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# A critical analysis of the South African mohair marketing system in the evolving global agribusiness environment


**by**

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**MSc (Agric)**


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D. du P. S. Jordaan
Pretoria
December 2005

*As die Here nie die huis bou nie, bou die wat daaraan bou tevergeefs. (Psalm 127:1*)

# ABSTRACT

## A critical analysis of the South African mohair marketing system in the evolving global agribusiness environment

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The primary marketing of South African mohair has been the topic of much discussion and it has become a contentious issue since producer prices became unusually unstable, producer returns increasingly uncertain, and production consequently began declining. This dissertation has aimed to structure these discussions and issues and to critically analyse the South African mohair marketing system in the evolving global agribusiness environment.

It is widely documented that the intangible attributes of products are growing in importance as retailers and consumers become increasingly interested in and concerned about safety, provenance, welfare, society and sustainability. Marketing systems are consequently compelled to convey not only objective but also subjective product quality attributes. Mohair is an exclusive product with niche market appeal and the central question of this dissertation is whether mohair is inherently suited to the current fifty-five year old commodity-based marketing system in a marketing environment that requires marketing systems to convey far more information than commodity-based systems do. This, in effect, boils down to the question whether the mohair clip can be considered a commodity or a niche product.

Historically, mohair has been considered a commodity and the marketing system for mohair has been structured accordingly. Mohair is, however, one of the scarcer animal fibres globally, diverse in its physical properties and is suitable for use in many products all of which have different market and demand characteristics. It is therefore argued that mohair currently boasts with the characteristics of a product despite its historical development as a commodity.

Mohair's unit type (whether it is a product or a commodity) informs two theoretical frameworks used to determine an appropriate governance structure for the exchange between producers and processors. Both these frameworks reveal that the exchange between mohair producers and processors should be governed by more intensively coordinated governance structures than the current spot market. This is in accordance with global trends where there is a shift away from open market trading to more stringent coordination of the supply chain. In view of this it is proposed that the spot market, which this dissertation contends to be a "value bottleneck" in some instances, be augmented by a number of hybrid governance structures like long term contracts, cooperation agreements or some form of vertical ownership to offer additional exchange structures, where necessary, to transmit all of mohair's attributes more effectively between producers and processors and ultimately the whole mohair supply chain when required to do so. It is proposed that these additional options should function in tandem with the current spot market which continues to be a critical exchange mechanism for mohair that is used as a generic input to the production of multi-purpose blended fibres where price and availability are the major determinants of demand and not the type of fibre or its intangible attributes. In such instances the conveyance of any attributes other than price and quantity (within the respective classing standards) is superfluous and a spot market to facilitate the exchange would suffice since it provides sufficient coordination control for the specific transaction.

The discontinued or diluted use of a spot market as proposed is, however, not without pitfalls. The spot market price for mohair is the only public price forming mechanism. If the use of the spot market were to be discontinued or diluted there would be no reliable yardstick to use for negotiating prices for mohair that is exchanged by means of other governance structures and alternative mechanisms would need to be developed to determine such prices.

In an attempt to keep up with global trends in agricultural marketing a South African mohair producer group recently established an "innovative" approach to the marketing of mohair. This innovation in marketing is, however, not quite complete although the producer group have instinctively made huge strides in the right direction. The producer group also continues to make use of a spot market to exchange their niche quality mohair, resulting in relatively high transaction costs that could be reduced by more coordinated governance structures.

Over and above the theoretical arguments to this effect, mohair producers are also demanding vertical coordination structures that require increased levels of coordination to govern the exchange between themselves and mohair processors. The implementation of such strategies would be best undertaken by brokers or producer groups given the superior levels of trust that producers have expressed in brokers and the fact that the levels of transaction costs are the lowest between parties where the greatest levels of trust are exhibited.

The inefficiencies created by an inappropriate or incomplete marketing system for South African mohair are expected to lead to a loss of consumer value and a loss of potential profit throughout the mohair supply chain. In anticipation of the ever changing, and now consumer driven agricultural marketing environment the South African mohair industry would therefore be well advised to collectively consider and to encourage the creation of exchange mechanisms that offer greater coordination within the mohair supply chain to function in tandem with the current spot market exchange mechanism and to embrace these developments in a practical and mutually inclusive manner to the benefit of the whole South African mohair industry – a challenge that would compel the industry to shake off its reputation as a sluggish adapter to the dynamic changes in world markets.

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# CHAPTER 1

# INTRODUCTION

## 1.1 A GLOBAL OVERVIEW

This dissertation is a critical analysis of the South African mohair marketing system within the context of the rapidly and continuously evolving global agribusiness and agricultural marketing environment. Many authors globally have observed and described these structural changes within the agribusiness environment and particularly the marketing of agricultural produce. Reardon and Barrett (2000) describe three recognisable trends in agricultural marketing, namely the industrialization of agriculture, the movement away from undifferentiated agricultural commodities towards more specialised products and a movement away from open markets for raw agricultural products towards increasingly vertically coordinated transactions.

Boehlje (1999) views the industrialization of agriculture as the increased concentration, consolidation and integration of the input supply and processing sectors as well as the change in agricultural production from an industry dominated by family based, small scale, relatively independent firms to one of larger firms that are more tightly aligned across the production and distribution chain. Boehlje (1999) and Boehlje, Akridge and Downey (1995) predicted that agriculture would, in the future, be characterised by:

- The adoption of manufacturing processes in production as well as processing;
- A systems or supply chain approach to production and distribution;
- Negotiated coordination replacing market coordination;
- Increased consolidation at all levels;
- Compliance to environmental regulation and liability for environmental degradation;
- Fewer larger firms, and small firms that are highly adaptable and focus their resources on niche and speciality markets;

- Increasing importance of and investment in soft assets, including research and development, human resources and organizational structure.

Consumers are also becoming more discerning in the products they consume and are increasingly demanding diversified products with different characteristics, all for which they have an increasing ability to pay for. Some dimensions of the changing demand and consumption patterns are increased emphasis on (Doyer, 2002):

- Health and safety,
- Variety,
- Convenience,
- Availability,
- Price and quality,
- Origin of product, and
- Environmental sustainability.

Advances in technology in the agricultural production and distribution system are enabling and facilitate the formation of increasingly coordinated and more tightly aligned chains. The advances in technology and productivity include (Downey, 1996; Doyer, 2002):

- Information technology,
- Biotechnology,
- Monitoring and measuring technology,
- Transportation and logistics technology,
- Environmental technology,
- Economies of scale,
- Efficiencies of specialization.

The global textile industry has not escaped the trends as discussed above and has evolved into a consumer driven, technologically advanced industry with global networks to access resources and affect distribution to markets all over the world to meet the needs of diverse and demanding consumers around the globe. Despite the

advancement of the textile industry as a whole the natural animal fibre industry has not evolved correspondingly, resulting in turbulent times with static demand and correspondingly poor prices, a declining share of the world textile market and changing consumer tastes. The declining use of the world's major natural animal fibres, especially wool, prompted reviews of the wool industry in Australia (Wool Industry Future Directions Taskforce, 1999) and New Zealand (McKinsey and Company, 2000). Champion and Fearne (2002) note that these reviews identified, as part of the strategies to cope with the prevailing demanding environment, a need for woolgrowers (and *inter alia* all producers of natural animal fibres) to communicate more closely with downstream customers in order to better understand their requirements for raw material. Such efforts would see natural animal fibre industries, and especially wool and mohair, move from a production approach to a marketing approach, a move that would be in-line with current trends in other agricultural industries.

## 1.2 THE GLOBAL TEXTILE FIBRE INDUSTRY

### 1.2.1 The development of the global textile fibre industry

The early production of textiles between 1750 and 1900 was limited to natural fibres like cotton, wool, silk and flax and was generally characterised by low levels of output as a result of home based processing where women spun the fibre into yarns and men wove the yarns into fabrics when farm work was idle. With the advent of the Industrial Revolution in the late 18$^{th}$ century more efficient machinery began replacing manual labour and the output of the global textile industry increased several fold. A chain of events commencing in the 1890s led to the development of fibres manufactured by industrial processes. With the advent of synthetic fibres the global textile industry evolved from an industry dominated by natural textiles up until the early 1900s to an industry dominated by synthetic textiles by the early 1990s (Textiles Online, 2004).

The global production for textiles has grown along with the growth of the global population and technological development. The world market for fibres has tripled in the last 40 years, but synthetics have accounted for most of the growth. Despite the growth, the production trends of the respective textile fibres have varied noticeably. Global cotton production has risen steadily since the 1900s with no signs of tailing off. Animal fibre production doubled between the years 1900 and 1960, but since then production has become relatively static. The production of man-made cellulosics grew a hundred fold from 1920 to 1960, but since then production has remained static due to the introduction of other, more useful and attractive, synthetic fibres. The production of wholly synthetic man-made fibres started in the late 1930s, grew slowly and then took off explosively in the 1960s, rising ten fold in just 8 years. Wholly synthetic fibres surpassed cotton as the primary global fibre in the 1990s and currently constitute more that half of the global textile consumption. Figure 1.1 below details the global consumption trends of the major textile fibres from 1985 to 2005 (estimated) and Figure 2 details the current global consumption of the major textile fibres (Textiles Online, 2004; ICAC, 2004).

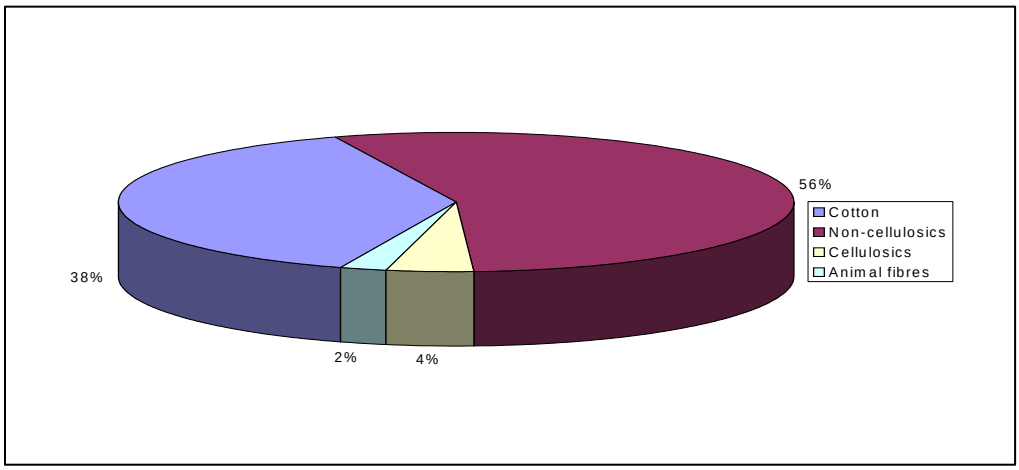



**Figure 1.1: Global consumption trends of major textile fibres 2004**

*Source: ICAC, 2004*

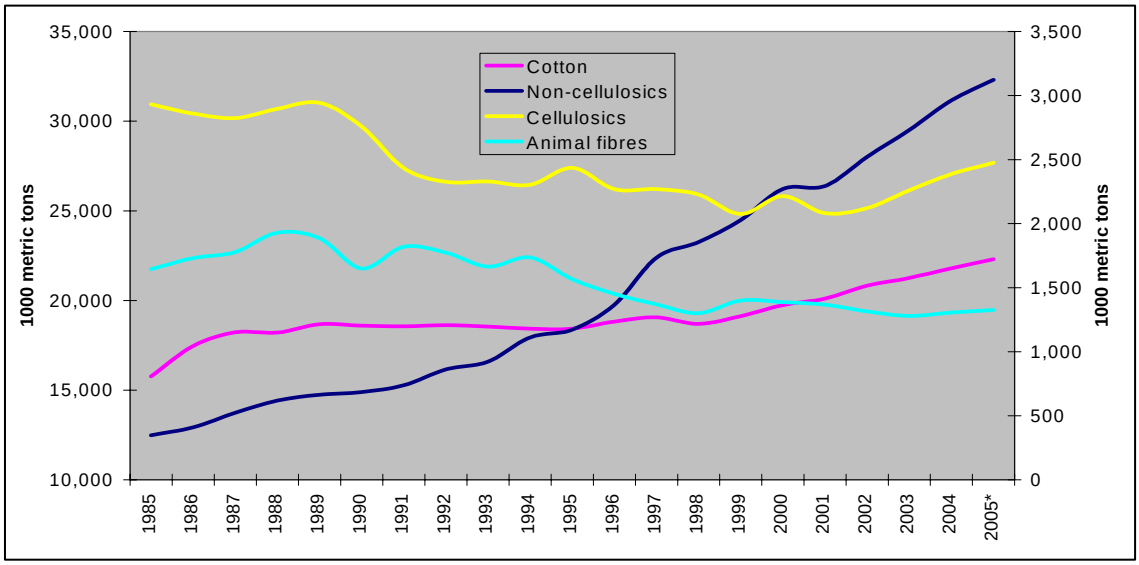



**Figure 1.2: Global consumption of major textile fibres 1985-2004**

*Source: ICAC, 2004*

### 1.2.2 Current trends in the global textile fibre industry

Strong economic recovery in industrial countries and continued rapid expansion in important emerging markets over the last few years have resulted in an improved world economy. The International Monetary Fund estimates that world GDP growth will reach 5% in 2004, the fastest economic expansion in nearly three decades. Following the current favourable global economic conditions, the world textile fibre consumption is also on the increase and it is growing at a pace of 3.9% (2003) (ICAC, 2004).

The major global textile fibres are experiencing varied trends in demand. The current demand for cotton and chemical fibers has increased, while the demand for wool and like fibers has declined. Current projections of income, population, and prices suggest that world textile fibre consumption will expand by 4.3% in 2004 and 3.1% in 2005 and is expected to continue expanding over the coming years at an average annual rate of 3% to reach 67.5 million tons in 2010 (ICAC, 2004).

Despite the continued growth in consumption of synthetic fibre textiles, current fashion trends, which rule the global demand for textiles, are experiencing a return to

natural fabrics. “Beyond luxury products” are also expected to become a new norm for the rich to seek as they crave rare materials and unusual finishes not generally seen (Fashion-Era, 2005).

Against the background of the current trends in the global textile fibre industry the following sections review the South African mohair industry. Along with wool and other natural textiles mohair contributes meaningfully to the South African agricultural economy although it is a relatively small component of the global textile fibre industry.

### 1.2.3 An overview of the South African mohair industry

This section provides an overview of the history of the South African mohair industry.

Mohair is the technical name for the fleece of the Angora goat and originates from an Arabian word meaning “best fleece”. Mohair is a unique and luxurious natural fibre and no other fibre, natural or man-made, has the same unique properties as mohair. Mohair is sought after for its comfort, it being warm in winter and cool in summer and for being highly durable. Mohair is also particularly valuable as a textile fibre because of its properties such as firmness, lustre, resilience, moisture absorption, comfort and low felting capacity. Mohair is processed via lengthy processes into textiles that are used to manufacture a number of final products. The demand for different types of mohair is based on the uses detailed in Table 1.1 below.

**Table 1.1: Composition of the mohair clip and current application**

| Type of hair | Application | Demand | % of clip |
|---|---|---|---|
| Superfine and Fine Kid (< 26 micron) | Wide application in men's and ladies' wear | Extremely sought after but fashion dependent | 7.2 |
| Kid (26-28 micron) | Finds application in men's and ladies' wear | Sought after but fashion dependent | 10.8 |
| Fine Young Goat (28-30 micron) | Used in men's and ladies' wear and in household upholstery | Sought after when in fashion | 7.6 |
| Strong Young Goat (30-33 micron) | Used in men's and ladies' wear and in household upholstery | Stable use in mohair velour | 11.4 |
| Fine Adult (34-36 micron) | Used in men's and ladies' wear, household upholstery, knitting industry and brushed products (blankets etc.) | Limited when knitting is not in fashion | 18.0 |
| Strong Adult (37-40 micron) | Application only in brushed products, carpets and curtains. Alternative application limited. | Limited | 45.0 |

*Source: Adapted from Van der Westhuysen, 1991*

### 1.2.4 The development of the mohair industry in South Africa

The first Angora goats were brought from Turkey via Arabia and India to South Africa during 1838. A Colonel Henderson from Caledon in the then Cape Province imported the goats from Turkey to be kept as a hobby. Little mention is made of the number of goats in the consignment although it is generally accepted that 14 were eventually landed in the Cape and settled in the Caledon district. Of the 14 goats imported into South Africa, 12 rams were rendered infertile in an attempt by Turkish sultans to limit the spread of the Angora breed outside of Turkey. The remaining animals consisted of a ewe and her male kid born on the journey from Turkey. Although more goats were imported from Turkey up until 1896 the ewe and her male kid provided the foundation stock for the South African mohair industry (Pringle & Dockel, 1989; Van der Westhuysen, Wentzel & Grobler, 1988).

Through sound selection and breeding by pioneer South African mohair producers the number of Angora goats in South Africa grew steadily to firmly establish the mohair industry in South Africa. Over and above increasing the number of goats in South Africa, Angora breeders also succeeded in continuously improving the quality of mohair produced by the goats.

From these humble beginnings the South African mohair industry grew into an industry that is currently the premier producer of mohair globally and an industry that

plays an important role in the economy of the Cape provinces of South Africa and the South African economy as a whole (Van der Westhuysen, Wentzel & Grobler, 1988).

### 1.2.5 The economic significance of the South African mohair industry

As detailed in the historical overview the South African mohair industry had very humble beginnings with the first exports taking place in 1857 when 400 kilograms of unprocessed mohair to the value of £ 10 was exported to Britain (Pringle & Dockel, 1989). During the 160-year existence of the South African mohair industry the extent of the industry has, however, increased significantly and during 2003 approximately 5 million kilograms of mohair to the value of approximately R 186 million were exported.

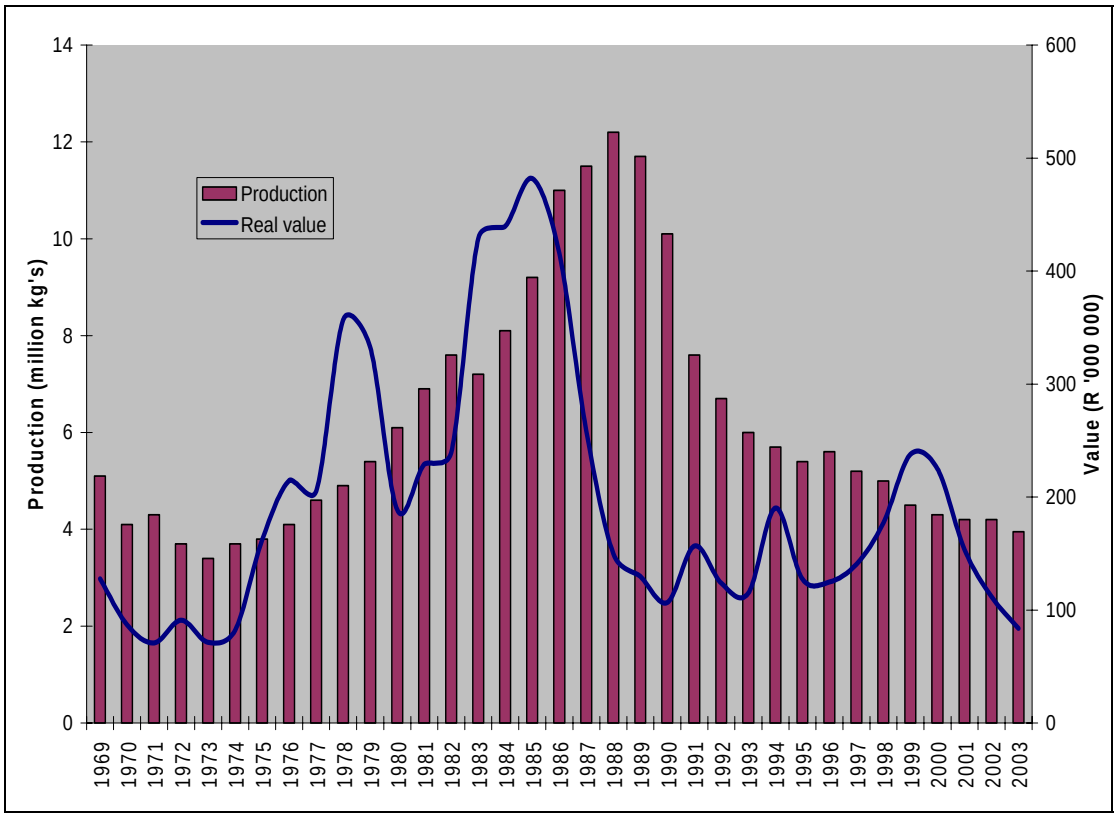



**Figure 1.3: The production and value of South African mohair from 1969-2003**

*Source: Mohair South Africa, 2004*

The South African mohair industry is an important contributor to the economy of the Eastern Cape. The Eastern Cape is well suited to the rearing of mohair yielding Angora goats and is also home to a large textile sector. This is elaborated on later in Chapter 2. Currently an estimated 80% of mohair production, 100% of the primary processing and a significant proportion of the secondary processing of mohair take place in the Eastern Cape. It is estimated that mohair production alone accounts for an estimated 2% of the Eastern Cape's gross geographic product. (Coega Development Corporation, 2005).

### 1.2.6 Industry structures

Since the establishment of the mohair industry in South Africa in the early 1800s the industry has been characterised by a somewhat turbulent development. The development of the industry was characterised by periods that ranged from good fortune with high levels of demand, good prices, increased levels of production and continuous improvement of quality to turbulent periods characterised by adverse climatic conditions, economic recessions, low prices, outbreaks of disease, sudden changes in fashion and discord within the industry (Pringle & Dockel, 1989; Van der Westhuysen, Wentzel & Grobler, 1988).

As a result of the turbulent development of the mohair industry, numerous industry structures were established from the beginning of the 1900s to ensure the continued existence of the industry. The first of these structures to be established was the Angora Goat Stud Breeders' Society of South Africa. The society was established during 1892 with the purpose of improving the standard of the South African Angora through the establishment and registering of studs of purebred Angora goats of which records would be kept in the society's studbook. The current aim of the society is to encourage the breeding of Angora goats in South Africa and in collaboration with the Mohair Growers' Association to educate and encourage farmers to improve their Angora flocks, to maintain and improve the purity of the Angora breed and to improve the quality of the mohair clip (Pringle & Dockel, 1989; Van der Westhuysen, Wentzel & Grobler, 1988).

The Mohair Growers' Association was formed in 1896 to act as the mouthpiece for mohair growers. This Association only lasted eight years and broke up in 1904. Several other attempts from 1906 to 1941 were made to establish a national body for mohair growers, all of which failed. Because of the difficulties suffered with the sale of mohair during the Second World War another concerted effort was made in 1941 to establish a representative body that could, if effectively conducted, protect the interests of the South African mohair industry. The efforts succeeded in 1941 and the South African Mohair Growers' Association was established and still represents South African mohair growers to this day (Pringle & Dockel, 1989; Van der Westhuysen, Wentzel & Grobler, 1988).

The Department of Agriculture, mohair producers and mohair merchants also realised that the continued existence of the mohair industry was dependent on the active promotion of the mohair industry. In 1951 an inspection fee was instituted by the government and collected by the agency of mohair merchants to contribute to a public fund under the control of the Minister of Agriculture for, amongst others, the promotion of mohair. In order to assist him in the proper application of the fund the Minister appointed a Mohair Advisory Board. The Mohair Advisory Board was tasked, under the auspices of the Minister, with proposing and executing projects, research and promotion that it deemed beneficial to the South African mohair industry. Some of the initial projects undertaken by the Mohair Advisory Board included (Van der Westhuysen, Wentzel & Grobler, 1988):

- Research into the mohair fibre and its textile potential,
- The domestic and international promotion of mohair,
- The development, implementation and improvement of classing standards for mohair,
- Encouraging auction sales of raw mohair, and
- The expansion of the domestic processing of mohair

Since its inception the Mohair Advisory Board evolved many times. In 1965 an inadequate legal status and an increasing need for the Mohair Advisory Board to enter into contractual agreements prompted the transformation of the Advisory Board into the Mohair Board, a Board under the Agricultural Marketing Act of 1937. Its broad functions were to promote mohair and the use thereof through research and publicity and to regulate the marketing of mohair (Pringle & Dockel, 1989; Van der Westhuysen, Wentzel & Grobler, 1988). Following agricultural marketing reforms in South Africa the Mohair Board was disbanded in 1997 and replaced by Mohair South Africa. Similar to the Mohair Board, Mohair South Africa was established to perform functions aimed at “the advancement of the entire mohair industry and to enhance the consumption of South African mohair that would lead to sustainable demand and profitability for all role players - from producers to processors, buyers to manufacturers” (Mohair South Africa, 2005).

### 1.2.7 The evolution of mohair marketing in South Africa

During the founding years of the South African mohair industry the export of mohair was encouraged since producers could obtain fair prices for their mohair in foreign markets. This encouraged the local disposal of mohair through private treaty with producers either selling their unclassed clips to country traders or delivering their mohair to agents or brokers who in turn made the mohair available for inspection to buyers usually in poorly lit stores of basements. Buyers would submit price and quantity quotations to brokers who then by negotiation attempted to obtain the best possible price for the mohair (Pringle & Dockel, 1989). In the 1930s the primary disposal of mohair was dominated by two contrasting views, namely single channel closed marketing versus free market disposal of mohair.

In 1947 the government appointed a Committee of Investigation into mohair marketing. The Division of Economics and Marketing was of the view that the stabilisation of the industry should be sought in more efficient management of the industry and called for the development of a marketing strategy for mohair. Following these recommendations, delegates at the 1949 Mohair Congress were encouraged to call for the establishment of a Mohair Advisory Board and for the public auction disposal of mohair. The public auction disposal of mohair was instituted in 1949 despite considerable resistance from mohair buyers. The Mohair Advisory Board was established in 1951 and it announced classing standards for mohair for the first time. Further goals of the Mohair Advisory Board included product development, promotion and market research. The marketing of mohair during this period was handled by a number of independent brokers (Van der Westhuysen, 1993).

In 1965 it became clear that the powers of the Mohair Advisory Board were insufficient and consequently a scheme for regulating the marketing of mohair under the Marketing Act (Act 26/1937) was announced in the Government Gazette Extraordinary (1244/1965) with the establishment of a Mohair Control Board. Mohair was still marketed by four brokers on auctions scheduled by the Mohair Advisory Board. At the time the Control Board did not interfere in the free flow of mohair to the market nor did it attempt to influence prices directly (Pringle & Dockel, 1989).

An alarming decline in prices from 1970, however, prompted the executive of the South African Mohair Growers Association to approach the Mohair Control Board to investigate an alternative marketing system. In 1971, a proposal, despite considerable opposition from some producers and buyers, was accepted to stabilize mohair prices by means of a single channel pool scheme (Gov. Gazette 2904/1971 & Proclamation R281/1971). From 1972 the Mohair Control Board was given the sole right to market and set prices for South African mohair (Annual Report Mohair Board, 1971). For economic reasons the four brokers at the time amalgamated into one body to form Boeremakelaars (Koöperatief) Beperk (BKB). The mohair control board subsequently appointed BKB as the sole agent to undertake mohair preparation and handling on behalf of the Board. In the early 1990s the escalating cost of clip preparation by BKB and the poor economy of the mohair industry at the time led mohair producers at the 1992 congress of the Mohair Growers' Association to request that the Mohair Control Board cancel its agreement with BKB and take over the function of clip preparation itself in an attempt to reduce the marketing costs of mohair (Van der Westhuysen, 1993).

