and Morris, 1999).

South African furniture manufacturers tend to follow short-sighted, cost-cutting strategies. Obviously, the price component of strategy cannot be ignored, however, the problem lies with South African furniture manufacturers not being competitively priced in export markets.

4.6.2 Foreign marketing and Distribution

South African furniture manufacturers are faced with a number of logistical difficulties, such as dealing with international customers, unreliable transport, and ineffective distribution channels (Dunne and Morris, 1999). South Africa is located far away from major international markets and is faced with various 'conditions' applicable to different export destinations. Some examples include, the unwillingness of German buyers to accept natural variance in wood colours, differences in environmental demands of European and American markets (Dunne, 1999a,b; Dunne and Morris, 1999). South African furniture products have no special qualities attached to it, and are not readily sought after by international consumers.

There exists no specific overseas marketing body, representing the interests of South African business (Dunne, 1999a,b; Dunne and Morris, 1999). Consequently, a delivery of sub-standard products by an exporter can irreversibly damage the reputation of South African products as a whole.

Logistical problems may be overcome with the use of agents to identify final consumer needs, market conditions, procedures when importing and distribution channels (Dunne, 1999a,b; Dunne and Morris, 1999). However, the use of agents must be approached cautiously, as agents mark-up on goods could increase final costs of products, and may even limit the ability of manufacturers to meet the changing demands of the markets. The DTI recognises the need for export agents (South African Wooden Furniture Trade Directory, 1997), however, very few manufacturers are aware of these services being available for companies wishing to export.

4.6.3 Capacity

Capacity is related to the ability of South African furniture manufacturers to service the demands of international consumers. This is a problem of matching manufacturing capacity with retailer capacity (Dunne, 1999a,b; Dunne and Morris, 1999) to handle an order.

4.6.4 Hearing the market

The ability to keep pace with changes in market demands is believed to improve competitive ability. Chapter (2) referred to the importance of "hearing the market" and adjusting performance to meet these needs. South African furniture manufacturers falls significantly short in their ability to identify market demands and adjust their operations accordingly.

4.6.5 Labour and Automation

A further problem arises with regard to the role of labour versus automation. The furniture industry in South Africa is highly labour intensive, and given the strong presence of labour institutions, automation becomes a difficult option to consider. Whilst most firms believe in investing in new machinery, most firms may not be able to because they lack the capacity to do so or they may be faced with labour disputes due to the strong presence of unions.

4.6.6 Institutional issues

The various institutions such as the Chambers of Commerce and Local Business Service Centres that operate in KZN have been criticised for their lack of synergy and ability to support businesses in the furniture sector.

Further to this, these institutions are believed to lack consensus around sectoral strategies, lack capacity, suffer from a lack of services to support international competitiveness, ignore issues of restructuring, provide inadequate information about their services or their services are inaccessible. (Aniruth, Barnes, Morris,1998)

4.6.7 Environmental issues

An issue critical to competitiveness is a focus on environmental strategies that have been largely ignored. European markets place increasing emphasis on 'green-issues', highlighting the importance of Forest Stewardship Council (FSC) certification and the ISO 14001 environmental standard, in furniture manufacture. (Van Rooy, 1997; WWF, 1998). Certification is one of the most rapidly developing 'soft policy' tools (i.e. non- regulatory instruments) which can be used to help the forest sector move in line with the principles of sustainable development (Government Gazette No. 18164, White Paper : Sustainable Forest Development in South Africa, 1997). Certification could be used as a positive marketing tool particularly to discerning consumers.

4.7 STRENGTHS AND OPPORTUNITIES IN THE FURNITURE INDUSTRY

Although many weaknesses were highlighted in the previous discussion relating to the furniture industry. It is important to highlight the opportunities that do exist as these opportunities could result in the formation of strategies that would improve the current state of the furniture industry.

Strengths	Opportunities
◦ Existing established industry already involving small (some black) entrepreneurs	◦ The disadvantaged becoming urbanised will have more money to spend on furniture
◦ English is the predominant language	◦ Government initiative will stimulate SMMEs
◦ Existing export industry in softwood furniture	◦ Develop the bush-mill industry via improved local training facilities and foreign intervention
◦ Relatively large existing informal bush-milling sector	◦ Co-ordinate bushmill needs and erect community kilns and treatment plants
◦ Adequate raw material locally available in the medium term	◦ Co-ordinate bush-mill and small furniture factories' marketing needs and create central marketing divisions
	◦ SMMEs must become main suppliers of wood and furniture to the informal settlements within the limits of the law
	◦ Co-ordinate raw material needs of small furniture manufacturers and empower central buying, create own "agency"

Table 4.6: Strengths and Opportunities in the Furniture Sector (Danida, 1996)

A review of Table 4.6 emphasises an important part of the SMME sector, the small enterprise sector that has black entrepreneurs and a bushmill sector. What can be deduced from these opportunities is that this sector of the furniture industry is the most suitable sector in which business linkages can be formed.

This sector requires training and skills development as well as exposure to markets, therefore, the formation of a vertical linkage would assist SMMEs to not only develop their skills base, but to become more competitive. If their competitive ability increases, they may be in a strong position, to service for example, the large number of informal settlements. Further to this, there is an emergence of an upper market segment of black consumers and potential also exists in this area for furniture production.

4.8 CONCLUSION

This chapter has reviewed the international and national furniture sector. In terms of the national furniture sector, the structure and nature of the industry was discussed. The performance of furniture industry has also been a feature in this chapter. The final part of this chapter has identified the potentials weaknesses of the industry as well as the major strengths and opportunities that exist in the sector.

CHAPTER 5: CLUSTERING: A SUGGESTED SOLUTION FOR COMPETITIVENESS IN THE FURNITURE INDUSTRY

5.1 INTRODUCTION

The major theme underlying this research study is the possibility that linkages could result in furniture manufacturers improving their efficiency / performance in KZN. Since South Africa has favourable climatic conditions that contribute to faster growth rates of industrial plantations, (Smith and Neilson, 1994) the ability to utilise this advantage could contribute towards making the furniture-manufacturing sector more efficient in raw material usage. Wood often went to waste and was either burned for fuel or burned to get rid of it (Petree, http://www.timberline.com). Now, millions of tons of wood composites are being manufactured from previously unused species and forest mill residues (Petree, http://www.timberline.com).

A competitive analysis of the South African forestry products value chain (IDC 1995) unveiled a host of factors which impede optimal performance of various industries involved in the forestry products value chain, including the furniture sector. The analysis revealed that factors such as favourable interest rates, surplus on the balance of payments, industrial subsidies, low inflation rates and low wages are only short-term solutions towards achieving competitiveness. Instead, productivity is considered the key factor in sustaining competitive ability. (IDC, 1995; TPEA, 1997)

According to this study, (IDC; 1995) productivity is founded on the principles of:

- Value addition and innovation
- Appropriate matching of technology
- New markets and distribution channels
- People that think in new ways
- New relationships with suppliers, customers, competitors
- Product development and research

There are two other important issues that arise from this that relate to the furniture industry (IDC, 1995)

1. low production scales and high overhead costs makes the average furniture producer unable to export without some export assistance.
2. This situation offers huge processing opportunities in the downstream development of the solid wood-processing cluster.

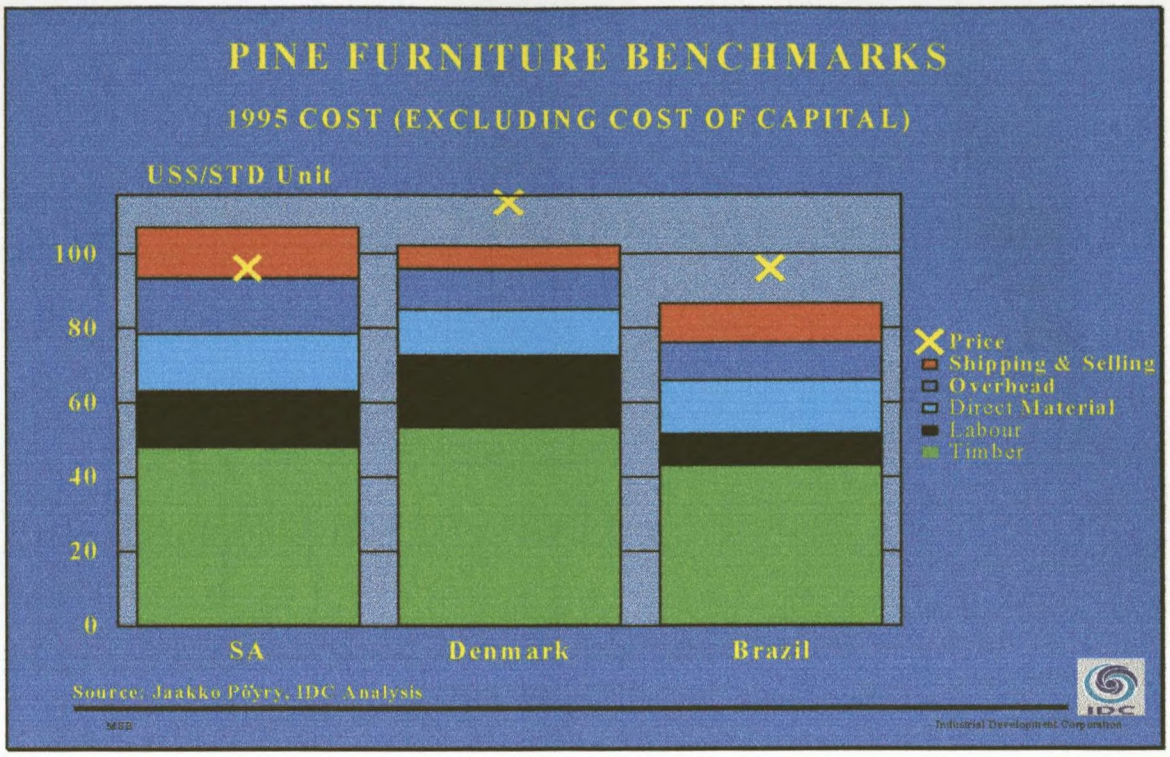


Figure 5.1: Pine Furniture Benchmarks (IDC, 1995)

The costs associated with furniture manufacturing in South Africa, impact on the performance of the industry. Figure 5.1 compares South Africa's costs associated with the manufacturing of pine furniture, against Denmark and Brazil. The yellow (**X**) indicates the selling price of lumber in each of the 3 countries. The red, dark blue, turquoise, black and green sections of the graph indicate costs in the following order: shipping and selling costs, overheads, direct material costs (DMC), labour costs and timber costs.

A major component of costs incurred by the three countries is for timber. With regard to labour, Denmark shows a higher cost for labour in comparison to South Africa or Brazil. This is understandable, given the great importance attached to skills and investing in modern technology in Denmark. (http://www.fdmi.dk.potrait.html)

It is interesting to note that South Africa's labour cost is not much lower than that of Denmark. The DMC are slightly lower for Denmark and almost the same for South Africa and Brazil. Overhead costs and shipping costs are the highest for South Africa in comparison to both Denmark or Brazil. Denmark and Brazil have a higher cost for lumber in comparison to South Africa. However, South Africa has lost its advantage of lower lumber prices due to its higher overheads, shipping costs and labour costs.

By reviewing the impact of these costs on the furniture manufacturer, the assumption drawn from this is that South African furniture firms are uncompetitive, and in this particular case, they are uncompetitive in terms of price. The case study that follows, serves as a valuable illustration as to how collaboration could have a positive impact on furniture industries (not only on cost).

5.2 THE SALIGNA VALUE CHAIN

Eucalyptus Saligna hardwood is a fast growing species and can be grown in various areas of Southern Africa including parts of Angola, Zambia, Malawi, Mozambique, Zimbabwe and South Africa (Watts, 1998). Saligna has been mainly used in the South African mining industry. However, the use of Saligna in this sector has declined (Dunne, 1999b). As a result, a surplus of Saligna exists and a market needs to be found for it.

The most effective argument that favours Saligna is that it lends itself to commercial planting (Watts, 1998; Dunne, 1999). Recent developments in the furniture industry have seen a marked interest, particularly in European markets regarding environmental issues. European consumers' concern over the sustainability of timber resources has strongly influenced the development of certification.

Certification such as the FSC is one of the rapidly developing 'soft policy' tools which can be used to help the forestry sector move in line with sustainable development (World Wildlife Fund, 1998; Van Rooy, 1997; Dunne 1999b).

Although the South African furniture sector manufactures products made of pine, pine is a softwood as opposed to Saligna which is a hardwood. A high intrinsic value is attached to Saligna because it is a hardwood whereas pine (softwood) is perceived to have a lower intrinsic value. Hence, the positioning of Saligna at the upper end of the market is an attractive option.

Despite the attractiveness of the harvesting the potential of Saligna, the current problems facing South African furniture manufacturers still remain. As discussed in Chapter 4, South Africa exhibits major weaknesses with regard to quality, design, capacity and an inconsistent quality of timber supplied by sawmills. The finishing of products is also sub-standard as eco-friendly finishes are not being utilised. Saligna is an unknown product in the export market and, considering the difficulty experienced by South African firms in foreign marketing, conveying the perception that Saligna is a quality timber to international consumers, adds to the existing problems faced by South African furniture manufacturers (Dunne, 1999b).

Much has been said about the importance of collaboration and co-operation between businesses thus far. Since Saligna no longer services the needs of the mining industry and a new market needs to be found for Saligna, there exists a strong potential for collective efficiency in Saligna value chains.

This potential was explored through the use of internal change agents from an externally-based university group and the Industrial Restructuring Project (IRP) (Dunne, 1999b). The involvement of the IRP ignited the possibility for co-operation as the IRP had already established credibility within the furniture sector. The credibility of the IRP was used to gain support for the collaborative initiative from the DTI. The efforts of the IRP agent was directed towards the formation of a Saligna value chain group (Dunne, 1996b). However, the formation of such a group could be viewed with suspicion by smaller firms in the value chain and by mills themselves as the possibility existed that the initiative would be viewed as favouring one group over another (Dunne, 1999b).

As mentioned earlier, problems within the furniture sector are attributed to the supply and quality of timber, directly involving mills and timber growers (refer to chapter 4). This presents a problem for Saligna, as focussing on the needs of furniture manufactures only may exclude other potential user groups of Saligna.

To get the Saligna interest group to engage in co-operative action, three linkages within the value chain were identified (Dunne, 1999b).

1. Link between timber growers and the rest of the value chain - focus on quality and supply of Saligna, and incentives for growers to supply top quality Saligna to furniture manufacturers which task was allocated to the 'Young Tree Working Group'.
2. Link between sawmills and manufacturers — focus on the quality of sawn timber and producing timber in the internationally recognised dimensions - - 'Product Matrix Way'.

3. Manufacturers and the end market - lack of co-ordination in sectoral marketing efforts, collective action was needed to develop a brand image, undertake research and sectoral quality control policy - "Branding Working Group'.

The identification of three potential linkages in the Saligna value chain culminated in the formation of three working groups (indicated above), which would focus their efforts towards collective action. As a result, the working groups expressed concern over trust between firms, and the financial viability of working together.

Mills needed assurance that a long term market existed before they undertook investment in capital equipment, and the possibility of joint equity partnerships was suggested as an option for initiating new investments on the part of timber mills (Dunne & Morris, 1999). Other issues that evolved from these working groups included:

- participants recognised that collective bargaining power could be used to arrange favourable rates from quality and environmental certification consultants;
- possibility that government could fund efforts aimed at collective action;
- problems existed with co-ordinating working groups as they were geographically dispersed from one another (Dunne & Morris, 1999).

The success of the Saligna value chain is strongly dependent on co-operation between various stakeholders in the value chain. The market potential for Saligna exists and this opportunity can be fully taken advantage of, provided the problems affecting the furniture industry can be overcome. Raw material suppliers have simultaneously been experiencing a decline in demand from a dominant user group which competes with furniture and related product manufacturers for Saligna supplies (Dunn & Morris, 1999).

This forced suppliers to rethink the potential of the furniture industry being an important user group. Hence, the impetus for co-ordination with furniture user groups could prove to be a benefit.

