# CHALLENGES FOR DEVELOPING COUNTRY SUPPLIERS IN GLOBAL FLORICULTURE CHAINS: A SOUTH AFRICAN PERSPECTIVE

**By**

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## ABSTRACT

The international floriculture industry has been developing since the 1970s. The continuous emergence of producers from around the globe has made trading in this market very competitive. This, along with the fact that base of competition is constantly changing, makes it important to evaluate South Africa's floriculture industry's competitive position. Currently this industry employs more than 17 500 people and provides significant opportunities for rural employment. The aim of this paper is to assess the challenges, which the South African floriculture industry is facing in the competitive global market using the GCC and GVC framework. Based on an empirical study conducted, it was found that the industry does not participate to its full potential in the global market and that it lacks competitiveness in terms of various aspects. It is recommended that participants in the industry shift their focus from the domestic to the international market. This is essential as the domestic market's turnover is small and is slowly becoming saturated. However, as enhancing the industry's competitiveness is a complex endeavour, the industry first needs to address the weaknesses identified in order to ultimately become more integrated into the global market.

*Key Words* – globalisation, global commodity chains, global value chains, floriculture, competitiveness, export, South Africa

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## CHALLENGES FOR DEVELOPING COUNTRY SUPPLIERS IN GLOBAL FLORICULTURE CHAINS: A SOUTH AFRICAN PERSPECTIVE

### 1. Introduction

The global floriculture industry is continuously changing. These changes are largely the result of globalisation. Prior to the 1970s, most of the world floriculture consumption was supplied by domestic production. International trade in these products was largely limited to cross border trade. However, globalisation eliminated borders and the world market expanded due to the use of frequent and reliable air transport and the development of advanced receiving, handling and shipping facilities (USITC, 2003: 29, 37). This resulted in a decline in domestic production and an increase in global imports of floricultural products. Demand exceeded supply in the world market during the 1970s and 1980s. It was in these periods that Africa and Latin America developed their floriculture production and their export capabilities by shifting their horticultural production to higher value exports (e.g. on floricultural products rather than fruit and vegetables) (De Groot, 1998). During the 1990s international floriculture production continued to increase, as more and more countries entered the international floricultural market. Demand, however, stabilised or increased only marginally in the main consumption markets (e.g. Germany and France), which made trading competitive in most markets (USITC, 2003: 29, 37). The increase in competition has made the playing field very tough because world production of floricultural products (especially of cut flowers, such as roses) have surpassed demand, resulting in a large price decline (Thoen, Jaffee, Dolan & Fatoutma, 2000: 5; De Groot, 1998). All of these factors contribute to create an extremely competitive environment in the current floriculture markets (USITC, 2003: 29, 37).

The South African floriculture industry is estimated to employ more than 17 500 people and provides more specific opportunities for rural employment than any other sector (The Kaiser Study, 2000). It also has more attractive employment ratios than other agricultural and mining activities (Eckert, Liebenberg, & Trotskie, 1997 cited in Van Rooyen & Van Rooyen, 1998). The South African floriculture industry has become increasingly competitive in the international market since the country's trade liberalisation in 1994. The value of floriculture exports increased from R77 million in 1995 (Anon., 2003) to R269m in 2002 (20 percent growth per annum) (Lourens, 2004). However, this increase occurred in a period where the rand weakened against the main trading currencies (Global Insight, 2005). If South African floriculture industry can succeed in increasing its exports, it will enhance foreign exchange inflows and create employment opportunities. The question is whether the South African floriculture industry can sustain its increase in exports given that the rand has strengthened against the main trading currencies (Global Insight, 2005).

The aim of this paper is to investigate the challenges faced by the South African floriculture industry in global competitive market, by evaluating the competitiveness of the South African floriculture industry. Section 2 provides an overview of the global floriculture industry and South Africa's position in it. Section 3 discusses the framework for the competitiveness analysis, which consists of the global value chain (GVC) and global commodity chain (GCC) analyses. Section 4 provides a brief description of the method of research followed, and presents and interprets the data within the framework. Section 5 contains the discussion. The final section provides a conclusion.