The Mohair Control Board took the initiative to restructure the mohair industry in 1988 with the emphasis on commercialisation. The reasons for the restructuring were:

- The industry wanted to make more of its own decisions without government interference,
- Commercialisation would aid in neutralizing the problems caused by political sanctions,
- Changes were necessary to establish and develop local manufacturing,
- Changes would offer producers the opportunity of participating in and benefiting from value adding activities further along the supply chain.

The approach was that producers had to benefit from the restructuring of the industry if industry funds were to be used. The general consensus in the mohair industry was that private companies, in which producers could get shares, should be established with industry funds within the framework of the prevailing Marketing Act. During 1991 Cape Mohair Holdings Ltd was established with industry-raised funds to

become involved in the local processing and manufacturing of mohair and mohair products. Steps were also taken in 1993 to counter the rising costs of clip preparation by establishing South African Mohair Brokers Ltd trading as Cape Mohair and Wool (CMW). This private company took control of the clip preparation function from the Mohair Board after the Board only prepared the clip for a single year after taking the function over from BKB. Shareholding in these companies was limited to active mohair producers and the Mohair Control Board could not get involved in the matters of the companies due to limitations placed on it by the Marketing Act (Grobler, 1992).

Since the inception of the one-channel marketing system for mohair in 1972 the mohair industry experienced a time of unknown prosperity. The marketing system stood the mohair industry in good stead by collectively marketing the South African clip and by stabilizing producer prices, which proved critical to the survival of the industry in times of instability, especially during the late 1980s (Grobler, 1993).

During 1992 the Minister of Agriculture appointed the Kassier Committee of Inquiry into the Agricultural Marketing Act. The committee produced a report recommending widespread deregulation of the marketing system and the reform of agricultural marketing in South Africa (Kassier, 1992). The Agricultural Marketing Policy Evaluating Committee (AMPEC) followed the Kassier Report of 1992 and sought to evaluate the viability of the Kassier Report's recommendations. This evaluation process eventually led to the development of a White Paper on Agricultural Marketing, the Marketing of Agricultural Products Bill and eventually to the Marketing of Agricultural Products Act of 1996 which was passed in 1997. The new Agricultural Marketing Act required, amongst others, that the Boards governing the marketing of the various agricultural products be phased out within a period of one year and that the marketing of the respective products be returned to the free market (The Marketing of Agricultural Products Act, Act 47 of 1996).

The Mohair Board was disbanded in 1997 and replaced by Mohair South Africa, an independent private sector organization. The assets of the Mohair Board were transferred to the Mohair Trust with the objective of safeguarding the assets for future utilization in the advancement of mohair. Mohair South Africa was established to act as the functional or executive arm of the mohair industry with the primary purpose of

advancing mohair as a fibre. Mohair South Africa is funded by the Mohair Trust based on annual budgets and business plans submitted to the Trust for evaluation against the objectives of the Trust.

Following the abolition of the controlled marketing of mohair with the disbanding of the Mohair Control Board in 1997, the marketing of mohair once again took place in the free market and producers were free to choose the means of disposal for their mohair. Over and above the existing open cry auction farm gates sales, forward selling, contracts, electronic auctions and tenders all emerged as possible trading platforms for exchanging mohair between mohair growers and buyers.

Table 1.2 below details the primary trading platforms for mohair producers from 1998 to 2002 following a questionnaire survey amongst mohair producers. A survey was mailed to all South African mohair producers who were registered with Mohair South Africa to elicit, amongst others, the volumes and values for each of the different trading platforms used to trade mohair in recent times. The response rate was estimated at 5%, which is not an uncharacteristically low response rate for mail surveys – especially since the completion and resending of the questionnaires was voluntary.

**Table 1.2: Volumes (%) and values (%) of mohair per trading platform (1998-2002)**

| Trading platform | Volumes by mass and value | Year | | | | |
|---|---|---|---|---|---|---|
| | | 1998 | 1999 | 2000 | 2001 | 2002 |
| Auction | Mass (%) | 98 | 99 | 97 | 92 | 94 |
| | Value (%) | 98 | 99 | 96 | 86 | 88 |
| Farm gate sales | Mass (%) | 2 | 1 | 3 | 2 | 3 |
| | Value (%) | 2 | 1 | 4 | 4 | 6 |
| Contracts | Mass (%) | - | - | - | 6 | - |
| | Value (%) | - | - | - | 10 | - |
| Forward selling | Mass (%) | - | - | - | - | 3 |
| | Value (%) | - | - | - | - | 6 |

*Source*: *Own survey, 2003* (n=44)

The open cry auction system was identified as the main trading platform with an average of 96% of the total volume of mohair of the respondents traded passing through the auction. Over time there has, however, been a general decline in the

volume and value of the mohair passing through the auction. It is noteworthy that the decline in the value of mohair passing through the auction is significantly more than the decline in the volume of mohair passing through the auction. This leads to the conclusion that the higher value (better quality) mohair is increasingly passing through trading platforms other than the open cry auction.

With the demise of controlled marketing the monopoly in clip preparation held by CMW came to an end and BKB re-entered the market for preparing mohair for sale. Currently CMW and BKB prepare roughly 80% of the mohair clip while three other merchants and or brokers, who also entered the market after deregulation, handle the rest of the mohair clip.

## 1.3 PROBLEM STATEMENT

Spot market exchange, typical of commodity marketing systems, currently dominates as the primary mechanism of exchange for South African raw mohair. The use of spot market based marketing of mohair may, however, not be conducive to the optimal flow of information, goods and returns throughout the supply chain since the communication of mutual wants and needs between producers and their clients is not easily facilitated by a spot market system (Loots, 2002). These inefficiencies in the flow of information, goods and returns throughout the supply chain are expected to ultimately lead to a decline in the sustainability of the industry.

Spot markets are characteristically suited to the marketing of commodities and are generally associated with generic product promotion, uncoordinated exchange, players that seek self interest, limited information sharing, opportunism, short term relationships and a relatively small amount of attention that is afforded to product differentiation. Trends in agribusiness systems, including marketing are, however, increasingly moving away from the commodity approach to marketing to an approach that focuses on differentiated and branded products, coordinated exchange, players that seek mutual interest, open information sharing, long–term relationships and the successful marketing of a product through satisfying the needs and wants of the customer more effectively than competitors (Champion and Fearne, 2002; Kotler, 2000). Taking the changing marketing environment, the exclusivity and niche market

appeal of mohair and the unique composition of the mohair clip into account, the question arises whether mohair is inherently suited to a commodity-based approach to marketing as facilitated by the current spot market. This arises from the debate whether spot market coordination satisfies the basic fundamentals of marketing (and not just selling) that require signals that convey far more information than price alone, as is necessary for differentiated product businesses systems.

## 1.4 PROPOSITIONS

The following broad propositions have been formulated for this dissertation to structure the discussions regarding the choice of appropriate vertical coordination strategies to govern the exchange between South African mohair producers and mohair processors:

- $H_1$: Mohair is a homogenous item with the attributes of a commodity characterised by non-differentiation, uniformity, relative abundance.

- $H_2$: Spot market coordination is the only suitable platform to govern the exchange of mohair between mohair producers and mohair processors.

These propositions are extensively discussed and thoroughly tested in subsequent chapters of this dissertation.

## 1.5 OBJECTIVES

This dissertation is not positivistic in nature but has certain objectives that will be achieved through deductive processes.

The general objective of this dissertation is to analyse the structures governing the marketing of South African mohair and to debate some issues influencing the choice of a suitable structure to govern the marketing of South African mohair in the evolving agribusiness environment.

In the achieving of the general objective the following specific objectives should be pursued:

- Give an overview of the structures currently governing the marketing of South African mohair.
- Build a typology of the mohair clip and/or its clearly identifiable components as either a commodity or a product based on the classification suggested by Champion and Fearne (2000) to be able to make clear arguments for mohair's "unit type".
- Relate the unit type of mohair as identified in the objective above to suitable governance structures to govern the marketing of South African mohair.
- Document a case study of a recently established innovative marketing system and evaluate the suitability of these systems based on the analytical framework used in this dissertation.
- Propose a marketing system strategy for the South African mohair industry based on the analyses in preceding objectives.

## 1.6 DELIMITATIONS

This dissertation will focus primarily on:

- Evaluating the structures governing the marketing of South African mohair.
- Utilizing a framework for evaluating vertical coordination strategies and consequently proposing alternative governance structures to serve the South African mohair supply chain.

## 1.7 METHODOLOGY

As noted earlier this dissertation is not positivistic in nature but has certain objectives that will be achieved through deductive processes. The primary research question of this dissertation is analysed through a number of deductive processes as discussed in each of the respective components.

A survey was used to analyse a smaller positivistic component of the dissertation. The survey was conducted amongst randomly selected South African mohair producers who are registered with Mohair South Africa. The purpose of the survey was to understand producer's perceptions of "mohair marketing" in South Africa. A structured questionnaire was mailed to mohair producers who had to complete the questionnaire and return it by mail. There was a very low response rate with 47 of the 1 000 questionnaires that were mailed to the respondents returned. This equates to a response rate of about 5%, as is to be expected with mail surveys. The data were captured in a statistical program and the parameters described in later sections were analysed.

## 1.8 OUTLINE

This dissertation comprises five interrelated components that eventually constitute a critical analysis the South African mohair marketing system in the evolving global agribusiness environment. The first component is a discussion of the South African mohair supply chain and industry structure with detailed reviews of each component of the mohair supply chain - from the production of mohair to the sale of final products in retail outlets. The second component of the dissertation is a discussion whether mohair should be considered a commodity or a product. This discussion is an important determinant of a suitable vertical coordination strategy to govern the exchange between mohair producers and mohair processors and is central to the topic of the dissertation. Champion and Fearne (2002) documented a similar discussion for wool – also a natural fibre like mohair. Following the commodity versus product argument, the third component is a discussion of the possible alternative supply chain governance structures for South African mohair. The theory of vertical coordination, the vertical coordination continuum and link between transaction costs and vertical coordination introduce this component. A framework to determine a suitable governance structure for the exchange between mohair producers and processors is then used to propose alternative governance structures for the South African mohair industry. The fourth component of the dissertation is a case study. The study documents an innovation in the marketing of mohair and the first steps towards adopting a governance structure between mohair producers and mohair processors

where there is notable alignment between the intrinsic nature of the product and the transaction.

The final component of the dissertation discusses the strategic introduction of alternative governance structures as proposed by the preceding sections of the dissertation. This component assesses the demand for alternative vertical coordination strategies to govern the exchange between mohair producers and processors and suggests strategies for implementing possible alternatives. The level of trust that producers express in various role players in the mohair supply chain is used as the basis to propose some implementation strategies.

# CHAPTER 2

# THE SOUTH AFRICAN MOHAIR SUPPLY CHAIN AND INDUSTRY STRUCTURE

## 2.1 INTRODUCTION

The mohair supply chain, like the apparel wool supply chain (Champion and Fearne, 2002) is one of the more complicated and elongated supply chains within the food and fibre industries. The mohair supply chain is characterized by numerous transformation stages, extremely long lead times and geographical dispersion of production, processing, manufacturing and "consumption" across the four hemispheres of the world. This section gives an overview of the South African mohair supply chain and industry structure. Figure 2.1 below graphically depicts the South African mohair supply chain.

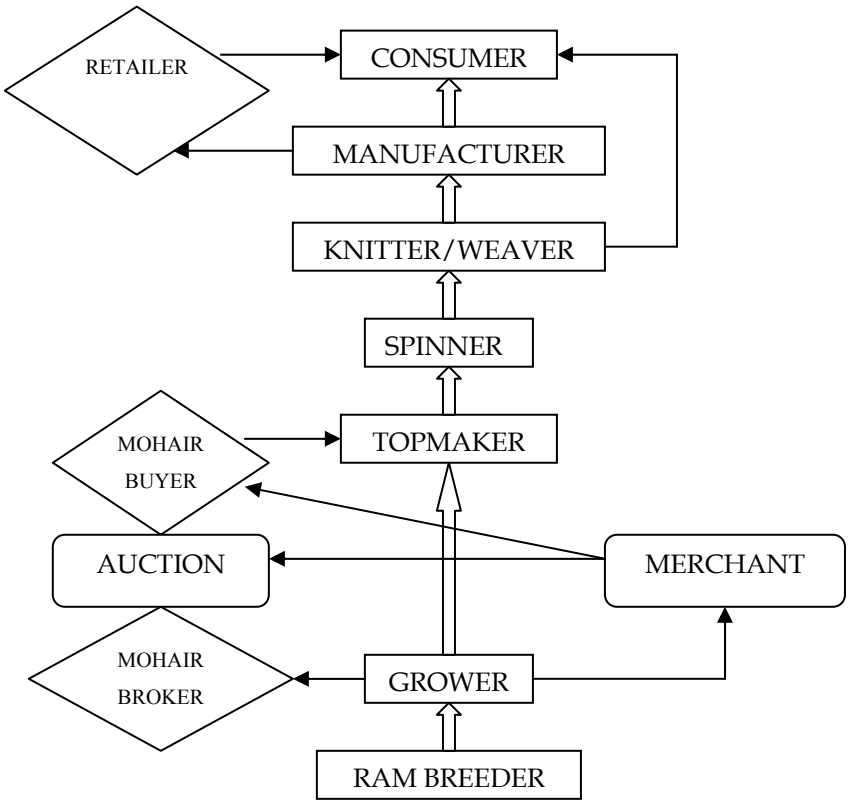



**Figure 2.1: Mohair supply chain**

## 2.2 MOHAIR PRODUCTION AND EXPORTS

South Africa is the largest producer of mohair in the world with a 60% share of world production (3.95 million kg in 2003). The United States of America is the second largest mohair producer with a 14% share of world production (900 000 kg in 2003) and Lesotho is the third largest mohair producer with a 7% share of world production (450 000 kg in 2003). During the past four years South Africa's mohair production was, on average, 4.23 million kilograms valued at approximately R 195 million on average (Mohair South Africa, 2004).

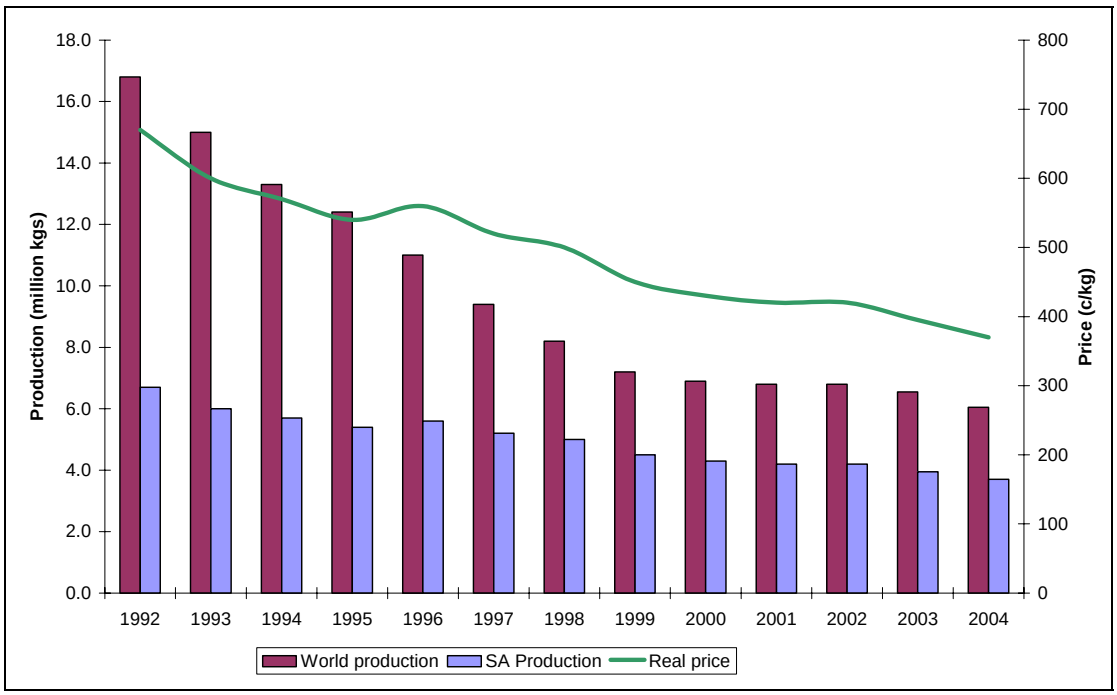



**Figure 2.2: World Production, South African production and the real price of mohair from 1992-2004**

*Source: Mohair South Africa, 2004*

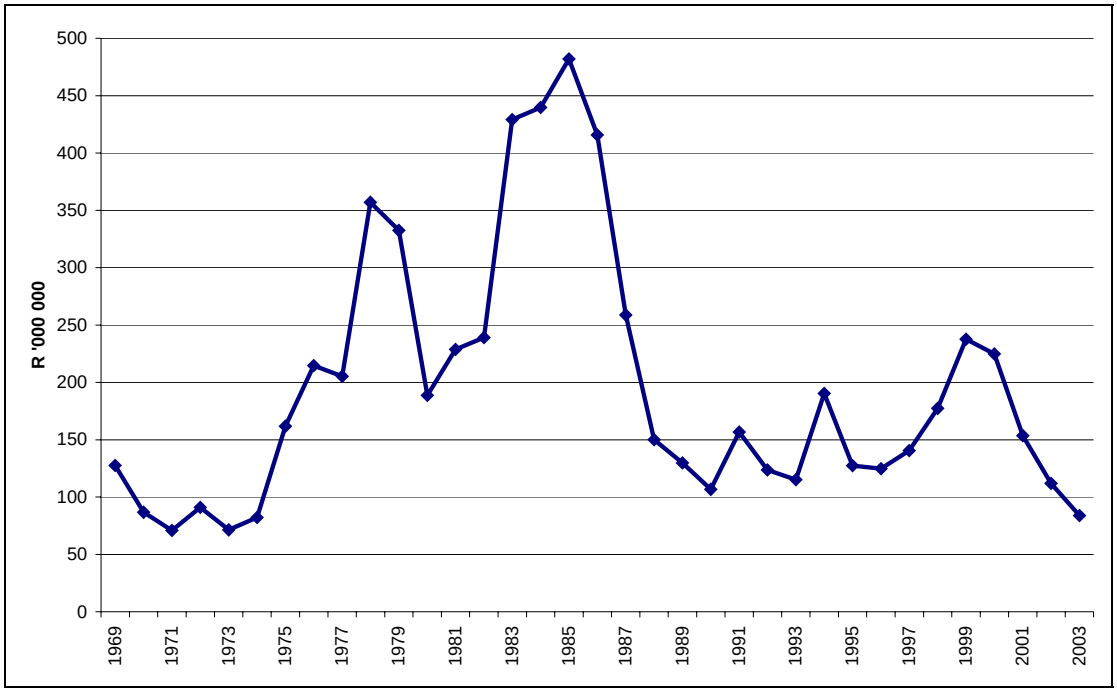



**Figure 2.3: Real value of mohair produced in South Africa from 1967-2004**

*Source: Mohair South Africa, 2004*

In recent times global mohair production has declined from a high of 26 million kg in 1988 to 6.55 million kg in 2003. This decline is depicted in Figure 2.2. Although the production of mohair in South Africa has not escaped the sharp decline in production (from 12.2 million to 3.95 million kg – a decline of 67%), the steepest declines in production have been in the Turkish clip (a decline of 91%), the United States clip (a decline of 88%) and the Australian clip (a decline of 75%). In South Africa this reflects the impact of volatile prices (as depicted in figure 2.3), high production costs, stock theft, losses to vermin, poor profitability and a decline in the size of the prime production area due to increased game farming since the late 1990s (Mohair South Africa, 2004).

Mohair is principally an export fibre and over the past four years exports of mohair have amounted to an average of about 5.7 million kilograms, which includes imported hair that is re-exported. Figure 2.4 summarises South African mohair exports in recent years (Mohair South Africa, 2004).

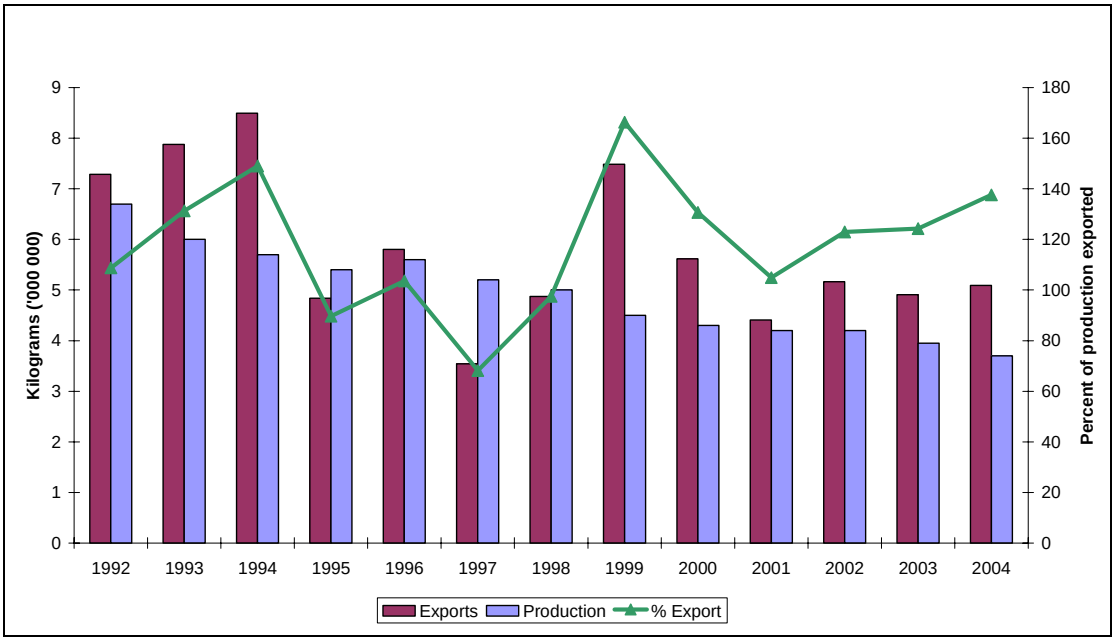



**Figure 2.4: South African mohair production and exports from 1992-2004**

*Source: Mohair South Africa, 2004*

South African mohair is primarily exported to Europe and Asia, with Europe importing approximately 57.5% and Asia 41.3% of South African mohair exports. Table 2.1 below summarises the exports of South African mohair to Europe and Asia respectively, as a percentage of the total exports of South African mohair. Mohair exports from South Africa are also very concentrated; with three countries, the United Kingdom, Italy and France, buying 51% of mohair exported from South Africa. If Taiwan and India are included 77% of mohair exports from South Africa are bound for only five importing countries (Mohair South Africa, 2004).

**Table 2.1: Export of South African mohair to Europe and Asia as a percentage of the total exports (mass) of South African mohair (1999-2004)**

| Destination | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|
| Europe | 62.12 | 64.47 | 46.82 | 56.66 | 42.71 | 49.27 |
| Asia | 37.62 | 34.64 | 51.57 | 42.59 | 57.22 | 49.56 |
| **TOTAL** | **99.74** | **99.11** | **98.39** | **99.26** | **99.93** | **98.83** |

*Source: Mohair South Africa, 2004*

## 2.3 PRODUCTION AREA

During the boom period of mohair in the early 1900s Angora goat farming spread over the whole of South Africa. The Eastern Cape Province, however, remains the premier and most suitable Angora farming area where the majority of South Africa's Angora goats are concentrated. Currently, the majority of mohair producers in South Africa are concentrated in an area within a radius of 300 km from Port Elizabeth with boundaries that expand and contract in reaction to changes in the price of mohair (Van der Westhuysen, Wentzel & Grobler, 1988). The number of South African mohair growers is estimated at 1200-1500.

## 2.4 PRIMARY MARKETS FOR SOUTH AFRICAN MOHAIR

During 1835, Britain started to spin mohair and with the advent of the industrial revolution an extraordinary demand for mohair had arisen amongst British textile manufacturers. During those years, mohair reigned supreme in the field of plush upholstery materials for homes, theatres and trains, but also found good outlets in various lines of clothing for men and women. During the development phases of the global mohair industry Britain was the leading consumer of mohair products in the world and the first official exports of South African mohair to Britain were recorded in the 1850s. Britain, which at times purchased as much as 90% of the South African clip, exported the spun yarn to Germany and Central Europe (Pringle & Dockel, 1989).

With time many other countries developed both markets for and the capacity to process mohair and consequently the export destinations for South African mohair expanded. Currently the primary consumers of South African mohair are located in Asia, Continental Europe and the United Kingdom. Table 2.2 below details the percentages of total exports of South African mohair to the respective export destinations. In recent times Asian countries, primarily China, Taiwan and Japan, have become the primary consumers of South African mohair, whilst the United Kingdom's share in South African mohair exports has diminished but remains significant. Continental Europe, primarily France and Italy, are currently relatively stable consumers of South African mohair.

**Table 2.2: Export destinations for South African mohair (1999-2003)**
**Percentage of total export by weight**

| Region | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|
| United Kingdom | 33.29 | 20.75 | 10.09 | 15.31 | 11.30 | 10.45 |
| Continental Europe | 28.83 | 43.72 | 36.74 | 41.35 | 31.41 | 48.40 |
| Asia | 37.62 | 34.64 | 51.57 | 42.59 | 57.22 | 40.06 |
| Other | 0.26 | 0.89 | 1.61 | 0.74 | 0.07 | 1.10 |
| **Total** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** | **100.00** |

*Source: Mohair South Africa, 2004*

## 2.5 CHARACTERISTICS OF THE MOHAIR SUPPLY CHAIN

### 2.5.1 Production

Angora goats are generally shorn twice a year, usually during March/April for the so-called summer clip and August/September for the winter clip (Van der Westhuysen, Wentzel & Grobler, 1988). After shearing, the mohair is classed on the farm into a number of classes broadly based on the quality of the mohair. Mohair quality is generally adjudged based on the length, fineness, style and character and degree of contamination of the mohair. After classing the mohair is baled and either sent to a broker to offer for sale or to a merchant, who buys the mohair, re-classes it and then also offers it for sale to mohair buyers.

Mohair production in South Africa is characterised by low levels of concentration with a relatively large number of producers all producing relatively small quantities of mohair. In the survey conducted in 2003, it was evident that mohair is generally produced on mixed farms where farmers farm with a number of different enterprises. The most significant other farming activities that mohair producers partake in include the production of wool, mutton, beef, and to a lesser extent game, Boer goats, ostriches and crops. The farmers that participated in the survey had an average annual production of 6 782 kg with the smallest annual clip being around 700kg and the largest around 35 000 kg. The income from mohair contributes, on average, 44% to the total annual income of producers that took part in the survey. The smallest contribution to the total annual average income of producers is 5% and the largest contribution is 92%.