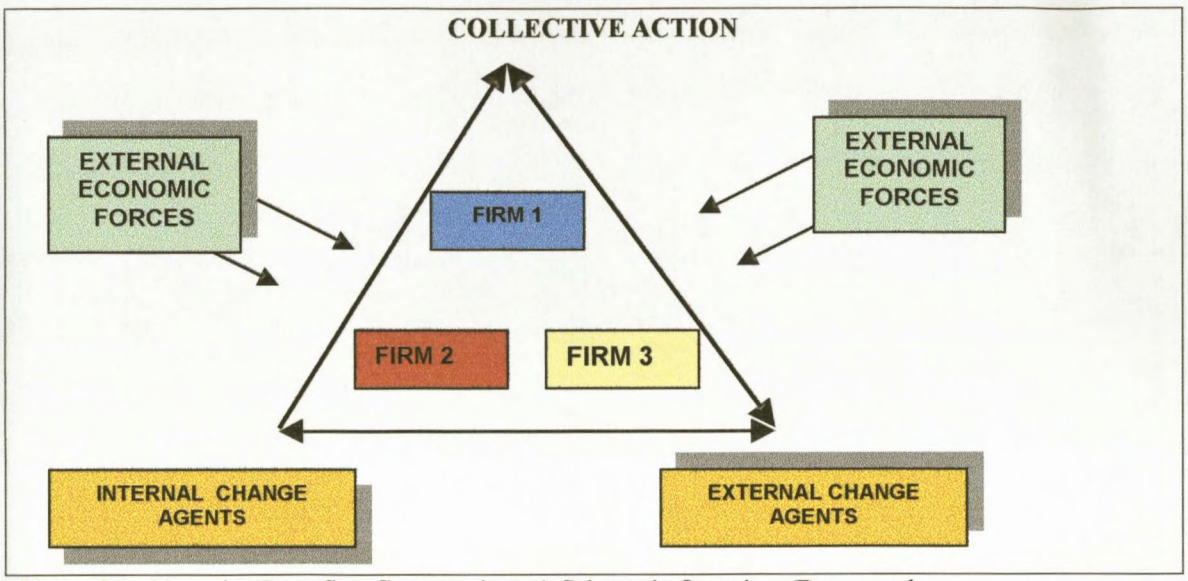


Figure 5.2: Nurturing Inter-firm Co-operation: A Schematic Overview (Dunne and Morris, 1999)

Figure 5.2 highlights the workings of vertical and horizontal co-operation in an operating environment within the Saligna value chain. An interesting feature of the model is the value of internal and external agents. Internal agents play a critical role in bringing together relevant stakeholders in the value chain. However, the role of the external agent is to encourage, facilitate and co-ordinate existing intra-industry support for collective action (Dunne & Morris, 1999). The important lesson that can be learnt from the Saligna value chain case study is that the roles of internal and external agents cannot be ignored. Internal agents are able to create the necessary credibility to get stakeholders to co-operate towards achieving collective action. This particular case study espoused a limited role for external agents (e.g. DTI).

If external agents choose to have a greater degree of involvement in creating co-operative relationships, they need to be capable of steering the process forward. It may be more useful to use internal agents to be drivers of co-operative elements and restrict the role of external agents to creating an environment conducive to collaboration between firms.

5.3 CONCLUSION

The inefficiencies in the supply of raw material from the sawmill sector have impacted on the competitive ability of the furniture sector. These inefficiencies need urgent measures to be instituted to diminish and eventually eradicate these inefficiencies. There needs to be a change in mindset to identify that plantation owners, sawmills, furniture manufacturers and even panel manufacturers need to co-operate and collaborate to derive the benefits of high competitive ability. Collaboration and cooperation cannot occur in the absence of better log grading, improved technology, value optimization, better management practice, information flow, human resource development, product development and distribution and marketing (Eurpean Union, 1997 a,b; KZN REF 1997; IDC, 1995). The case study of the Saligna value chain in South Africa has highlighted the importance of collaborative work but also the importance of maintaining a strong focus on export.

CHAPTER 6: THE RESEARCH DESIGN AND METHODOLOGY

6.1 INTRODUCTION

The aim of this chapter is to outline the research methods used to conduct this study. The selection of the research design is justified by providing an overall context of the research study. The research design focuses on the sampling methods used and how the sample was drawn. The methods used for data analysis is also discussed, with the chapter concluding with the problems that were experienced in the data collection process.

6.2 THE RESEARCH CONTEXT

The purpose of this research study is to investigate if business linkages/clustering as a strategy could enhance the competitive performance of SMME furniture manufacturing firms in KZN. In order to do this, the concept of linkage/clusters was explored to establish if it does contribute to SMME competitiveness. The characteristics of the SMME sector and the formal enterprise sector suggested that different social classes and levels of education would influence the responses of participants.

The furniture sector is a highly segmented one, with furniture manufacturing companies being categorised according to the following groupings, namely, household, office, hospitality industry and garden furniture. Household furniture includes customised kitchen and wardrobe furniture, upholstered lounge furniture and case goods which includes dining room suites, bedroom suites and a range of occasional furniture (Dunne, 1999b). The household and office furniture category was chosen for this research study due to the large component of wood used in furniture production. The research study excluded those manufacturers that concentrated only on kitchen units as these manufacturers faced unique and different problems.

It was apparent that many of the furniture manufacturers used wood as a primary input in manufacturing, but many of these manufacturers manufactured different products without specialisation in a specific product type. Hence, it became difficult to clearly categorise the area/s of specialisation of the companies involved in the research.

6.3 THE PROBLEM AND ITS SETTING

6.3.1 The Statement of The Problem

To explore the potential application of vertical and horizontal clustering as a strategy for enhancing the competitive performance of SMME furniture manufacturers in KZN.

6.3.2 The Statement Of The Sub – Problems

SUB – PROBLEM 1

The performance of South African furniture manufacturing firms is inadequate to operate efficiently at high levels of competitiveness.

SUB – PROBLEM 2

The concept of clusters is not well understood and as a result of this, furniture manufacturers are not willing to implement linkages/clusters as a strategy to enhance competitiveness.

SUB – PROBLEM 3

Behavioural attitudes, such as a lack of trust impede the formation of linkages/clusters.

SUB – PROBLEM 4

It cannot be clearly ascertained that an association exists between the implementations of linkages and economic profit.

SUB – PROBLEM 5

A model of linkage formation does not exist to outline how linkages should operate.

6.4 THE HYPOTHESES

Hypothesis 1

Competitiveness of the South African manufacturing sector and the furniture sector is impeded by a lack of specialisation and differentiation.

Hypothesis 2

The current levels of knowledge of relating to clusters is inadequate to promote the development of linkages in the furniture sector.

Hypothesis 3

Prevailing negative attitudes impede the formation of linkages amongst furniture manufacturers.

Hypothesis 4

Vertical and horizontal linkages result in economic gains for participating businesses.

Hypothesis 5

Furniture manufacturers have a preference for vertical linkage formation over horizontal linkage formation.

6.5 THE DELIMITATIONS

The study will be limited to furniture manufacturers Kwa – Zulu Natal, in the Durban Metropolitan Area. The DMA spans approximately 50km along the Indian Ocean and approximately 40km inland, towards Pietermaritzburg. Industrial areas, such as Pinetown, are constituents of the DMA (van Rooyen, 1999)

6.6 THE RESEARCH DESIGN

The research design outlines the methods used for data collection. The research design provides the blueprint for reaching the objectives of the research and answering the questions originating from the research problem (Van Wyk, Loubser & Martin, 1996). It is therefore important to choose a method of data collection that is best suited to the research problem under investigation.

Research can be exploratory or conclusive in nature (Parasuraman, 1991). Exploratory research is intended to provide direction for future research. Conclusive research is intended to verify insights and to aid decision-makers in selecting a specific course of action (Parasuraman, 1991). Exploratory research can be undertaken though the use of Expert-Opinion-Surveys, Focus Group Interviews, Case Studies and In-depth Interviews (Van Wyk, Loubser & Martins, 1996).

Conclusive research is also referred to as causal research and occurs in two basic forms, namely, descriptive research and experimental research (Parasuraman, 1991). Descriptive research is useful in providing information relating to relevant characteristics and associations between these characteristics.

However, descriptive research cannot make "causal inferences", in other words, it cannot provide specific conclusions about associations between variables. Experimental research on the other hand can be used to make causal inferences about relationships between variables (Parasuraman, 1991). However, this research study is descriptive in nature as it investigates how various factors impact on the development of business linkages. Therefore no causal inferences can be made about factors and associations between factors.

Descriptive research can be conducted by using cross-sectional or longitudinal studies for data collection (Van Wyk, Loubser & Martins, 1996). Cross-sectional studies involve data collection at a single point in time, whereas longitudinal studies take place at repeated intervals. Although conducting research at repeated intervals is a useful exercise, it is often very expensive and time consuming. This research study has therefore used a cross-sectional study to yield the relevant data.

The use of personal interviews was considered the most appropriate method to collect data for the research study. This type of inquiry is said to provide a richness of data not easily matched by other methods of data collection (Van Wyk, Loubser & Martins, 1996). Such interviews provide the ideal setting for directing specific questions to an individual. The personal interview also creates a climate of openness and facilitates easier communication with the respondent. The interview method was deemed to be most appropriate to this research study, due to the high levels of secrecy between furniture companies, and the complexity of issues that needed to be discussed.

Since the personal interviews were conducted using a semi-structured questionnaire in the exploratory study and a structured questionnaire in the main study, these questionnaires required large amounts of complex data to be collected. This made the use of the mail survey and telephonic survey inappropriate. Mail surveys are often characterised by low response rates, hence researchers have little control over the situation. Telephone surveys although more reliable than mail surveys are characterised by less rapport with respondents, as respondents tend to answer questions very briefly and are reluctant to provide personal information (Van Wyk, Loubser & Martins, 1996). The use of personal interviews in this research study ensured that strong control could be maintained over the research sample.

Further, these interviews were particularly useful for both the researcher and the respondent where clarification was needed on subjects and issues.

The use of the personal interview methods does have a few drawbacks. Interviews that last for a long time do not easily receive co-operation from prospective respondents. Respondents may be unwilling to answer questions. A serious problem that could result is from bias on the part of the interviewer. In some instances, interviewers may lead or suggest answers to a question and this could significantly reduce the reliability of the information gathered. Interviewers should also guard against interview burnout and avoid conducting too many interviews in a day as this severely impacts on the quality of information that is gathered from the interview (Van Wyk, Loubser & Martins, 1996).

6.7 THE SAMPLING PROCESS

Sampling is defined as the selection of a fraction of the total amount of units of interest to decision-makers, for the ultimate purpose of being able to draw general conclusions about the entire body of units (Parasuraman, 1991). Therefore, all units of interest would be referred to as the population or universe. A list of units that are chosen from a population constitute a sampling frame. In this research study all the furniture manufacturers in KZN was the population. The manufacturers of wooden furniture constituted the sampling frame.

Sampling can be undertaken through a probability sampling method or a non-probability sampling method (Leedy, 1989). The probability method of sampling involves an objective process where the researcher is able to ascertain in advance the selection of a population unit. In contrast, the non-probability sampling method is subjective where the researcher is unaware of what selection is required from a population unit.

Non-probability sampling is far more judgmental in nature where the researcher's subjective role determines which specific units get included in the sample (Parasuraman, 1991).

Researchers have a choice of the type of methods used in probability and non-probability sampling. Probability sampling generally involves simple random sampling, stratified random sampling, proportionate and disproportionate stratified random sampling, cluster sampling and systematic sampling (Van Wyk, Loubser & Martins, 1996).

Simple random sampling is a process where every possible sample unit within a population is known and each has an equal chance of being chosen. In stratified random sampling, any sample within a population has a probability of being the actual sample used in a research study. Stratified random sampling can be *proportionate* where a sample consists of units selected from each population stratum in proportion to the total number of units in the stratum, or *disproportionate* where a sample consists of units selected from each population stratum according to how varied the units in the stratum are (Parasuraman, 1991).

Cluster sampling involves the selection of clusters from a population. Each of these clusters then has a random chance of being chosen to be studied (Van Wyk, Loubser & Martins, 1996). Finally, systematic sampling is a form of cluster sampling in which a "cluster" of units is pulled from a population by selecting the first unit randomly and the remaining units systematically (Parasuraman, 1991).

Non-probability sampling usually involve the use of convenience sampling, judgement sampling and quota sampling (Van Wyk, Loubser & Martins, 1996). In the case of convenience sampling, the researcher chooses a sample unit that is convenient for the research problem under investigation. With judgement sampling, the researcher will make sure that a selected sample is appropriate for a study. In the case of quota sampling;

- The population is divided into cells on the basis of relevant control characteristics
- A quota of sample units is established for each cell and
- Interviewers are asked to fill the quota assigned to various cells.

(Parasuraman, 1991)

This research study has been undertaken in two stages, namely, a first stage exploratory study and a second stage quantitative study. In the **exploratory study**, a non-probability sampling technique was employed. A judgement sample was used to select a sample unit that was considered appropriate for the study. The assumption was made that certain issues needed to be discussed with potential respondents. Therefore, due to the complex nature of the issues that may have been discussed, the sample units included respondents from diverse backgrounds. Respondents included academics, service providers, SMMEs, corporates and 'resource persons' from the furniture sector.

The second stage of the study, **the main survey**, utilised the probability sampling technique. This sampling technique was chosen because it utilises an objective process of choosing in advance the selected unit of a population. A stratified random sample was drawn from the population and used for the research study.

This sampling method was deemed to be the most appropriate for the research study due to the highly segmented nature of the furniture industry. The simple random sampling method was not considered appropriate as the possibility existed that the sample selection would be skewed in favour of certain units of the population. More importantly, the effects of the random sample method could have introduced a statistical error that showed bias in the selection of some units over others (Van Wyk, Loubser & Martins, 1996). The statistical efficiency of a sampling procedure depends on its ability to draw a representative sample from the population. However, in the case of cluster sampling, it has a relatively low statistical efficiency, particularly if clusters are very different in composition from one another and consist of similar units within each cluster (Parasuraman, 1991). Hence, cluster sampling was also considered inappropriate for this study due to the high degree of segmentation in the furniture industry.

6.7.1 Sample Size

6.7.1.1 The Exploratory Study

Although it was established that certain issues would be used to guide the interview process, it was not possible at this stage to determine the specific issues that impacted on the competitiveness of furniture manufacturing companies and issues that related to linkages in the furniture manufacturing industry. It was considered useful to use an Expert-Opinion-Survey amongst five discrete groups of individuals, to attempt to uncover the specific issues affecting furniture manufacturers. A semi-structured questionnaire was used to conduct face to face personal interviews (approximately 45 minutes to an hour in length) amongst a group of nine experts in the furniture sector. A sample of this questionnaire is found in Appendix E.

The assumption was made that academics would provide the theoretical input regarding issues relevant to the research problem under investigation. The use of service providers was expected to yield a broad range of information relating to issues affecting the manufacturing industry in general and the furniture industry in particular. Individuals from a background of the furniture sector and those that were knowledgeable about the furniture sector were consulted in the capacity of 'resource people' who could provide valuable input regarding the nature and workings of the furniture industry. Respondents at this stage of the study also included the SMME sector and corporates. This grouping of respondents was considered useful in providing information specifically affecting the functioning of their businesses. The sample unit of nine (9) respondents included three (3) academics, two (2) service providers, two (2) SMMEs, one (1) corporate and two (2) resource people.

Although the corporate sector was represented by one individual, it should be noted that the corporate sector of the furniture industry comprises of major groups of furniture manufacturers combined under one company profile. Major furniture groups such as the Cornick Group and Megacor have merged with the Steinhoff Holdings Group.

The exploratory questionnaire was constructed taking into account various issues that could affect the industry and since it could not be clearly ascertained what the issues were, the questionnaire consisted of six sections that were considered appropriate for this stage of the study.

These sections were grouped in the following manner:

- **Part 1:** explored the problems furniture manufacturers are currently experiencing and identified what possible solutions could be found to these problems.
- **Part 2**: focused on generic strategies used in business to enhance a firm's performance
- **Parts 3& 4**: sought clarification of the concepts "Clustering", "Technology Transfer", constraints to linkages and possible solutions.
- **Parts 5 and 6**: focused in greater detail on horizontal linkages and vertical linkages respectively.

6.7.1.2 The Main Study

As a starting point in the research study it was necessary to develop a sampling frame of furniture manufacturing firms for subsequent use in stage 2 of the study, from which a random sample of SMMEs and Corporates would be drawn.

This was done by using data from The Furniture Industry Training Board, DUMAC, The Durban Chamber of Commerce and Industry, and the South African Wooden Furniture Trade Directory. The consolidated database from these various sources originally consisted of one hundred and fifteen manufacturers. After attempting to secure telephonic contact with all furniture manufacturers listed in the database (approximately 90), the final sample universe was narrowed down to a sample unit of fifty-five (55) potential furniture manufacturers, excluding kitchen manufacturers. The reasons for this have already been mentioned.

From the potential database of 55 furniture manufacturers, approximately thirty-eight (38) manufacturers had agreed to participate in the study. These furniture manufacturers were contacted via telephone and were also contacted through letters. Although thirty-four (34) responses were received, five of these were excluded from the study as the questionnaires were either incomplete or filled in incorrectly. The number of respondents totalled twenty nine (29) furniture manufacturing companies which consisted of four (4) large companies, eight (8) medium companies and seventeen (17) small enterprises. The furniture manufacturers were grouped according to company size in the following way:

COMPANY SIZE	NUMBER OF EMPLOYEES
Small	1 - 49
Medium	50 - 200
Large	Above 200

Table 6.1: Furniture Size and Number of Employees (Sunday Tribune, 30 May 1999)

Respondents were interviewed personally using a structured questionnaire. The sample of this questionnaire is contained in Appendix F. The structured questionnaire was developed through the issues that emerged from the exploratory phase of this research study. The final questionnaire administered to the respondents in the form of personal interviews lasted between one and two hours. All respondents interviewed were senior staff members or occupied management positions.