## 2. The global and local floriculture industries

### 2.1 The international floriculture industry

The global floriculture industry has many active participants in all of the continents. World exports and imports of floricultural products both exceed US$ 9 billion and Europe is the largest importer and exporter of floricultural products (Pathfast Publishing, 2004; Van Liemt 1999: 7; ITC 2002, 2004). Competitors, both from European and non-European countries, have been increasingly emerging into the market (CBI, 2003a). Non-European countries, especially developing countries, are focussing more on high value horticultural products such as floricultural products. These countries have advantages over European countries, as they are able to compete in terms of certain cost factors (e.g. cheap labour and land). However, consumers are becoming more demanding and this, along with the fact that supply is exceeding demand, causes the base of competition to shift to non-price factors (e.g. quality, image and shelf-life). It is here that European countries have an advantage, as they have more advanced technology available for their production processes (CBI, 2003a & 2003b). Together with this intense competition, developing countries also have to comply with several tariff (e.g. import duties) and non-tariff (helath and safety regulations) barriers set by the various developed countries (CBI, 2003a & 2003b). The international trade structure of floricultural products is also evolving as new distribution channels emerge. For example, the products are no longer only distributed via one of the auctions. They are increasingly sold directly to buyers (e.g. supermarkets). These buyers, especially supermarkets are increasing their market share in the sales of floricultural products (CBI, 2003a).

In essence, the global floriculture industry is in a constant state of flux. At the heart of these changes is the increasingly significant role that is played by market trends. Trends are the result of fashion ideas and is the cause of some products being more popular than others, resulting in fluctuations in the demand for certain varieties and prices of floricultural products (Flower Council of Holland, 2004). In other words, these trends determine the segmentation of consumers and their consumption patterns. Current market information on trends is the link between consumers' demands and the products of producers (CBI, 2003a & 2003b).

### 2.2 The South African floriculture industry

South Africa is located in an area known as 'high tropics', i.e. high elevation is combined with tropical and subtropical latitudes. This produces a relatively mild climate throughout the year, which is generally favourable for floriculture production (Matler, Jaffee & Reijtenbach, 1999: 46).

The local flower industry developed around the establishment of the local flower auction (Multiflora) in 1945 (Multiflora, 2004). A few large producers that only supplied the local market have been dominating the South African floriculture industry ever since. Exports were confined to indigenous products such as the protea. However, after the lifting of economic sanctions against South Africa, new export-oriented growers have emerged (Malter *et al*., 1999: 44-47).

South Africa has maintained the 21$^{st}$ position in the index of world floriculture exporters for three years (2000 to 2002) (Pathfast Publishing, 2004). South Africa's floriculture industry's export performance has grown by 0.19 percent per annum from $38 355 million in 1998 to 38 649 million in 2002 (Pathfast Publishing, 2004). ). However, the value of exports decreased with 7.3 percent from 2002 to 2003 (Jappie, cited in Gerber, 2005). South Africa currently exports cut flowers, plants, foliage and bulbs every day across the world by air. The top floral products in terms of volume and value are roses, chrysanthemums, carnations, gladioli, lilies and irises. Cut flowers account for approximately 60 percent of floral exports, foliage about 20 percent, bulbs 17 percent and plants around 3 percent (Nofal, 2001). The major markets for South Africa's floricultural products are Europe (65 percent), the USA (9 percent) and Asia (5.2 percent) (Van Rooyen, 2005).