The producers that participated in the survey indicated that the open cry auction system is the main trading platform, with an average of 95.91% of the total volume marketed by the respondents passing through the auction. It is interesting to note from Table 1.3 that over the past five years there has been a general decline in the volume and value of the mohair passing through the auction. It is also interesting to note that the decline in the value of mohair passing through the auction is significantly more than the decline in the volume of mohair passing through the auction. It is conspicuous that although the volumes traded through farm gate sales, contracts and forward selling have grown the volumes are relatively low in comparison to the value of the mohair passing through these trading platforms. This would lead one to conclude that the higher value (better quality) mohair is increasingly passing through other trading platforms and not through the auction. Volumes and values of mohair, as depicted in Table 1.3, traded through farm gate sales, contracts and forward selling confirm this observation.

The respondents point out that good profitability, six monthly income, the grazing conditions of their farms, the grazing habits of Angoras and sentiment would induce them to continue producing mohair. The reasons why producers would consider suspending the production of mohair include labour problems, losses as a result of vermin and stock theft, volatility and general instability in mohair prices and poor profitability.

### 2.5.2 Brokers

The primary function of a broker is to assemble wool and mohair from the producing areas, to prepare and to offer the wool and mohair for sale on behalf of the producers and to organize the shipment of the wool and mohair where and if necessary on behalf of the buyers. Preparing mohair for sale implies:

Verifying the classing of the mohair by expert appraisers at each of the respective brokerage firms and also through independent testing by South African Wool Testing Bureau; exhibiting samples of the mohair to be offered for sale for inspection by mohair buyers; and preparing a catalogue of all the mohair that will be available for sale on a specific auction at which all the technical details (length, fineness, style and

character and degree of contamination of the mohair) of each lot of mohair are specified.

All of South Africa's wool and mohair brokers are located in Port Elizabeth, with the larger firms having networks that extend throughout the wool and mohair producing areas of South Africa. The two largest brokerage firms in South Africa prepare roughly 80% of all South African mohair for sale on behalf of mohair producers. The remaining 20% of the mohair that is prepared by brokers is undertaken by a varying number of smaller brokers and merchants. Following the deregulation of mohair marketing in the 1990s, the number of mohair brokers has increased from the single broker permitted under the one channel marketing system, to three, with the establishment of three additional brokerage firms (Loots, Personal communication, 2004).

The two large brokerage firms that handle the majority of the mohair clip are distinguished from the smaller brokerage firms by the services that the two large firms are able to offer. Besides serving as wool and mohair brokers these two firms also render support services to producers by acting as brokers for livestock, by having retail outlets from which they sell farm suppliers, by offering real estate services and by offering a comprehensive advisory service to their producers that include general production advice, stud services (ram purchases), flock classing, shearing shed visits, clip preparation and clip accreditation, transport co-ordination, dissemination of related market information, shearing services and fleece testing.

### 2.5.3 Merchants

Mohair merchants generally buy mohair directly from producers on the farms before the mohair is sent to brokers. Producers are inclined to use this avenue, especially in instances where they are experiencing cash flow problems and cannot wait for the next mohair sale. Merchants then re-sort the mohair with greater care than what it was sorted with on the farm and by combining a number of producer's clips and re-sorting these, the merchant is able to compile threshold quantities of certain types of mohair. When the merchant then offers the mohair for sale either on the public auction or to buyers, the net realisation from the clips as a whole is generally higher as a result of

more uniform sorting and consequently higher prices. Currently very few merchants are active in the South African mohair supply chain and very low quantities of mohair pass through this channel.

### 2.5.4 South African Wool and Mohair Exchange

The South African Wool and Mohair Exchange facilitates the open cry auction between the producers and buyers of wool and mohair in South Africa. Brokers act as intermediaries who prepare and offer the wool and mohair for sale on the auction. Definite peak periods in shearing have established two discernable marketing seasons where open cry auctions are held on a bi-weekly basis. The summer auctions run from February to June and the winter auctions from August to December. Mohair is sold by catalogue, prepared by the respective brokers, as mentioned above.

South African wool and mohair buyers and brokers established the South African Wool and Mohair exchange. Initially the members of the exchange consisted of a federation of brokers and a federation of buyers and the constitution of the exchange dictated that neither the buyers nor the brokers had power over each other. During the 1950s there were many buyers and many brokers and there was an exchange in Durban, East London, Port Elizabeth and Cape Town. The institution of the Wool and Mohair boards in the 1970s and the resultant one channel marketing system led to the demise of a number of brokerage firms. In the end only one brokerage firm remained in the form of the BKB cooperative. During 1978 the BKB cooperative made an application to change the constitution of the South African Wool and Mohair exchange. The proposed changes resulted in the BKB cooperative replacing the federation of brokers and buyers. All the wool and mohair produced in South Africa was also to be sold in Port Elizabeth (Starkey, Personal communication, 2002).

When the single channel marketing system was abolished in the mid 1990s the Mohair Board was disbanded and the Mohair Trust, Mohair South Africa and a new brokerage firm, Cape Mohair and Wool, were established using funds from the Mohair Board. The new brokerage firm was established to handle only mohair and was therefore allowed to sell mohair in the South African Wool and Mohair exchange since it would not be in direct competition with, BKB, the only broker member

exchange. This was despite the fact that Cape Mohair and Wool was not a broker member of the exchange. The BKB cooperative therefore handled the whole wool clip and Cape Mohair and Wool handled the whole mohair clip (Starkey, Personal communication, 2002).

The progression of the free market led to the BKB cooperative entering the mohair market and Cape Mohair and Wool entering the wool market. Both these brokerage firms therefore became fully-fledged wool and mohair brokers with the BKB cooperative being the dominant wool broker and Cape Mohair and Wool being the dominant mohair broker. With the advent of the free market came a proliferation of brokerage firms. Since these brokerage firms were, however, not members of the exchange they were not permitted to sell at the auction held at the exchange. In 1998/99 the smaller brokers made an application to be allowed to sell at the exchange; this application was, however, turned down and the smaller brokerage firms still hold a separate auction outside the exchange (Starkey, Personal communication, 2002).

The South African Wool and Mohair Exchange is comprised of two components. The first is the Wool and Mohair Exchange of South Africa Association. This association runs the affairs of the South African Wool and Mohair Exchange and pays a rental fee to the Wool and Mohair Exchange Limited Company, the second component, for the use of its buildings. The Wool and Mohair Exchange of South Africa Association has a management committee consisting of four buyers, who are four representatives from the South African Wool and Mohair Buyers Association (SAWAMBA), and four individuals representing the BKB cooperative, the only brokerage company that is a member of the exchange (Starkey, Personal communication, 2002).

### 2.5.5 Buyers

All of the major buyers of wool and mohair in South Africa are also located in Port Elizabeth. Currently there are six active buyers of mohair and like the rest of the industry the concentration in this sector is very high with the two largest buyers buying roughly 68% and the largest three buyers buying roughly 87% of the mohair that is sold on the auction. Only one of these buyers is an exclusive buyer of mohair, the remaining five buyers are buyers of both wool and mohair. Buyers vary in status

from being the first element in vertically integrated mohair processing firms to being contact buyers to being agent buyers. The principal objective of buyers is the procurement of wool and mohair, either for clients that process wool and mohair or for the buyers' holding companies that process wool and mohair (Loots, Personal communication, 2004).

All the South African mohair buyers procure their mohair both from within and outside South Africa. The procurement of mohair outside South Africa is primarily from the United States of America and Australia. The strategies that buyers employ to procure wool and mohair in South Africa include the open cry auction as facilitated by the South African Wool and Mohair exchange, contracts with producers and/or merchants and out of hand sales. Currently, the open cry auction dominates as the primary source of mohair for buyers, with approximately 80% of procurement, depending on the company, taking place via the auction (Loots, Personal communication, 2004).

### 2.5.6 Primary processing

The properties and combinations of properties determine the purpose for which a specific type of mohair will be suitable (Van der Westhuysen, Wentzel & Grobler, 1988). It is noted that wool and mohair can be processed according to two different systems, each with a unique set of machinery, depending mainly on the length of the fibre and the end product for which it is intended. In the mohair supply chain these processes are divided into three components – top making, spinning and weaving.

#### *2.5.6.1 Top makers*

Currently there are six major top makers in the world that process mohair, amongst other fibres, into tops. Two of these top makers are located in South Africa, two in Great Britain, one in France and one in Spain. The industry is, however, dominated by three of these top makers (two South African and one French company) who process the majority of the world production of mohair. Clearly the primary processing of mohair is characterised by high levels of concentration, largely as a result of scarcity

and cost and return pressures along the mohair supply chain. Top making/combing facilities are also being developed in certain Asian countries.

Scouring and top making is the first step in the processing of mohair. Mohair buyers procure mohair for top makers via the open cry auction, contracts or via farm gate sales per instruction from top makers. After the mohair has been bought by the buyers, the mohair bound for primary processing outside South Africa is prepared for shipping by one of the brokers, as discussed previously, and shipped to the top makers' mills abroad. Mohair bound for processing within South Africa is transported from the point of storage to the processing mills of the two top makers in South Africa for scouring and the making of tops. Top makers receive mohair in bales as classed and packaged by producers (or brokers who compile "bin" bales) according to mohair classing standards. The mohair from different producers is then pooled together to form a "lot" that has certain specifications as required by clients. For top makers to produce a top with certain specifications mohair of varying fineness (micron) and length are blended together to yield a specified average length and micron distribution. The identifiable source (producer and/or country of origin) of mohair therefore generally disappears at the top making stage when mohair of like quality is pooled together to compile batches of sufficient size and according to average specifications to pass through processing machines (Loots, Personal communication, 2004).

Longer fibres are processed according to the worsted system where the fibres are combed to eventually produce a sleek yarn. Shorter fibres are processed according to the woollen system where the fibres are not combed at all and eventually produce a bulky or heavy yarn (Alpha Tops, 2004). Mohair tops are specified according to their average fibre length and micron distribution and spinners acquire tops to spin yarn based on these specifications.

Processing according to the worsted system involves scouring, washing and cleaning, carding, webbing and combing of the mohair into tops that are then drawn into rovings that are then spun into yarn. This yarn is suitable for knitting and weaving of suiting, soft apparel and knitwear. Processing according to the woollen system involves scouring, washing and cleaning, carding, webbing and drawing into rovings

that are then spun into yarn. This yarn is suitable for the knitting and weaving of blankets, coatings, scarves and hand knitting and carpet yarns (Alpha Tops, 2004).

#### *2.5.6.2 Spinners*

Spinning the mohair into yarn is the next step in the processing of mohair. According to both the worsted and woollen systems of processing the mohair tops or the webbed scoured mohair are drawn into rovings that are then spun into different types of yarn that are suited to different uses. As noted previously the properties and combinations of properties determine the purpose for which a specific type of mohair will be suitable (Van der Westhuysen, Wentzel & Grobler, 1988). Generally yarns are spun for use in apparel, upholstery, flat velours, and knitting (hand and machine) yarns.

At the spinning stage the mohair tops are either blended or used as pure mohair and spun into yarn based on specifications as required by weavers and/or knitters. Mohair tops are not only spun into pure mohair yarns but are also blended with a number of other fibres to produce yarn according to the weaver and/or knitters specifications. As a result of mohair's excellent ability to enhance other fibre's attributes mohair is generally blended with other natural fibres like wool and alpaca and synthetic fibres like viscose, acrylic and nylon in varying quantities to yield a yarn with a specific finish as specified by weavers and/or knitters. Blending of mohair with other, more cost effective, fibres is also helpful to processors in managing the cost of the final products. Mohair can also be blended along with other fibres after being spun into yarn by twisting different yarns together. The method of blending is dependant on finish that the knitters and/or weavers desire (Loots, Personal communication, 2004).

Yarns are specified according to their yarn count. The yarn count is the length of yarn (in kilometres) that can be spun from a single kilogram of top. The lower the yarn count the coarser the yarn and higher the count the finer the yarn and the various knitters and/or weavers acquire yarn based on these specifications. Table 2.3 below details the types, count ranges and composition of different yarns offered by Mohair Spinners South Africa, a primary South African spinner of mohair (Loots, Personal communication, 2004).

Following the high levels of concentration at the top making stage of processing, the levels of concentration drop significantly from the spinning stage onward through the mohair chain. From six mohair top makers globally, the number of spinners that use mohair, amongst other, fibres to spin yarn, increases to several hundred. This number varies with trends in fibre uses, which are ultimately determined, by trends in consumer demand. Spinners are mainly located in Europe (Great Britain, France, and Italy) and Asia (Taiwan, Malaysia, Vietnam and Japan) (Loots, Personal communication, 2004).

**Table 2.3: Yarn types, count ranges and composition**

| Type | Count range | Composition |
|---|---|---|
| Weaving yarns: Apparel | Nm 1/15 – 1/44 | Mohair, Mohair/Wool and others |
| Weaving yarns: Upholstery | Nm 1 – 1/22 | Mohair, Mohair/Wool, 100% Wool and others |
| Weaving yarns: Upholstery, Velours | Nm 2/24 – 2/32 | Mohair, Mohair/Viscose |
| Knitting yarns | Nm 15 – 32 | Mohair, Mohair/Wool, 100% Wool and blends with acrylic, nylon etc |
| Loop and hand knitting yarns | Nm 2 – 12 | Mohair, Mohair/Wool, 100% Wool and blends with acrylic, nylon etc |

*Source: Stucken Group, 2004*

Yarns suitable for the "home knitting" industry are packaged at this stage of the process and offered for sale in retail outlets as knitting yarn. Speciality yarns for weaving cloth, upholstery and velours, and knitting of speciality knitted products are for sale to weavers and knitters.

### 2.5.7 Late stage processors

#### *2.5.7.1 Weavers and knitters*

Weaving or knitting is the final stage in the processing of mohair. Weaving entails the interlacing of yarns to make a fabric. Once yarn has been received from the spinner and checked for quality, it is wound to a measured length in preparation for weaving. Each measured cone is then placed in a sequence determined by the order of colouring in the pattern to be woven. Cloth is produced on a loom by propelling one yarn, the weft, across a set of warp yarns being lifted in series. Dependent on the weave pattern,

the yarn colouring and number of warp and weft threads per centimetre relative to the fineness of the yarn, endless permutations of cloth designs are possible (William Halstead, 2005).

Yarn can also be knitted by means of needles on circular machines to produce tubular/stocking fabric or flat bed machines to make individual pieces or fully-fashioned garments (Alpha Tops, 2004). Depending on the final product and its desired attributes (such as finish, fineness, colouring, weight, etc.) weavers or knitters have specifications for spinners regarding the yarn they require to weave or knit a certain type of fabric or knitted product.

The level of concentration in the weaving and knitting industry is even lower than in the spinning industry with many thousands of weavers worldwide. Large numbers of small scale and home based industries that weave a variety of products contribute to the low levels of concentration in the weaving and knitting industry. As with the whole mohair chain, the use of yarns containing mohair in the knitting and weaving industry varies with trends in fibre uses, which are ultimately determined, by trends in consumer demand (Loots, Personal communication, 2004).

Like spinners, weavers are mainly located in Europe (Great Britain, France, and Italy) and Asia (China, Taiwan, Malaysia, Vietnam and Japan). Currently there are few weavers of notable size in South Africa and numerous small-scale knitting and weaving industries that cater for the craft market (Loots, Personal communication, 2004).

### 2.5.8 Manufacturers

As a result of the diverse range of products that can be manufactured using mohair, manufacturers that make final products containing mohair vary greatly. Final products that contain mohair vary from exclusive apparel to knitted products to velour, curtaining and upholstery and the following section overviews the manufacturers of these products.

#### *2.5.8.1 Exclusive apparel*

The mohair fibre lends low weight, soft touch, brilliant colour and coolness, all highly desirable attributes, to garments. Consequently woven cloth containing mohair is widely used in exclusive apparel like tailored suits, skirts and formal jackets that are manufactured either by speciality manufacturers or bespoke tailors. Exclusive apparel is generally of exceptionally high quality and holds a small volume but high value niche at the very top end of the clothing spectrum.

Speciality manufacturers produce exclusive, high quality, personally made and ready-to-wear apparel usually marketed under exclusive brand names like Hugo Boss, Ermenegildo Zegna, Agnona, Armani etc. These speciality manufacturers procure cloth, which has been made to specification by specialist weavers (sometimes in vertical operations), which is then mass tailored into ready to wear garments to be sold in retail outlets. The design of the garments and the nature of the fabric or cloth used for making these exclusive garments is determined by fashion trends and the speciality manufacturers adjust the design and cloth seasonally to meet the demands of selective and very fashion conscious consumers. Many of these manufacturers have, in recent times, also diversified by adding “made to measure services” to their product offering by tailoring semi-finished suits to the specific measurements of their clients. Most of these speciality manufacturers are located in Europe and Asia, notably in Italy and Japan (Loots, Personal communication, 2004).

Bespoke tailors also manufacture exclusive apparel products. Bespoke tailoring is the traditional process of custom making clothing, especially suits, by hand where the suit is designed, hand-cut from original cloth and hand tailored to the exact measurements of the client. A custom tailored suit is the pinnacle of exclusivity in clothing and is made to the exact requirements of the client taking up to 80 hours to complete. For the making of a custom tailored suit bespoke tailors offer clients a choice from thousands of fabrics suitable for all occasions in different colourings, patterns and weights woven from primarily natural fibres. The custom tailoring of a suit entails ascertaining the intended use of the suit, the style, the features, the best cloth to use, production of a “master plan”, forward fitting, advanced fitting, finishing and final approval. Bespoke tailors are concentrated in Europe and the Far East in locations like

London, Milan, Hong Kong, Tokyo, Shanghai and Beijing (Loots, Personal communication, 2004).

#### *2.5.8.2 Knitted and brushed products*

The inherent properties of the mohair fibre such as its lustre, flame retardancy, durability, elasticity, moisture management characteristics, resistance to soiling, strength and thermal properties means that it is very well suited to use in a number of knitted and brushed products made from mohair containing yarn. These knitted products include jerseys, vests, sweaters, socks, blankets, throws, scarves, hats, beanies and shawls. Many of these products are produced by many thousands of enterprises varying in size from sole proprietors who hand knit items to large-scale industries who knit products on an industrial scale. As a result of the diversity in producers of knitted and brushed products the quality of the final products is highly variable and the products are consequently found in different outlets varying from community craft shops to exclusive branded boutiques (Loots, Personal communication, 2004).

Depending on the final product and its desired attributes (such as finish, fineness, colouring, weight, etc.) knitters procure specific yarns from spinners to knit a certain product. Like many other products of a similar nature fashion trends ultimately determine the design and type of yarn used in the product.

#### *2.5.8.3 Upholstery and carpeting*

Mohair's characteristics also make it suitable for the manufacturing of velour, upholstery and carpeting to be used in products ranging from car seat upholstery to wall-to-wall carpeting in luxury cruise liners to furniture upholstery and curtaining.

Velour pile fabric is a luxurious textile fabric that is closely woven and has the soft feel of velvet. The mohair fibre is well suited to the manufacturing of velour and lends a unique texture and lustre to the textile that make it sought after. Velour is generally used in the upholstering of exclusive pieces of furniture.

Over and above mohair's aesthetic appeal its functional qualities like flame retardancy, resilience, durability, elasticity and resistance to soiling also make it especially desirable for use in upholstery and carpeting. Mohair containing yarns are commonly used for the manufacturing of carpeting and upholstery for luxury boats, cruise liners, cars and airplanes where especially the flame retardancy and durability characteristics of mohair are very desirable (Loots, Personal communication, 2004).

Due to the specialized and sophisticated nature of manufacturing velour and certain carpeting and upholstery, their production is limited to relatively large and sophisticated firms. These types of firms are mainly found in Europe. Conversely, some curtain and carpet manufacturing, much like knitted and brushed products, can be produced by many thousands of enterprises varying is size from sole proprietors who hand make items, to large-scale industries who manufacture products on an industrial scale. This diversity in manufacturing again implies that the quality of the final products is highly variable and the products are consequently found in different outlets varying from community craft shops to exclusive branded boutiques (Loots, Personal communication, 2004).

#### 2.5.8.4 Retail

The retail sector for products containing mohair varies from home industries that offer craft products to exclusive boutiques that offer custom tailored products. Retail outlets for products that contain mohair include:

- Manufacturer owned designer branded retail stores that offer exclusive men's and ladies' wear products.
- Bespoke tailors who custom make garments, especially suits, to the measurements and requirements of individual clients.
- Chain stores that offer knitted and brushed products like blankets, shawls, throws, scarves, etc.
- Exclusive furniture, upholstery and carpet manufacturers that offer custom making services for furniture, upholstery and curtaining, sometimes, along with an interior decorating service.

- Chain stores that offer furniture and upholstery products.
- Industrial markets selling anything from seat coverings to industrial socks.
- Craft shops and web based businesses offering handcrafted products ranging from socks to scarves to carpets.
- There are countless retail outlets for products containing mohair; all of which are relatively widely distributed throughout the primary economic zones of the world.

## 2.6 CONCLUSION

Champion and Fearne (2002) noted that the apparel wool supply chain is one of the more elongated and complicated supply chains of all food and fibre supply chains. Like the wool supply chain the mohair supply chain too is characterised by numerous transformation processes, long lead times and geographical dispersion across the world. This chapter has described the South African mohair supply chain from production along the supply chain to the various retail outlets detailing the function of each of the members of the supply chain. All of these members of the supply chain consciously or unconsciously work together to generate sales of products containing varying quality and quantities of mohair to millions of selective, fashion and price conscious consumers throughout the world.

# CHAPTER 3

# MOHAIR – COMMODITY OR PRODUCT?

## 3.1 INTRODUCTION

Champion and Fearne (2002) argue that an inappropriate marketing system for an item results in numerous inefficiencies. Circumvention of these inefficiencies is achieved by choosing an appropriate marketing system based on the "unit type" (whether an item can be considered a product or a commodity) of the item to be traded. This chapter seeks to explore the concept of the "unit type" of an item and how it relates to the marketing of the specific item and why identifying the unit type of an item is important. The chapter also explores arguments around the central propositions of the dissertation relating to mohair's unit type and whether mohair can be termed a commodity or a product.

## 3.2 IDENTIFYING THE UNIT TYPE

Champion and Fearne (2002) introduced the concept of the unit type when researching the marketing attributes of wool. The unit type classifies an item, based on its attributes, either as a commodity or as a product. Determining the unit type of an item is an important guide in ultimately determining a suitable marketing system for the item.

Barker (1992) defines commodities as "materials in their natural state, which are often as 'termed primary' commodities". This definition characterizes commodities as being homogenous without any differentiating attributes that are tailored to suit consumer wants and needs. Commodities are also characterized by the fact that they are exclusively physical materials, are available from many sources, are produced in large quantities and can be readily and objectively described, which makes them ideally suited to sale without prior physical inspection. The purchasing decision of commodities is largely driven by price, which is subject to the availability of the commodity.

Reardon and Timmer (2005) use the term "commodity" to mean "standardized agricultural products that have had little or no processing and/or raw materials for further processing…unbranded…". They note that a given commodity, like maize, is minimally differentiated and buyers incur minimal costs in switching among suppliers. By contrast, "products" are used to refer to subsets of a given commodity, differentiated by some attribute, such as organic or not, processed or not, branded or not, variety A versus variety B.

Conversely, products constitute more than physical materials and include intangible attributes. Kohls and Uhl (2002) define a product as "a bundle of physical, service and symbolic attributes that satisfies consumers' wants and needs". The mention of consumer wants and needs in this definition sets products apart from commodities in that commodities are directed at the end-user as opposed to products which are merely sold into a market without regard for the wants and needs of consumers. Products are generally highly differentiated (in response to the heterogeneous needs and wants of consumers) and not available in large quantities or from many sources. The purchasing decision for products is primarily driven by the value that the consumer places on the item and not by price. The influence of price in the purchasing decision of a product diminishes as the degree of differentiation increases and the degree to which the consumers' wants and needs are satisfied.

The greatest difference between products and commodities, however, is that commodities are merely physical materials as opposed to products that are also characterized by intangible attributes such as service, safety, image, standards and guarantees that may be of value to the consumer. Products can be directed towards specific consumer segments that allow the creation of brands, from which the producer is able to capture monopoly profits; in contrast to the producer of commodities, who sells his goods in a market without any prior knowledge of consumer wants and needs and has to be a price taker as a result of the characteristics of the specific market (Champion & Fearne, 2000).

Altmann (1997) develops the idea of satisfying the needs and wants of the consumers by stressing that a product marketing system must primarily facilitate the solving of the problems of the consumer, then those of the intermediaries, and finally those of

the producer. This approach is in direct contrast to a commodity marketing system where the producer determines the nature of what is produced without any consultation with intermediaries or consumers. The formulation of product characteristics must, therefore, be shared between the participants within the specific marketing system through relationships and communication between the participants. In commodity markets, relationships and therefore the level of communication between the stakeholders, is weak, whereas in a more coordinated or integrated marketing system it is potentially strong. Table 3.1 below summarises the differences between commodity and product marketing systems.

**Table 3.1: Differences between commodity and product marketing systems**

| Characteristics | Participant | Marketing system for: | |
|---|---|---|---|
| | | Product | Commodity |
| Priority in determining value/attributes | Consumer<br>Middlemen<br>Primary producer | High<br>Medium<br>Low | Low<br>Medium<br>High |
| Role of information | | Determines quality | Provides description |
| Relationships required in the market | | Strong and multi-faceted | Weak and trading orientated |
| Market type | | Differentiated/Un-predictable demand | Homogenous/Predictable demand |
| Industry structure | | Competition between supply chains | Competition between individual firms |

*Source: Champion and Fearne, 2001*

The unit type of an item guides the choice of the marketing system for the item and it is therefore of significant importance that the unit type be correctly determined so that an appropriate marketing system can be chosen to ensure optimal returns for all players in the supply chain. Various authors have commented on the consequences of a mismatch between the unit type of an item and its marketing system. Champion and Fearne (2001, 2002) note that when a product is treated as a commodity or *vice-versa*, a mismatch and resultant inefficiency occurs, with value lost through the inability to exploit or develop non-material aspects of the product such as service and brand, since a commodity system does not allow efficient communication of these attributes and their implications.

Peterson, Wysocki and Harsh's (2001) thoughts on the consequences of a mismatch between the attributes of an item and its marketing system pertain to the costliness of the mismatch or coordination error. A marketing system is usually too costly when "value" is lost as a result of a mismatch between the "unit type" of the item and the marketing system or when the marketing system creates more operating costs than the cost reduction in coordination errors it is designed to control.

### 3.2.1 Is mohair a product or a commodity?

This dissertation is seeking to analyse the South African mohair marketing system in the evolving global agribusiness environment. With this goal in mind the choice of the most appropriate marketing system for South African mohair is dependant on correctly identifying mohair's unit type, whether mohair should be termed a commodity or a product, since the unit type of an item is an important guide in determining the most appropriate marketing system for the item to ensure optimal returns for all players in the supply chain.