Further, performance indicators (part V if the questionnaire) called for specific and sensitive data which is best obtained through personal contact with the respondents. The questionnaire used in the main survey comprised five parts:

- **Part I :** Addressed issues pertaining to competitiveness.
- **Part II:** Addressed issues pertaining to linkages, generally, vertically and horizontally.
- **Part III:** Focused on attitudinal disposition of corporates and SMMEs toward vertical and horizontal linkages
- **Part IV:** Identified the various levels of engagement that occur in linkage relationships between businesses
- **Part V:** Focused on performance indicators to serve as a benchmark against which to compare the overall performance of furniture manufacturing firms with or without linkages in place

6.8 CONCLUSION

This chapter has outlined the importance of choosing an appropriate research design and data collection method. This chapter has maintained that this research study is descriptive in nature and utilised a semi-structured questionnaire in stage one of the exploratory study and a structured questionnaire in stage two of the main study. The respondents from the exploratory study were chosen from five discrete groups namely academics, service providers, SMMEs, corporates and 'research people', to generate information that could guide the next stage of the research. These issues were then used to draw up a structured questionnaire to be administered to furniture manufacturers in the main study.

However, the research process was impeded by the existence of various problems. Firstly, there was a general feeling of apathy amongst furniture manufacturers for being involved in the research. Even for those companies that chose to participate in the study, securing interviews proved to be an arduous and time-consuming task. In many instances, after travelling to a company, the potential interviewee would decline the interview and reschedule the meeting time. This made the process of data collection an agonisingly slow process.

Secondly, many companies were not willing to freely answer questions and were in many instances suspicious and in some cases very rude during the interview process.

Thirdly, some of the respondents constituted the research as a waste of time and believed, arrogantly so, that no research was needed in the furniture industry. Fourthly, the merging of the major corporate companies under the Steinhoff Holdings Group, presented severe difficulties in securing interviews with relevant individuals in the corporate sector.

Finally, in some cases, having presented for an interview respondents that did agree to participate declined from the interview. These respondents chose to fax through their questionnaires. This not only hampered the data collection process, but increased the possibility of the questionnaires being filled in incorrectly.

CHAPTER 7: INTERPRETATION OF THE RESEARCH DATA

7.1 INTRODUCTION

The purpose of this chapter is to report on the findings of the research study. This will be done for both the exploratory study and the main study. It should be mentioned that the exploratory study merely served to guide the issues that were chosen for inclusion in the main study questionnaire. Hence, the treatment of the exploratory findings is not as comprehensive as would be the case in the main study. The main study has utilised frequency tables as well as mean scores to provide an understanding of how various issues have affected the SMME and corporate sector in the furniture manufacturing industry. Cross tabulations have been utilised only in specific instances due to the small sample size.

7.2 DESCRIPTION OF THE VARIABLES: THE EXPLORATORY STUDY

The purpose of an exploratory study is intended to provide direction for future research. In the case of this research study, an exploratory study in the form of an expert opinion survey was undertaken amongst relevant players in the furniture industry. The key findings of the exploratory study resulted in the identification of issues specifically affecting the furniture industry. These findings, summarised in Table 7.1, have been used to guide the inclusion of questions in the main study.

KEY FINDINGS: EXPLORATORY STUDY	
Competitiveness	• Lack of skills and knowledge, prevents furniture manufacturers from being competitive • Labour relationships and labour costs impact on competitiveness • Quality of products produced is below international standards. • Sawmills are unable to source/supply consistent quality and dimensions of raw materials • Furniture manufacturers are unable to cope with changes in internal and external markets
Generic Strategies	• Strategies followed are defensive and not proactive • SMMEs are inward looking hence impacting on their ability to strategize. • Furniture manufacturers concentrate very strongly on cost-cutting as business strategy • Furniture manufacturers have inadequate knowledge and skills to implement effective strategies
Technology Transfer	• Pooling of resources, sharing information and technology. • An idea or concept used to improve/make lives better or an efficient way of doing something differently. • Transfer of expertise through skills and training
Clusters	• Lack of trust prevents linkages formation • Potential for big businesses and small businesses to work together • Outsourcing of non- core activities
Horizontal Linkages	• Working together with other smaller businesses would bring benefits and economic gains • Trust resurfaced as an issue that may prevent linkage formation • Firms should operate within networks to encourage exchange and sharing. • Internal and external change agents were required to drive forward the process of linkage formation. • Intermediaries, Training institutions, Trade Unions and government may have an important role to play in linkage formation.
Vertical Linkages	• Possibility exists that expectations of parties involved in the linkage relationship may not be met. • SMMEs fear of exploitation from large companies • Cultural background, loyalty and long term relationships may negatively influence linkage formation. • SMMEs should receive mentorship and support from big business • Linkages could be a strategy that is enforced through corporate social responsibility. This raises the issue of social obligation versus economic gain. • Intermediaries, training institutions and government were perceived as playing a role in vertical linkage formation

Table 7.1: Key Findings of the Exploratory Study

7.3 DESCRIPTION OF THE VARIABLES: The Main Study

As a starting point, frequency tables, cross tabulations and mean scores were used to provide a description of the variables used in the research study. Due to the small sample size, sophisticated tests such as the chi-square goodness of fit test could not be run. Hence, the data was analysed using a limited range of statistical analyses. The description of the variables will be described according to sections included in the main study questionnaire, namely, Competitiveness, Strategies to Enhance Competitiveness, Linkages in General, Vertical Linkages, Strategies to Enhance Vertical Linkage Formation, Horizontal Linkages, Attitudes and Models of Engagement.

7.3.1 Competitiveness

Various factors relating to the issue of competitiveness was included in the main study to ascertain which of these issues, in the opinion of the respondents, impacted significantly on the competitiveness of furniture manufacturers.

Of a total of sixteen (16) statements relating to competitiveness, five (5) statements received a high level of agreement from respondents. Appendix G, represents the ratings for answers that have received a high level of agreement from respondents. In terms of labour regulations placing major restrictions on employers in the form of hiring workers, wages, conditions of work, downsizing or restructuring and the introduction of automation, 48.3% of respondents strongly agreed with this statement whilst 31% of the respondents agreed. An overall agreement of 79.3% could suggest that labour regulations impacts negatively on the competitive ability of furniture manufacturing firms. A characteristic feature that describes the furniture industry is the levels of literacy and education amongst workers.

According to the results of the study, 17.2% of the respondents are in strong agreement of this statement. Overall, a 75.9% level of could also suggest that workers lack the necessary education and skills levels that would be associated with a competitive furniture manufacturing company. Closely linked with this finding, 69% of all respondents in the study was of the opinion that furniture-manufacturing industries have an unproductive workforce. This could suggest that sub-standard levels of productivity are a result of low levels of education and skills amongst workers in furniture manufacturing industries.

With reference to the statement "a lack of communication between management and workers impacts negatively on their working relationship, resulting in labour disputes", this statement received an overall agreement from respondents of 78.6%, suggesting that labour issues play an important role in ensuring the competitiveness of furniture manufacturers. A high level of agreement has also been indicated by respondents for the statement relating to "the pooling of resources, the sharing of information, labour and equipment", as a means to improve the competitiveness of furniture manufacturing firms. An overall agreement of 75.9% was noted for this statement, with 34.5% of the respondents indicating a strong level of agreement with the statement. Interestingly, the mean scores for the statements relating to competitiveness only revealed labour regulations as a significant issue impacting on competitiveness. The mean scores for competitiveness can be reviewed in Appendix H.

On closer inspection of the five factors that are believed to, in the opinion of the respondents, impact on competitiveness it could be posited that a link does exist between labour regulations and management and worker communication.

Similarly, a link can be posited between education- illiteracy levels and productivity. The emergence of the five issues could imply that if competitiveness is to be improved upon in furniture manufacturing industries, more favourable relationships need to be forged between management, trade unions and workers and that the skills levels of workers need to be upgraded to sustain high levels of productivity.

7.3.2 Strategies to Improve Competitiveness

Respondents were asked to provide their level of agreement/disagreement with the potential strategies to improve the competitiveness of the furniture manufacturing industry, suggested in Part I: Question1.2 of the questionnaire.

The level of agreement expressed with regard to each of the six potential strategies was relatively high, presenting some difficulty in assessing which strategies were most appropriate to improve competitiveness. Therefore, the strategies for which respondents indicated strong agreement were deemed to be the most appropriate choices that would impact on competitiveness. From the six potential strategies, 44.8% of the respondents strongly agreed that workers in the furniture manufacturing industry need to be trained to improve their current skill levels and in the process develop new skills. The identical level of agreement as suggested by the respondents was given for the strategy that focused on training furniture manufacturers in developing marketing skills in national and international markets. The strongest level of agreement (48.3%) was suggested for the strategy that emphasised that management required training to upgrade their skills level and ability to strategize. The implication of these findings suggest that in order to maintain the competitiveness of furniture manufacturing firms, it is necessary to develop the skills of both workers and management.

Further, management and even workers may be seen to be lacking in the market-oriented component of their business, and this affects their ability to access markets both locally and internationally. These results are included in Appendix I.

7.3.3 Linkages in General

Part II of the questionnaire relating to linkages sought to identify the level of knowledge that existed amongst the respondents in the study, to the technical term "clusters".

According to the responses, 51.7% of the respondents indicated having heard of the term, whilst 48.3% replied in the negative. Due to the closeness of the percentages as revealed in the frequency tables (refer to Appendix J), a cross tabulation based on company size was utilised to identify which segments of the sample unit indicated positive and negative responses. Table 7.2 illustrates the results of this cross tabulation.

			Have you heard of the term clustering		Total
			Yes	No	
Company size	small	Count	6	11	17
		% within Company size	35.3%	64.7%	100.0%
		% of Total	20.7%	37.9%	58.6%
	medium	Count	5	3	8
		% within Company size	62.5%	37.5%	100.0%
		% of Total	17.2%	10.3%	27.6%
	large	Count	4		4
		% within Company size	100.0%		100.0%
		% of Total	13.8%		13.8%
Total		Count	15	14	29
		% within Company size	51.7%	48.3%	100.0%
		% of Total	51.7%	48.3%	100.0%

Table 7.2: Cross tabulation- Company size and the term "Cluster"

According to the results of the cross -tabulation, of the seventeen (17) small enterprises only six (6) respondents answered 'yes' to the question. In the case of medium enterprises only five (5) answered 'yes' and the remaining three (3) answered 'no'. In the case of large enterprises all respondents indicated a positive response to having heard of the term "clusters".

The cross-tabulation has resulted in an important finding: even though the literature review cited a lack of knowledge of the term clusters as a factor that impedes cluster formation, in this case there is an almost even split between those who are knowledgeable about the concept and those who are not. This suggests that a generalisation cannot be made that "clusters" as a concept is not well known. Also, the categorisation of responses by company size also suggests that no generalisation can be made about which sector, small, medium or large have more / less knowledge regarding the term "clusters".

7.3.4 Vertical Linkages

Various factors that were believed to impact on the formation of vertical linkages were included as part of the questionnaire used in the main study. From the range of statements that was proffered, all respondents indicated agreement with these statements relating to vertical linkage formation.

This created a difficulty in ascertaining which factors are most influential in the formation of vertical linkages. Consequently, top boxing was used to identify the statement to which respondents attached the highest / strongest level of agreement.

Figure 7.1 is an illustration of the top boxing of statements relating to vertical linkages, which has been derived using the results of the frequency table that was generated for the section on vertical linkages. This frequency table is included in Appendix K.

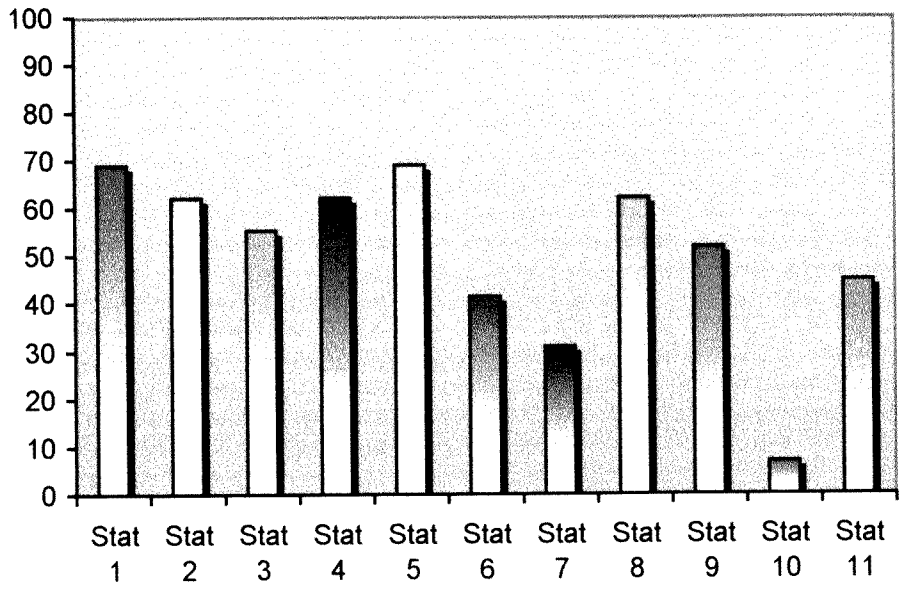


Figure 7.1 Top Boxing: Vertical Linkage Levels of Agreement

The x axis of Figure 7.1 contains eleven (11) statements which have been labelled as statement 1, 2, 3 and so on. These statements are found in question 2.3.1 of the questionnaire that was used for the main study. The Y axis is an indication of the percentage level of respondents agreement with regard to each of the 11 statements pertaining to vertical linkages. The strongest levels of agreement (69%) were given for statement 1 [loyalty and long-term relationships] and statement 5 [small business should produce high quality products].

This was followed by an agreement of 62.1% for statement 2 [trust between big business and small business is important in a vertical linkage relationship], and statement 4 [big business and small business must be both customer-driven].

The implication of this finding suggests that vertical linkage relationships work best in environments of high trust and loyal working relationship where partners in the vertical linkage are all committed to producing high quality products to ensure smooth functioning of the vertical collaboration.

With regard to the role played by intermediaries and training institutions in promoting vertical linkage promotion, it was interesting to note that respondents indicated no clear level of either agreement or disagreement in the questionnaire, with the statements that was suggested for these institutions. The only exception was a strong level of agreement (51.7%) attached to the statement that training institutions need to have champions to promote vertical linkage formation.

In respect of the potential role that government and trade unions could play in vertical linkage formation, a high level of agreement was indicated by all respondents for statements relating to government and trade unions. This could suggest that government and trade unions have a greater role to play in linkage formation as opposed to intermediaries and training institutions. The results of the frequency tables for intermediaries, training institutions, government and trade unions in included in Appendix L.

7.3.5 Strategies to Enhance Vertical Linkage Formation

A total of nine (9) potential strategies were suggested to respondents to establish the degree of importance attached to each of the 9 strategies relating to vertical linkage formation.

To identify which strategies was considered more important than other strategies, a top box table was generated using data from the frequency tables relating to vertical linkage strategies. Table 7.3 below, highlights the three statements for which respondents attached the highest level of agreement regarding strategies that could promote formation of vertical linkages.

Statement	Frequency	Top Boxing
1. Big business should offer support to small business in the form of mentorship, training, technology transfer, manufacturing strategy	31%	
2. Big business can help small business reorganise and restructure their management	37.9%	**37.9%**
3. Trust needs to be built to address fears on the part of big business and small business	48.3%	**48.3%**
4. There needs to be proper structuring of the linkage/cluster relationship with an agreed constitution to govern membership by full commitment by all partners would assist the formation of linkages	27.6%	
5. Intermediaries should educate big business and small business about the benefits accruing to linkages	24.1%	
6. Training Institutions should educate big business and small business about the benefits accruing to linkages	27.6%	
7. Government should educate big business and small business about the benefits accruing to linkages	13.8%	
8. There is a need for champions from the furniture industry and from external organisations such as the DTI to support and encourage the formation, development and implementation of vertical linkages.	37.9	**37.9%**
9. A measuring tool needs to be developed that would track the effectiveness of vertical linkage relationships	34.5	

Table 7.3: Strategies to Enhance Vertical Linkage Formation

According to the findings in table 7.3, the three most likely strategies that could result in the formation of vertical linkages are statements 2, 3 and 8. These findings suggest that trust is central to vertical linkage formation. If vertical linkages do occur between big business and small business, big business may have to consider playing a greater supportive role to SMMEs, by assisting them in the restructuring and reorganisation of their businesses, that would be beneficial to both parties in the vertical linkage relationship. Another interesting finding is that the existence of champions internal to the furniture industry and externally in the form of organisations such as the DTI could serve as major catalysts to drive forward the process of linkage formation.