Based on the research of Champion and Fearne (2000), who investigated aspects of supply chain management for the wool industry, mohair, like wool, sits in a peculiar place when attempts are made to define it as either a product or a commodity. Mohair is a raw material produced in an animal production system and shares some characteristics with other animal-based and agricultural systems. As a fibre product, however, mohair competes in the textile and apparel, rather than food market. Some mohair types compete at high price – points where choices for consumer spending may not be between garments, but are set against other discretionary consumer spending such as holidays, entertainment and consumer electronics. Other mohair types compete at lower price points. Coupled to all these characteristics, is mohair's presence in a market where fashion and other intangible product characteristics appear to potentially have a significant influence on purchasing decisions.

The following section describes various arguments on the unit type of mohair. The criteria used in the arguments pertain to the size of the mohair clip, the properties of mohair, the end uses of mohair, the tangible and intangible attributes of mohair and mohair's historical unit type.

### 3.2.2 The size of the mohair clip

When considering mohair's unit type the size of the mohair clip is a point of departure. The global mohair clip is relatively small, making mohair a relatively scarce fibre that ranks amongst the very scarcest fibres in the world. Based on the global production figures of luxury fibres, summarised in Table 3.2, mohair is scarcer than well known luxury fibres like cashmere, angora and alpaca and only vicuna, yak wool and camel hair are scarcer than mohair.

**Table 3.2: Estimated world production of luxury fibres (2003)**

| Fibre | Source animal | World production (Tons) | Major producing regions |
|---|---|---|---|
| Vicuna | South American camelids | 22 | Peru |
| Yak wool | Yak bovine family | Estimated < 1 000 tons | Himalayas |
| Camel hair | Camels | 2 000 | China |
| Mohair | Angora goat | 6 550 | South Africa, Lesotho |
| Alpaca | South American camelids | 8 000 | Peru |
| Angora | Angora rabbit | 10 000 | China |
| Cashmere | Cashmere goat | 16 000 | China, Mongolia, Iran, Afghanistan |
| Wool | Sheep | 1 200 000 | Australia, New Zealand |

*Source: RIRDC, 2005; FAO, 2005; Mohair South Africa, 2004*

Seen in the context of the global textile industry global mohair production amounts to an estimated 0.53% of the total annual global production of all animal fibres and 0.01% of the total global consumption of all textile fibres. When the South African mohair industry is considered in the context of the global consumption of textiles the industry constitutes a mere 0.007% of the annual global consumption of all textile fibres. The relative scarcity of mohair is also on the increase (i.e. it is becoming scarcer) and since the early 1990s mohair's share of global fibre consumption has declined from 0.06% to 0.01% as illustrated by Figure 3.1 below.

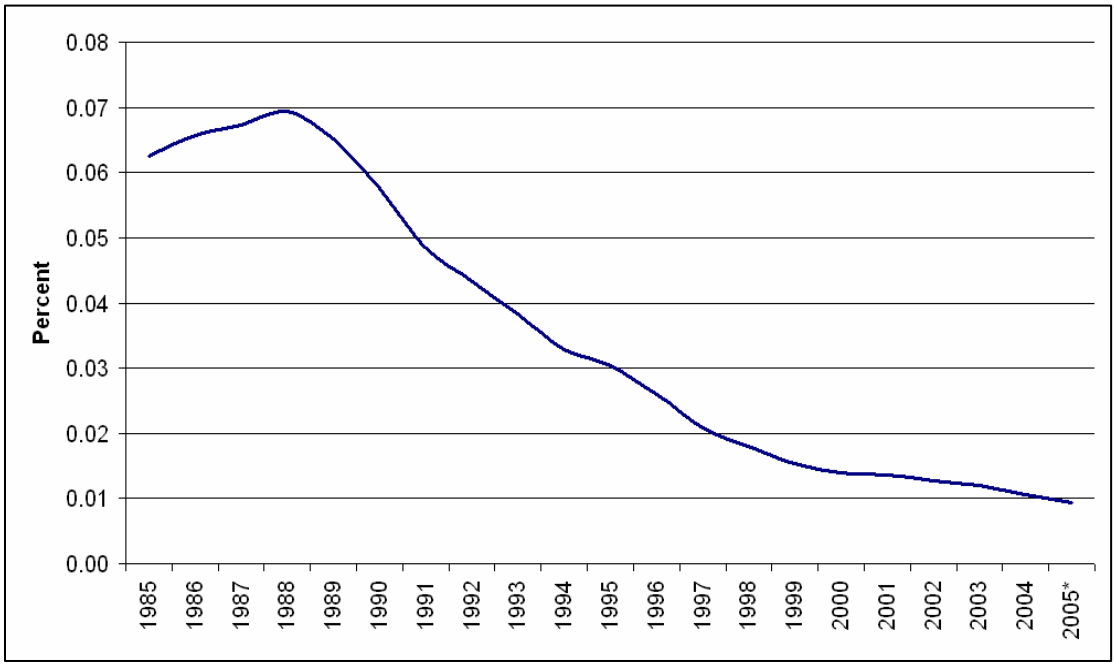



**Figure 3.1: Global mohair production as a percentage of global fibre consumption from 1985-2005.**

*Source: ICAC, 2004; Mohair South Africa, 2004*

Relating the relative size of the mohair clip to mohair's unit type it can be concluded that, based on the size of the mohair clip, mohair can be termed a "product" since it is not produced in large quantities. This is clearly demonstrated by the scarcity of mohair relative to other textile fibres.

### 3.2.3 The properties of the mohair clip

Unlike manufactured products where production can be strictly controlled, mohair, like many products of nature, is highly variable. Mohair is not a homogenous product and various factors lead to the diversity within the global clip.

The fleece that Angora goats produce is highly variable in physical characteristics and is primarily dependant on the genetic make-up, age, nutritional history and gender of an animal. To account for the variability in the mohair fleece classing standards are used to class mohair into discrete homogenous classes. The South African classing standards for mohair classing are recognized as the world benchmark for mohair and

in essence there are 342 potential types of mohair in the South African classing system (Van der Westhuysen, Wentzel & Grobler, 1988). The South African classing standards for mohair are aimed at achieving uniformity in the classing of mohair and are based on the regulations laid down by South African law (Agricultural Product Standards Act: Act 119 of 1990). The purpose of the classing standards is to class each lot as evenly as possible according to the physical characteristics of mohair, with the correct content marks on bales and bags (Mohair South Africa, 2004).

Fineness, length, style and character, and general appearance are the physical characteristics which play an important role in the classing of mohair. Fineness is the most important physical characteristic when mohair is classed. The finest hair is obtained from kids that are shorn for the first time at the age of six months. As the animal grows older, the hair becomes coarser.

Length is the next important physical characteristic. The ideal length for mohair is from 125 mm to 150 mm and processors prefer mohair to be not too short or too long. In each class the length should not differ with more than 25 mm. Length is determined by the inter-shearing period and the best length is usually achieved with a six-month inter-shearing period (Mohair South Africa, 2004).

Style and character are the third important physical characteristic used when classing mohair. Style is the twist of the staple and character is the crimp or wave of the staple. The ideal is a combination of twist and even character within a soft but nevertheless firm staple (Mohair South Africa, 2004).

The general appearance of the mohair is the final physical characteristic used to class mohair. General appearance is determined by the following attributes.

#### *3.2.3.1 Lustre*

Lustre is a very important characteristic in the processing of mohair since it accentuates the colour of the item and therefore mohair must have a bright lustre and not be dull in appearance. The lustre of mohair is one of the characteristics that makes mohair so sought after as a textile fibre (Mohair South Africa, 2005).

#### *3.2.3.2 Absence of foreign fibres*

Mohair must be free of kemp, black and brown fibres or any other foreign fibres. Foreign fibres reduce the quality of the end product considerably and are easily discernable once the hair has been washed and combed. Kemp does not absorb dyes and is therefore also easily noticed after the dyeing process since it appears as lighter uncoloured fibres in the end product (Mohair South Africa, 2005).

#### *3.2.3.3 Condition of mohair*

The condition of the mohair must be such that it contains enough natural oil yet the oil must be hardly noticeable. This natural oil protects the fibre against weathering and ensures healthy fibres for processing (Mohair South Africa, 2005).

#### *3.2.3.4 Dust, stain and seed*

Dust, stain and seed are also factors that influence the general appearance of mohair and ultimately determine how the mohair will be classed. The lower the levels of dust, stain and seed the better the quality mohair (Mohair South Africa, 2005).

Champion and Fearne (2001) point out that the physical diversity of a wool clip is translated into various premiums and discounts at the point of first sale, usually an auction. This is also evident in the mohair clip where the various types of mohair, according to the classing standards for mohair, vary in price. The graph in Figure 3.2 below summarises a time series of mohair prices according to age groups (a rough estimate of fibre diameter). From the graph it is evident that various premiums and discounts are paid for the diversity in mohair fibre diameter. This diversity is not only observable in the variance in fibre diameter but also in the other physical characteristics of mohair as dictated by the classing standards for mohair.

Relating the properties of the mohair clip to mohair's unit type it can be concluded that, based on the properties mohair clip, mohair can be termed a "product" since it is a highly variable and differentiated item. This is evident from the biological nature of mohair production and the highly variable nature of the global mohair clip.

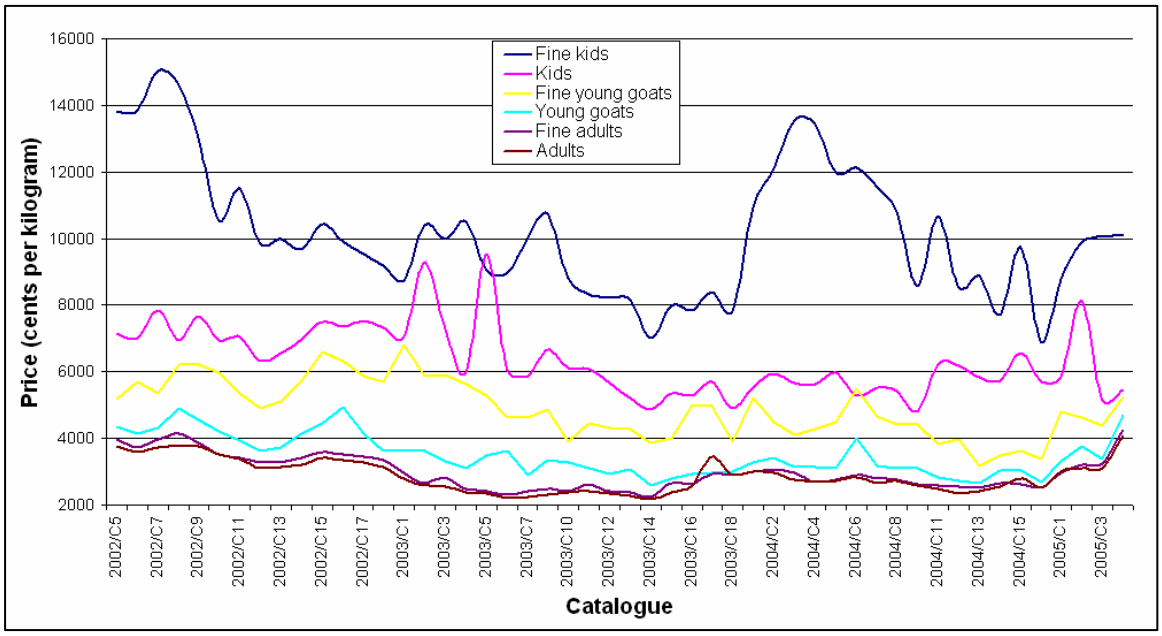



**Figure 3.2: Summary of mohair auction prices according to age group (Cat 5/2002-Cat 3/2005)**

*Source: Cape Mohair and Wool, 2005*

### 3.2.4 Markets and end-uses of mohair

The markets and end-uses of an item also play an important role in determining the item's unit type. As discussed earlier mohair finds application in a number of diverse products, each with different end uses and markets. Figure 3.3 below provides a general indication of the end-uses of mohair based on fibre diameter. The end-uses of mohair were discussed in detail in Chapter two.

The markets for products containing mohair varies from home industries that offer craft products to exclusive boutiques that offer custom tailored products like exclusive men's and ladies' apparel and designer furniture. As a result of the diverse application of mohair the demand characteristics for the various types of mohair and mohair products and the competition for the respective products are also quite diverse as illustrated by Table 1.1 discussed earlier.

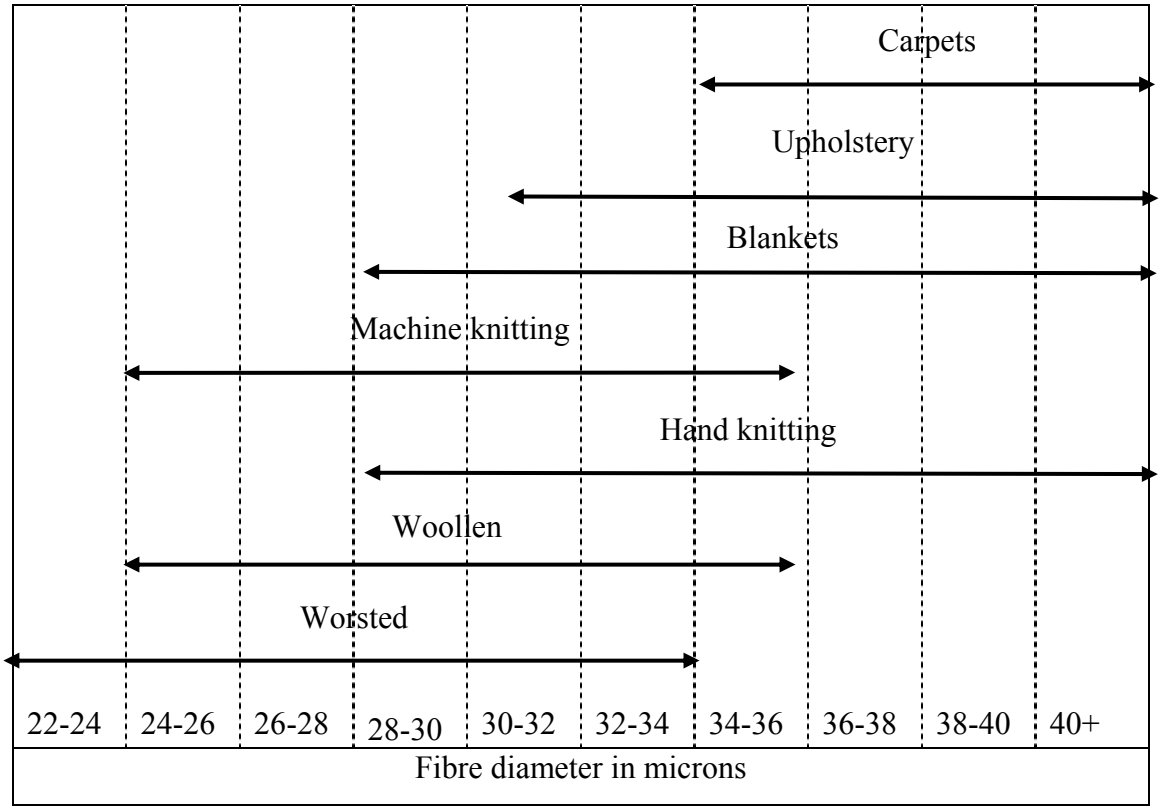



**Figure 3.3: The markets and end-uses of mohair**

*Source: FAO, 2005; Loots, Personal communication, 2005*

From this table it is evident that different types of mohair have quite different applications and demand characteristics. Relating the end-uses and demand characteristics of the diverse mohair clip to mohair's unit type it can be concluded that, based on the properties of mohair clip, mohair can be termed a "product" since its diversity is translated into varied end-uses and variable demand characteristics for the variety of end products.

### 3.2.5 The global sources of mohair

An item's unit type is also dependant on the number of sources from which the item is reliably available. As noted previously South Africa is the largest producer of mohair in the world with a 60.31% share of world production (3.95 million kg in 2003). Global mohair production is therefore dominated by South Africa as the sole reliable producer of mohair globally. Figure 3.3 illustrates that in recent times South Africa has produced between 40% and 60% of the total global mohair production.

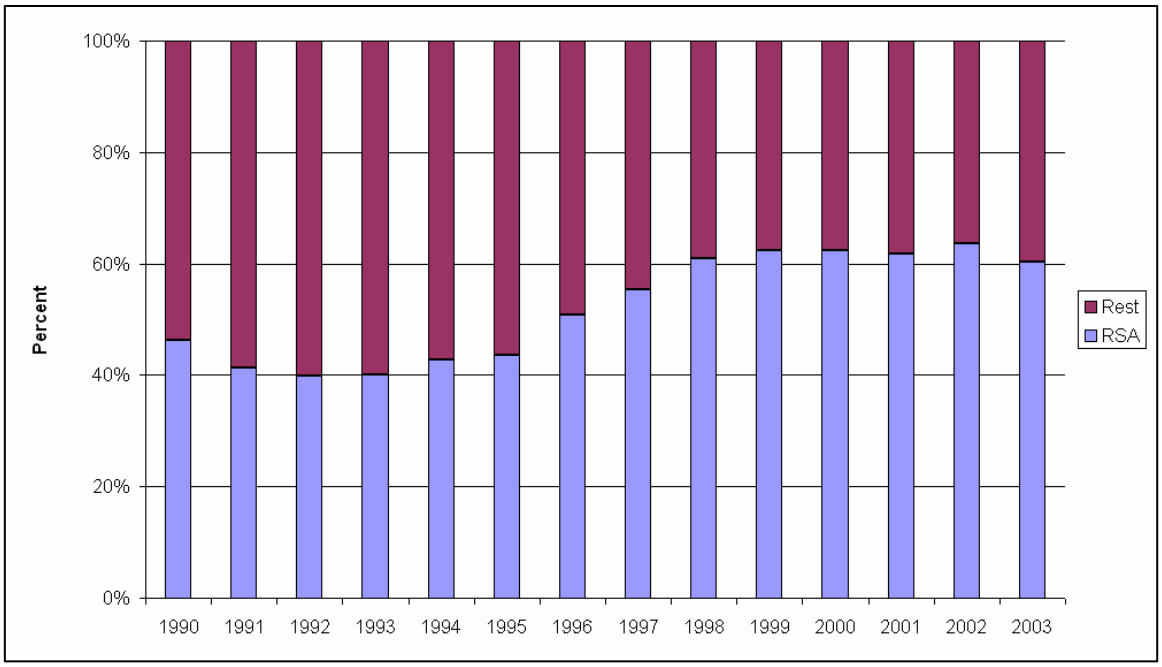



**Figure 3.4: Share of global mohair production – South Africa vs. the rest of the world (1990-2003)**

*Source: Mohair South Africa, 2004*

Relating the number of sources from which mohair is reliably available to mohair's unit type it can be concluded that mohair should be termed a "product" since it's only available from a limited number of sources. This is clearly demonstrated by the dominance of South Africa as the primary source of high quality mohair globally.

### 3.2.6 Tangible and intangible attributes

The role of tangible and intangible attributes in determining the value and *inter alia* the unit type of mohair is related to how readily and objectively mohair can be described and what role tangible and intangible attributes play in determining the value of mohair. The tangible and intangible attributes of mohair are, as is expected, closely related to the classification system for mohair as discussed earlier. As noted previously, commodities can generally be readily and objectively described and value is solely based on the objectively describable attributes of the commodity. Conversely, products are characterised by the fact that they are more difficult to describe objectively and value is less dependant on the objectively describable attributes of the item and more on the intangible attributes of the item.

Hedonic price analysis performed by McGregor and Butler (2004) on Australian mohair prices reveal that current objective measurements, visual appraisals, period of sale, and agent can explain a very large proportion of the variation in Australian mohair prices. A similar, but outdated, analysis of South African mohair prices by Van der Westhuysen (1982) also revealed that the primary physical attributes of mohair were of the greatest economic importance.

Recent developments in the South African mohair industry have, however, seen the establishment of brand names for selected raw mohair where a number of intangible attributes are offered over and above the standard physical, tangible, attributes. Some of these intangible attributes include production within a geographically identifiable area, environmentally friendly production practices and traceability of the raw mohair through processing to manufacturing through chain coordination (Camdeboo, 2005; Pure Cape, 2005)

Relating these points to mohair's unit type one can argue that, based on the definitions of commodities and products, mohair has historically tended to be valued based on only physical attributes that were readily and objectively describable. This would typify mohair as a commodity, albeit that the prevalent marketing system for mohair may have "reduced" mohair to a commodity. In recent times, however, it seems that intangible attributes that are not readily and objectively describable are also contributing to the value of raw mohair. This development would see raw mohair move away from a pure commodity to take on a product character. This move could be considered normal evolution seen against the background of agricultural marketing reforms and the return to free market trade in South Africa the past decade.

### 3.2.7 Historical unit type of mohair

Historically, mohair, especially raw mohair, has been considered a commodity and consequently the South African mohair marketing system was organized accordingly. Mohair's historical status as a commodity is in all likelihood closely linked to wool's historical status. It was viewed as a commodity since these natural fibres have shared many production and "marketing" characteristics, from producers' point of view, especially in South Africa. This commodity status probably developed as a result of

limited technological innovation, limited product development, a relative abundance of natural animal fibres (especially prior to the development of synthetic fibres) and a general production approach to marketing animal fibres with little consideration for consumers needs and wants.

Technological advancement, consumer driven product development and the rise of the consumer have, however, not been able to elicit any changes in the unit type and consequent changes in the marketing system of mohair. As a result of the historical legacy of mohair's unit type and slow or non-existent marketing innovation, mohair, especially raw mohair continues to be considered and marketed as a commodity. This dominance of the open cry auction, a spot market trading platform well-suited to the trading of commodities, as the primary means of disposal for primary producers' mohair, is testament to the continued philosophy that mohair can be considered as a commodity.

## 3.3 CONCLUSION

Based on the guidelines suggested by Champion and Fearne (2002) to identify the unit type of an item, various arguments have been made in the preceding sections with regards to mohair's unit type. Historically South African mohair has been treated as a commodity and the marketing system for mohair has been structured accordingly. Raw mohair's value has also historically been based on readily and tangible objectively measurable attributes. Intangible attributes' contribution to determining the value of mohair have historically been negligible. As a result of its historical development mohair has therefore clearly developed a reputation as a commodity and has been "marketed" accordingly, as is evident from the continued dominance of a spot market trading platform as the primary means of disposing of raw mohair.

The declining size of the mohair clip in global terms has seen mohair become one of the scarcer animal fibres globally, and almost a negligible fibre when considered in terms of the global textile industry. Mohair is also a product of nature and consequently quite diverse in its physical properties and despite a well-structured classification system it is by no means homogenous. The heterogeneity of the mohair clip also implies that different mohair is suitable for use in different products all of

which have different markets and demand characteristics. When all of these points are taken into consideration it is clear that mohair currently fulfils the requirements to be classified as a product as outlined and it can be concluded that despite its historical development as a commodity, mohair currently boasts the characteristics of a product.

Proposition One ($H_1$) of this dissertation: "Mohair is a homogenous item with the attributes of a commodity characterised by non-differentiation, uniformity and relative abundance" is therefore categorically rejected following the arguments in this chapter that illustrate that mohair is one of the scarcer animal fibres globally, diverse in its physical properties and is suitable for use in many products all of which have different markets and demand characteristics.

# CHAPTER 4

# ALTERNATIVE SUPPLY CHAIN GOVERNANCE STRUCTURES FOR SOUTH AFRICAN MOHAIR

## 4.1 INTRODUCTION

Having argued the different cases for mohair's "unit type", i.e. whether mohair is a product or a commodity, the next step is to review the alternative governance structures for the marketing of mohair and to propose an appropriate marketing system for South African mohair based on two decision frameworks set out in this chapter. Potentially the mohair industry, or individual firms within the industry, must make a strategic decision regarding the optimal vertical coordination strategy for each vertical exchange relationship that is executed in the process of doing business.

This chapter first reviews the theory of vertical coordination and the vertical coordination continuum and then discusses the relationship between transaction costs and vertical coordination. The chapter concludes by discussing a framework to assess vertical coordination strategies for mohair producers and buyers and ultimately identifies some alternative vertical coordination strategies for the South African mohair industry.

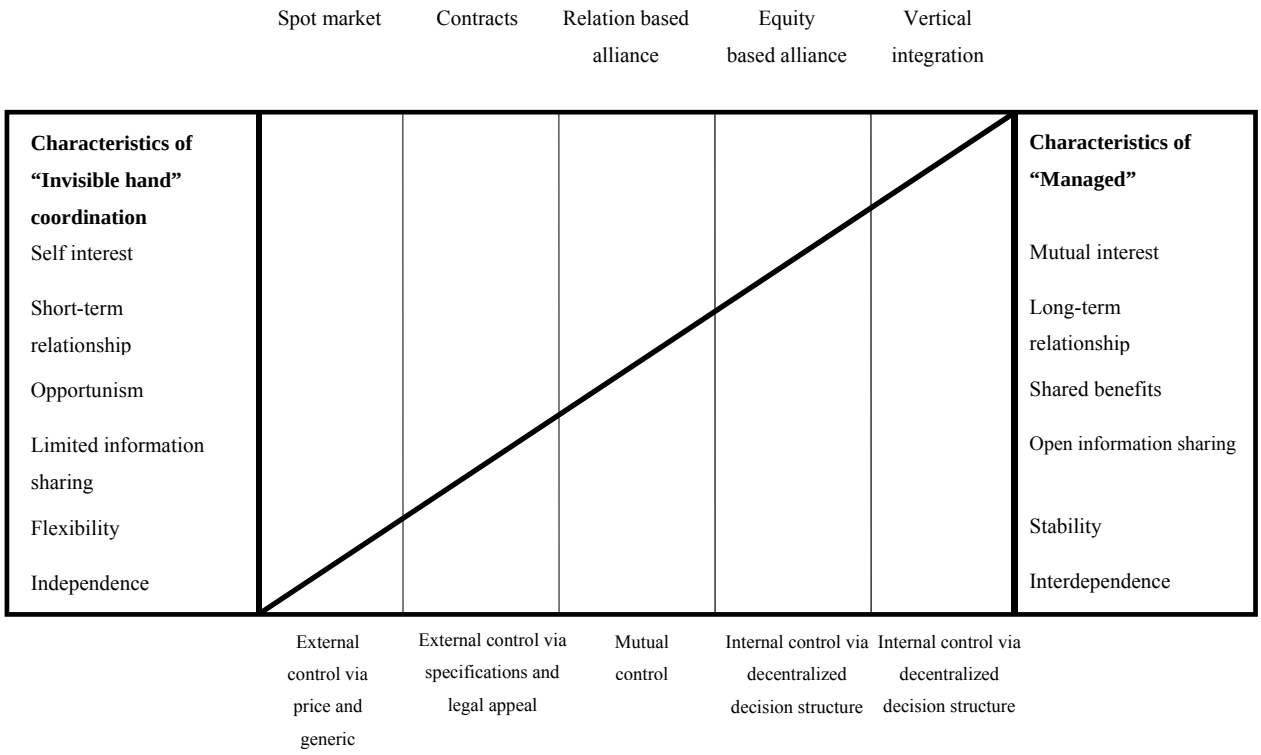
## 4.2 VERTICAL COORDINATION

Hobbs (1996) notes that there is always some kind of vertical coordination if any production takes place and that transaction costs play an important role since they affect the type of coordination between successive stages of economic activity or "vertical coordination". Vertical coordination is generally defined as "……all the ways of harmonising the successive vertical stages of production and marketing" or "the alignment of direction and control across segments of a production/marketing system" (Mighell and Jones, 1963; King, 1992). Sporleder (1992) points out that the factors aligned in vertical coordination are price, quantity, quality and terms of exchange.

The idea of a vertical coordination continuum has developed over time starting with the classic "Make vs. Buy" decision that identifies two possible vertical coordination strategies - a spot market and vertical integration. Over time the number of possible coordination strategies has increased and a number of hybrid coordination strategies between spot markets and vertical coordination (e.g. joint planning and information sharing, specification contracts and equity arrangements) were identified. The various individual components of the vertical coordination continuum have been analysed by a number of authors but only recently has it been defined as a true continuum by Peterson, *et al* (2001).

The research of Peterson, *et al* (2001) proposes that the various discrete vertical coordination strategies that have developed over time can be viewed as a continuum stretching from open markets on the one extreme to complete vertical integration (multiple successive economic stages under single ownership) on the other extreme with a number of hybrid coordination strategies in between these two extremes (Peterson, *et al*, 2001). Peterson, *et al* (2001) propose a continuum with five major categories of vertical coordination strategies that run from open spot markets to complete vertical integration. At the spot market end of the continuum, the "invisible-hand" of economics governs the exchange between parties where individual economic actors pursue their own interests, enter into exchange relationships that are short-term and opportunistic, have limited sharing of information and are flexible and preserving of the parties' independence. At the other end of the vertical coordination continuum mutual interest governs the exchange between parties where economic actors pursue mutual benefits and enter into long term relationships characterised by stability, interdependence and the sharing of benefits information.

The five major categories of vertical coordination strategies as suggested by Peterson, *et al* (2001) are depicted in Figure 4.1 where it is illustrated that "as strategies are considered from left to right, coordination moves from being dominated by invisible-hand characteristics through a changing mix of invisible-hand/managed characteristics to coordination being dominated by managed characteristics" (Peterson, *et al*, 2001).




*Source: Peterson, et al, 2001*

## 4.3 THE VERTICAL COORDINATION CONTINUUM

A number of authors have developed the concept of a vertical coordination continuum that stretches from open markets to the complete vertical integration of successive economic activities. Williamson (1975), Sporleder (1992), Barkema (1994), Henderson (1994), Galizzi & Luciano (1997), Peterson *et al* (2001) and Ménard (2004) are but a few who have documented this concept. This section summarises the concept of the vertical coordination continuum and its components as discussed by the abovementioned authors.

### 4.3.1 Spot markets

In spot markets, goods are exchanged between multiple buyers and sellers in the current time period, with price as the sole determinant of the final transaction. In other words, other aspects of the transaction are non-negotiable – the buyer either accepts the product in its current form, or does not purchase it. (Negotiation over product

quality, delivery schedules, etc. would constitute a more formal exchange relationship often resulting in some form of contract). Examples of spot markets are auction markets, stock markets and most consumer good purchases (e.g. purchases of food in a supermarket).

### 4.3.2 Specification contracting

The next alternative moving to the right along the continuum, is specification contracting. This refers to the establishment of legally enforceable, specific, detailed conditions of exchange between transacting parties. The parties to a transaction negotiate contract specifications and mutually agreed upon incentives for meeting these specifications. The parties also invest time and effort beyond mere price discovery and a yes/no decision to transact. After performing the transaction, the parties also monitor the execution of the contract and related decisions to renew or renegotiate the contract, or seek third party enforcement if one of the parties fails to perform.

### 4.3.3 Relation based alliance

A relation-based alliance, the third portion of the continuum, is an exchange relationship where the firms involved, share risks and benefits emanating from mutually identified objectives. The analogy of a marriage is appropriate when describing relation-based alliances. The partners agree to work closely together and find some means to resolve internal differences and concerns when they arise whilst both parties retain their separate, external identity.

The establishment and maintenance of relation-based alliances require the alignment of mutual interests. The focus of the exchange becomes the relationship between the parties with the immediate transaction being only one element of the relationship. Relation-based alliances involve building a relationship, identifying mutual objectives and setting informal parameters for judging the relationship and its effectiveness. Continuous monitoring of the relationship and transactions taking place within the relationship is also essential, and when coordination results are less than expected,

mutual resolution of concerns or a mutual decision to dissolve the relationship must take place.

### 4.3.4 Equity based alliance

The fourth position along the continuum is an equity-based alliance, which is a mixture of organizational forms that involve some level of shared equity between the exchanging parties. Equity based alliances are distinguished by the formation of a formal organization which functions as the joint agent for the transaction parties and institutes and enforces policies and procedures to govern the exchange between the parties. Within the independent organization each party maintains a separate identity that allows them to walk away from the exchange if they wish to. The ability to walk away, however, is drastically reduced by the investment in a new, mutually shared independent identity.

### 4.3.5 Vertical integration

The final portion of the continuum is vertical integration, where one organization has complete control over the full production-distribution chain or where one firm carries out two or more consecutive stages of this chain. A firm can be integrated forward (downstream) into distribution or retail functions or backwards (upstream) into supply functions. Vertical integration results in the two parties to a transaction becoming one and consequently achieving complete hierarchy. Complete integration can result from a merger of the two parties, acquisition of one party by the other, or one party internally committing resources to replace the market function of the other party. Within a vertically integrated party the coordination of the exchange is achieved through the policies and procedures of a single organization.

The coordination strategies as discussed above move from low levels of coordination control intensity (spot markets) to high levels (vertical integration) while passing through several transitional levels of ever increasing intensity. The nature of control also changes from being predominately exercised *ex ante* to being exercised

predominately *ex post*. Table 4.1 provides a summary look at how control intensity changes across the continuum (Peterson, *et al*, 2001).

**Table 4.1: Control processes across the vertical coordination continuum**

| | **Spot market** | **Specification contract** | **Relation-based alliance** | **Equity-based alliance** | **Vertical integration** |
|---|---|---|---|---|---|
| **Intensity of control** | Low | Moderate low | Moderate | Moderately high | High |
| **Focus of control** | Immediate transaction | Contract terms | Relationship | Property rights of stakeholders in limited joint entity | Property rights of stakeholders in full entity |
| ***Ex ante* control process** | Price discovery | Setting specifications | Relationship building | Negotiating the formal decentralized *ex post* governance structure | Negotiating the formal centralized *ex post* governance structure |
| | Yes/no decision to transact | Setting incentives | Setting informal parameters | | |
| ***Ex post* control process** | Yes/no decision to repeat the transaction | Decision to renew/renegotiate contract, or seek third party enforcement | Mutual resolution or dissolution | Execution of governance policies and procedures in the limited entity | Execution of governance policies and procedures in the full entity |

*Source: Peterson et al, 2001*

### 4.3.6 Transaction costs and vertical coordination

A number of factors potentially determine the nature of vertical coordination between successive economic activities (Hobbs, 1996; Martinez, 2002). Transaction costs are one of these potential determinants of vertical coordination. Although the other determinants of coordination are by no means insignificant this inquiry focuses on the interaction between transaction costs and vertical integration and the ultimate effect on the marketing of South African mohair. According to transaction costs economics, the nature and level of transaction costs and the characteristics of the transaction

determine the nature of vertical coordination and firms choose a method of vertical coordination based on a comparison of the net effect on transaction costs (Hobbs, 1996; Martinez, 2002). Ménard (2004) proposes that, based on the discrete alignment principle developed by Williamson (1991), specific transactional relationships are selected through efforts made by transacting parties to reduce the cost of the transaction by aligning the governance structure with the exchange attributes.

A number of authors including Hobbs (1996), Peterson, *et al* (2001) and Ménard (2004) have reviewed literature on methods that can be used to specify coordination mechanisms to govern the exchange between transacting parties. Generally there are specific conditions that determine which structure will be chosen and these primary conditions are:

- *Asset specificity*. The more specific mutual investments are, the higher are the risks of opportunistic behaviour and the more coordinated the exchange needs to be to reduce total transaction costs.
- *Degree of uncertainty.* This refers to the degree of uncertainty surrounding the transaction that is to be organized. The more consequential the uncertainty is, the higher is the risk of opportunism, and hence the more coordination the exchange needs to be to reduce the total transaction costs.
- *Frequency of the exchange*. The greater the frequency of the exchange the lower the risk of opportunistic behaviour becomes and the smaller the need becomes for increased coordination aimed at reducing transaction costs.

Mahoney (1992) provides the most extensive framework to specify coordination mechanisms, and he uses three conditions that need consideration when deciding on a coordination strategy. The Mahoney (1992) framework includes seperability as an additional condition together with asset specificity and the degree of uncertainty (programmability) to specify coordination mechanisms.

Champion and Fearne (2001) define these conditions as follows:

- *Asset specificity or uniqueness*. This refers to the specialised nature of the human or physical assets that are required to complete the transaction. The more unique or specialised the asset, the stronger the inter-firm bond required to encourage investment. Peterson, *et al* (2001) define asset specificity as the degree to which an asset can be redeployed to alternative uses and by alternative users without sacrifice of productive value. Unlike general-purpose assets that can be freely transferred across applications, transaction specific assets are tailored to a particular user (transaction) and thus maintain their value only in a narrow range of alternative uses.
- *Task programmability.* This indicates that a transaction is well understood by all parties and is often repeated and has predictable outcomes, without the need for discussions or negotiation.
- *Separability*. This refers to the ability to determine and measure the value of the contribution and hence reward for each player in the transaction. If it is easy to measure value creation at each stage of the chain, the transactions are said to be separable.

The extensive framework developed by Mahoney (1992) to guide the choice of vertical coordination strategy based on asset specificity, task programmability and separability is presented in Table 4.2 below.

**Table 4.2: The vertical coordination continuum**

| | **Low programmability** | | **High programmability** | |
|---|---|---|---|---|
| | **Low asset specificity** | **High asset specificity** | **Low asset specificity** | **High asset specificity** |
| **Separable** | Spot market | Long term contract | Spot market | Joint venture |
| **Non-separable** | Strategic alliance | Cooperation or vertical ownership | Inside contract | Vertical ownership |

*Source: Mahoney, 1992*

### 4.3.7 Choosing a vertical coordination strategy for South African mohair producers and mohair buyers

Based on the extensive framework developed by Mahoney (1992) to guide the choice of vertical coordination strategy based on asset specificity, task programmability and separability, the following section seeks to discuss potential vertical coordination mechanisms for South African mohair producers and mohair buyers.

### 4.3.8 Asset specificity

Williamson (1999) identifies a variety of forms of asset specificity that include physical, human, site, and dedicated brand name asset specificity. When the first transacting relationship in the mohair supply chain, the transaction between mohair growers and mohair buyers, is considered and viewed in terms of asset specificity it is argued that this relationship is characterised by relatively high levels of asset specificity for both parties. Mohair producers, as the first party to the transaction, invest in a number of specialised assets in order to be able to transact with first stage mohair processors (*via* mohair buyers), the second party to the transaction. These specialised assets are:

#### *4.3.8.1 Producers*

*Angora goats*

Angora goats are kept solely for producing mohair and only in unusual circumstances, like when animals become unproductive or during prolonged periods of very depressed prices and consequent herd reductions are Angora goats slaughtered for chevron. Since the Angora goat is a very inefficient producer of meat, an Angora goat's use as an asset for mohair producers is therefore limited to the production of mohair. Angora goats can therefore be viewed as highly specialised and very specific physical assets that mohair producers invest in, in order to be able to transact with mohair buyers. The level of investment in Angora goats as specific assets for South African mohair producers is evident from the contribution that mohair production makes to the total farm income of mohair producers. About 44% of South African

mohair producers earn at least half of their total income from producing mohair. Therefore at least 44% of South African mohair producers' bulk total farm income (> 50% contribution to total farm income) is dependant on the investment in Angora goats. Table 4.3 illustrates mohair producers' dependence for their income.

**Table 4.3: Distribution of the total farm income of mohair producers from mohair**

| Percentage of total farm income from mohair (%) | Percentage of mohair producers (n=43) |
|---|---|
| 0 – 10 | 0.00 |
| 10 – 20 | 0.00 |
| 20 – 30 | 16.28 |
| 30 – 40 | 13.95 |
| 40 – 50 | 25.58 |
| 50 – 60 | 11.63 |
| 60 – 70 | 4.65 |
| 70 – 80 | 9.30 |
| 80 – 90 | 6.98 |
| 90 – 100 | 11.63 |

*Source: Own survey, 2003*

It is, however, noted that livestock is generally considered as a liquid asset which diminishes livestock's degree of asset specificity. The liquidity of Angora goats as an asset is, however, not as high as that of general stock since it takes time to breed and build a flock of Angora goats that can produce good quality mohair. This implies that when a farmer makes the decision to produce mohair it is a very specific and longer-term investment in mohair production both in terms of the specific breed of animals as well as the time it will take to breed and compose a flock that consistently produces high quality mohair. The investment in time that is required to breed and compose a flock that consistently produces high quality mohair, alone, is therefore sufficient incentive against continuous buying and selling of a producer's whole herd over short periods of time and proof that Angora goats are, although livestock, not highly liquid assets.

*Shearing facilities*

Shearing facilities are used to shear fibre from animals, generally wool from sheep and mohair from goats. Shearing facilities generally constitute herding pens, a building of some sort, sorting tables and bins for the various classes of wool or mohair, implying that considerable investment needs to be made when investing in shearing facilities. Shearing facilities can also be considered as relatively specific assets that mohair producers have to invest in for which there are relatively limited alternative uses. The only alternative use for a mohair producer's shearing facilities is for the shearing of wool producing sheep, if the mohair producer is also a wool producer. Given the nature of the mohair producing area in South Africa many mohair producers are also wool producers and therefore shearing facilities are shared between wool and mohair. Since shearing facilities have an alternative use the degree of asset specificity of shearing facilities will depend on the contribution of mohair production to the farming business. The greater mohair production's contribution is to the farming business the greater the asset specificity of the shearing facilities.

*Farmland*

Farmland on the basis of site specificity can also be considered as a relatively specific asset that mohair producers invest in, in order to be able to transact with mohair buyers. The Eastern Cape Province, as noted earlier, is the premier mohair producing area in South Africa and has the most suitable farmland for Angora farming. The suitability of the Eastern Cape for the production of mohair can be ascribed to the historical establishment of on-farm infrastructure (shelter, shearing sheds, kraals, dipping facilities, fencing, etc) for the production of fibre producing animals (wool producing sheep and mohair producing goats), shrub vegetation that is well suited to the browsing requirements of goats and a predominantly healthy climate relatively free of serious small stock diseases than found in other areas of South Africa. The area over which mohair production is spread is quite diverse and a number of farming activities are undertaken in this area. The survey conducted amongst mohair producers, revealed that the most significant other farming activities that mohair producers undertake, depending on the area, include the production of wool, mutton, beef, and to a lesser extent game, Boer goats, ostriches and crops. Farmland in the

primary mohair producing areas of South Africa is therefore most suited to the production of stock, especially small stock, which includes mohair. When a producer therefore acquires land in this area he is investing in an asset that is generally very specific to the production of small stock. Although farmland is not a highly specific investment for mohair producers since the land can readily be used for a number of alternative uses, the fact remains that these uses are limited and include the production of mohair.

*Specialised human capital*

Mohair producers also have to invest in "specialised human capital" in terms of informing/educating themselves about the production and handling of mohair. The production of quality mohair is primarily dependent on the genetic quality of the Angora goats, environmental conditions and the management of the herd. Since the management of the herd is an important factor determining the success of mohair production mohair, producers have to invest in themselves to acquire specialised skills to produce mohair successfully. These specialised skills to successfully produce mohair should also be viewed as an investment in specific assets.

#### *4.3.1.9 Processors*

*Processing equipment*

To enable processors to transact with mohair producers they have to invest in specialized physical assets in the form of machinery and/or equipment. The equipment that is used to process mohair is primarily equipment that is used to process wool but as a result of the distinct differences in the processing characteristics of wool and mohair it is necessary to adapt the equipment to be able to process mohair. The differences in the processing of mohair and wool are such that the adaptation required to process mohair renders the equipment unsuitable for the processing of wool. Processing equipment can therefore also be considered as an investment in specific assets for mohair processors.

*Location (Site specificity)*

First stage mohair processors have to locate their specialized processing facilities relatively close to the primary mohair producing area to reduce transportation costs to the processing plant. By locating facilities on a specific site and because relocation costs are high the first stage mohair processors and mohair producers become locked in an exchange relationship for at least the useful life of the processing plant.

*Specialized human capital*

As noted previously mohair is a unique fibre and requires relatively specialized human capital to process. Consequently mohair processors have to employ people that have acquired the necessary skills and knowledge to process mohair. Furthermore processors also need to invest in the continued learning of their employees so as to improve their capacity in processing mohair.

In summary, the arguments presented in this section point out that both mohair producers and mohair processors (*via* mohair buyers) invest in a number of specific assets to be able to transact with each other. Although the intensity of the specificity of the mentioned assets varies, as discussed, the exchange relationship between mohair producers and mohair processors can generally be seen as one characterised by relatively high levels of asset specificity for both parties.

*Task programmability*

When the transacting relationship between mohair growers and mohair buyers is considered and viewed in terms of task programmability it can be concluded that this relationship is characterised by relatively low levels of programmability. Mohair production is clearly a biological process and the relative quantity and quality of mohair that is produced is heavily dependant on environmental conditions – a factor over which producers have limited control despite their managerial input. Although producers can manipulate the quality of the mohair that they produce through breeding and husbandry practices, it remains difficult to programme the final quality and quantity of mohair that is produced.

As a result of the variable nature of mohair production the processing of mohair is characterised by relatively low levels of programmability. The total annual production of mohair generally does not vary significantly from year to year and therefore has little influence on processors' programmability – annual production is largely subject to predictable mega trends. There are two significant sources of uncertainty that reduce programmability for mohair buyers/processors on the input side of their operations. The first is the varying quantity of the different quality classes of mohair, since production is subject to environmental conditions that have a direct influence on the quality of mohair produced. The other factor that reduces programmability for mohair processors is the timing of the delivery of mohair by producers. Given the relatively small size of the mohair clip in global terms it is conceivable that the timing decision of producers to deliver their clip and offer them for sale could influence processors programmability. If processors are looking for a specific quantity and quality of mohair at a specific time to be able to fulfil an order but the raw mohair that they require isn't available for sale on the auction it detrimentally affects their programmability.

In short, the arguments presented in this section point out that both mohair producers and mohair processors (*via* mohair buyers) are subject to relatively low levels of programmability when transacting with each other. Although the intensity of the programmability of the various processes is relative, as discussed, the exchange relationship between mohair producers and mohair processors can generally be seen as a relationship characterised by relatively low levels of programmability.

*Seperability*

The transactions between mohair growers and buyers is characterised by mixed levels of seperability. Seperability refers to the ability to determine and measure the value of the contribution and hence reward for each player in the transaction. Non-seperability, also known as complementarity, exists when the combination of individual activities within a transaction yields an output larger than the sum of outputs generated by individual activities.

When bringing seperability and/or complementarity into relation with the exchange relationship between mohair producers and mohair processors, two views can be taken. The first view is that the value of the contribution of each of the role players in the mohair supply chain is clearly discernable and relatively easy to determine. Mohair producers contribute to the mohair supply chain by producing mohair and they are rewarded for performing this function through the market related prices they receive for their mohair. Mohair buyers/processors contribute to the mohair supply chain by processing mohair from raw fibre into various intermediate levels of mohair like mohair tops or mohair yarns. They are rewarded for performing this function through the market related prices that they receive for their products.

The second view is that where specific attributes of mohair, which are introduced at producer level, must be transferred through the chain to the final consumer the relationships between actors in the chain are not characterised by high levels of seperability. To illustrate this, retailers and manufacturers of mohair products can, by themselves, not assure specific attributes introduced at producer level unless they coordinate production, processing, manufacturing etc. through the mohair supply chain in such a way that there is certainty that the specific attributes are in fact present and preserved throughout the chain. By their actions alone, manufacturers and retailers cannot assure what the end consumer wants. Only through controlled coordination with the producers and processors can the supply chain produce the desired end product (whether each role player gets adequately rewarded for the value that is added is another matter) and therefore it can also be argued that the exchange between mohair producers and mohair processors can be characterised by relatively low levels of seperability – especially in instances where consumers demand attributes that are already introduced at producer level.

Based on the framework described by Mahoney (1992) to specify coordination mechanisms using the three conditions of asset specificity, task programmability and seperability the exchange relationship between mohair producers and mohair processors (*via* mohair buyers) is characterised by investment in specific assets by both parties, low levels of programmability for both parties and mixed levels of seperability between the tasks and rewards of both parties. The framework as proposed by Mahoney (1992) therefore dictates that for optimal and sustainable

returns for both parties the relationship between mohair producers and mohair processors should be governed by either long term contracts, cooperation agreements or some form of vertical ownership. Under circumstances where high levels of seperability can be identified contracts are more relevant and cooperation agreements and vertical ownership become more relevant where low levels of seperability are identified.

## 4.4 ALTERNATIVE MARKETING GOVERNANCE STRUCTURES FOR SOUTH AFRICAN MOHAIR

Drawing on the decision framework presented by Mahoney (1992) the preceding section argues that the relationship between mohair producers and mohair processors (*via* mohair buyers) should be governed by a governance structure characterised by coordination control levels elevated above those in spot markets. Such governance structures include the many hybrid governance structures as described by Ménard (2004). As noted earlier the vertical coordination mechanism that currently dominates the exchange between mohair producers and mohair buyers is a spot market in the form of a public open cry auction.

An obvious dichotomy is evident between what a suitable governance structure for the exchange relationship between mohair producers and mohair buyers ought to be (based on a theoretical derivation) and the governance structure currently in use (based on a practical derivation). To further analyse this dichotomy this enquiry makes use of the framework developed by Peterson, *et al* (2001) for choosing an appropriate vertical coordination strategy.

## 4.5 APPROACH

The framework proposed by Peterson, *et al* (2001) is based on the logical choice that firms need to make regarding their positioning along the vertical coordination continuum for each vertical exchange relationship that the firm must enter into to be able to conduct business. The framework focuses on the analysis that decision makers would make to arrive at a specific coordination strategy to govern a specific exchange relationship. Peterson, *et al* (2001) postulate that decision makers will arrive at a

specific vertical coordination strategy by asking themselves five interrelated questions that form the basis of their framework. The framework is graphically represented in Figure 4.2 below.

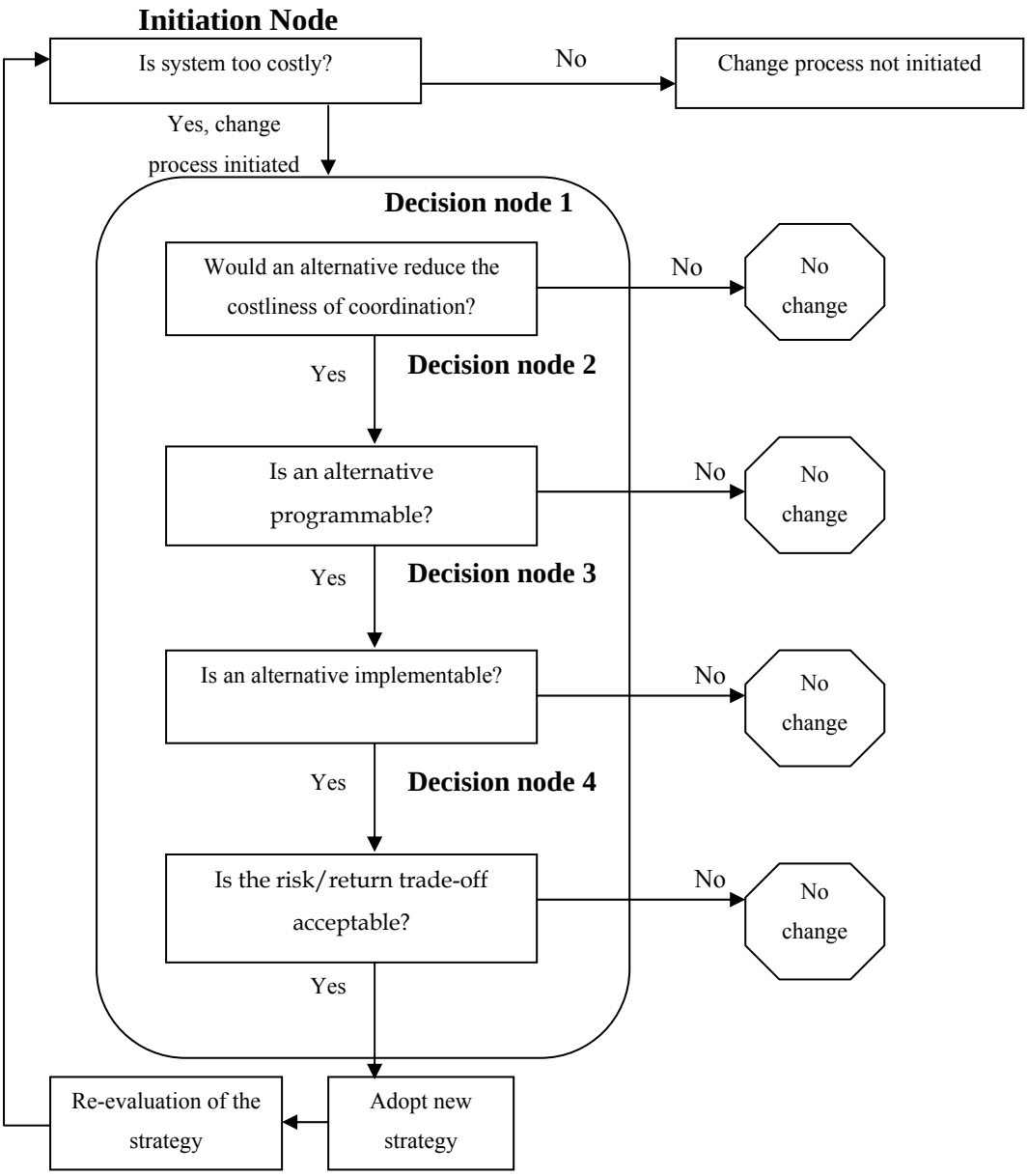



**Figure 4.2: A decision making framework for changing vertical coordination strategies**

*Source: Peterson, et al, 2001*

## 4.6 A CROSS EXAMINATION OF THE SPOT MARKET FOR MOHAIR

Wysocki, Peterson and Harsh (2003) have developed a methodology to quantitatively analyse firms' strategic choice along the vertical coordination continuum, but as a result of the complexity and lack of relevant quantifiable data for the whole South African mohair industry the application of this framework for determining the most appropriate governance structure for the exchange between mohair producers and mohair processors follows a distinctly qualitative approach. A qualitative discussion of this framework for the exchange relationship between producers and processors will, however, aid in gaining insight into the appropriateness of the current dominant vertical coordination strategy for South African mohair and the vertical coordination strategy as suggested by the Mahoney (1992) framework. The following section details this discussion based on the five inter-related questions proposed by the Peterson, *et al* (2001) decision framework.