7.3.6 Horizontal Linkages

Participants in this study were asked to comment separately on issues relating to vertical and horizontal linkages because the nature and characteristics of both vertical and horizontal linkages are fundamentally different. In the case of horizontal linkages, a range of statements was presented to respondents for comment.

Respondents showed a level of agreement with all statements included in the questionnaire relating to horizontal linkages. Once again, a lack of clear differentiation was noted as to which statements were deemed more important over others in relation to horizontal linkages. Consequently only the frequency scores for statements that were strongly agreed to by respondents was considered. This is reflected in Table 7.4.

Trust, as an issue impacting on linkage formation, has resurfaced for horizontal linkage formation as well, and 48.3% of respondents have strongly agreed to this. Further, 41.4% of respondents are in strong agreement that if small businesses worked together, they would become more competitive.

If small businesses work together they will become more competitive					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	41.4	41.4	41.4
	Agree	14	48.3	48.3	89.7
	Neutral	1	3.4	3.4	93.1
	Disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	
Lack of trust prevents small businesses from forming linkages with each other					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	14	48.3	48.3	48.3
	Agree	14	48.3	48.3	96.6
	Neutral	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Table 7.4: Highest level of Agreement for Issues Relating to Horizontal Linkages

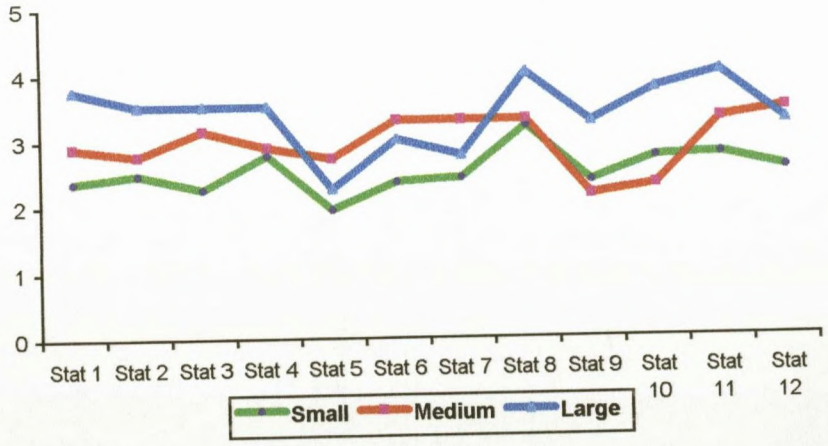
Respondents were asked to comment on the role that intermediaries, training institutions and government play, in the formation of horizontal linkages. In the case of all these institutions, very little could be said about how strongly respondents rated them in promoting horizontal linkage formation, as a diverse range of answers from strongly agree to neutral to disagree were given.

7.3.7 Attitudes

Attitudinal disposition was regarded as a major factor that influenced the formation of vertical and horizontal linkages. This research study has hypothesised that negative attitudes towards linkages in general impede the formation of linkage relationships. Since linkages can be differentiated in terms of vertical and horizontal linkage types, it was deemed necessary to review attitudinal disposition separately for vertical and horizontal linkages.

7.3.7.1 Attitudes: Vertical linkages

Based on the responses given by participants in this research study, Figure 7.2 depicts an interesting graphical distribution of statements relating to attitudes toward vertical linkage formation, based on company size.



Interpretation of the graph

- The x axis refers to 12 statements that were made about attitudes toward vertical linkage formation. These statement are found in question 3.1 of Appendix F of the main study questionnaire
- The y axis indicates the level of agreement or disagreement, with 1 being strongly agree; 2 agree; 3 neutral; 4 disagree and 5 strongly disagree.
- The green, red and blue trends refer to small, medium and large enterprises respectively.

Figure 7.2: Vertical linkage Attitudinal Disposition

As is evident from the graph, very few statements are located near number 2 on the y axis. This suggests that respondents were neutral to many of the statements that were made regarding attitudes toward vertical linkages. With regard to small enterprises, respondents from this category agreed with statement five (5) [corporates do not offer assistance or support SMMEs]. Large enterprises also show agreement with this statement, with medium companies being more neutral in their responses. SMMEs were also in agreement with statements six (6) [corporates do not trust small business and this prevents vertical linkage formation] and statement seven (7) [small business does not trust corporates and this prevents vertical linkage formation]. Large enterprises and medium enterprises were neutral in their response to statements 6 and 7.

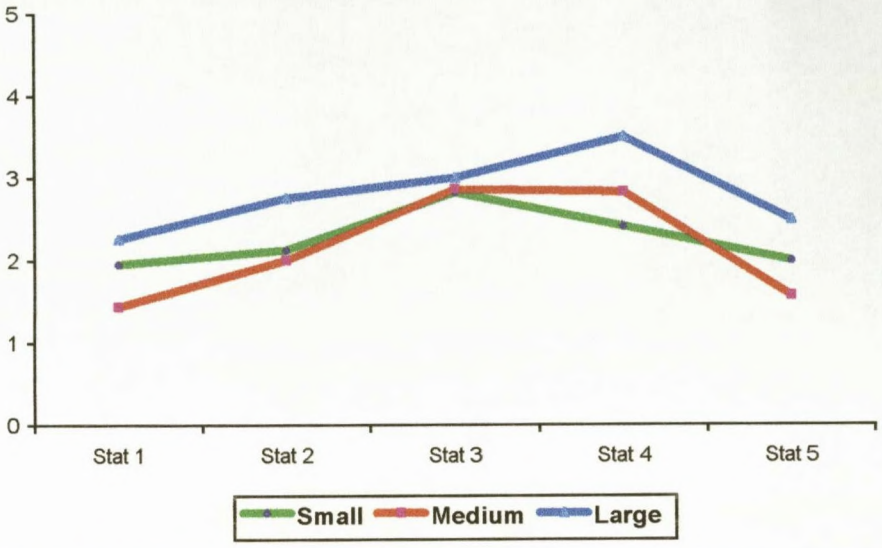
In the case of medium enterprises, agreement was shown for statement nine (9) [corporates that work with small business achieve economic gains) and statement ten (10) [corporates should form linkages with small businesses out of social obligation, i.e. Corporate Social Responsibility]. Small businesses showed agreement for statements 9 and 10; however, large enterprises show a definite disagreement for vertical linkages that are enforced through corporate social responsibility.

The attitude of large enterprises indicated negative responses to statements eight (8) [corporates and small business trust each other willingly to enter into vertical linkages] and eleven (11) [corporates should be willing to accept mistakes made by small business]. Small enterprise and medium enterprise response were neutral for statements 8 and 11.

The findings of the attitudinal disposition of small, medium and large enterprises toward vertical linkages suggest that large enterprises are more negative towards vertical linkage formation with small and medium enterprises. This negative attitude is largely attributed to a lack of trust between large enterprises and small and medium enterprises. It can also be suggested that large enterprises are very preoccupied with maintaining the bottom line and strongly oppose corporate social responsibility as a means to promote vertical linkages. Small and medium enterprises seem to display a more positive attitude toward the possibility that vertical linkage formation could result in economic gain. The general attitudes of small and medium enterprises are positive towards the formation of vertical linkage relationships. This contrasts starkly against the large enterprise negative attitude that vertical linkages would not result in economic gain and hence displays a generally negative disposition to vertical linkages.

7.3.7.2 Attitudes: Horizontal Linkages

In terms of horizontal linkages, Figure 7.3 is an illustration of attitudinal disposition of small, medium and micro enterprises.



Interpretation of the graph

- The x axis refers to 5 statements that were made about attitudes toward vertical linkage formation. These statement are found in question 3.1 of Appendix M of the main study questionnaire
- The y axis indicates the level of agreement or disagreement, with 1 being strongly agree; 2 agree; 3 neutral; 4 disagree and 5 strongly disagree.
- The green, red and blue trends refer to small, medium and large enterprises respectively.

Table 7.3: Attitudinal Disposition- Horizontal Linkages

According the Figure 7.3, small enterprises strongly believe that small businesses do not trust each other to enter into horizontal linkage relationships. Medium and large enterprises also display this attitude.

Smaller enterprises are strongly inclined to believe that horizontal linkages result in increased profit (statement 5: working together with other small businesses will result in increased profits for all concerned).

Large enterprises and medium enterprise also indicate agreement for this statement, however their agreement is not strongly associated with the statement suggesting that horizontal linkages result in economic gains. Medium enterprises have indicated an agreement with statement two (2) [other small businesses may be 'free riders' and not fulfil their obligations to the horizontal linkage relationship]. Small enterprises indicate a similar level of agreement to statement 2, however, large enterprise response seems to be neutral.

The findings of the attitudinal disposition of small, medium and large enterprises towards horizontal linkages highlights trust an issue that strongly impedes this type of linkage formation. There is a positive indication mostly on the part of small and medium enterprises that horizontal linkages translate into increased profits. This serves as a positive response to the benefits that horizontal linkage relationship could have on company performance. The only issue where small and medium enterprises differed from large enterprises related to the issue of other small businesses being 'free-riders' in a horizontal linkage relationship. This is understandable, if it is taken into consideration that large enterprises may not usually find themselves engaged in a horizontal linkage relationship. In essence, for horizontal linkage relationships to work, it is necessary that all participants to the linkage relationship contribute equally so that mutual benefit is reaped from this type of collaboration.

7.3.8 Models of Engagement

The assumption underlying models of engagement is that respondents, be it small, medium or large enterprises would show a preference for entering into vertical linkage relationships over horizontal linkage relationships. Respondents were asked to rank from six potential linkage relationships, which of these linkages would contribute most to enhanced competitive performance. Respondents were not given any indication as to which of the proposed models of engagement were vertical or horizontal. At this stage, it is necessary to point out which models are in fact vertical or horizontal models of engagement. This is summarised in Table 7.5.

Model of Engagement	Type of Linkage
a. Joining together (pooling resources, labour, equipment) of SMME's in the same sector to strive toward common goals	**HORIZONTAL**
b. Creating of a hub that would provide specialist services like finance, accounting and marketing to a group of small manufacturers that have skills in furniture manufacturing.	**VERTICAL**
c. The formations of alliances/strategies to compete more effectively and benefit those enterprises that have not achieved success before.	**VERTICAL**
d. A group of individuals with assembly skills get together to complete a specific item such as a table, for example one would concentrate on building legs of the table only, the other table tops.	**HORIZONTAL**
e. Flexible transfer between small enterprises e.g. assembly, finishing	**HORIZONTAL**
f. Big Businesses and small business work together through joint ventures, partnerships, subcontracting, outsourcing.	**VERTICAL**

Table 7.5: Models of Engagement by Type

It should also be mentioned that in terms of these models of engagement, an equal number of potential models were suggested for both linkage types so as to ensure that the models of engagement were not skewed in favour of one linkage type. All the respondents in the research study, indicated that the possibility existed for each of the potential models to contribute towards enhancing company performance.

However, the ranking of the models of engagement indicates which linkage type is the preferred choice amongst the respondents. This is illustrated in Table 7.6.

Model of Engagement	Frequency	Ranking
a. Joining together (pooling resources, labour, equipment) of SMME's in the same sector to strive toward common goals	40.9	5
b. Creating of a hub that would provide specialist services like finance, accounting and marketing to a group of small manufacturers that have skills in furniture manufacturing.	31.8	3
c. The formations of alliances/strategies to compete more effectively and benefit those enterprises that have not achieved success before.	40.9	2
d. A group of individuals with assembly skills get together to complete a specific item such as a table, for example one would concentrate on building legs of the table only, the other table tops.	27.3	4
e. Flexible transfer between small enterprises e.g. assembly, finishing	27.3	6
f. Big Businesses and small business work together through joint ventures, partnerships, subcontracting, outsourcing.	36.4	1

Table 7.6: Ranking of Models of Engagement

According to the results tabled in figure 7.6, respondents have shown a preference for vertical linkage formation over horizontal linkage formation. The vertical models of engagement, namely, f, c and b each received a ranking of first, second and third respectively. In an attempt to establish whether respondents were involved in linkages either previously or currently, 48.3% answered in the affirmative and 44.8 % in the negative. These results were reviewed in terms of a cross tabulation by company size.

The results of this was that 53.3% of small enterprises were involved in a linkage relationship and 46.7% indicated that they were not involved in a linkage relationship, in the case of medium enterprises, 37.5% indicated that were involved in a linkage relationship whilst 62.5% of medium enterprises were not involved in linkage relationships. Seventy five percent (75%) of large enterprises indicated that linkages were a business practice they engaged in. For those respondents that indicated that they were involved in linkage relationships, 35.7% of these linkages were vertical, 14.3% were horizontal and 50 % indicated that they were involved in both horizontal and vertical linkages (Appendix N illustrates the results).

These findings are useful as they suggest that contrary to popular belief, linkages do take place between enterprises in the furniture sector. However, the figure relating to large enterprises should be viewed with caution, because the sample unit comprised of only four large enterprises. For those respondents that were not involved in any type of linkage relationship, 44.8% suggested that they would consider being involved in one (results are included in Appendix N). These respondents were asked to choose from the models of engagements their preferred choice over of linkage relationships. Table 7.7 indicates the respondents' choices.

Model of Engagement	Response
a. Joining together (pooling resources, labour, equipment) of SMME's in the same sector to strive toward common goals	NO
b. Creating of a hub that would provide specialist services like finance, accounting and marketing to a group of small manufacturers that have skills in furniture manufacturing.	NO
c. The formations of alliances/strategies to compete more effectively and benefit those enterprises that have not achieved success before.	YES
d. A group of individuals with assembly skills get together to complete a specific item such as a table, for example one would concentrate on building legs of the table only, the other table tops.	NO
e. Flexible transfer between small enterprises e.g. assembly, finishing	NO
f. Big Businesses and small business work together through joint ventures, partnerships, subcontracting, outsourcing.	YES

Table 7.7: Respondents Choices for Entering into Linkage Relationships

The findings from table 7.7 reiterates that vertical models of engagement seem to be the preferred choice amongst respondents who were not involved in any linkage relationships.

7.4 CONCLUSION

This chapter has reported on the empirical findings of the research problem under investigation. Due to the limitations of a small sample size, it was only possible to conduct a limited range of statistical analyses. The main aim of the exploratory study was to guide the inclusion of specific issues for the next stage of the research, hence the brief treatment of the research findings. The result of the main study formed the core analyses in this chapter and was sub-divided into the following sections to facilitate easier understanding of the interpretation of the results. These sections include Competitiveness, Strategies to Enhance Competitiveness, Linkages in General, Vertical Linkages, Strategies to Promote Vertical Linkages, Horizontal linkages, Attitudes and Models of Engagement.

The section under competitiveness highlighted five key factors that impact on the furniture industry. These were:

- Labour regulations
- Illiteracy and low levels of education amongst workers
- Lack of communication between workers and management
- Unproductive workforce
- Pooling of resources, sharing of information, equipment and labour.

The analyses of the strategies that effected competitiveness revealed that training and the upgrading of skills for both workers and management was an important strategy. The findings in the section also suggested that training be more marketing orientated, emphasising national and international marketing issues.

With regard to linkages in general, the key findings in this section did not conclusively suggest that there was a lack of knowledge of the term clusters amongst small, medium and large enterprises. The results of the study relating to vertical linkages concluded that long-term relationships characterised by trust and the ability of those involved in vertical linkages to produce high quality products, impacted positively on the effective functioning of a vertical linkage relationship. Although no clear link was established for the role of intermediaries and training institutions in vertical linkage formation, a greater level of agreement was indicated for the involvement of trade unions and government in vertical linkage formation.

The analyses of the potential strategies that promoted vertical linkages revealed that in order for vertical linkages to operate effectively, mistrust between big business and small business must be addressed. Linked to this, the findings in this section could also suggest that big business should play a role a stronger supportive role in the form of mentorships to small business. Finally, this section concluded that a strong commitment from internal and external agents such as the DTI would be an effective tool to drive forward the process of vertical linkage formation.

In the findings relating to horizontal linkages, it was suggested that the issues of trust and economic gain were the two most relevant factors in stimulating the formation of such a linkage. The role of intermediaries, training institutions and government revealed no significant findings as to which of these institutions could be involved in horizontal linkage promotion.

The analyses of behavioural traits, namely, attitudes were used to identify how positively or negatively respondents felt about vertical and horizontal linkage relationships. In the case of vertical linkages, it was concluded that small and medium enterprises shared a positive disposition whereas large enterprises seemed negative in their disposition toward vertical linkages. Small and medium enterprises believed in the possibility that economic gains could be achieved through vertical linkages, however, once again, large enterprises showed negative feelings of distrust and did not think that significant economic gains could result in their businesses. The key findings of attitudinal disposition toward horizontal linkages showed that large enterprises believed that economic gain is a potential outcome of a linkage relationship.