*Question 1 - Is the current marketing system too "costly"?*

The first question initiates the process of determining the most appropriate vertical coordination strategy for a specific transactional relationship. The question is whether the cost of the current marketing system is too high in relation to a particular transaction or transactional relationship? The current marketing system can be too costly because it allows coordination errors to occur or because the marketing system creates more operating costs than the cost reduction in coordination errors it is designed to control. According to Peterson, *et al* (2001) and Champion and Fearne (2002) the costliness of a marketing system is rooted in a mismatch occurring between the "unit type" of the merchandise, a concept discussed earlier, and the institution governing the exchange. Costly coordination errors typically occur when a product is marketed through a marketing system better suited to commodities or vice-versa. In such instances a marketing system mismatch and the resultant inefficiency occur. In the agricultural sector, where the commodity marketing system is still dominant, it is very likely that an item that has the attributes of a product will be marketed through a commodity marketing system that would ultimately result in a

loss of value. The loss of value can be ascribed to the inability to exploit or develop the non-material aspects of the item since a commodity marketing system does not allow the efficient communication of product attributes. This loss of value equates to the costly coordination errors that occur as a result of the mismatch between the "unit type" of the merchandise and the vertical coordination strategy.

In terms of the marketing system for South African mohair, theoretical arguments can be made that a marketing system mismatch is currently occurring resulting in costly coordination errors. Based on earlier arguments that the total South African mohair clip can be considered as a product (or rather a collection of "products") and not a homogenous commodity the costly coordination error that results by using a spot market coordination in the form of a open cry auction results from the inability of the current spot market to exploit attributes of mohair for which apparent opportunities exist as a result of the system's inability to efficiently communicate the said attributes. Because the open cry auction is currently the primary, but not the only means of coordinating the exchange between mohair producers and mohair processors (*via* mohair buyers), the shortcomings of the spot market coordination are highlighted by the observation earlier that the higher value (better quality) mohair is increasingly passing through trading platforms other than the current dominant spot market system. This would lead to the hypothesis that the spot market system, which focuses on generic attributes and commodity based business systems, is not creating optimal returns for mohair producers' whole mohair clip.

A marketing system can also be too costly when the vertical coordination strategy creates more operating costs than the cost reduction in coordination errors it is designed to control. Generally spot market systems are considered to be the coordination mechanisms with the lowest operating cost because of the generally low levels of coordination control required. In the context of the South African mohair marketing system the current spot market system is generally considered as the coordination mechanism with the lowest operating costs. It is therefore unlikely that the dominant vertical coordination strategy for marketing South African mohair creates more operating costs than the cost reduction in coordination errors it is designed to control.

The answer to the first question in the Peterson, *et al* (2001) framework, whether the cost of the current marketing system is too high in relation to the transaction between mohair producers and mohair processors (*via* mohair buyers), is therefore "Yes". This costliness is a result of the mismatch between the "unit type" of mohair and the vertical coordination strategy and that strategy's (open cry auction) inability to exploit or develop the non-material aspects of mohair since a spot market vertical coordination does not allow the efficient communication of product attributes.

Following the "Yes" answer to the first question in the framework leads to the second question since a "Yes" answer keeps the process rolling while a "No" answer would terminate the enquiry process.

*Question 2 – Would an alternative strategy reduce the "costliness" of the marketing system?*

Once the decision process is initiated and the vertical coordination strategy is found to be too costly the second question in the Peterson, *et al*, (2001) analysis framework is whether an alternative strategy would reduce the costliness of the marketing system? The answer to this question requires an analysis of whether or not another vertical coordination strategy would better match the intensity and cost of coordination with the costliness of coordination errors for the specific transaction. The match is judged better or worse under the principle that the more costly the coordination errors the more intense the control necessary and conversely, the less costly the coordination errors the less intense the control. A specific transactional relationship should move to the right along the vertical coordination continuum if errors are more costly or to move to the left along the continuum if they are less costly than the operating costs of the marketing system (Peterson, *et al*, 2001).

Peterson, *et al* (2001) draw on Williamson (1973, 1975), Mahoney (1992) and Milgrom and Roberts (1992) to describe how asset specificity and non-seperability can be used to assess the cost of a coordination error in a particular exchange. These two criteria are asset specificity and non-seperability. In terms of the South African mohair industry and the exchange relationship between producers and buyers the

same question needs to be asked: "Would an alternative vertical coordination strategy reduce the costly coordination errors occurring between producers and buyers"?

Arguments were proffered that the level of asset specificity and non-seperability (or complementarity) between mohair producers and mohair buyers is characterized by relatively high levels of asset specificity and mixed levels of non-seperability. This assessment of these two determining criteria imply that the costliness of the coordination errors, as noted previously, are potentially greater than the operating costs of the open cry auction spot market that currently dominates the exchange between producers and buyers. Since the cost of the coordination errors between producers and buyers are potentially greater than the cost of operating the governance structure greater intensity in the control of the exchange becomes necessary. Greater intensity in control constitutes a move to the right along the vertical coordination continuum where the governance structure could possibly better control the coordination errors without negating these benefits through higher operating costs. Yet, due to a lack of data there is no certainty of the impact of contracts or other forms of increased coordination.

In terms of determining whether an alternative coordination strategy would reduce the "costliness" of the current marketing system for South African mohair, the answer is potentially a "Yes". A coordination strategy that exercises greater control intensity could potentially reduce the "costliness" of the current marketing system for South African mohair. As deduced from the Mahoney (1992) framework earlier, contracts or cooperation agreements or some kind of vertical ownership match the criteria for increased intensity of control and are potentially "better" coordination strategies to govern the exchange between mohair producers and buyers.

*Question 3 – Is an alternative programmable?*

If another vertical coordination strategy offers a potentially better match between costliness of coordination errors and coordination control intensity, then the framework leads to a third question in the strategy change process: Is the potential alternative programmable? The authors (Peterson *et al*, 2001) note that the mere

existence of a potentially better strategy for controlling coordination errors is not enough for adoption. It must be ascertained if effective, specific management routines exist for making the potential strategy workable (Peterson, *et al*, 2001).

This question is also relevant for the exchange relationship between mohair producers and mohair buyers since the analysis framework has suggested that alternative vertical coordination strategies be considered since the current vertical coordination strategy between mohair producers and buyers is potentially too "costly" on the basis of excessive "costs" because of low levels of coordination control.

As mentioned earlier mohair production is relatively fragmented with an estimated 1 200 to 1 500 producers producing South Africa's total mohair clip. Mohair processors who are the sole consumers of raw mohair are, conversely highly concentrated with only a few primary mohair processors globally. The imbalance between the number of mohair producers and processors results in a number of problems for both parties if they were to directly transact with each other. Mohair producers would face the "small-number" bargaining problem and coupled with specialized assets, small number bargaining increases the potential for opportunistic behaviour because alternative exchanges cannot be easily arranged. Mohair processors on the other hand would incur high transaction costs (search, negotiation and monitoring costs) if they have to transact with so many relatively small producers. Brokers have over the years become the intermediary institution between producers and processors to help both parties overcome these high transaction costs. As noted, brokers facilitate the open cry auction where mohair producers offer mohair for sale to mohair processors (*via* mohair buyers) and can therefore be considered as an integral component of the transaction between producers and buyers. "Producer organisations", which are beginning to form in the mohair industry can potentially, also fulfil a similar role as brokers by acting as intermediary between producers and processors. Further discussions on this topic follow in Chapter 5.

When the programmability of the alternative coordination strategies to govern the exchange between mohair producers and processors is considered it is evident that an intermediary remains integral to successfully facilitating the process. The presence of an intermediary like a broker or producer group makes contracting in particular, a

programmable alternative coordination strategy. Cooperation and even forms of vertical integration are programmable and effective, specific management routines could be but in place to make any of these potential strategies.

*Question 4 – Is an alternative implementable?*

The fourth relevant question when considering a change in vertical coordination strategy is whether the potential alternative is implementable? Programmability only assures that specific management routines exist. It does not ensure that a specific decision maker, like the mohair industry, can effectively implement the routines. Implementability can be conceived as arising from four conditions (Peterson, *et al*, 2001).

*Capital availability*: Do firms in the mohair industry have the capital required to implement the strategy? Implementing vertical integration is the easiest of the strategies to associate with significant outlays of capital for implementation, but each alternative strategy too has capital implications.

*Existence of compatible partners*: Are there partners in the mohair industry who will meet the needs of the strategy being implemented? A decision maker considering such a strategy should consider such things as strategic and corporate culture compatibility. Compatibility will help assure mutual interests. However, compatibility is relevant to all other strategies as well. Even in spot markets, a compatible partner can be defined in terms of such characteristics as comparable market power that helps limit opportunism.

*Control competence*: Given that each coordination strategy has a different intensity of control firms within the mohair industry must examine their competence in exercising the type of control required by the strategy to be implemented. Willingness as well as skill is the key to competence.

*Institutional acceptability*: The most obvious test of institutional acceptability is whether or not a particular strategy is legal, e.g., not in violation of any laws.

However, institutional acceptability is a broader concept that defines what economic behaviours or strategies are deemed appropriate by given social, cultural, industrial, or group norms. Limits to firm or industry alternatives will be defined by such norms.

If the alternative vertical coordination strategies that are proposed for the exchange between mohair producers and processor (*via* buyers) by the Mahoney (1992) framework are considered in terms of implementability a number of remarks can be made.

The capital outlay that would typically be required to implement contracting and/or cooperation between mohair producers and mohair buyers *via* the various intermediaries would be very limited. The basic infrastructure to facilitate any of these vertical coordination strategies is already in place and a mere re-alignment and/or restructuring would be the only "investment" required in terms of infrastructure. Investment in the drawing up of legal contracts and/or terms of exchange would be the other capital outlay required from the parties (producers, brokers, producer groups, buyers, processors) at this exchange point to make any of these proposed vertical coordination strategies implementable. None of the abovementioned capital outlays are envisaged to be of sufficient size to hinder the implementability of these vertical coordination strategies. These capital outlays could actually be considered an investment in the future for the exchange parties since these means of exchanging are increasingly characterising these types of exchanges globally.

The existence of compatible partners amongst parties at this point of exchange in the mohair supply chain is not clearly identifiable since this would require an in-depth analysis of each of the parties, their current strategic direction and corporate culture. It is, however, assumed that compatible partners at this exchange point in the chain will exist and that the proposed vertical coordination strategies will indeed be implementable.

In terms of control competence many producers are comfortable with an auction market because they view themselves as having the "trading" skills relevant to spot transactions. Few producers, however, have sufficient experience or are willing, as

individuals, to engage in the levels of control needed for the increased levels of coordination required by governance structures, such as specification contracts or alliances. Brokers or producer groups that act as intermediaries between individual producers and mohair processors, however, offer an institutional framework that has the necessary control competence required to exercise the coordination control required by governance structures such as specification contracts or alliances. In order for vertical coordination strategies that require increased levels of coordination, as are proposed in this dissertation, to be implementable, an intermediary like a broker or producer group becomes desirable to provide the necessary coordination control competency and institutional structure.

The last requirement to evaluate the implementability of the proposed vertical coordination strategies is the institutional acceptability. A "well structured" industry like the South African mohair industry would obviously only structure the exchanges between parties within legally acceptability norms and all strategies would be legal. The broader institutional acceptability of the proposed alternative vertical coordination strategies for the primary marketing of South African mohair poses the greatest threat to the implementability of the these strategies. The exchange between mohair producers and processors as facilitated by the various intermediaries (brokers and buyers) has developed over many decades and a number of conventions regarding this exchange relationship are deeply rooted. From observation, the social, cultural and group norms established at this exchange in the mohair industry are such that there are relatively low levels of cooperation; "change" from the *status quo* is generally unwelcome (or even undermined) and the implementation of strategies are delayed by industry politics and overly bureaucratic decision making processes. These deeply rooted norms within the South African mohair industry, although not insurmountable, may influence the institutional acceptability of the proposed vertical coordination strategies.

An overall assessment of the four conditions for implementability of the proposed alternative coordination strategies between mohair producers and mohair processors *via* the relevant intermediaries reveals that the alternatives are implementable. The implementability of these alternatives is anticipated to be without hindrance from lack of capital, a lack of suitable partners, or a lack of control competence. The only

possible hindrance to the implementability is the institutional acceptability of these alternatives based on the social, cultural and group norms present within the South African mohair industry.

*Question 5 – Is the risk/return trade-off acceptable?*

Assuming that an alternative is considered implementable the final question in the decision framework becomes relevant: Does the alternative provide a risk/return trade-off that is acceptable? The preceding steps of assessing alternatives' costliness of coordination, their programmability, and their implementability will generate much data about the likely benefits and returns of the alternatives and their likely costs and risks. This fifth question seeks to weigh the potential returns and risks of the proposed alternatives. The logical rule of thumb would be that any alternative strategy must meet the test of providing a better risk/return trade-off than the current strategy if change is to occur (Peterson, *et al*, 2001).

Based on the hypothesized "extra value" that could be extracted through the reduction or control of costly coordination errors through more coordinated exchange between mohair producers and processors (via brokers, producer group's and buyers) it can theoretically be concluded that the risk/return trade-off of the alternative strategies is acceptable. The risks associated with adopting the proposed alternative coordination strategies are relatively low, especially since these strategies could in all likelihood be offered as "alternative" exchange mechanisms to compliment existing exchange mechanisms resulting in very little risk in implementing these alternative strategies.

The Peterson, *et al* (2001) framework proposes that only a "yes" answer to all five of the relevant strategic questions will result in a changed coordination strategy for the particular transaction in question. A "No" at any point stops the process from starting or continuing. By means of qualitative analysis and deduction all five relevant questions of the Peterson, *et al* (2001) framework have been answered with a "Yes" answer for contracts or cooperation agreements (as determined by the Mahoney framework). This result implies that contracts or cooperation agreements are viable alternatives to the current open cry auction spot market that prevails as the primary

means of coordinating the exchange between South African mohair producers and mohair processors based on the relevant frameworks used to arrive at these conclusions.

## 4.7 THE MAKINGS OF AN ALTERNATIVE

O'Keeffe (1998) notes that the income for individual members of a supply chain stems from the variable division of value between members in the chain. The continued existence of a supply chain is therefore dependent on an equitable distribution of the value created in the supply chain so that each member in the supply chain is able to remain in business and have sufficient incentive to maintain the necessary level of quality throughout the chain. One of the primary challenges for the South African mohair marketing system is to ensure that equitable portions of the value created in the mohair supply chain are allocated to producers to keep them in business and to provide them with the necessary incentives to produce high quality raw mohair that can eventually be transformed into high quality final products.

An alternative marketing system for South African mohair is one that would capture and transmit all the tangible and intangible attributes of mohair through the entire supply chain. Creating a marketing system with this capacity requires vertical coordination strategies that can effectively and efficiently transmit these product attributes through the supply chain from the exchange between producers and processors to the exchange between retailers and consumers. If one exchange relationship in the marketing chain is not capable of transmitting these attributes effectively a "value bottleneck" is created at that exchange and the value that cannot be transmitted by the governance structure is lost. The result is a reduction in the total value created in the chain and reduced value to be distributed amongst the supply chain role players.

This dissertation investigated the exchange relationship between mohair producers and processors and aspects surrounding an appropriate vertical coordination strategy to govern this exchange within the current agribusiness environment and the mohair supply chain as a whole. The propositions made thus far are that mohair can generally be regarded as a product with both tangible and intangible attributes and; that the

current spot market that governs the exchange between producers and processors can theoretically allow costly coordination errors to occur and value to be lost since the spot market does not allow the effective and efficient communication of these attributes. O'Keeffe (1998) and Champion and Fearne (2000) also argue that spot markets separate producers from processors which limits communication between these exchanging parties and creates difficulties in effectively transmitting both the "hard" and "soft" attributes of the product being exchanged. These authors therefore consider spot markets as "value bottlenecks" in instances where the spot market is required, but is unable to transmit attributes of the product that would create greater collective value in the supply chain.

The exchange between mohair producers and processors should therefore theoretically be governed by a vertical coordination strategy that can effectively and efficiently transmit the tangible and intangible attributes that mohair is argued to possess. This dissertation therefore proposes that the spot market, which the dissertation contends to be a "value bottleneck" in the mohair supply chain, at least for a proportion of the mohair clip, be augmented by a hierarchy of marketing arrangements. Such marketing arrangements would include the existing spot market and a combination of hybrid organizations characterised by more intensive coordination. Examples include long term contracts, cooperation agreements or some form of vertical ownership to offer the necessary structures to transmit the attributes, as argued earlier, more effectively between producers and processors and ultimately the whole mohair supply chain when necessary. This implies that the spot market for mohair would continue to exist in tandem with more intensively governed marketing arrangements as described above. Boehlje (1998) assents to this proposal by pointing out that that various forms of negotiated coordination systems become more effective and necessary for efficient functioning of the production and distribution system in the current agribusiness environment.

Marketing systems where the exchanges between supply chain members are predominantly governed by governance structures that require intermediate levels of coordination control, like long term contracts or cooperation agreements, also create the opportunity for greater cooperation amongst chain members. Champion and Fearne (2002) propose that a supply chain management (SCM) approach to the

marketing of wool would create greater value in the supply chain and foster an environment where supply chain members cooperate and share the value created in the supply chain equitably - a "win-win" situation for the whole supply chain. These authors consider SCM as "an overarching philosophy" for an entire marketing system which creates value by allowing effective communication and the transmission of "hard" and "soft" product characteristics from raw material to the consumer. A marketing system for South African mohair that embraces more intensively coordinated governance structures like long term contracts, cooperation agreements or some form of vertical ownership is also suited to a supply chain management approach like Champion and Fearne (2000) describe.

The discontinued or diluted use of a spot market as proposed is, however, not without pitfalls. The spot market price for mohair is currently the only price forming mechanism where the price is known upon the conclusion of a transaction and made known publicly. This public price is usually used as the yardstick for negotiating prices for mohair exchanged *via* other vertical coordination mechanisms. If the use of the spot market were to be discontinued there would be no yardstick to use for negotiating prices and alternative mechanisms would need to be developed to determine prices. A possibility is deducing a price from the final product price and then deducting the processing costs and margins of intermediaries to arrive at a final producer price. Such a process would, however, be fraught with opportunities for opportunistic behaviour and significant levels of trust and transparency would be necessary for such a price formation system to function effectively.

Much the same argument holds for the diluted use of the spot market. Within a free market environment where actors are free to choose any vertical coordination mechanism the volumes of mohair that would pass through the spot market are expected to dilute as producers seek other vertical coordination strategies to govern the exchange between themselves and processors. As the volume of mohair that is exchanged on the spot market declines, the effectiveness of price discovery on the spot market also declines. Volumes for specific types of mohair may even decline to a point where volumes are so low that the effectiveness of the price formation mechanism becomes doubtful. The use of spot market prices formed under such, less than ideal, circumstances to negotiate prices for mohair therefore also becomes a

doubtful practice and alternative means to determine a price become warranted. This is especially relevant in the relatively small mohair industry where volumes available on a spot market can easily drop below the critical levels necessary to ensure effective price formation.

## 4.8 CONCLUSION

This chapter has sought to review the possible marketing governance structures that could govern the exchange between mohair producers and processors as facilitated by the relevant intermediaries. The theoretical frameworks proposed by Mahoney (1992) and Peterson, *et al* (2001) are used as a guide to propose more suitable vertical coordination strategies between mohair producers and processors. These frameworks reveal that, as a result of mohair's attributes, the nature of the assets necessary to produce and process mohair and the nature of the transaction between the parties, the exchange between mohair producers and processors should be governed by some form of contracting or cooperation between the transacting parties. Mohair is argued to be a product with both tangible and intangible attributes and; that the current spot market that governs the exchange between producers and processors allows costly coordination errors to occur and value to be lost, at least for a proportion of the clip, since the spot market does not allow the effective and efficient communication of these attributes.

It is therefore proposed that the spot market, which this dissertation contends to be a "value bottleneck", at least for a portion of the mohair clip, be augmented by more intensively coordinated governance structures like long term contracts, cooperation agreements or some form of vertical ownership to offer the necessary structures to transmit these attributes more effectively between producers and processors and ultimately the whole mohair supply chain. This implies that the spot market for mohair would continue to exist in tandem with more intensively governed marketing arrangements as described above. A marketing system for South African mohair that embraces more intensively coordinated governance structures like long term contracts, cooperation agreements or some form of vertical ownership is also suited to a supply chain management approach like Champion and Fearne (2000) describe.

The discontinued or diluted use of a spot market as proposed is, however, not without pitfalls. The spot market price for mohair is currently the only price forming mechanism where the price is known upon the conclusion of a transaction and made known publicly. If the use of the spot market were to be discontinued or diluted there would be no reliable yardstick to use for negotiating prices and alternative mechanisms would need to be developed to determine prices. A possibility is deducing a price from the final product price and then deducting the processing costs and margins of intermediaries to arrive at a final producer price.

In short proposition Two ($H_2$) of this dissertation: "Spot market coordination is the only suitable platform to govern the exchange of mohair between mohair producers and mohair processors" is therefore also categorically rejected following the arguments in this chapter that illustrate that there are more suitable coordination mechanisms to govern the exchange between mohair producers and processors.

# CHAPTER 5

# THE CAMDEBOO CASE STUDY

## 5.1 INTRODUCTION

Having argued the different cases for mohair's unit type, a number of alternative coordination mechanisms that could govern the exchange between mohair producers and processors have been identified. These alternatives were arrived at through frameworks that seek to minimize the costs involved for the parties to transact with each other by taking into consideration the nature of the item and the nature of the transaction. Based on mohair's unit type and the nature of the exchange, governance structures along the vertical coordination continuum characterised by greater levels of coordination, were argued to be more suitable to the current spot market open cry auction to govern the exchange between mohair producers and processors.

Recent developments in the mohair industry have seen the establishment of a company owned by South African mohair producers that aims to collectively produce and market exceptionally high quality mohair. This company is seeking to apply principles of "supply chain management" in the marketing of their mohair and is a "new" initiative in the marketing of mohair. This chapter critically analyzes this producer group's approach to the marketing of their mohair and the governance structures they apply to facilitate the exchange between producers and processors against the background of the governance structures that were identified for the South African mohair clip earlier in this dissertation.

## 5.2 HISTORICAL DEVELOPMENT

South Africa, and specifically the Eastern Cape Province, is recognised as the heartland of global mohair production. Over time this region established an enviable reputation for producing exceptionally high quality mohair. In recent times this reputation has, however, come under pressure through the blending of South African mohair and inferior fibres from different origins. Camdeboo was established in 2000

as a private company owned by a group of South African mohair producers in an effort to reinstate the reputation of South African mohair. The establishment of Camdeboo was preceded by a philosophy amongst leading mohair producers that the viability and survival of South African mohair producers is directly linked to (Camdeboo, 2005):

- An accessible marketing infrastructure;
- The need to establish a quality related, competitive advantage of exclusivity;
- The need to establish a recognised quality guarantee system;
- The establishment of a "value system" in harmony with nature; and
- Addressing the specific needs of agents, processors and end-product manufacturers at a local and international level.

The Camdeboo concept was the brainchild of six leading mohair producers who recognised the value and importance of collective marketing and the establishment of a globally recognizable brand in combination with a stronger aligned and coordinated supply chain within the dynamic global agricultural marketing environment. The initial group of six producers agreed to form a company that would, by including more producer partners, grow to become the world's primary source of exclusive quality mohair. The vision of the company is to produce the highest quality mohair in the world and offer a customer based service in support of this activity.

### 5.2.1 The Camdeboo producer group

As noted earlier Camdeboo is a producer-owned company with membership now (2005) totalling some eighty South African mohair producers primarily located in the Eastern and Western Cape Provinces of South Africa. Membership of the group is strictly controlled and prospective members are generally granted membership if they can meet and maintain the minimum Camdeboo quality related standards discussed in the Camdeboo Value System below. The members of the company all pay an annual "membership fee" and are subject to trial membership to make sure that the producer conforms to the quality standards that the company sets for its members. A probation

period is also applicable should the quality of the producer's mohair drop below the standards necessary to market the producer's mohair as Cambedoo mohair.

The core of Camdeboo's members are leading South African mohair producers that have proved themselves as producers of the best and most exclusive quality mohair available in the world. The stature of Camdeboo's producers is evident from the various, prestigious international quality related awards that these producers continuously win in recognition of mohair of exceptional quality. Collectively Camdeboo producers produce 12% of the total global mohair clip and almost all of the most exclusive quality mohair available in the world (Camdeboo information brochure, undated)

### 5.2.2 The Camdeboo value system

The defining characteristic of the Camdeboo business system is that it seeks to create a recognised value system that guarantees the quality of mohair produced under the Camdeboo brand name. This, in turn, is supported by agreements throughout the supply chain to safeguard the quality, and support the guarantees that are provided. The Camdeboo value system entails that certain minimum requirements be met regarding the objectively measurable quality of the mohair and for those producers, to ensure mohair of exceptional quality, to also apply certain good practice principles. The broad outlines of the value system are:

- Producers are to follow basic good production practices for mohair through progressive breeding, optimal shearing schedules and husbandry practices that are conducive to high quality mohair production;
- Producers must adhere to the official classification and packaging standards determined by the mohair industry under the protection of the Marketing of Agricultural Products Act (Act 47 of 1996).
- Producers must take preventative action to eliminate pollution from the grazing area through production to the point of delivery;
- Producers must adhere to accepted grazing systems.

Through the implementation of this value system Camdeboo has achieved a verifiable difference in the pure physical attributes of mohair produced by Camdeboo producers versus that of other (non-Camdeboo) mohair producers. Tests conducted by the South African Wool Testing Buro on pure Camdeboo mohair tops and standard non-Camdeboo tops, both of similar high quality. Through recognised scientific methods for testing wool and mohair, a number of important physical parameters relating to the quality of the mohair were analysed. These parameters are related to the processing qualities of the mohair and ultimately the quality of the final item that is manufactured from the mohair. The tests revealed that mohair fibre produced by Camdeboo producers would generally be stronger (fewer breakages) and more uniform than "standard" mohair fibre thus enabling the spinning of a finer and more uniform yarn. The comfort factor of the Camdeboo yarn was also found to be significantly higher than for a "standard" yarn despite both yarns being spun from similar tops. In all of these instances the Camdeboo mohair was found to have superior processing and final product attributes of like "quality" standard mohair (Reynolds, Personal communication, 2005). The Camdeboo group ascribes these differences to the implementation of their value system where producers are compelled by a membership agreement to adopt the "good practice system" as described above. Reportedly this value system yields mohair of exceptional quality with processing and final product attributes, superior to like quality standard mohair.

Recent price analyses have also revealed that Camdeboo producers earn, on average, higher prices for mohair than producers of standard mohair of like quality. The price data reveals that during 2001, 2002 and 2003 Camdeboo producers earned on average 6.74%, 12.72% and 16.29% respectively more than the overall average market price for the same period (Reynolds, Personal communication, 2005). It is noteworthy how, on average, Camdeboo producers' prices have increased in comparison to average market prices as the Camdeboo initiative gained momentum.