However, a concern was expressed by small and medium enterprises that other smaller businesses involved in horizontal linkage relationships may not fulfil their obligations and this could impact negatively on the economic benefits of horizontal linkage formation.

The models of engagement used to describe vertical and horizontal linkages, resulted in the finding that respondents in the study showed a preference for vertical models of engagement. Another significant finding was that those respondents who indicated being involved in linkage relationships, a large percentage of these linkages were vertical in nature. Finally, for those who were not involved in linkage relationships, the vertical model of engagement was still a preferred choice amongst the respondents.

In chapter 8, a summary of the conclusions from the theoretical and empirical research are presented. This chapter also focuses on a discussion of the hypotheses that were posited for this research study.

CHAPTER 8: CONCLUSIONS/ RECOMMENDATIONS/ SUGGESTIONS

8.1 INTRODUCTION

The purpose of this chapter is to identify the extent to which this research study has met with the stated objectives as mentioned in chapter one. This research study will be reviewed in terms of its conceptual/ theoretical contribution, managerial and policy implications, empirical findings and the implication for further research.

8.2 CONCEPTUAL / THEORETICAL CONTRIBUTION

This research study has added to the existing body of literature relating to business linkages. More importantly the point of departure of this research study is different from previous studies undertaken in the area of linkages in the furniture sector. Specifically, this point of departure was that vertical linkages would be the preferred choice amongst furniture manufacturers. The recommendations and suggestions that have emerged from this study could strongly contribute to strategic vision of SMMEs and larger enterprises. The practical nature, in which the research study has been undertaken, suggests that the information that has been revealed is not only useful but relevant to industry players in the furniture manufacturing sector in KZN.

8.3 MANAGERIAL AND POLICY IMPERATIVES

One of the major problems experienced in the implementation of business linkages has been largely a case of a lack of "buy-in" to the potential benefits that could result from linkage relationships. However, this study has managed to highlight that at a national level, it is important for stakeholders such as government to create conditions that favour linkage formation.

In this regard, government could assist in the drafting of a policy that outlines how linkage relationships should work. In this instance, South Africa can draw on the merits of the Japanese model of business linkages in which special laws are instituted to cover issues such as subcontracting relationships. The Japanese model also makes an important assumption: all SMEs are in some way disadvantaged. Consequently, the Japanese government chooses to provide strong support measures through, for example, credit guarantee schemes, the provision of consultancy services, the provision of research and testing facilities and the provision of tax incentives for SMEs. This does not mean that South Africa's government should protect SMMEs, but rather, government should provide effective machinery that enables SMMEs to enter into linkage relationships, particularly vertical linkage relationships where large enterprises are uncertain about the abilities of SMMEs to deliver on a specific task.

This research study also suggests that an important role should be envisaged for internal and external change agents who could play an important role in linkage formation. It is therefore important for intermediaries to relook the type of services they offer to SMMEs. Furniture manufacturers were seen to lack a market orientation in their businesses, and this is an example of one area in which intermediaries could assist SMMEs to find markets or to even act on their behalf when liasing with export clients.

Although training institutions were perceived as having an insignificant role in linkage formation, the existence of a change agent in training institution could also assist in the formation of linkages.

Training institutions can provide a vital source of information that could be used by furniture manufacturers to inform the type of manufacturing strategy that would be suitable for their businesses.

Finally, large enterprises and small enterprises should try to re-orient the type of manufacturing strategies used in their furniture manufacturing businesses. Placing emphasis on cost-cutting strategies only significantly reduces the ability of furniture manufacturers to reach export markets. The advantages of maintaining quality, design and environmental standards are now more relevant due to the strong demands of discerning customers that are part of an export market.

8.4 EMPIRICAL CONTRIBUTION

8.4.1 The Research Problem Revisited

The aim of this research study was to investigate if the application of vertical and horizontal linkages could enhance the competitive performance of furniture manufacturers in KZN. In order to undertake this investigation, five hypotheses were posited:

- **Hypothesis 1:** Competitiveness of the South African manufacturing sector and the furniture sector is impeded by a lack of specialisation and differentiation.
- **Hypothesis 2:** The current levels of knowledge of relating to clusters is inadequate to promote the development of linkages in the furniture sector.
- **Hypothesis 3:** Prevailing negative attitudes impede the formation of linkages amongst furniture manufacturers.

- **Hypothesis 4:** Vertical and horizontal linkages result in economic gains for participating businesses.
- **Hypothesis 5:** Furniture manufacturers prefer to engage in linkages that involve collaboration between large enterprises and SMMEs, hence a preference is shown for vertical linkage formation.

In the case of hypothesis I, a lack of specialisation and differentiation impacted on the performance of furniture manufacturers. It was also established that labour regulations, worker-management communication, illiteracy and education levels, the pooling of resources, information, labour and equipment, all contributed significantly toward the competitiveness of furniture manufacturers.

With reference to hypothesis 2, although no clear link was established between a lack of knowledge of the term clusters and linkage formation in the furniture sector, close to 50% of the sample under investigation had some knowledge relating to the term "clusters". This suggests that more knowledge relating to clusters needs to be imparted to ensure more successful implementation of the strategy.

In the case of hypothesis 3, the results of the research study was able to suggest that negative attitudes toward linkage formation is a major impediment toward it being implemented as a manufacturing strategy amongst furniture manufacturers in the sample unit. Although positive attitudes toward vertical linkages were expressed by small and medium enterprises, the negative attitudes expressed by larger enterprises toward vertical linkage formation confirmed that such attitudes would impede vertical linkage formation.

In terms of horizontal linkages, the attitudes that such a linkage could result in economic gains for SMMEs are a positive indication of the potential benefits to horizontal linkages. The other interesting finding is that smaller businesses in a horizontal linkage may not fulfil their obligations, which inturn impacts negatively on the horizontal linkage relationship. In essence, linkages, be it vertical or horizontal, is dependent on a high level of trust between all participants in the relationship, to ensure that the linkage functions effectively. Also the idea that linkages should be enforced through corporate social responsibility is in direct conflict with the views expressed by large enterprises about that are concerned with economic gain, market demand and consumer preferences. This type of enforcement could only make the possibility of entering into vertical linkages, a very difficult one.

Although this research suggested that horizontal and vertical linkages result in economic gains for the participants, it was believed that it was outside the scope of this study to test for an association between economic performance and linkage formation. However, the inclusion of the financial indicators in Part V of the main study questionnaire was done for a specific reason. This research study has highlighted to potential benefits that linkages may have on the competitiveness of furniture manufacturing firms, however, there exists no measuring tool or device that tracks the success or failure of linkages. Hence, the inclusion of the performance indicators at this stage could serve as input for future research into the relationship between economic gains and linkages. Hence this data could be used for comparative purposes, provided of course, that the same companies are involved in the study.

If the performance indicators of this study cannot be used for a future research study, it could still serve as a useful measuring tool to track the effectiveness of linkages.

In terms of hypothesis 5, this research study showed that furniture manufacturers have indicated a preference for vertical linkage formation over horizontal linkage formation. This finding was also established for furniture companies that were involved in linkages and for furniture companies that were not involved in linkage relationships. These research findings in no way suggests that vertical linkages are better than horizontal linkages, rather this study suggests that the formation of vertical linkages is the first step that needs to be taken, thereafter, would smaller businesses extend the benefits to a horizontal linkage relationship. Ultimately, what would be the ideal, is if these vertical and horizontal linkages, eventually function concurrently.

8.5 IMPLICATIONS FOR FUTURE RESEARCH

This research study has attempted to add to existing resources of literature relating to linkages. However, this research study has been subject to certain limitations which need to be mentioned so that it could guide potential future areas of research.

Firstly, this research study was restricted to Durban and surrounding areas in KZN due to time constraints. Secondly, the furniture manufacturers used in the study were not representative of all categories of furniture manufacturers. Thirdly, the sample size of twenty-nine was inadequate to make generalisations about the entire furniture industry. Fourthly, the length of the questionnaires used for the first and second stage of the study was very long and complex.

This also made analysis of the data difficult. There was of course, no way of assuming how strongly interview bias impacted on the results of the study.

8.5.1 Suggestions for Future Research

Research into the furniture industry is not well documented and there exists few studies that depict the nature of linkages in the furniture industry specifically. Firstly, since this study has been limited to KZN, a research study could be undertaken involving the entire KZN province. This could make the possibility of developing linkages in the KZN province a more viable manufacturing strategy. Secondly, this research study could be extended to a national level, involving other provinces that have a strong presence of furniture companies, namely, Gauteng and the Western Cape. Thirdly, the furniture sector is part of a complex value chain that includes important sectors such as sawmillers, retailers and suppliers of accessories to the furniture industry. Future research is needed to explore the potential application of linkages, for example, between sawmills and furniture manufacturers, retailers and furniture manufacturers. Fourthly, sawmills have been criticised for the inconsistent quality of timber being supplied to furniture manufacturers. Ideally, a sawmill dedicated to the needs of the furniture industry would assist in servicing furniture manufacturers far more effectively than at present. This potential linkage relationship needs to be further researched. Fifthly, the possibility also exists for firms to become specialists in particular areas of furniture manufacturing, for example, a supplier could specialise in supplying the industry with environmentally friendly products, or a furniture company may choose to specialise in the finishing of furniture products. Further research is needed in this area to test if linkages are a viable strategic option.

Sixthly, research can also be initiated to explore how furniture companies could engage in relationships with interior designers and decorators to keep pace with the demands of the consumer in terms of style. Seventhly, the success/failures of linkages still needs to be monitored and documented so that valuable lesson could be learned. Eighthly, Research into how strongly environmental standards and environmental issues impact on the demand for furniture products could provide some insights about factors affecting consumer behaviour. Finally, further research is needed to explore not only the benefits of using new raw materials such as Saligna, but also in using current raw materials more efficiently. Thus type of research would emphasis the importance of maintaining low levels of wastage in furniture manufacturing companies.

To conclude, the result of this research is encouraging and does suggest that linkages, particularly vertical linkages enhances the competitive performance of furniture manufacturing firms in KZN.

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APPENDIX A

TECHNIKON NATAL, BEREA
ENTREPRENEURIAL STUDIES UNIT
TEL: 2042730
FAX: 2042731

TO :
RE : RESEARCH STUDY INTO FURNITURE SECTOR
FROM: DAWN PILLAY
DATE :

Dear

The Entrepreneurial Research Unit at Technikon Natal is currently engaged in a research study aimed at investigating linkages within the furniture manufacturing sector. As with many research studies being conducted, not many of these studies take into account the opinions of small businesses. As the research has unfolded, your business has been identified as one of the organisations from which 'expert' opinion regarding the SMME sector can be obtained. More specifically, I would like to request your permission to interview yourself regarding current issues facing the furniture sector in the Kwa-Zulu Natal region.

The interviews are part of an exploratory study to gain insight into issues pertinent to the furniture industry. It would be most appreciated if you would consent to being interviewed as your input would hopefully contribute towards making the furniture sector more competitive. These interviews would be scheduled for the period between the 11th and 15th October 1999.

Once again, your co-operation in this matter would be greatly welcomed. I look forward to hearing from you. Can you please contact me either by telephone or fax to confirm if you are willing/not willing to participate

Yours faithfully

_____

Dawn Pillay (Research Officer)

APPENDIX B

TECHNIKON NATAL, BEREA
ENTREPRENEURIAL STUDIES UNIT
TEL: 2042730
FAX: 2042731

TO :
FROM: DAWN PILLAY
RE : CONFIRMATION OF PARTICIPATION IN RESEARCH STUDY
DATE :

Dear

I would like to express my thanks and appreciation for your participation in our exploratory research study. This letter serves as a note of thanks and also a confirmation of the date and time of the interview.

Please note that the interview has been scheduled for: **Day Month 1999: Time:** . The duration of the interview is approximately 45 minutes.

Further, could you please consider being involved in the second stage of this study. Instead, a questionnaire needs to be filled out indicating your level of agreement/disagreement with issues relating to the furniture sector. There is therefore, no need to fill in lengthy responses, instead you would be required to literally tick off your answers. These questionnaires will be faxed, e-mailed or posted (depending on your preference) Once you have filled them in, I will collect them from you.

Once again, I would like to thank you for your support in the completion of this study. I hope that the results of the study will prove to be useful.

Yours faithfully

_____
Dawn Pillay (Research Officer)

APPENDIX C

TECHNIKON NATAL
ENTREPRENEURIAL STUDIES UNIT
TEL : 031- 2042730/ 2042084
FAX : 031- 2042731

The Manager:

The Entrepreneurial Studies Unit at Technikon Natal, has been conducting a research study to assess the potential of applying linkages as a strategy to enhance the competitiveness of Corporates and Small, Micro and Medium Enterprises (SMMEs) within the Furniture sector in KZN The research to date, is almost at the stage of final completion. Thus far, interviews have been already conducted (and analysed) amongst a group of relevant stakeholders, including the corporate sector. Now, at the final stage of this research study, we need to administer a questionnaire to both corporates and SMMEs.

I am sure you would agree that it is important to have relevant and current information available about the furniture sector. This being the case, we would like to request your participation in this particular study. **Confidentiality** of information supplied is of utmost importance to us, and we would ensure that no direct reference will be made to your business.

Although the questionnaire may seem long and tedious, all that is required is for you to literally tick of answers and where necessary, provide a very short written response. A favourable response to our request will be most appreciated. If you do agree to participate I would like to set up a time so that I may visit you personally and assist you with completion of the questionnaire. I look forward to hearing from you.

Sincerely,

DAWN PILLAY
RESEARCH MANAGER

APPENDIX D

TECHNIKON NATAL
ENTREPRENEURIAL STUDIES UNIT
TEL : 031-2042730/ 2042084
FAX : 031-2042731

Company name

Dear:

I would like to thank you for participating in the research study. I would like to apologise in advance for placing a time restriction on you to return the questionnaire. The reason for doing this, is to just to make sure that you do not forget about it, but more importantly, if this research is going to provide any kind of information, this information has to be as correct as possible and has to come from furniture businesses, as only your responses would make this study a fruitful one. It is important that we get back the questionnaires as soon as possible so that we can process the results quickly and make the information available.

I could personally pick up the questionnaire or you could fax it back to me. I hope this is not too much of an inconvenience to you. I would really appreciate, it if I could have the questionnaire by Monday the 14th February 2000. If you have any questions please do not hesitate to contact me.

Kind regards

Dawn Pillay
Research Manager: Entrepreneurial Research Unit

APPENDIX D

TECHNIKON NATAL
ENTREPRENEURIAL STUDIES UNIT
TEL : 031-2042730/ 2042084
FAX : 031-2042731

Company name

Dear:

I would like to thank you for participating in the research study. I would like to apologise in advance for placing a time restriction on you to return the questionnaire. The reason for doing this, is to just to make sure that you do not forget about it, but more importantly, if this research is going to provide any kind of information, this information has to be as correct as possible and has to come from furniture businesses, as only your responses would make this study a fruitful one. It is important that we get back the questionnaires as soon as possible so that we can process the results quickly and make the information available.

I could personally pick up the questionnaire or you could fax it back to me. I hope this is not too much of an inconvenience to you. I would really appreciate, it if I could have the questionnaire by Monday the 14th February 2000. If you have any questions please do not hesitate to contact me.

Kind regards

Dawn Pillay
Research Manager: Entrepreneurial Research Unit

APPENDIX E

ENTREPRENEURIAL RESEARCH UNIT
EXPLORATORY QUESTIONNAIRE

1. GENERAL INFORMATION

- Business Name: _____
- Principal activity/ sector: _____
-
- Area/s of specialisation: _____

2. PERSONAL BACKGROUND

- GENDER: MALE ☐ FEMALE ☐
- AGE: _____
- HIGHEST EDUCATIONAL QUALIFICATION:

  ☐ PRIMARY SCHOOL COMPLETE
  ☐ SECONDARY SCHOOL
  ☐ MATRIC
  ☐ POST-MATRIC, SPECIFY:

  _____
  _____

- ANY FORMAL MANAGEMENT TRAINING:
  ☐ MARKETING/ SELLING
  ☐ PRODUCTION
  ☐ OTHER, SPECIFY:

  _____
  _____

- OCCUPATION: _____

3. BUSINESS DETAILS

- YEAR COMMENCED: _____
- TYPE OF ENTITY:
  ☐ SOLE PROPRIETORSHIP ☐ PRIVATE COMPANY
  ☐ PARTNERSHIP ☐ CLOSE CORPORATION
  ☐ OTHER, SPECIFY: _____
- NUMBER OF EMPLOYEES: _____

4. THE PURPOSE OF THE EXPLORATORY STUDY

The purpose of this exploratory study is to examine the competitiveness/ performance of furniture manufacturing companies in KZN. In order to do this, we need your expert opinion to establish what the range of issues are in the furniture industry. This would contribute towards identifying possible strategies to improve competitiveness/performance amongst smaller enterprises in the furniture sector.

5. INSTRUCTIONS

The questions that follow require you to respond as broadly as possible. We are looking for your thoughts and ideas as they relate to the furniture industry in general and the small business component of this industry in particular. Your answers will not be judged on correctness. Your responses will be handled anonymously and no direct reference will be made to you or the organisation you represent.

PART 1: COMPETITIVENESS

1) In your opinion, what does the term competitiveness mean?
   Probe: Does it suggest high profits etc…

2) The furniture manufacturing sector has been affected by various factors which limit the ability of firms to compete. In your opinion, what problems do furniture manufacturers currently experience that impact on their ability to compete effectively in the marketplace?
   Probe: productivity, technology access

3) In your opinion, what problems do <u>small</u> furniture manufacturers currently experience that impact on their ability to compete effectively in the marketplace?
   Probe: productivity, technology access

4) Thinking of these problems... What do you think can be done to overcome these problems?
   Probe: new strategies, improvement in productivity…

PART II: GENERIC STRATEGIES

5) A number of strategies are considered as being important in improving performance/profitability. These include cost-cutting, new product development etc. What strategies do you know of are currently being used to improve performance in furniture companies?
Probe: Are the strategies used defensive / aggressive?
Probe: Are strategies used innovative or different?
Probe: Can these be applied equally to small business?

6) Which of these strategies would be suitable for use by **small** furniture manufacturers
Probe: Are any not suitable? Why?

PART III: TECHNOLOGY TRANSFER

7) The furniture industry places particular importance on technology. In the context of **small** business development, what does technology transfer mean to you?

Probe: Acquiring new technology, sharing labour etc
Probe: Have you come across many definitions of the term?
Probe: If so, what are they?

PART IV: CLUSTERS

8) Have you heard of the term clustering?
Probe: if yes, please provide a definition in your own words.

9) Clustering can be defined as a vertical linkage/partnership between large furniture manufacturers and small furniture manufacturers. Can you suggest a range of potential relationships that would involve a big business and a small business.
Probe: Joint ventures, partnerships…

10) This type of linkage between big business and small business does not seem to be commonplace. What do you think is preventing wide-scale formation of partnerships between big and small business?
Probe: Contractual issues, lack of trust, exploitation etc…
Probe: what in your opinion could/should be done to overcome these problems?

11) Clustering can also be defined as small businesses forming linkages/partnerships with each other, e.g pooling resources, sharing labour. This type of linkage between small businesses does not seem to be commonplace. What do you think is preventing wide-scale formation of partnerships between small business?
Probe: Contractual issues, lack of trust, exploitation etc…
Probe: What in your opinion could/should be done to overcome these problems.

PART V: HORIZONTAL LINKAGES

12) Horizontal linkages **(small business to small business)** may involve buyer-seller relationships, partnerships, pooling resources, or the formation of co-operatives. In your opinion, do you believe that this type of linkage would improve competitiveness?
Probe: Yes, No, substantiate

13) In your opinion, what factors do you think would contribute towards promoting the formation of such a linkage?
Probe: Co-operation, trust, forming partnerships…

14) If small businesses are involved in horizontal linkages, how, in your opinion would this linkage impact on the products/services they offer.
Probe: Quality, timeliness, etc…
Probe: Would they manufacture many products…
Probe: Would they specialise their operations

15) Intermediaries such as service providers e.g TBDC are sometimes used as an intermediary to link businesses together. How effective do you think intermediaries are in facilitating **horizontal** linkages and why?

16) Training institutions often provide various programmes to improve skills. To what extent do you think these programmes are helpful in promoting **horizontal** linkages?

17) In your opinion how does/should government intervene in the development of horizontal business linkages?
Probe: ***Why? Substantiate***
Probe: ***Are there other organisation whom you think should be involved in the development of linkages.***
Probe: ***Who are they, and how should they be involved?***

18) Do you believe that horizontal linkages can bring about economic gains/ profit?
Probe: ***Why, substantiate***
Probe: ***Would horizontal linkages improve sales, turnover etc…***

PART VI VERTICAL LINKAGES

19) Vertical linkages often involve buyer and seller relationships between big business and small business. A buyer *(big business)* may ask another *(small business)* to supply them with products or services. What factors do you think impact on the **supplier** in such a linkage relationship?
Probe: ***Expectations, product issues, quality etc***
Probe: ***In what way do these issues affect them?***

20) What issues do you think would impact on **buyers** in such a linkage relationship?
Probe: ***Expectations, product issues etc***
Probe: ***In what way do these issues affect them?***
Probe: ***In what way do these issues different between buyers and suppliers?***

21) In such a linkage what supporting role can big business offer to small business.
Probe: ***training, technology etc***
Probe: ***Is this support being offered?***

22) Do you believe that vertical linkages can bring about economic gains/ profit?
Probe: ***Why, substantiate***

23) Intermediaries such as service providers e.g TBDC are sometimes used as an intermediary to link businesses together. How effective do you think intermediaries are n facilitating **vertical** linkages and why?

24) Training institutions often provide various programmes to improve skills. To what extent do you think these programmes are helpful in promoting **vertical** linkages?

25) Many South African manufacturing industries are unionised and influence labour markets, the furniture sector being no exception. In your opinion, to what extent can trade unions or other labour organisations such as bargaining councils, promote the development of linkages between big business and small business?

26) In your opinion how does/should government intervene in the development of **vertical** business linkages?
Probe: ***Why? Substantiate, corporate social responsibility***
Probe: ***Are there other organisation whom you think should be involved in the development of linkages.***
Probe: ***Who are they, and how should they be involved?***

APPENDIX F

TECHNIKON NATAL

ENTREPRENEURIAL RESEARCH UNIT
QUANTITATIVE QUESTIONNAIRE

1. GENERAL INFORMATION

- Business Name: _____
- Principal activity / sector: _____
- Area/s of specialisation: _____

2. PERSONAL BACKGROUND

- GENDER: MALE ☐ FEMALE ☐
- AGE: _____
- HIGHEST EDUCATIONAL QUALIFICATION:
  - ☐ PRIMARY SCHOOL COMPLETE
  - ☐ SECONDARY SCHOOL
  - ☐ MATRIC
  - ☐ POST-MATRIC, SPECIFY:

  _____
  _____
- ANY FORMAL MANAGEMENT TRAINING:
  - ☐ MARKETING/ SELLING
  - ☐ PRODUCTION
  - ☐ OTHER, SPECIFY:

  _____
- OCCUPATION: _____

3. BUSINESS DETAILS

- YEAR COMMENCED: _____
- TYPE OF ENTITY:

☐ SOLE PROPRIETORSHIP ☐ PRIVATE COMPANY
☐ PARTNERSHIP ☐ CLOSE CORPORATION
☐ OTHER, SPECIFY: _____

- NUMBER OF EMPLOYEES: _____

4. THE PURPOSE OF THE QUANTITATIVE STUDY

The purpose of this quantitative study is to:

- examine the competitiveness/ performance of furniture manufacturing companies in KZN.
- Explore the concept of vertical and horizontal linkages amongst furniture manufacturers in KZN.

In order to do this, we need your opinion to establish what the range of issues are in the furniture industry. This would contribute towards identifying possible strategies to improve competitiveness/performance amongst smaller enterprises in the furniture sector.

ALL RESPONSES WILL BE TREATED CONFIDENTIALLY

INSTRUCTIONS

Please answer all questions.
Indicate your responses by ticking off in the blocks provided.
You may be requested to write some very short answers and fill in figures.

THANK YOU VERY MUCH FOR YOUR TIME!!!!!!!!!!!!

PART 1: COMPETITIVENESS

1.1 Many issues are considered to impact on the competitiveness of the furniture industry. From the list provided, please indicate your level of agreement/disagreement with these statements.						
1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
• Furniture industries are unable to compete effectively because they lack the knowledge and skills to operate/manage their business efficiently					
• Furniture industries do not understand the importance of marketing concepts such as market drivers, market growth and niche marketing					
• The quality of products produced by furniture manufacturers does not meet international standards.					
• Labour regulations place major restrictions on employers in the form of hiring workers, wages, conditions of work, downsizing or restructuring, introducing automation					
• Workers in furniture manufacturing industries are illiterate or semi-literate and have low levels of education					
• A lack of communication between management and workers impacts negatively on their working relationship, resulting in labour disputes					
• Furniture industries are characterized by an unproductive workforce					
• Suppliers(eg sawmills) are unable to consistently supply the required quality of raw materials (timber inputs such as pine), are unable to cut logs to required dimensions					
• Furniture manufacturers have high production costs, such as labour costs and are unable to adjust operations through changes in products and production systems					
• Management is not proactive, implement defensive strategies, are market followers and are unable to cope with changes in international domestic markets					
• Furniture manufacturers are unable to access infrastructure such as human resources, technology, capital and finance, good business environments and physical infrastructure					
• Pooling of resources, sharing information, labour and equipment improves the competitiveness of furniture manufacturers					
• A weak rand exchange rate impacts negatively on the economic performance of furniture manufacturers					

1.2. The following potential strategies/solutions could improve competitiveness in the furniture industry. Please indicate your level of agreement/disagreement with these statements.					
1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
• Furniture manufacturers need to create a support structure for themselves through engaging in partnerships with other businesses, suppliers and role players in the industry.					
• A national strategy should be drafted by an industry organisation that outlines the nature of collaboration between businesses and how these relationships function					
• Furniture manufacturers should be trained in developing marketing strategies nationally and internationally					
• Workers in furniture manufacturing industries require training to improve their current skills levels and to acquire new skills					
• Managers of furniture manufacturing firms need training to upgrade their skills and to develop new strategies					
• Collaboration between furniture manufacturers and research organisations such as technikons could result in new strategies being developed that could enhance competitiveness					

PART II: LINKAGES

Linkages generally

2.1. Have you heard of the term clustering?	Yes	No
2.2. Linkages involve a range of relationships. Please suggest the extent to which you agree or disagree that these type of relationships couldhave a positive impact on a firms profitability/performance?		

1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
• Joining together (pooling resources, labour, equipment) of SMME's in the same sector to strive toward common goals					
• Creating of a hub that would provide specialist services like finance, accounting and marketing to a group of small manufacturers that have skills in furniture manufacturing.					
• The formations of alliances/strategies to compete more effectively and benefit those enterprises that have not achieved success before.					
• A group of individuals with assembly skills get together to complete a specific item such as a table, for example one would concentrate on building legs of the table only, the other table tops.					
• Flexible specialisation between small enterprises eg. Assembly, finishing					
• Big Businesses and small business work together through joint ventures, partnerships, subcontracting, outsourcing.					

2. 3 VERTICAL LINKAGES

2.3.1. Vertical linkages involve a business interaction between big business and small business in the form of buyer-seller relationships, subcontracting, outsourcing. How important do you think the following factors are in a vertical linkage relationship.

1: VERY IMPORTANT 2: IMPORTANT 3: NEUTRAL 4: UNIMPORTANT 5: NOT IMPORTANT AT ALL	1	2	3	4	5
◦ Loyalty and long-term relationships					
• Trust between big business and small business					
• Knowledge and skills on the part of small business to complete assigned tasks					
◦ Big business and small businesses must both be customer-driven					
◦ Small business should produce high quality products					
◦ Big business and small business must be able to meet each others expectations					
◦ A model or case study of a successful vertical linkage that is in operation needs to be seen in practice					
◦ Small business should demonstrate efficient manufacturing practices such as JIT, deliver on time and offer good service.					
◦ Big business and small business should work together for economic gain.					
• If big business and small business come from different cultural backgrounds, they will not want to work together.					
◦ Engaging in a vertical linkage relationship must be driven by the need to fulfill a demand					

2.3.2 Many statements have been made about Intermediaries (service providers such as the TBDC, Chambers of Commerce), Training Institutions, Trade Unions and Government and their role in vertical linkage formation. How strongly do you agree/disagree with each of the following statements?

1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
◦ Intermediaries tend to operate independently					
• Intermediaries lack the skills to promote vertical linkages					
• Intermediaries do not have a good understanding of vertical linkages					
• Intermediaries need to show examples of vertical linkages that are working in practice.					
• Intermediaries do not have the capacity or the resources to promote the formation of vertical linkages					
◦ There is a need for change agents within these intermediaries to drive the process of vertical linkage formation.					

2.3.3. Training institution are not considered to be very effective in promoting vertical linkages. How strongly do you agree/disagree with each of the following statements?

1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
◦ Training institutions do not provide real input toward promoting vertical linkages					
• There are no training institutions involved in promoting vertical linkage formation					
• Training institutions do not have good knowledge of the SMME sector to promote vertical linkage formation					
◦ Training institutions should make training more practical and on-the-job					
• Training institutions develop trained workers in acquiring a particular skill, but these skills become easily redundant because workers move continuously between various areas of production, performing different tasks					
• Training institutions develop training courses without consulting the necessary stakeholders, as a result, the courses training institutions offer is not very useful					
◦ There needs to be a champion within training institutions who could promote vertical linkage formation					

2.3.4. Many statements have been made about Trade Unions and their role in vertical linkage formation, to what extent do you agree/disagree with each of the following statements?

1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
◦ Lack of co-operation from trade unions inhibit the formation of linkages					
◦ Trade Unions do not of understand what linkages are					
◦ Trade union involvement increases labour costs preventing companies from being proactive in linkages formation					
• Trade Unions are not very organised or proactive and this impacts negatively on the formation of linkages					
◦ Trade Unions seem to be narrow in their focus, not taking into account the needs of the employer to grow the business					
• Trade Unions do not take responsibility to train members and make them aware of trends in the furniture industry					
• Trade unions can help promote vertical linkage formation					

•	Trade Unions fear of downsizing					
•	Trade Unions fear that standards of working conditions would decrease where linkages are formed					
•	Trade unions fear that they will lose membership where vertical linkages are formed					
•	A champion within trade unions would assist in the formation of vertical linkages					

2.3.5. Many statements have been made about Government and their role in vertical linkage formation. How strongly do you agree/disagree with each of the following statements?

	1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
•	Government should assist in the formation of vertical linkages					
•	Government should have an indirect role in vertical linkage formation					
•	Government should provide incentives for entering into vertical linkage relationships					
•	Government should create an environment conducive to vertical linkage formation					
•	Government should play a grater role in educating the workforce about vertical linkages					
•	Need for people in government circles to drive forward the formation of vertical .					
•	Government should develop a national strategy governing how vertical linkages work					
•	Big business and small business collaborating together should be enforced through corporate social responsibility					

2.3.6. Vertical linkages as a strategy is not widely applied. Indicate how important you think the following strategies/solutions are in promoting the development of vertical linkages.

	1: VERY IMPORTANT 2: IMPORTANT 3: NEUTRAL 4: UNIMPORTANT 5: NOT IMPORTANT AT ALL	1	2	3	4	5
•	Big business should offer support to small business in the form of mentorship, training, technology transfer, manufacturing strategy					
•	Big business can help small business reorganise and restructure their management					
•	Trust needs to be built to address fears on the part of big business and small business					
•	There needs to be proper structuring of the linkage/cluster relationship with an agreed constitution to govern membership by full commitment by all partners would assist the formation of linkages					
•	Intermediaries should educate big business and small business about the benefits accruing to linkages					
•	Training Institutions should educate big business and small business about the benefits accruing to linkages					
•	Government should educate big business and small business about the benefits accruing to linkages					
•	There is a need for champions from the furniture industry and from external organisations such as the DTI to support and encourage the formation, development and implementation of vertical linkages.					
•	A measuring tool needs to be developed that would track the effectiveness of vertical linkage relationships					

2.4. Horizontal linkages:

2.4.1. Horizontal linkages involve inter-firm relationships between small businesses such as pooling resources, information, technology, equipment. Please indicate your level of agreement/disagreement with each of the following statements?

	1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
•	If small businesses work together they will become more competitive					
•	Lack of trust prevents small businesses from forming linkages with each other					
•	Small businesses need to develop long-term relationships and loyalty with each other					
•	Small businesses must be involved with a network of other smaller businesses who are involved in some kind of exchange, example joint storage, joint transportation					
•	Small businesses that work together will improve the quality of their products, the delivery times and specialize their areas of production focus					
•	There is a need to see models of how collaboration between small businesses operate.					
•	There is a lack of knowledge and skills on the part of SMME's to work effectively together					
•	Small businesses cut corners and do not meet expectations of their customers and partners.					
•	People in small business come from different backgrounds and impacts on their willingness to join forces with each other in business					
•	Horizontal linkages bring about economic gain					
•	There must be a purpose to forming a horizontal linkage, such as market growth, fulfilling a demand					

2.4.2. Many statements have been made about the role of the following institutions with regard to horizontal linkage formation. Please indicate to what extent you agree/disagree with each of the following statements made about intermediaries, training institutions, and government.					
1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
Intermediaries					
◦ Intermediaries operate without consulting other stakeholders in the furniture industry					
◦ Intermediaries do not market their services effectively					
◦ Intermediaries are not aware of what horizontal linkages are					
◦ Intermediaries lack the skills, resources and capacity to promote horizontal linkage formation					
◦ Intermediaries are working with no guidelines or models and hence their direction of what they are doing is lost					
◦ Need for champions with credibility in these intermediaries to promote horizontal linkage formation					
◦ Intermediaries are not doing enough to promote the formation of horizontal linkages					
Training Institutions					
◦ Training Institutions are not involved in horizontal linkage formation					
◦ Training Institutions do not understand what horizontal linkages are					
◦ Training Institutions need to have people who have a good knowledge of the SMME sector					
◦ Training needs must match the level of education of the potential trainees					
◦ Training institutions train people with skills that become easily redundant, hence these people remain unemployed					
◦ Provide training without consulting with relevant stakeholders.					
Government					
◦ Government should be involved in horizontal linkages formation					
◦ Government role must be limited to an indirect one					
◦ Mistrust in government circles and differences in the way government departments operate, limiting the support for horizontal linkage formation					
◦ Government needs to forge better relationships with unions and business					
◦ Do not have the capacity or ability to create horizontal linkages					
◦ Need to develop a national strategy illustrating how a model of horizontal linkage works.					
◦ Government invests money into various sectors of the economy, but the outcomes of these investments are not shown.					