When the data of the individual Camdeboo producers is perused it is noted that currently not all producers are, however, able to secure prices that exceeded the average market prices. For the period 2001-2003 about 30% of Camdeboo producers received average prices below the average market price. This can be due to a number of reasons. The first is that new entrants into the Camdeboo group my not have

improved the quality of their clips to such an extent that they can secure prices higher than the overall average market price. Adverse production conditions (drought, disease, cold) could also have negatively influenced producers' ability to produce the quality mohair that would elicit prices higher than the overall market price (Camdeboo, 2003).

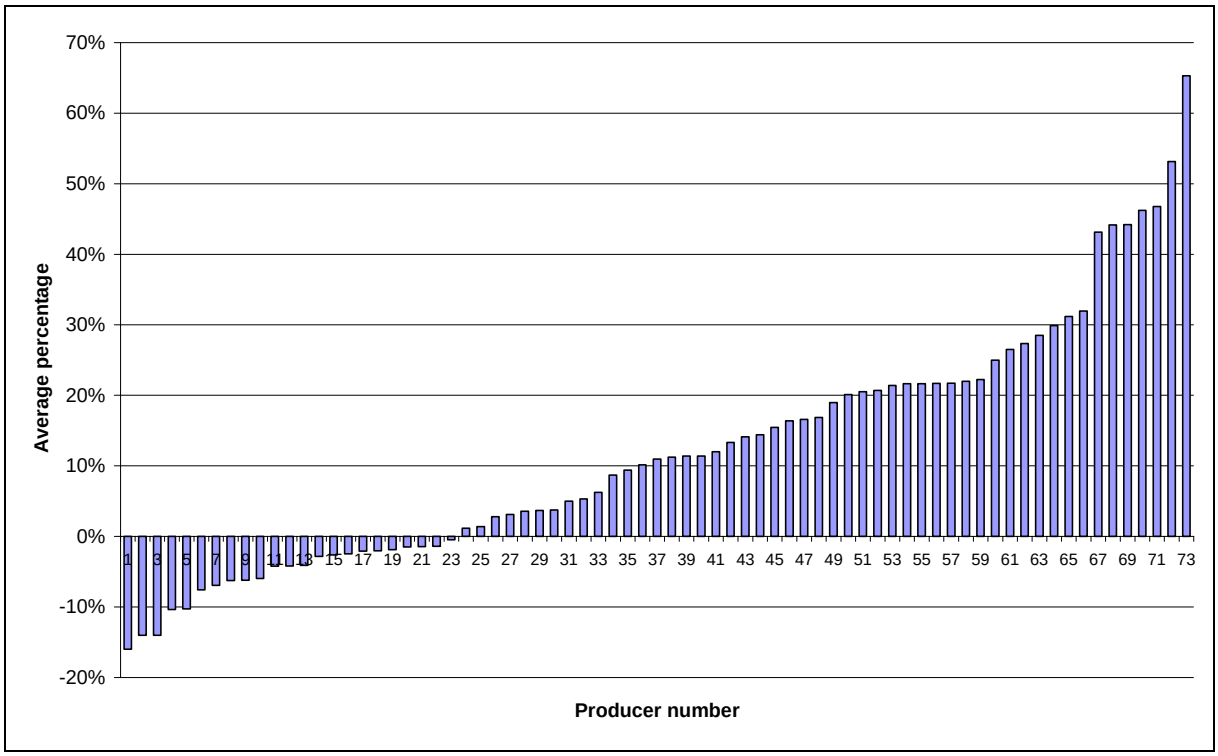



**Figure 5.1: The average percentage above or below overall average market price (2001-2003) that individual Camdeboo producers achieve. Presented in ascending order**

*Source: Camdeboo, 2003*

The remaining 70% (2001-2003) of Camdeboo producers were able to secure average prices greater than the overall average market price. Of these, 15% of the producers secured prices 0% to 10% higher and 55% of the producers 10% to 65% higher than the overall average market price. On average at least 70% of Camdeboo's producers were therefore reaping benefits in the specific period through higher than average prices, as a result of their Camdeboo membership and the resulting quality of mohair that they produce (Camdeboo, 2003).

Camdeboo uses this as further proof of the success of their value systems and the ability thereof to create trust amongst mohair buyers regarding the quality of the mohair. The tangible and intangible attributes that are instilled in Camdeboo mohair through this value system are then protected through the mohair supply chain. The transmission of these attributes can be ascribed to the formation of a number of partnerships to be discussed below.

### 5.2.3 The Camdeboo marketing system

The Camdeboo marketing system is based on the value system that the company has put in place as a guideline to ensure the production of mohair with certain tangible and intangible attributes. The Camdeboo marketing system then theoretically "translates" these attributes through the supply chain from greasy mohair production through processing to final products.

The translation of the unique characteristics of Camdeboo mohair from greasy mohair producers to end product users is achieved by formal licensing agreements with selected clients who share similar "values" with Camdeboo regarding the quality of mohair. The formal agreement between the clients and Camdeboo allows the licensed clients access to Camdeboo mohair of their specification and the limited exclusive use of the Camdeboo brand name and the associated goodwill of the brand name. In turn Camdeboo provides an assurance that the mohair (greasy mohair, top, yarns or fabric – depending on the level of processing) is pure Camdeboo mohair. The primary aim of the agreements between Camdeboo and their clients are to:

- Determine and fulfil the needs of the clients. Through agreements, direct contact, closer relationships and the consequent improvement in communication processors can specify to Camdeboo the quality and quantity of raw mohair they desire to manufacture a specific final product. Camdeboo can then plan production, classing and delivery of the mohair of specific quality and quantity on the date the mohair is required. Through closer contact and improved communication both parties are therefore able to plan better and have their specific needs attended to as best as possible.

- Improve inventory management along the supply chain. As a result of the agreements, closer relationships and consequent improved communication processors will be certain of the timing, quality and quantity of the raw mohair that will receive and would not need to keep large inventories. This results in savings sprouting from smaller warehousing facilities, shorter stock turn-over periods, less wastage, less speculative buying and selling and greater flexibility in the supply chain for both parties.

The Camdeboo marketing system is supported by a "closed inventory system" where Camdeboo mohair moves from production through processing and exits the supply chain when the final products are offered in retail outlets. Camdeboo internally coordinates a system of checks and balances with each of its licensed partners at different levels of the supply chain to ensure that the mohair in the Camdeboo supply chain remains pure Camdeboo mohair and that there are no infringements of the quality or integrity of the mohair in the Camdeboo supply chain.

The closed system is driven by a barcoding system that records the history of the raw mohair and its consequent products as it traverses the supply chain. At producer level each lot of mohair that qualifies to be marketed under the Camdeboo brand name is assigned a unique barcode that records the details of the Camdeboo producer and the quality details of the mohair. When the mohair is sold to a top maker Camdeboo issues the licensed top maker with barcoded labels with all the historical information of the mohair thus far to fix to the tops. When the top maker sells the Camdeboo tops to a licensed Camdeboo spinner Camdeboo is notified of the quantity and quality of the tops that are sold to the spinner so that the quantity and quality of the tops can be verified, after processing losses have been taken into consideration, with the quantity and quality of the raw mohair that the top maker purchased.

Following the verification process Camdeboo issues the licensed spinner with barcoded labels with all the historical information of the mohair thus far to fix to the yarns that the spinner produces. When the spinner then sells the Camdeboo yarns to a licensed Camdeboo weaver Camdeboo is notified of the quantity and quality of the yarn that is sold to the weaver so that the quantity and quality of the yarn can be

verified, after processing losses have been taken into consideration, with the quantity and quality of the tops that the spinner purchased from the top maker. This system perpetuates itself to the point where final products are available in retail outlets with a barcode providing all the historical information (details of supply chain role players, quality, and quantity) of the final product back through the supply chain to the point of raw mohair production in South Africa. This system ensures that non-Camdeboo mohair never enters the closed supply chain and that final products are completely traceable from the point of production through processing and manufacturing to the item that consumers finally purchase.

The pillars of the Camdeboo marketing system are the production of mohair with unique characteristics that would differentiate Camdeboo from other mohair and serve as the basis for the development of a globally recognisable brand. The marketing system also aims to establish partnerships with clients through personal interaction and the licensing of clients to use the globally registered Camdeboo brand name. In summary, the Camdeboo marketing system integrates planning, controlling and optimising the flow of information and Camdeboo mohair from the point-of-origin through the mohair supply chain between producers, service providers to end-users with a primary focus on satisfying the needs of the end-user.

### 5.2.4 Vertical coordination strategies in the Camdeboo marketing system

Reverting to the central theme of this dissertation regarding the vertical coordination strategies that govern the exchange between mohair producers and mohair processors the following section aims to discuss these issues in relation to the Camdeboo marketing system and its vertical coordination strategies.

### 5.2.5 Current vertical coordination strategy

The spot market based open cry auction also currently dominates as the primary vertical coordination strategy between Camdeboo mohair producers and the buyers of this exclusive quality mohair. Mohair that has been produced by a Camdeboo producer (and which qualifies to be marketed under the Camdeboo brand) is also offered for sale on the open cry auction held for mohair and is only differentiated

from other mohair through the additional specification in the mohair sale catalogue that the mohair is certified Camdeboo mohair. Despite the numerous agreements that the Camdeboo marketing system promulgates between the Camdeboo producer group and any of a number of mohair supply chain members further down along the supply chain none of these arrangements pertain specifically to the mechanism to govern the exchange. This is an obvious shortcoming of the current Camdeboo marketing system notwithstanding the importance of having an appropriate governance structure in place to preserve the intrinsic value created in the production process of Camdeboo mohair throughout the entire mohair supply chain.

### 5.2.6 Camdeboo's unit type

Mohair's overarching unit type has been discussed earlier in Chapter 3 and compelling arguments were made that mohair can generally be considered as a product. This implies that mohair is generally scarce and is quite diverse in its physical properties and despite a well-structured classification system it is by no means homogenous. When Camdeboo mohair is considered in terms of its unit type a number of factors come into consideration. As noted earlier in this chapter Camdeboo mohair is differentiated from standard mohair through a number of factors. These factors include tangible attributes like certifiable quality and improved processing characteristics and intangible attributes like environmentally friendly production practices and close coordination with members further along the supply chain.

In defining Camdeboo mohair's unit type it is quite clear that compelling arguments can be made for Camdeboo mohair to be defined as a product or a niche product that is different and distinguishable from other mohair. This classification is supported by the fact that it has been argued that mohair in general can be considered as a product and the additional attributes that Camdeboo mohair possesses when compared to that of standard mohair, further strengthens this argument.

### 5.2.7 Vertical coordination alternatives

The Mahoney (1992) framework used earlier in this dissertation can also be used as a means to analyse the vertical coordination alternatives available to the Camdeboo

producer group to govern the exchange between the producer group and mohair processors (*via* the respective intermediaries). The table below summarises arguments for the elements of the Mahoney (1992) framework as they pertain to Camdeboo mohair. The analysis reveals that, regarding the relationship between Camdeboo mohair and mohair processors, asset specificity and task non-seperability are both relatively high while there are mixed levels of programmability.

The arguments summarised in the table lead to the conclusion that the most desirable vertical coordination strategy for the Camdeboo mohair producer group will be a strategy characterised by relatively high levels of coordination. Such alternatives, according to the Mahoney (1992) framework, include contracting, cooperation agreements and various forms of vertical ownership.

**Table 5.1: Asset specificity, non-seperability and programmability for Camdeboo mohair producers**

| | Level | Description |
|---|---|---|
| Asset specificity | High | Investment in and breeding of high quality Angora goats. Camdeboo producers have to invest in Angora goats that are genetically capable of producing mohair that qualifies to be marketed as Camdeboo mohair. Investment in superior rams from stud breeders to use in the breeding system is an example of such an investment. The greater the breeding qualities of a ram the greater the producer's specific investment in the production of high quality mohair.<br>Specific capital investment in on-farm infrastructure such as shearing sheds and holding pens. The "Operations Manual" of Camdeboo places specific requirements on the infrastructure of the producers that they use to produce mohair. These requirements are qualifying criteria for Camdeboo membership and require higher standards of infrastructure than what is generally found on most fibre producing farms.<br>Investment (producer investment in himself) in specific human capital to produce Camdeboo mohair.<br>Investment in the association with a specific brand name in the Camdeboo brand name. Manifested through minimum membership period of 3 years accompanying subscription and membership fees. |
| Non-seperability | High | Non-seperabilitiy is high because the Camdeboo marketing system will only yield the associated value if the attributes instilled at producer level are guaranteed throughout the supply chain from production through processing to final garment manufacturing and marketing. This implies that all supply chain actors must work together to yield the desired results and task seperability is therefore low (as described earlier). |
| Programmability | Low<br>OR<br>High | Task programmability for Camdeboo mohair, like all other mohair varies between very low programmability resulting from the biological nature of production to high levels of programmability introduced by closer relationships between links in the supply chain to facilitate better planning |

### 5.2.8 Camdeboo's vertical coordination strategy future

The Camdeboo group have through their marketing system, their approach to marketing and the increased levels of cooperation between role-players by means of a collective structure made huge strides in keeping up with global trends in agricultural marketing. Probably unknown to the directors, the structures that they have instinctively begun to put in place are in theory good remedies for the problems that the mohair industry is suffering from with regards to the primary marketing of mohair.

The innovation in marketing driven by Camdeboo is, however, not quite complete. There is an obvious disconnect between the current vertical coordination strategy (in the form of the spot market based open cry auction) and the vertical coordination strategy recommended by the theoretical Mahoney (1992) framework used to choose an optimal strategy for Camdeboo. The reason for this disconnect can in all probability be ascribed to the historical development of mohair marketing in South Africa and the consequent establishment of a convention where the exchange between mohair producers and processors (*via* the relevant intermediaries) has for a long time been governed by a spot market based open cry auction. The bridging of this divide has the marketing system promulgated by Camdeboo as its foundation. The agreements that the Camdeboo marketing system seeks with members further along the mohair supply chain are already a step towards increased coordination in the Camdeboo supply chain as is expected from the Mahoney (1992) framework. The only characteristic lacking is a matching vertical coordination strategy to introduce the required level of coordination.

The effects of the misalignment between the current coordination strategy and possible alternative coordination strategies are higher transaction costs for both Camdeboo producers and processors of Camdeboo mohair. Camdeboo producers are expected to be exposed to costly coordination errors such as the inability to exploit or develop the non-material aspects of their mohair since the commodity marketing system (spot market coordination) won't allow the efficient communication of these attributes. The hypothetical occurrence of costly coordination errors is a result of the current coordination strategy's inability to control these errors that sprout from

marketing a differentiated product through essentially a commodity system. Mohair processors would also be affected by these costly coordination errors. Over and above the cost of the coordination errors they would also incur other transaction costs. These transaction costs would primarily take the form of search costs – the cost to search and to procure similar quantities of the quality of mohair that would be securely available through the Camdeboo value system if a more coordinated vertical coordination strategy were in place.

Through the adoption of a vertical coordination strategy characterised by increased levels of coordination the current exchange between Camdeboo mohair producers and processors of Camdeboo mohair would be optimised in terms of transaction costs. It is anticipated that this strategic move would theoretically improve the cost efficiency of the Camdeboo mohair supply chain and yield positive results for both parties to the transaction.

## 5.3 CONCLUSION

Recent developments in the mohair industry have seen the establishment of an innovative approach to the marketing of mohair by a number of prominent South African mohair producers. The aim of the initiative is to collectively produce and market exceptionally high quality mohair through close cooperation between mohair producers and members further along the mohair supply chain.

The historical development of the company was summarised and the reasons that brought about the innovation leading to the Camdeboo value system and consequent marketing system were reviewed in this section. The characteristics of the producer group, the value system that forms the core of the Camdeboo idea and innovation and finally the marketing system that supports this value system were also reviewed.

The final discussions revert to the central theme of this dissertation regarding the vertical coordination strategies that govern the exchange between mohair producers and mohair processors and the Camdeboo marketing system and its vertical coordination strategies. It is concluded that although the Camdeboo group have instinctively made huge strides in keeping up with global trends in agricultural

marketing and in remedying some of the shortcomings of the current marketing system for South African mohair, the innovation in marketing is not quite complete.

The continued use of a spot market to exchange a proven product in Camdeboo mohair is argued to be less than ideal resulting in relatively high transaction costs that could be reduced by other vertical coordination strategies. The agreements that the Camdeboo marketing system seeks with members further along the mohair supply chain are already a step towards increased coordination in the Camdeboo supply chain and the only lacking characteristic is a matching vertical coordination strategy to introduce the required level coordination. As noted in Chapter 4 the discontinued or diluted use of a spot market is, however, not without pitfalls. The greatest of these pitfalls being the formation of a price under circumstances where a public price for mohair may be absent or suspect as explained earlier.

It is argued in this chapter that through the adoption of a vertical coordination strategy characterised by increased levels of coordination the current exchange between Camdeboo mohair producers and processors of Camdeboo mohair would be optimised in terms of transaction costs between the two parties. It is anticipated that this strategic move would theoretically improve the cost efficiency of the Camdeboo mohair supply chain and yield positive results for both parties to the transaction.

# CHAPTER 6

# STRATEGIC INTRODUCTION OF ALTERNATIVE GOVERNANCE STRUCTURES

## 6.1 INTRODUCTION

The preceding chapter has reviewed the alternative supply chain governance structures for South African mohair. Arguments were made regarding the alternatives that would be most appropriate to govern the exchange between mohair producers and mohair buyers when taking the nature of mohair, its production and processing and the nature of the exchange between the parties into consideration. These discussions revealed that the exchange relationship between mohair producers and mohair buyers would benefit from increased levels of coordination – raised from the levels of control currently manifested by the spot market exchange of mohair on an open cry auction. This chapter reviews some aspects related to the strategic introduction of possible alternative vertical coordination strategies alongside the current dominant spot market governance structure. The demand for alternatives and possible strategies for implementing these alternatives are discussed in more detail.

## 6.2 THE DEMAND FOR ALTERNATIVES

The mail survey conducted amongst randomly selected South African mohair producers to understand their perceptions of "mohair marketing" in South Africa contained a number of questions pertaining to the current marketing system for mohair. Questions were put to producers to ascertain their opinion about the current marketing system. The first question tested the producer's willingness to consider alternative marketing systems for mohair if more alternatives for marketing mohair were to become available? Figure 6.1 below graphically presents the opinions of 44 producers (6.5% of the total South African clip) on this issue.

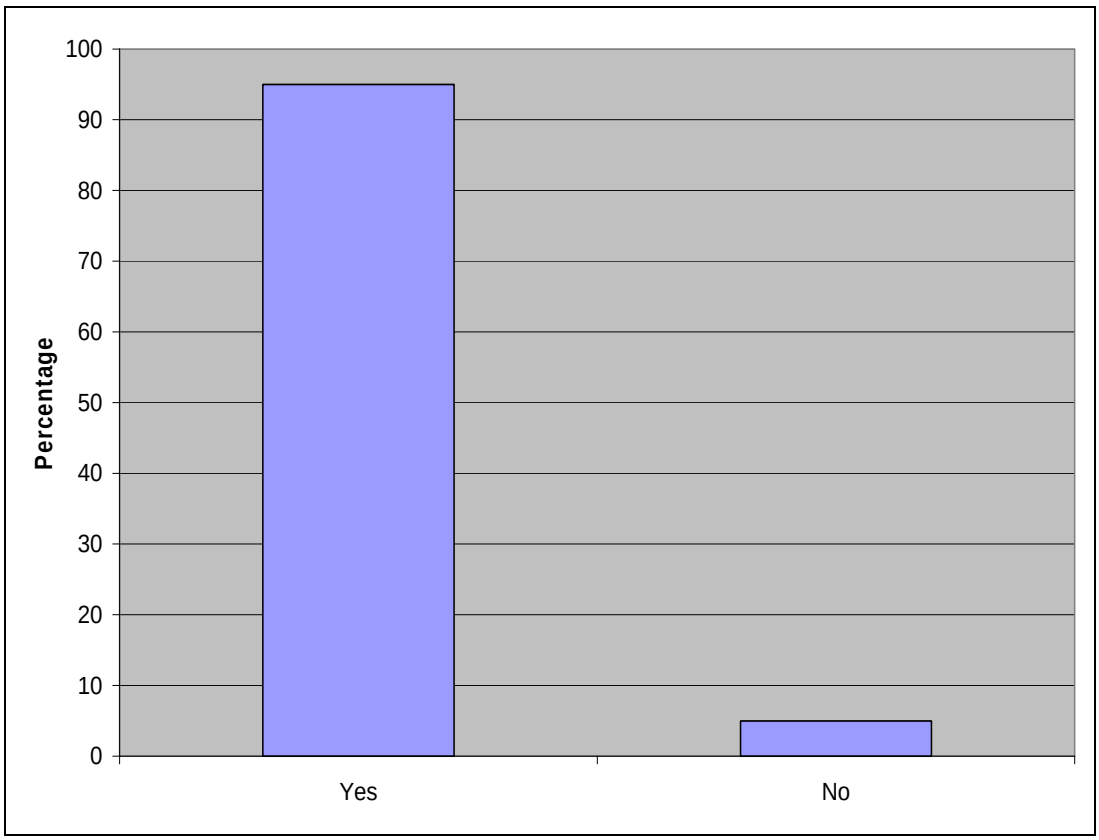



**Figure 6.1: The percentage of South African mohair producers willing to consider an alternative marketing system (n=44)**

It is quite clear that in excess of 90% of the respondents are willing to consider alternative marketing systems if they were available. Therefore, over and above the current spot market based open cry auction, producers are willing to consider other vertical coordination strategies to govern the exchange between themselves and mohair processors *via* the respective intermediaries. This can generally be ascribed to:

- Growing discontentment regarding the high price volatility that characterises the current marketing system and the results of this volatility on the viability of mohair production,
- The desire of some producers for improved interaction with the rest of the mohair supply chain,
- The desire of some producers for marketing systems that would reward qualities in mohair that are currently not recognised by the existing marketing system.

A further question ascertained whether producers thought that the benefits of increased levels of coordination in the marketing of mohair would be greater than the costs (n=34).

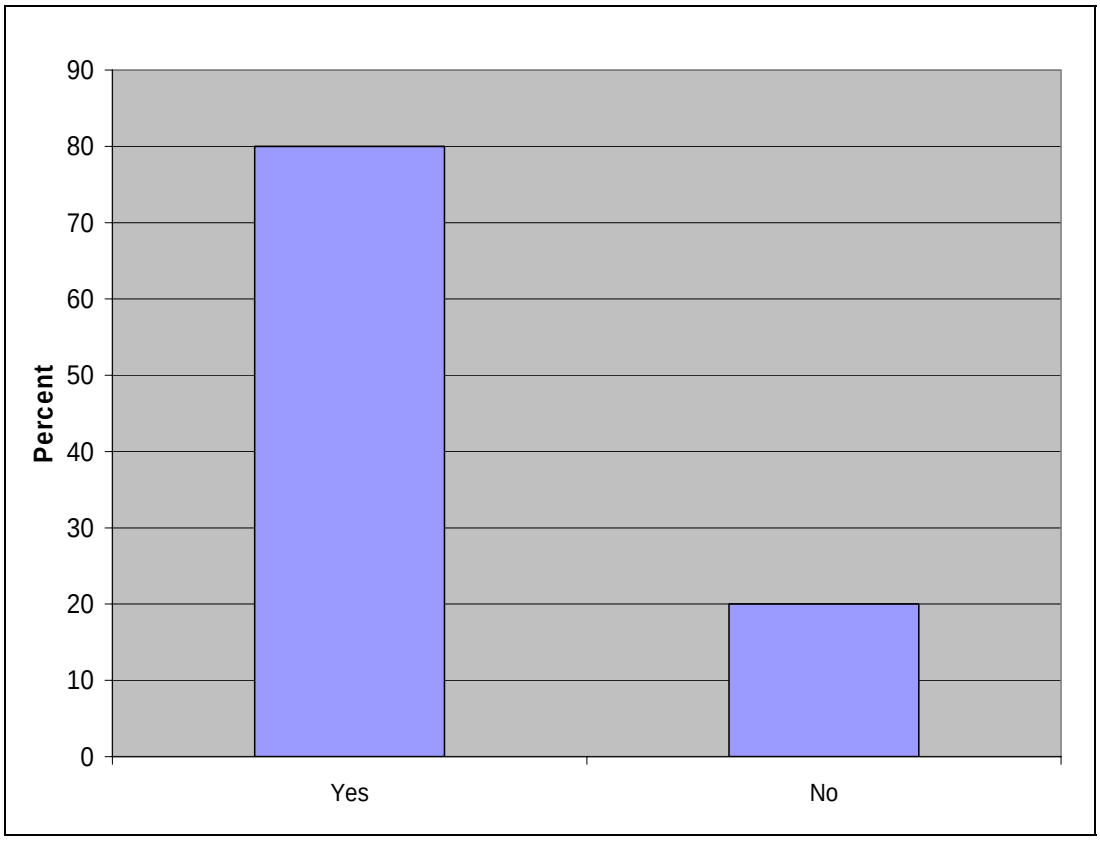



**Figure 6.2: The perception of producers regarding the costs and benefits of increased levels of coordination (n=34)**

Figure 6.2 illustrates that producers think that the benefits of increased levels of coordination in the marketing of mohair would be greater than the costs despite the fact that that there is currently no proof to support their beliefs.

The survey amongst producers also tested their willingness to consider making use of exchange mechanisms that are characterised by branding and/or certification where increased levels of coordination control are required. (n=38).

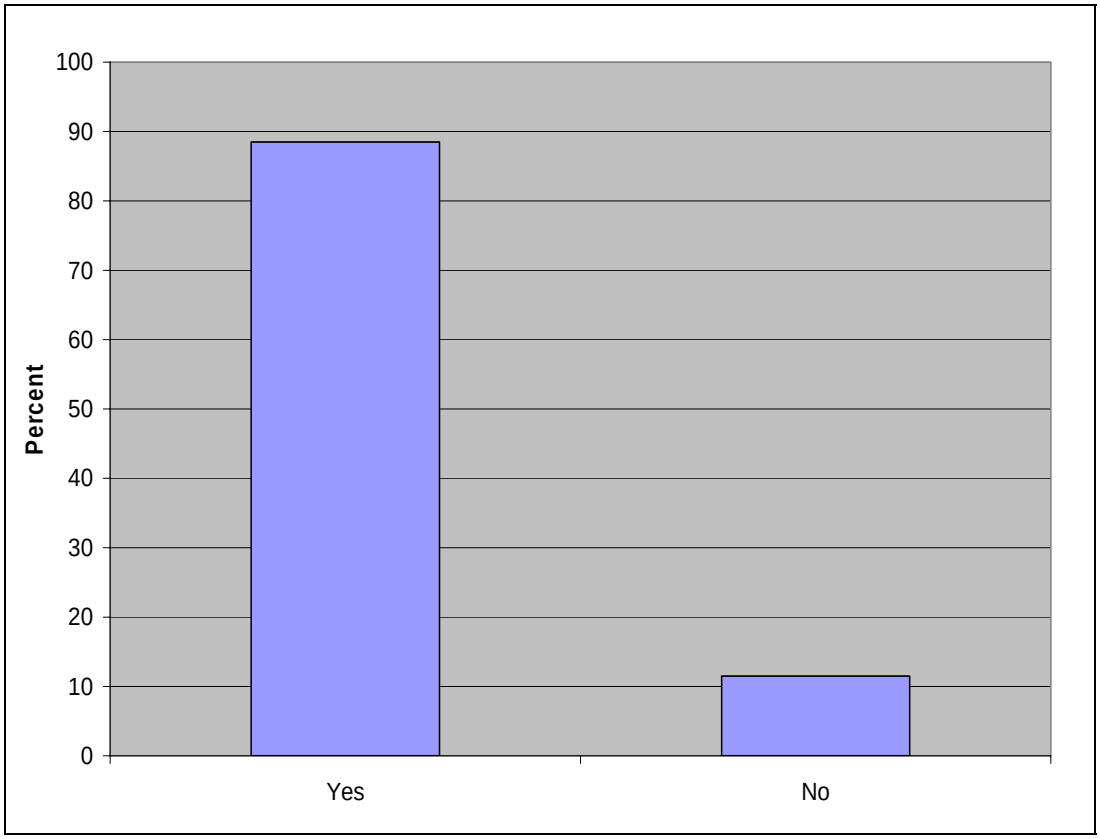



**Figure 6.3: The willingness to consider exchange systems requiring increased levels of coordination (n=38)**

The opinions presented by Figure 6.3 confirm producers' beliefs that the benefits of increased levels of coordination are greater than the costs. It is discernable since in excess of 80% of the producers who answered the question considered making use of exchange mechanisms that require increased levels of coordination control from the current spot market based open cry auction.

From the questions put to South African mohair producers as discussed above a number of deductions can be made regarding mohair producers' opinions of current and potential coordination strategies to govern the exchange between mohair producers and mohair processors *via* the respective intermediaries. Firstly, it is quite clear that there is a demand amongst producers for more marketing options than are currently available to them. It is also clear that producers think that the benefits of increased coordination control are potentially greater than the associated costs and consequently a large majority of the producers that were interviewed were also

willing to consider making use of marketing alternatives that require increased levels of coordination control.

When the deductions made above are viewed alongside the arguments put forward in previous chapters where increased levels of coordination control are argued to be more suitable for governing the exchange between mohair producers and mohair processors, there is a proven need and demand for alternatives for producers over and above the spot market exchange currently available to them.

## 6.3 PRODUCERS' TRUST

This section reviews some aspects related to the implementing of alternatives should such measures be chosen in the light of the theoretically argued need and perceived producer demand for alternative governance structures. Producers' level of trust in a number of role players within the mohair supply chain is used to construct arguments related to possible strategies to successfully implement additional vertical coordination strategies to govern the exchange between mohair producers and mohair processors.

### 6.3.1 Trust and the implications for implementing alternatives

The levels of trust between parties that share an economic and/or exchange relationship are proven to be important. Relatively high levels of trust between exchanging parties creates relatively high levels of transactional efficiency (Arrow, 1974). Burchell and Wilkinson (1997) also point out that a relatively high level of trust between transacting parties generally reduces transaction costs for the exchange between the parties. In the context of the exchange between mohair producers and mohair processors the lowest level of transaction costs associated with the introduction of "marketing" alternatives between the two parties would therefore be achieved where there are the greatest levels of trust. This is reiterated by Wilson and Kennedy (1999) who point out that "trustworthiness increases business flexibility, reduces risk, saves managerial time and reduces monitoring costs".

Barney and Hansen (1994) developed a conceptual model of trust relationships in business and this model was adopted for analysing some trust relationships in the South African mohair industry. The postal survey that was mailed to randomly selected South African mohair producers also included questions aimed at eliciting their opinions of trust in the mohair supply chain. The questions pertaining to trust focused on the one-way trust relationship between the mohair producer and a number of role players in the South African mohair supply chain. Trust categories (Table 6.1) were explained to the producers in a short paragraph prior to the questions relating to trust. The producers were asked to note the level or type of trust that characterised their business relationship with mohair brokers, mohair buyers and Mohair South Africa (MSA). The levels of trust available to producers were distributed over a five point scale with the lowest level of trust indicated by 1 and the highest by 5 – a scale as described by Wilson & Kennedy (1999).

**Table 6.1: Trust categories for exchange relationships**

| | |
|---|---|
| Trust | The confidence that any vulnerabilities you might have in a market exchange will not be exploited by the other party. The certainty that you will not be taken advantage of by the other business or individual. |
| Weak trust | Exchanges where there is limited opportunity for one party to exploit the other. Neither party is vulnerable; the quality of goods and services can be evaluated at low cost, and no money or time needs to be invested in contracts. For example, highly competitive product markets will be a form of weak trust where both parties win in an exchange. Examples would be buying petrol for your car; buying groceries; hiring temporary labour, selling your mohair on an auction. |
| Semi strong trust | Exchanges where vulnerabilities exist but you are protected by a formal or informal contract, by your power to leverage the other party's reputation if he fails to comply, or by membership in a governing organization that will enforce compliance. For example, you may sign a contract or verbalize a contract to deliver a certain amount of mohair of a certain quality to a certain buyer. |
| Strong trust | Exchanges where vulnerabilities exist but you are protected by a set of values, principles and standards of the other party that have been internalised by that individual or firm. Any exploitation of your vulnerabilities would be against the values, principles, and standards of behaviour of the other party. Although there is opportunity for cheating, business is conducted irrespective of the existence or non-existence of any contract, enforcement mechanism, or policing organization. For example a buyer helps you by taking excess inventory off your hands. |

*Source: Wilson & Kennedy, 1999 as adapted from Barney & Hansen, 1994*

The producers were also asked to note the total volume of mohair that they produce annually, their total annual income from mohair and the percentage contribution of mohair to their overall farming income.

### 6.3.2 Trust in the South African mohair supply chain

Following the questions that were put to South African mohair producers regarding their trust of role players along the mohair supply chain the answers were analysed and are summarised in Figures 6.4 and 6.5 below.

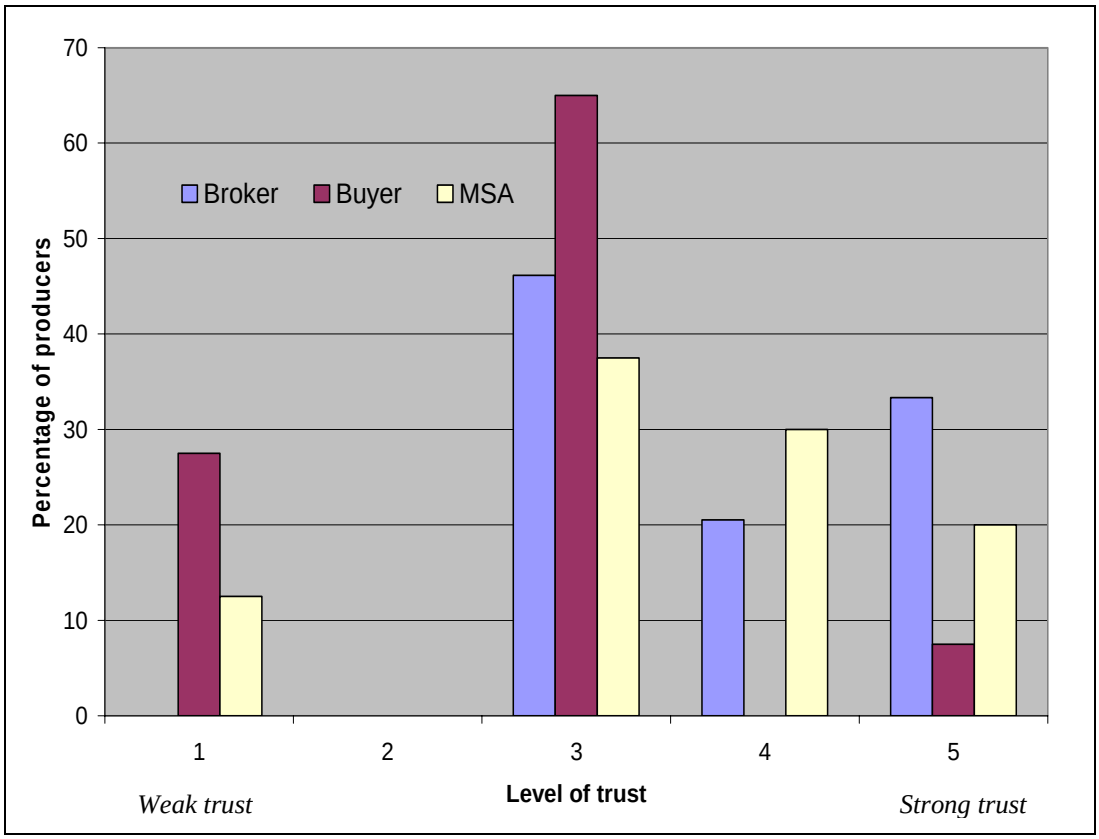



**Figure 6.4: The level of trust of South African mohair producers in a number of supply chain role players (n=44)**

Producers' trust relationship with mohair brokers is characterised by relatively high levels of trust ranging from semi-strong trust to strong trust. This implies that the relationship between mohair producers and mohair buyers is characterised by the existence of vulnerabilities between the two parties, but both parties are protected by some form of contract or set of values, principles and standards that have been internalised by both parties. These vulnerabilities are opportunism, information asymmetry and moral hazard for both parties. Any exploitation of vulnerabilities would either constitute a breach of contract or be against the values, principles and

standards of the relationship between the two parties. Amongst the producers that were interviewed no producer had weak trust in the brokers. The conventional trading of mohair up to date has required that producers and brokers have had to interact frequently to exchange information regarding extension, prices, delivery times etc. These frequent interactions over an extended period of time are conducive to the development of trusting relationships and can therefore explain the rather high levels of trust in the brokers.

Producers' trust relationship with mohair buyers is characterised by high levels of semi-strong trust. Some producers also expressed notable levels of weak trust in mohair buyers. This implies that the relationship between mohair producers and mohair buyers is generally characterised by the existence of vulnerabilities between the two parties but both parties are protected by some form of contract to govern the exchange and any exploitation of these vulnerabilities would either constitute a breach of contract. Like with brokers these vulnerabilities are opportunism, information asymmetry and moral hazard for both parties. The significant levels of weak trust producers express regarding their relationship with mohair buyers typifies the relationship that these parties have across the spot market exchange platform where there is limited opportunity for one party to exploit the other. Generally the trust relationship that mohair producers have with mohair buyers is characterised by a perception that there is a limited opportunity for one party to exploit the other although such vulnerabilities are supposedly protected by some form of contracting. In contrast to brokers the general level of trust expressed in buyers is significantly lower. Since brokers have acted as intermediaries between producers and buyers and mohair has been exchanged through a spot market with limited interaction between the exchanging parties there has been little or no need for interaction between producers and buyers. The consequence of the historically limited interaction between producers and buyers is that trusting relationships were unable to develop and this could therefore explain the level of trust that producers express for buyers.

In the final instance we also considered producers' trust relationship with Mohair South Africa (MSA). Mohair producers characterise their trust relationship with MSA as ranging from semi-strong to strong. Some producers also expressed levels of weak trust in MSA. Although mohair producers and MSA don't have a trading relationship,

MSA is the industry organisation that is tasked with the responsibility of coordinating and collectively representing the South African mohair industry and should by definition, as an industry representative organisation, elicit broad based trust amongst the whole industry. MSA seems to be successfully fulfilling this role as industry representative organization since those producers that answered the questionnaire indicated that there is a trusting relationship between producers and MSA. The composition of MSA with producers, brokers, buyers and farm workers democratically elected to represent the interests of the respective sectors on the board of MSA qualifies MSA as an impartial body. The impartiality of MSA and its primary function as industry representative body in the mohair industry are the primary incentives for the levels of trust that producers express for MSA.

The levels of trust that South African mohair producers perceived for other role players along the mohair supply chain was also analysed to test whether there is any relationship between the levels of trust that producers had for the different "agents" with whom they had interactions with. A chi-square test for independence was used to determine if the trust that producers expressed for a particular "agent" in the mohair supply chain was dependent on the trust expressed for another "agent" in the mohair supply chain.

**Table 6.2: Chi–square test for independence of the level of trust that mohair producers expressed for different "agents"**

| Producer trust by "agent" | Broker x Buyer | MSA x Buyer | MSA x Broker |
|---|---|---|---|
| Chi-square value | 5.151 | 10.152 | 7.942 |
| Prob. > $\chi^2$ | 0.272 | 0.118 | 0.242 |
| N | 38 | 39 | 38 |

The results of the chi–square test for independence as summarised above reveal that there are no relationships between any of the categorical variables. This implies that the level of trust that producers have in one "agent" is not dependent on the level of trust expressed for another agent. South African mohair producers therefore establish a level of trust in each "agent" with whom they interact independently and do not allow their level of trust in one "agent" to influence their level of trust in another "agent".

An analysis of variation was also conducted to determine whether any inherent characteristics of producers determined their level of trust in brokers, buyers or MSA. The volume produced, the value of production and the percentage of total income from mohair were used to asses whether these characteristics influenced the level of trust that mohair producers had in the respective agents.

**Table 6.3: ANOVA for certain producer characteristics and the level of trust that producers express in a number of mohair supply chain role players.**

| ANOVA | Trust Broker n=38 | | Trust Buyer n=39 | | Trust MSA n=38 | |
|---|---|---|---|---|---|---|
| | F value | Sig. | F value | Sig. | F value | Sig. |
| Volume produced | 1.006 | 0.378 | 0.504 | 0.609 | 0.472 | 0.704 |
| Value of production | 0.726 | 0.497 | 0.489 | 0.620 | 1.064 | 0.389 |
| Percentage of total income from mohair | 0.063 | 0.939 | 0.415 | 0.664 | 0.377 | 0.770 |

The ANOVA analysis as summarised above shows that there is no significant difference between the average volumes, value or percentage of income from mohair based on the different levels of trust in brokers, buyers or MSA. Therefore, the level of trust that producers have in brokers, buyers or MSA is not determined by the relative volume or value of mohair that they produce nor the percentage of the total income that producers earn from mohair. It should however be noted that the number of observations that were used in this analysis was limited – a result of the relatively low response rate.

### 6.3.3 Trust and the practical implementation of alternative governance structures

As noted earlier the level of trust between parties that share an economic and/or exchange relationship is an important determinant of the efficiency of the exchange. Notably increasing levels of trust between transacting parties generally reduces transaction costs for the exchange between the parties. In the context of the exchange between mohair producers and mohair processors and the possible implementation of

alternative vertical coordination strategies to govern the exchange between these parties it is anticipated that the lowest level of transaction costs associated with the introduction of "marketing" alternatives between the two parties will be achieved through agents where the greatest levels of producer trust are exhibited.

As a result of the superior levels of trust that producers' have expressed in brokers, more so than in mohair buyers, it would be safe to argue that the implementation of any alternative vertical coordination structures would be implemented (or facilitated) with the least transaction costs by brokers. Brokers, as intermediaries between mohair producers and mohair processors, would therefore seemingly be the most obvious agent to implement (or facilitate) any alternative "marketing options" within the South African mohair supply chain. This argument is further strengthened by the fact that brokers already fulfil a very important role within the mohair supply chain as service providers of a diverse number of services to livestock producers (extension, aggregation, marketing information, input supplier etc) and are generally a mohair producer's first contact point in the mohair supply chain. Brokers are historically also well suited to interacting with mohair producers as a result of their historical development, their rural networks and close association with producers.

Recent developments support the argument that mohair brokerage firms, as intermediaries, are well suited to facilitating the implementation of alternative vertical coordination strategies as promulgated in preceding arguments. One of the leading South African mohair brokerage firms has recently begun offering a limited number of contracts as an alternative "marketing option" to govern the exchange between mohair producers and mohair processors. The specific brokerage firm is able to offer contracts to mohair producers as an alternative means of exchanging some of their mohair with mohair processors (Cape Mohair and Wool, 2005). The contracts that are on offer are specification contracts that offer a secure market related price (plus an additional premium in some instances) for a predetermined quantity of mohair that is produced and delivered to the specific broker within the strict specifications as required by the mohair processor who is offering the contracts via the broker as intermediary. In the context of previous arguments there are two noteworthy points of this development:

- Governance structures that are characterised by increased levels of coordination control as argued for in preceding sections are beginning to emerge as viable methods to govern the exchange between mohair producers and mohair processors.
- Brokers are acting as the "implementing agents" of the alternative governance structures and are also facilitating the exchange between the two transacting parties (mohair producers and mohair processors).

The argument that mohair brokerage firms, as intermediaries, are the role players in the mohair supply chain that are the best suited to facilitating the implementation of alternative vertical coordination strategies holds in instances where producers remain unstructured and continue to market their mohair individually. However, in instances where producer organisations are formed and mohair is marketed collectively, as is currently the practice, these producer organisations become the vehicle to introduce new or alternative governance structures when necessary. The level of trust that producers have in a producer group to which they belong was not tested but the mere nature of producer groups and the voluntary nature of membership would imply that producers would generally have a high level of trust in the producer group. Consequently producer groups, much like brokers, would also be a suitable instrument to implement alternative governance structures with the lowest level of transactional cost.

The level of trust expressed by surveyed producers in MSA was relatively high and therefore MSA, as the industry representative organisation, is the obvious institution to independently encourage the beneficial implementation of alternative governance structures in the South African mohair supply chain. Given the level of trust expressed in MSA as the industry representative organisation, it should provide the whole industry and especially producers with objective support regarding the advantages and disadvantages of alternative governance structures to govern the exchange between producers and mohair processors and should encourage innovation that would be to the benefit of the industry as a whole.

## 6.4 CONCLUSION

This chapter has reviewed some aspects related to the strategic introduction of possible alternative vertical coordination strategies alongside the current dominant spot market governance structure. The demand for alternatives and possible strategies for implementing these alternatives were discussed in more detail. A limited survey of mohair producers revealed that there is a demand for alternative or at least additional vertical coordination structures characterised by increased levels of coordination control to govern the exchange between mohair producers and mohair processors. A large proportion of the producers that were interviewed also believe that the benefits associated with governance structures that require increased levels of coordination control are greater than the costs associated with the increased levels of coordination control. Over and above theoretical arguments for governance structures with increased levels of coordination control to govern the exchange between mohair producers and mohair processors, mohair producers have also expressed a demand for such "marketing alternatives".

This chapter also reviewed the level of trust that producers have in a number of role players within the mohair supply chain. Generally the level of trust that producers showed for the respective role players was found to be independent of any characteristics of the producers and also independent on the level of trust exhibited for other role players. The producers that participated in the survey showed the greatest level of trust in brokers and Mohair South Africa and the lowest level of trust in mohair buyers. These levels of trust can be ascribed to historical relationships that producers have had with the respective role players. Producers have significant trust in brokers since there has historically been regular contact between these two parties and consequently trusting relationships are able to develop. As a result of the distant relationship that producers have had with mohair buyers across the spot market based auction, characterised by arms length relationships, the level of trust that producers show for mohair buyers is relatively low in comparison to that shown for brokers.

In conclusion, the alternative governance structures to govern the exchange between mohair producers and buyers that have been argued for and that would be favourably considered by producers requires unique strategies to be implemented. It is therefore

proposed that brokers or producer groups would be the most desirable "agents" to implement these alternative governance structures given the superior levels of trust that producers have expressed in brokers and the fact that the levels of transactions costs are the lowest between parties where the greatest levels of trust are exhibited.

While producers continue to market their mohair individually, brokers would be the most suitable agents to provide the structure and control competence to facilitate the implementation of more coordinated governance structures as promulgated in this dissertation. However, as producer groups in the mohair industry grow and increasing volumes of mohair are marketed *via* producer groups these producer groups become more suitable agents than brokers to provide the structure and control competence to facilitate the implementation of more coordinated governance structures as promulgated in this dissertation. This is especially true in instances where producer groups begin to develop brand names that portray specific values that can be associated with certain intrinsic attributes of the mohair or where the group offers a unique service to clients. Under such circumstances producer groups would want to maintain control of coordination to ensure the preservation of the value created at producer level throughout the supply chain and not leave this to a third, most likely indifferent, party like a broker to undertake. This does, however, not imply that the other services that brokers currently offer become superfluous, but merely that brokers would not be responsible for controlling coordination between producers and agents further along the chain.

# CHAPTER 7

# CONCLUSIONS

The primary marketing of South African mohair has become a contentious issue and has been the topic of much discussion both within the mohair industry and in the popular South African agricultural media. This dissertation has aimed to structure these discussions and to critically analyse the South African mohair marketing system in the evolving global agribusiness environment.

It is widely documented that the intangible attributes of products are growing in importance as retailers and consumers become increasingly interested in and concerned about safety, provenance, welfare, society and sustainability. Marketing systems are consequently compelled to convey not only objective but also subjective product quality attributes. Marketing systems that are incapable of conveying all of these quality attributes lead to a loss of consumer value and a loss of potential producer profits as the product transits the supply chain. Mohair is generally an exclusive product with a great deal of niche market appeal and hence the central question of this dissertation is whether mohair is inherently suited to the current fifty-five year old commodity based marketing system in a marketing environment that requires marketing systems to convey far more information than commodity-based systems do.

In analysing this question the dissertation described the mohair supply chain, discussed whether mohair can be considered a product or a commodity, reviewed the theory of the vertical coordination continuum, discussed a framework that can be used to choose an appropriate vertical coordination strategy, discussed a case study and finally noted some thoughts on the implementing of alternative governance structures.

The mohair supply chain can be described as one of the more elongated and complicated supply chains of all food and fibre supply chains and is characterised by numerous transformation processes, long lead times and geographical dispersion

across the world. A discussion of whether mohair can be considered a product or a commodity followed the description of the mohair supply chain.

Historically South African mohair has been treated as a commodity and the marketing system for mohair has been structured accordingly. The declining size of the mohair clip in global terms has, however, seen mohair become one of the scarcer animal fibres globally and almost a negligible fibre when considered in terms of the global textile industry. Mohair is also diverse in its physical properties and despite a well-structured classification system is by no means homogenous. The heterogeneity of the mohair clip also implies that different mohair is suitable for use in different products all of which have different markets and demand characteristics. When all of these points are taken into consideration, it is clear that mohair currently fulfils the requirements to be classified as a product as outlined and it can be concluded that despite its historical development as a commodity it currently boasts with characteristics of a product.

Following the discussions of the mohair supply chain and mohair's unit type the exchange between South African mohair producers and mohair processors is subjected to two theoretical frameworks that were developed to determine an appropriate governance structure for a specific transaction. This analysis seeks to address the heart of the problem statement. Both these frameworks reveal that, based on the nature of mohair, the nature of the exchanging parties and the nature of the transaction, the exchange between mohair producers and processors should be governed by more intensively coordinated governance structures than the current spot market. This is also in accordance with global trends where there is a shift away from open market trading to more stringent coordination of the supply chain. In view of this it is proposed that the spot market, which this dissertation contends to be a "value bottleneck" in some instances, be augmented by governance structures like long term contracts, cooperation agreements or some form of vertical ownership to offer the necessary structures to transmit all of mohair's attributes more effectively between producers and processors and ultimately the whole mohair supply chain.

The discontinued or diluted use of a spot market as proposed is, however, not without pitfalls. The spot market price for mohair is currently the only price forming

mechanism where the price is known upon the conclusion of a transaction and made known publicly. If the use of the spot market were to be discontinued or diluted there would be no reliable yardstick to use for negotiating prices for mohair that is exchanged by other governance structures and alternative mechanisms would need to be developed to determine prices. A possibility is deducing a price from the final product price and then deducting the processing costs and margins of intermediaries to arrive at a final producer price.

The case study reviews recent developments in the mohair industry that have seen the establishment of Camdeboo, an "innovative" approach to the marketing of mohair, by a number of prominent South African mohair producers. The inclusion of the case study is to reiterate the principles accompanying the choice of governance structure for the exchange between producers and processors in the South African mohair industry. The case study argues that although the Camdeboo group have instinctively made huge strides in keeping up with global trends in agricultural marketing the innovation in marketing is not quite complete. The continued use of a spot market to exchange Camdeboo mohair is also argued to be less than ideal, resulting in relatively high transaction costs that could be reduced by other vertical coordination strategies. It is argued that by adopting a vertical coordination strategy that requires increased levels of coordination the exchange between Camdeboo mohair producers and processors would theoretically improve the cost efficiency of the Camdeboo mohair supply chain and yield positive results for both parties to the transaction.

Following the discussions related to the coordination strategy alternatives for the South African mohair industry some thoughts on the strategic introduction of alternative vertical coordination were reviewed. Over and above the theoretical arguments to this effect, mohair producers are also demanding vertical coordination structures that require increased levels of coordination to govern the exchange between themselves and mohair processors. The alternative governance structures to govern the exchange between mohair producers and buyers that has been argued for and that would be favourably considered by producers requires unique strategies to be implemented. It is therefore proposed that brokers or producer groups are the most desirable "agents" to implement these alternative governance structures given the superior levels of trust that producers have expressed in brokers and the fact that the

levels of transaction costs are the lowest between parties where the greatest levels of trust are exhibited.

Historically, the primary marketing of mohair has been synonymous with a spot market exchange between mohair producers and mohair processors. This status quo has led to the establishment of deeply rooted conventions and an uncanny loyalty to the spot market system "because it works". Many producers and traders also refer nostalgically to the "feel of the auction floor" and feel that an open cry auction is the only practical means of exchanging mohair. Global agricultural marketing systems are, however, increasingly moving away from spot market based marketing to systems that are capable of conveying both tangible and intangible product attributes and this shift focuses on differentiated and branded products, coordinated exchange, players that seek mutual interest, open information sharing, long term relationships and satisfying customers more effectively than competitors. In a consumer driven marketing environment the continued use of a spot market to exchange mohair may, therefore, not be conducive to the optimal flow of information, goods and returns throughout the supply chain since the communication of mutual wants and needs between producers and their clients is not easily facilitated by a spot market system. These inefficiencies are expected to lead to a loss of consumer value and loss of producer profits.

Despite the arguments made thus far, spot market exchange, however, remains a critical exchange mechanism for mohair that is used as a generic input to the production of multi-purpose blended fibres where price and availability are the major determinants of demand and not the type of fibre or its intangible attributes. In such instances the conveyance of any attributes other than price and quantity (within the respective classing standards) is superfluous and a spot market to facilitate the exchange would suffice since it provides sufficient coordination control for the specific transaction.

In anticipation of the ever changing, and now consumer driven agricultural marketing environment the South African mohair industry would be well advised to collectively consider and to encourage the creation of exchange mechanisms that offer greater coordination within the mohair supply chain to function in tandem with the current

spot market exchange mechanism and to embrace these developments in a practical and mutually inclusive manner to the benefit of the whole South African mohair industry – a challenge that would compel the industry to shake off its reputation as a sluggish adapter to the dynamic changes in world markets.

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