2.4.3 Horizontal linkages as a strategy is not widely applied. To what extent do you agree/disagree with each of the following strategies/solutions?					
1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
◦ Small business needs to be educated about the advantages derived from collaboration					
◦ Small business should build on their synergies and commonalties in terms of market segment, technology etc					
◦ Build trust to address fears of small business					
◦ There is a need for proper structuring of the cluster with an agreed constitution to govern membership by full committment of all partners.					
◦ There is a need for government, big business, training institutions, intermediaries to support small businesses in developing horizontal linkages					
◦ There is a need for champions from the furniture industry and from external organisations such as the DTI to support and encourage the formation, development and implementation of horizontal linkages					
◦ Need to establish a system of monitoring the effectiveness of linkages that have been formed.					

PART III: ATTITUDES

3.1. There are many 'feelings' or reactions that can result from attempting to get big business and small business to work together or even small businesses to work together. Please indicate your level of agreement /disagreement with these statements relating to attitudes toward linkages.					
1: STRONGLY AGREE 2: AGREE 3: NEUTRAL 4: DISAGREE 5: STRONGLY DISAGREE	1	2	3	4	5
Vertical Linkage					
◦ Working together with a large corporate would results in smaller business get preferential treatment from other big businesses					
◦ Corporates favour big business and treat small business unfairly					
◦ Corporates do not believe that small business can perform a job well					
◦ Corporates do not think that it is necessary to visit small businesses to check up on their progress					

• Corporates do not offer assistance or support to small business						
• Coprporates do not trust small business and this prevents linkage formation						
• Small business does not trust corporates and this prevents linkages formation						
• Corporates and big business trust each other and enter into linkages willingly						
• Corporates that work with small business achieve greater economic profits						
• Corporates should form linkages with small business out of social benefit i.e. corporate social responsibility						
• Corporates should be willing to accept mistakes made by small businesses						
• Corporates would exploit small business in a vertical linkage relationship						
Horizontal Linkage						
• Small businesses do not trust each other to work together in a linkage relationship						
• Other small businesses may be 'free-riders' and not fulfill their obligations						
• Small businesses that work together engage in fair business practice and not cheat each other						
• Small businesses would share their information, technology, knowledge willingly with other small businesses						
• Working together with other small businesses will result in increased profits for all concerned						

PART IV: MODELS OF ENGAGEMENT

4.1. From the range of potential linkage relationships, please indicate the extent to which you think the following models of engagement are able/ capable bringing about economic gain?

1: VERY ABLE 2: ABLE 3: NEUTRAL 4: UNABLE 5: NOT ABLE AT ALL	1	2	3	4	5
a. Joining together (pooling resources, labour, equipment) of SMME's in the same sector to strive toward common goals					
b. Creating of a hub that would provide specialist services like finance, accounting and marketing to a group of small manufacturers that have skills in furniture manufacturing.					
c. The formations of alliances/strategies to compete more effectively and benefit those enterprises that have not achieved success before.					
d. A group of individuals with assembly skills get together to complete a specific item such as a table, for example one would concentrate on building legs of the table only, the other table tops.					
e. Flexible transfer between small enterprises e.g. assembly, finishing					
f. Big Businesses and small business work together through joint ventures, partnerships, subcontracting, outsourcing					

4.2 Considering these models, please rank them (in order from 1 - 6) in terms of each one's overall ability to generate economic gain. Please write in your response under each of the following statements.

a. Joining together and pooling resources with other SMMES	**b.** Providing specialist like finance, marketing services with a group of small manufacturers	**c.** Forming alliances and strategies with other businesses to compete more effectively	**d.** Specialising in the assembly of components	**e.** Flexible transfer between small enterprises	**f.** Big business and small business engaging in joint ventures, partnerships, subcontracting, outsourcing

	YES	NO
4.3. Has your business entered into or are you currently involved in a linkage with other businesses		

	VERTICAL	HORIZONTAL	BOTH
4.4 If you answered YES, please specify if the is horizontal, vertical or both			

4.5. Please describe the nature of your linkage relationship:

	YES	NO
4.6. If you are not involved in a linkage relationship, would you be willing to enter into one?		

4.7. If you answered yes, please specify which type you would like to be involved in? You are allowed to choose more than one

a. Joining together and pooling resources with other SMMES	**b.** Providing specialist like finance, marketing services with a group of small manufacturers	**c.** Forming alliances and strategies with other businesses to compete more effectively	**d.** Specialising in the assembly of components	**e.** Flexible transfer between small enterprises	**f.** Big business and small business engaging in joint ventures, partnerships, subcontracting, outsourcing

PART V: PERFORMANCE INDICATORS

Sales

1. **What was your overall trend of sales between 1998 and 1999?**
   ☐ INCREASE ☐DECREASE ☐SAME

2. **Please give an estimate of how much of your sales goes to each of the following market opportunities?**
   1. Domestic (%) 3. KZN (%)
   2. Export (%) 4. Other provinces (%)
   100 (%) 100(%)

3. **What was your trend of sales in the domestic market between 1998 and 1999?**
   ☐ INCREASE ☐ DECREASE ☐SAME ☐ NOT APPLCABLE

4. **What was your trend of sales in the export market between 1998 and 1999?**
   ☐ INCREASE ☐DECREASE ☐SAME ☐ NOT APPLCABLE

Production and Technology

5. **Do you produce for specific orders?** ☐Yes ☐No

6. **Do you produce for stock?** ☐Yes ☐No

7. **In your product development process, which of the following is used by you company?**
   ☐ Customer design ☐ Own design
   ☐ Both ☐ Other (Specify)_____

8. **What kind of standards do you usually use?**
   ☐ South African standards ☐ International standards
   ☐ Customers standards ☐ Own standards
   ☐ None ☐ Other (Specify)_____

9. **Do you employ computerised technology?** ☐Yes ☐No

10. **Thinking about the age of your equipment, please specify the proportion of**
    Machines older than 5 years _____%
    Machines between 3 and 5 years _____%
    Machines younger than 3 years _____%
    100%

Suppliers

11. **Please specify the proportion of the main raw material you get from**
    Domestic suppliers _____%
    Overseas suppliers _____%
    100%

12. **Please specify the proportion of other related materials you get from**
    Domestic suppliers _____%
    Overseas suppliers _____%
    100%

13. **Please specify the proportion of outsourcing (subcontracting) you get from**
    Domestic suppliers _____%
    Overseas suppliers _____%
    100%

Finance

16. **Thinking of the financial health of your company, please indicate which benchmarks (comparison) you use to assess your own performance.**
    ☐National ☐ International

17. **What pricing policy are you using?**
    ☐Cost plus ☐Below market price
    ☐By government ☐In correlation with similar enterprises
    ☐Other (specify)_____

18. **Could you specify what proportion of your customers payments are made by?**
    Cash _____%
    Cheque _____%
    Transfer _____%
    Other (Specify) _____%
    100%

Other issues

14. **Could you please specify what the proportion of your product distribution is in each of the following channels?**
    Factory stored _____%
    Company owned retail stores _____%
    Trading company/wholesale _____%
    Independent retailer _____%
    Other (specify) _____%
    100%

15. **What are the most serious or frequent complaints that your customers raise to you?**

    ☐ **Quality of products** ☐ **Price of products**
    ☐ **Delivery of products** ☐ **Quantity of products**
    ☐ **No complaints** ☐ **Other (specify)**

    _____

APPENDIX G

FREQUENCY TABLES: COMPETITIVENESS

Furniture Industries are unable to compete effectively because they lack the knowledge and skills to operate/manage their business efficiently

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	10.3	10.3	10.3
	Agree	13	44.8	44.8	55.2
	Neutral	6	20.7	20.7	75.9
	Disagree	5	17.2	17.2	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Furniture industries do not understand the importance of marketing concepts such as market drivers, market growth and niche marketing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	13.8	13.8
	Agree	11	37.9	37.9	51.7
	Neutral	8	27.6	27.6	79.3
	Disagree	4	13.8	13.8	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

The quality of products produced by furniture manufacturers does not meet international standards

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	24.1	24.1	24.1
	Agree	7	24.1	24.1	48.3
	Neutral	4	13.8	13.8	62.1
	Disagree	9	31.0	31.0	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Labour regulations place major restrictions on employers in the form of hiring workers, wages, conditions of work, downsizing or restructuring, introducing automation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	14	48.3	48.3	48.3
	Agree	9	31.0	31.0	79.3
	Neutral	3	10.3	10.3	89.7
	Disagree	2	6.9	6.9	96.6
	Strongly disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Workers in furniture industries are illiterate or semi-literate and have low levels of productivity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	17.2	17.2	17.2
	Agree	17	58.6	58.6	75.9
	Neutral	2	6.9	6.9	82.8
	Disagree	4	13.8	13.8	96.6
	Strongly disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Lack of communication between management and workers impacts negatively on their working relationship, resulting in labour disputes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	17.2	17.9	17.9
	Agree	17	58.6	60.7	78.6
	Neutral	3	10.3	10.7	89.3
	Disagree	2	6.9	7.1	96.4
	Strongly disagree	1	3.4	3.6	100.0
	Total	28	96.6	100.0	
Missing	System	1	3.4		
Total		29	100.0		

Furniture industries are characterised by an unproductive workforce

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	17.2	17.2	17.2
	Agree	15	51.7	51.7	69.0
	Neutral	5	17.2	17.2	86.2
	Disagree	3	10.3	10.3	96.6
	Strongly disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Suppliers (e.g. sawmills) are unable to consistently supply the required quality of raw materials (timber inputs such as pine), are unable to cut logs to required dimensions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	31.0	31.0	31.0
	Agree	6	20.7	20.7	51.7
	Neutral	5	17.2	17.2	69.0
	Disagree	9	31.0	31.0	100.0
	Total	29	100.0	100.0	

Furniture manufacturers have high production costs, such as labour costs and are unable to adjust operations through changes in products and production systems

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	20.7	21.4	21.4
	Agree	16	55.2	57.1	78.6
	Neutral	3	10.3	10.7	89.3
	Disagree	2	6.9	7.1	96.4
	Strongly disagree	1	3.4	3.6	100.0
	Total	28	96.6	100.0	
Missing	System	1	3.4		
Total		29	100.0		

Management is not proactive, implement defensive strategies, are market followers and are unable to cope with changes in international and domestic markets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	10.3	10.3	10.3
	Agree	14	48.3	48.3	58.6
	Neutral	5	17.2	17.2	75.9
	Disagree	7	24.1	24.1	100.0
	Strongly disagree	29	100.0	100.0	

Furniture manufacturers are unable to access infrastructure such as human resources, technology, capital and finance, good business environments and physical infrastructure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	6.9	6.9
	Agree	13	44.8	44.8	51.7
	Neutral	7	24.1	24.1	75.9
	Disagree	7	24.1	24.1	100.0
	Total	29	100.0	100.0	

Pooling of resources, sharing information, labour and equipment improves the competitiveness of furniture manufacturers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	34.5	34.5	34.5
	Agree	12	41.4	41.4	75.9
	Neutral	4	13.8	13.8	89.7
	Disagree	2	6.9	6.9	96.6
	Strongly disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

A weak rand exchange rate impacts negatively on the economic performance of furniture manufacturers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	20.7	21.4	21.4
	Agree	11	37.9	39.3	60.7
	Neutral	3	10.3	10.7	71.4
	Disagree	3	10.3	10.7	82.1
	Strongly disagree	5	17.2	17.9	100.0
	Total	28	96.6	100.0	
Missing	System	1	3.4		
Total		29	100.0		

APPENDIX H

MEAN SCORES: COMPETITIVENESS OF FURNITURE MANUFACTURERS BY CATEGORY

		N	MEAN	STD. DEVIATION	STD ERROR
Furniture Industries are unable to compete effectively because they lack the knowledge and skills to operate/manage their business efficiently	SMALL	17	2.65	1.11	.27
	MEDIUM	8	2.75	1.39	.49
	LARGE	4	2.50	.58	.29
	TOTAL	29	2.66	1.11	.21
Furniture industries do not understand the importance of marketing concepts such as market drivers, market growth and niche marketing	SMALL	17	2.59	1.18	.29
	MEDIUM	8	2.88	1.13	.40
	LARGE	4	2.25	.96	.48
	TOTAL	29	2.62	1.12	.21
The quality of products produced by furniture manufacturers does not meet international standards	SMALL	17	2.71	1.49	.36
	MEDIUM	8	2.63	1.19	.42
	LARGE	4	3.00	1.15	.58
	TOTAL	29	2.72	1.33	.25
Labour regulations place major restrictions on employers in the form of hiring workers, wages, conditions of work, downsizing or restructuring, introducing automation	SMALL	17	1.76	1.15	.28
	MEDIUM	8	1.88	.99	.35
	LARGE	4	2.25	1.26	.63
	TOTAL	29	1.86	1.09	.20
Workers in furniture industries are illiterate or semi-literate and have low levels of productivity	SMALL	17	2.53	1.18	.29
	MEDIUM	8	1.88	.64	.23
	LARGE	4	2.00	.82	.41
	TOTAL	29	2.28	1.03	.19
Lack of communication between management and workers impacts negatively on their working relationship, resulting in labour disputes	SMALL	17	2.12	1.11	.27
	MEDIUM	7	2.14	.38	.14
	LARGE	4	2.50	1.00	.50
	TOTAL	28	2.18	.94	.18
Furniture industries are characterised by an unproductive workforce	SMALL	17	2.35	1.22	.30
	MEDIUM	8	2.00	.53	.19
	LARGE	4	2.75	.50	.25
	TOTAL	29	2.31	1.00	.19
Suppliers (e.g. sawmills) are unable to consistently supply the required quality of raw materials (timber inputs such as pine), are unable to cut logs to required dimensions	SMALL	17	2.65	1.17	.28
	MEDIUM	8	2.25	1.49	.53
	LARGE	4	2.25	1.26	.63
	TOTAL	29	2.48	1.24	.23
Furniture manufacturers have high production costs, such as labour costs and are unable to adjust operations through changes in products and production systems	SMALL	17	2.00	.97	.24
	MEDIUM	8	2.13	.99	.35
	LARGE	4	2.75	.96	.48
	TOTAL	29	2.14	.97	.18
Management is not proactive, implement defensive strategies, are market followers and are unable to cope with changes in international and domestic markets	SMALL	16	2.29	.77	.19
	MEDIUM	8	3.00	1.07	.38
	LARGE	4	2.75	1.50	.75
	TOTAL	29	2.55	.99	.18
Furniture manufacturers are unable to access infrastructure such as human resources, technology, capital and finance, good business environments and physical infrastructure	SMALL	17	2.35	.86	.21
	MEDIUM	8	3.13	.83	.30
	LARGE	4	3.00	1.15	.58
	TOTAL	28	2.66	.94	.17
Pooling of resources, sharing information, labour and equipment improves the competitiveness of furniture manufacturers	SMALL	17	2.25	1.13	.27
	MEDIUM	8	2.75	.53	.19
	LARGE	4	4.00	.71	.65
	TOTAL	29	2.64	.27	.20
A weak rand exchange rate impacts negatively on the economic performance of furniture manufacturers	SMALL	16	2.25	1.24	.31
	MEDIUM	8	2.75	1.49	.53
	LARGE	4	4.00	1.41	.71
	TOTAL	28	2.64	1.42	.27

APPENDIX I
FREQUENCY TABLES: STRATEGIES TO ENHANCE COMPETITIVENESS

Furniture manufacturers need to create a support structure for themselves through engaging with other businesses, suppliers and role players in the industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	27.6	27.6	27.6
	Agree	18	62.1	62.1	89.7
	Neutral	1	3.4	3.4	93.1
	Disagree	2	6.9	6.9	100.0
	Total	29			

A national strategy should be drafted by an industry organisation that outlines the nature of collaboration between businesses and how these relationships function

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	20.7	20.7	20.7
	Agree	17	58.6	58.6	79.3
	Neutral	4	13.8	13.8	93.1
	Disagree	1	3.4	3.4	96.6
	Strongly Disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Furniture manufacturers should be trained in developing marketing strategies nationally and internationally

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	31.0	31.0	31.0
	Agree	18	62.1	62.1	93.1
	Neutral	1	3.4	3.4	96.6
	Strongly Disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Workers in furniture manufacturing industries require training to improve their current skills levels and to acquire new skills

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	44.8	44.8	44.8
	Agree	13	44.8	44.8	89.7
	Neutral	1	3.4	3.4	93.1
	Disagree	1	3.4	3.4	96.6
	Strongly Disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Managers of furniture manufacturing firms need training to upgrade their skills and to develop new strategies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	14	48.3	48.3	48.3
	Agree	15	51.7	51.7	100.0
	Total	29	100.0	100.0	

Collaboration between furniture manufacturers and research organisations such as technikons could result in new strategies being developed that could enhance competitiveness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	31.0	31.0	31.0
	Agree	19	65.5	65.5	96.6
	Neutral	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

APPENDIX J

FREQUENCY TABLE: HAVE YOU HEARD OF THE TERM CLUSTERING?

Have you heard of the term clustering?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	51.7	51.7	51.7
	No	14	48.3	48.3	100.0
	Total	29	100.0	100.0	

APPENDIX K

FREQUENCY: ISSUES AFFECTING VERTICAL LINKAGES

Loyalty and long term relationships					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	29	69.0	69.0	69.0
	Important	9	31.0	31.0	100.0
	Total	29	100.0	100.0	
Trust between big business and small business					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	18	62.1	62.1	62.1
	Important	11	37.9	37.9	100.0
	Total	29	100.0	100.0	
Knowledge and skills on the part of small business to complete assigned tasks					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	16	55.2	55.2	55.2
	Important	12	41.1	41.1	96.6
	Neutral	1	3.4	3.4	100.0
	Total	29	100.0	100.0	
Big business and small business must both be customer driven					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	18	62.1	62.1	62.1
	Important	10	34.5	34.5	96.6
	Neutral	1	3.4	3.4	100.0
	Total	29	100.0	100.0	
Small business should produce high quality products					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Important	20	69.0	69.0	69.0
	Important	6	20.7	20.7	89.7
	Neutral	1	3.4	3.4	93.1
	Unimportant	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Big business and small business must be able to meet each others expectations					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Very Important	12	41.1	41.1	41.4
	Important	17	58.6	58.6	100.0
	Total	29	100.0	100.0	
A model or case study of a successful vertical linkage that is in operation need to be seen in practice					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Very Important	9	31.0	31.0	31.0
	Important	14	48.3	48.3	79.3
	Neutral	4	13.8	13.8	93.1
	Unimportant	2	6.9	6.9	100.0
	Total	29	100.0	100.0	
Small business should demonstrate efficient manufacturing practices such as JIT, deliver on time and offer good service					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Very Important	18	62.1	62.1	62.1
	Important	11	37.9	37.9	100.0
	Total	29	100.0	100.0	
Big business and small business should work together for economic gain					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Very Important	15	51.7	53.6	53.6
	Important	13	44.8	46.4	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		
If big business and small business come from different cultural backgrounds, they will not want to work together					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Very Important	2	6.9	6.9	6.9
	Important	6	20.7	20.7	27.6
	Neutral	9	31.0	31.0	58.6
	Unimportant	7	24.1	24.1	82.8
	Not important at all	5	17.2	17.2	100.0
	Total	29	100.0	100.0	
Engaging in a vertical linkage relationship must be driven by the need to fulfil a demand					
		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Very Important	13	44.8	44.8	44.8
	Important	13	44.8	44.8	89.7
	Neutral	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

APPENDIX L

FREQUENCY: INTERMEDIARIES, TRAINING INSTITUTIONS, TRADE UNIONS, GOVERNMENT

Intermediaries tend to operate independently

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	27.6	27.6	27.6
	Agree	12	41.4	41.4	69.0
	Neutral	7	24.1	24.1	93.1
	Disagree	7	6.9	6.9	100.0
	Total	2	100.0	100.0	
		29			

Intermediaries lack the skills to promote vertical linkages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	24.1	24.1	24.1
	Agree	12	41.4	41.4	65.5
	Neutral	5	17.2	17.2	82.8
	Disagree	5	17.2	17.2	100.0
	Total	29	100.0	100.0	

Intermediaries do not have a good understanding of vertical linkages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	17.2	17.2	17.2
	Agree	10	34.5	34.5	51.7
	Neutral	12	41.1	41.1	93.1
	Total	2	6.9	6.9	100.0
		29			

Intermediaries need to show examples of vertical linkages that are working in practice

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	34.5	34.5	34.5
	Agree	14	48.3	48.3	82.8
	Neutral	4	13.8	13.8	96.6
	Disagree	1	3.4	3.4	100.0
	Total	29			

Intermediaries do not have the capacity or the resources to promote the formation of vertical linkages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	17.2	17.2	17.2
	Agree	10	34.5	34.5	51.7
	Neutral	11	37.9	37.9	89.7
	Disagree	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

There is a need for change agents within these intermediaries to drive the process of vertical linkage formation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	14.3	14.3
	Agree	16	55.2	57.1	71.4
	Neutral	6	20.7	21.4	92.9
	Disagree	2	6.9	7.1	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Training institutions do not provide real input toward promoting vertical linkages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	13.8	13.8
	Agree	12	41.4	41.4	55.2
	Neutral	10	34.5	34.5	89.7
	Disagree	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

Training institutions do not have good knowledge of the SMME sector to promote vertical linkages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	6.9	6.9
	Agree	11	37.9	37.9	44.8
	Neutral	8	27.6	27.6	72.4
	Disagree	8	27.6	27.6	100.0
	Total	29	100.0	100.0	

Training institutions should make training more practical and on the job

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	44.8	44.8	44.8
	Agree	14	48.3	48.3	93.1
	Neutral	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Training institutions develop trained workers in acquiring a particular skill, but these skills become easily redundant because workers move continuously between various areas of production, performing different tasks

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	20.7	20.7	20.7
	Agree	11	37.9	37.9	58.6
	Neutral	1	3.4	3.4	62.1
	Disagree	10	24.5	24.5	96.6
	Strongly Disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Training institutions develop training courses without consulting the necessary stakeholders, as a result, the course training institutions offer are not very useful

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	10.3	10.3	10.3
	Agree	14	48.3	48.3	58.6
	Neutral	6	20.7	20.7	79.3
	Disagree	6	20.7	20.7	100.0
	Total	29	100.0	100.0	

There needs to be a champion within training institutions who could promote vertical linkage formation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	27.6	27.6	27.6
	Agree	18	62.1	62.1	89.7
	Neutral	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

Lack of co-operation from trade unions inhibit the formation of vertical linkages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	37.9	37.9	37.9
	Agree	15	51.7	51.7	89.7
	Neutral	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

Trade unions do not understand what vertical linkages are

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	27.6	28.6	28.6
	Agree	8	27.6	28.6	57.1
	Neutral	8	27.6	28.6	85.7
	Disagree	4	13.8	14.3	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Trade union involvement increases labour costs preventing companies from being proactive in vertical linkage formation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	34.5	34.5	34.5
	Agree	12	41.4	41.4	75.9
	Neutral	4	13.8	13.8	89.7
	Total	3	10.3	10.3	100.0
		29	100.0	100.0	

Trade unions are not very organised or proactive and this impacts negatively on the formation of linkages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	31.0	31.0	6.9
	Agree	13	44.8	44.8	75.9
	Neutral	5	17.2	17.2	93.1
	Disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Trade unions seem to be narrow in their focus, not taking into account the needs of the employer to grow the business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	41.4	41.4	41.4
	Agree	13	44.8	44.8	86.2
	Neutral	2	6.9	6.9	93.1
	Disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Trade unions do not take the responsibility to train members and make them aware of trends in the furniture industry

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	44.8	44.8	44.8
	Agree	13	44.8	44.8	89.7
	Neutral	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

Trade unions can help promote vertical linkage formation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	44.8	44.8	44.8
	Agree	15	51.7	51.7	96.6
	Neutral	1	3.4	3.4	100.0
	Total	29	100.0	100.0	

Trade unions fear downsizing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	34.5	34.5	34.5
	Agree	14	48.3	48.3	82.8
	Neutral	2	6.9	6.9	89.7
	Disagree	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

Trade unions fear that standards of working conditions would decrease where linkages are formed					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	17.2	17.2	18.5
	Agree	11	37.9	37.9	59.3
	Neutral	7	24.1	24.1	85.2
	Total	4	13.8	13.8	100.0
Missing system		27	93.1	93.1	
Total		2	6.9	6.9	
		29	100.0	100.0	
Trade unions fear that they will lose membership where vertical linkages are formed					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	24.1	25.0	25.0
	Agree	16	55.2	57.1	82.1
	Neutral	5	17.2	17.9	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		
A champion within trade unions would assist in the formation of vertical linkages					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	14	48.3	48.3	48.3
	Agree	15	51.7	51.7	100.0
	Total	29	100.0	100.0	
Government should assist in the formation of vertical linkages					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	17.2	17.2	17.2
	Agree	16	55.2	55.2	72.4
	Neutral	4	13.8	13.8	86.2
	Disagree	2	6.9	6.9	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	
Government should have an indirect role in vertical linkage formation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	6.9	6.9
	Agree	17	58.6	58.6	65.5
	Neutral	5	17.2	17.2	82.8
	Disagree	3	10.3	10.3	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	
Government should provide incentives for entering into vertical linkage relationships					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	24.1	24.1	24.1
	Agree	14	48.3	48.3	72.4
	Neutral	5	17.2	17.2	89.7
	Disagree	2	6.9	6.9	96.6
	Strongly disagree	1	3.4	3.4	100.0
	Total	29	100.0	100.0	
Government should create an environment conducive to vertical linkage formation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	20.7	20.7	20.7
	Agree	19	65.6	65.5	86.2
	Neutral	4	13.8	13.8	100.0
	Total	29	100.0	100.0	

Government play a greater role in educating the workforce					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	34.5	34.5	34.5
	Agree	12	41.4	41.4	75.9
	Neutral	5	17.2	17.2	93.1
	Disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	
Need for people in government circles to drive forward the formation of vertical linkages					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	14.3	14.3
	Agree	18	62.1	64.3	78.6
	Neutral	4	13.8	14.3	92.9
	Disagree	2	6.9	7.1	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

APPENDIX M

FREQUENCY: ATTITUDES

Working together with a large corporate would result in smaller business getting preferential treatment from other big business					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	10.3	10.3	10.3
	Agree	11	37.9	37.9	48.3
	Neutral	9	31.0	31.0	79.3
	Disagree	4	13.8	13.8	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100	100	
Corporates favour big business and treat small business unfairly					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	13.8	13.8
	Agree	11	37.9	37.9	51.7
	Neutral	6	20.7	20.7	72.4
	Disagree	6	20.7	20.7	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	
Corporates do not believe that small business can perform a job well					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	14.3	14.3
	Agree	11	37.9	39.3	53.6
	Neutral	4	13.8	14.3	67.9
	Disagree	8	27.6	28.6	96.4
	Strongly disagree	1	3.4	3.6	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Corporates do not think that it is necessary to visit small businesses to check up on their progress

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	6.9	6.9
	Agree	11	37.9	37.9	44.8
	Neutral	6	20.7	20.7	65.5
	Disagree	8	27.6	27.6	93.1
	Strongly disagree	2	6.9	6.9	100.0
	Total	29	100.0	100.0	

Corporates do not offer assistance or support to small business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	14.3	14.3
	Agree	18	62.1	64.3	78.6
	Neutral	4	13.8	14.3	92.9
	Disagree	1	3.4	3.6	96.4
	Strongly disagree	1	3.4	3.6	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Corporates do not trust small business and this prevents linkage formation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	14.3	14.3
	Agree	8	27.6	28.6	42.9
	Neutral	10	34.5	35.7	78.6
	Disagree	5	17.2	17.9	96.4
	Strongly disagree	1	3.4	3.6	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Small business does not trust corporates and this prevents linkage formation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	14.3	14.3
	Agree	10	34.5	35.7	50.0
	Neutral	7	24.1	25.0	75.0
	Disagree	5	17.2	17.9	92.9
	Strongly disagree	2	6.9	7.1	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Corporates and big business trust each other and enter into linkages willingly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	7.4	7.4
	Agree	2	6.9	7.4	14.8
	Neutral	10	34.5	37.0	51.9
	Disagree	11	37.9	40.7	92.6
	Strongly disagree	2	6.9	7.4	100.0
	Total	27	93.1	100.0	
Missing system		2	6.9		
Total		29	100.0		

Corporates that work with small business achieve greater economic profits

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	10.3	10.3	10.7
	Agree	13	44.8	44.8	57.1
	Neutral	10	34.5	34.5	92.9
	Disagree	1	3.4	3.4	96.4
	Strongly disagree	1	3.4	3.4	100.0
	Total	28	96.6	96.6	
Missing system		1	3.4	3.4	
Total		29	100.0	100.0	

Corporates should form linkages with small business out of social benefit,i.e. corporate social responsibility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	7.1	7.1
	Agree	12	41.4	42.9	50.0
	Neutral	7	24.1	25.0	75.0
	Disagree	5	17.2	17.9	92.9
	Strongly disagree	2	6.9	7.1	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Corporates should be willing to accept mistakes made by small businesses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	7.4	7.4
	Agree	8	27.6	29.6	37.0
	Neutral	6	20.7	22.2	59.3
	Disagree	8	27.6	29.6	88.9
	Strongly disagree	3	10.3	11.1	100.0
	Total	27	93.1	100.0	
Missing system		2	6.9		
Total		29	100.0		

Corporates would exploit small business in a vertical linkage relationship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	2	6.9	7.1	7.1
	Agree	8	27.6	28.6	35.7
	Neutral	11	37.9	39.3	75.0
	Disagree	4	13.8	14.3	89.3
	Strongly disagree	3	10.3	10.7	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Small businesses do not trust each other to work in a linkage relationship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	37.9	39.3	39.3
	Agree	11	37.9	39.3	78.6
	Neutral	5	17.2	17.9	96.4
	Disagree	1	3.4	3.6	100.0
	Strongly disagree	28	96.6	100.0	
	Total	1	3.4		
Missing system		29	100.0		
Total					

Other small businesses may be 'free-riders' and not fulfil their obligations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	20.7	21.4	21.4
	Agree	15	51.7	53.6	75.0
	Neutral	3	10.3	10.7	85.7
	Disagree	4	13.8	14.3	100.0
	Strongly disagree	28	96.6	100.0	
	Total	1	3.4		
Missing system		29	100.0		
Total					

Small businesses that work together engage in fair business practice and not cheat each other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	3	10.3	10.7	10.7
	Agree	8	27.6	28.6	39.3
	Neutral	9	31.0	32.1	71.4
	Disagree	6	20.7	21.4	92.9
	Strongly disagree	2	6.9	7.1	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

Small businesses would share their information, technology, knowledge willingly with other small businesses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	13.8	14.8	14.8
	Agree	10	34.5	51.9	51.9
	Neutral	6	20.7	74.1	74.1
	Disagree	5	22.2	92.6	92.6
	Strongly disagree	2	18.5	100.0	100.0
	Total	27	7.4		
Missing system		2	100.0		
Total		29			

Working together with other small businesses will result in increased profits for all concerned

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	31.0	32.1	32.1
	Agree	13	44.8	46.4	78.6
	Neutral	5	17.2	17.9	96.4
	Strongly disagree	1	3.4	3.6	100.0
	Total	28	96.6	100.0	
Missing system		1	3.4		
Total		29	100.0		

APPENDIX N

FREQUENCY AND CROSS TABULATION: HAVE YOU ENTERED INTO A LINKAGE?

Has your company entered into or are you currently involved in a linkage with other businesses					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	48.3	51.9	51.9
	No	13	44.8	48.1	100.0
	Total	27	93.1	100.0	
Missing system		2	6.9		
Total		29	100.0		

			Has you company entered into or are you involved in a linkage with other businesses		Total
			Yes	No	
Company size	small	Count	8	7	15
		% within Company size	53.3%	46.7%	100.0%
		% of Total	29.6%	25.9%	55.6%
	medium	Count	3	3	8
		% within Company size	37.5%	62.5%	100.0%
		% of Total	11.1%	18.5%	29.6%
	large	Count	3	1	4
		% within Company size	75.0%	25.0%	100.0%
		% of Total	11.1%	3.7%	14.8%
Total		Count	14	14	29
		% within Company size	51.9%	48.1%	100.0%
		% of Total	51.9%	48.1%	100.0%

APPENDIX O