South Africa has many advantages required for the production of floricultural products, such as infrastructure, climate and inputs. Unfortunately, several disadvantages (e.g. high labour costs and expensive plant material) and problems (e.g. lack of market information, poor knowledge base and secrecy in the industry) deter the growth of floriculture exports (Van Rooyen & Van Rooyen, 1998). The South African floriculture industry has significant potential to become a bigger role player in the international markets (Van Rooyen, 2005), but is generally regarded as lagging behind in terms of production capacity. Examples hereof are: the primitive set-up of greenhouses, the low levels of investments in the industry and incorrect varieties that are being produced (Dutch Floriculture Wholesale Board, 2004). South Africa's floriculture market share is only 0.44 percent of the total world import market (The Kaiser Study, 2000: 15). However, this is only a fraction of its true potential. The main reasons for the low share in world exports are the large domestic market, which discourages some exporters from directing their efforts towards exporting (Malter *et al*., 1999: 44; De Bruin cited in Van Zyl, 2002: 41), problems with their delivery capabilities and the fact that the products supplied to this market are not of international quality standards (The Kaiser Study, 2000; De Looze, 2003; Bredenkamp, cited in Van Rooyen, 2005). According to the Dutch Floriculture Wholesale Board (2004), the floriculture industry of South Africa is largely nationally and not internationally orientated. This type of domestic orientation will provide difficulties for the market as the local market's turnover is small compared to the international turnover and the local market is slowly becoming saturated. In order for the flower industry to survive, exports will have to increase.

South Africa struggles to compete against its African counterparts (e.g. Kenya and Zimbabwe) in terms of cost factors, as these African countries have advantages in, for example, export volumes and cheap labour (Van Straten-Botha, 1999: 51; Van Zyl, 2002: 41). Kenya's market share of world exports is 2.6 percent, which is significantly higher than South Africa's market share of 0.44 percent (Van Rooyen, 2005).

South African producers need to develop a competitive advantage by focusing on non-cost factors (e.g. quality) and compete in terms of innovative value chain aspects (i.e. products, production, packaging, logistics, marketing, sales and markets). The South African floriculture industry can add value to their production through commitment to exporting and by being reliable suppliers of consistent quality products. A supporting environment needs to be established, with the aim to assist exporters in the export of high quality and innovative products to opportunity markets (The Kaiser Study, 2000).

It is thus clear that the potential of floriculture producing countries, such as South Africa, can be developed if these countries' industries position themselves into new markets and so become integrated into new and profitable chains.

## 3. A framework for measuring global competitiveness

As globalisation accelerates international trade, one has to view producers within a global context, as taking part in international trade automatically links them with other producers. The participants in international trade also face more challenges brought on by global competition (Kaplinsky & Morris, 2001). Two analytical methods have been used to determine the international dimension of activities of producers, i.e. the GCC and GVC analyses. Although their analyses are very similar, their focuses differ. The GCC approach focuses mainly on the governance structures in the chain and the influence of lead producers on the participants in the chain. The GVC approach focuses more on the relative value aspects of the production processes, distribution and consumption.

These analyses are useful as they identify possibilities for producers to upgrade their activities in the chain or to move into more profitable chains. They identify the role players in the chain and the factors that influence the chain. They also determine the distribution of income (IDS, 2002: 1-2). This is especially important for those producers situated in countries that do not form part of the developed world, as they also face global competition, but usually participate in the lower end of the chain where there are low value-added activities (Dolan, Humphrey & Harris-Pascal, 1999; Dolan & Humphrey, 2000).

### 3.1 Global commodity chain (GCC) analysis

A global commodity chain refers to the whole range of activities involved in the design, production and marketing of the product in both a national and international environment (Gereffi, 1999a: 38). In other words, a GCC can be described as a network with global linkages of transactions that incorporates all aspects of the international and national environments. This network comprises all the facets of production and is continually concerned with adding value to the product produced. Gereffi and others

(1994) developed the GCC concept to analyse the effect of globalisation through the activities of global industries, which has an influence on both producers and workers (Bair & Gereffi, 2001). Gereffi (1994 & 1999b), Raikes, Jensen and Ponte (2000), Gibbon (2001) and Porras (2003) identified the four core elements of the GCC approach. The first element is the *input-output structure*, which identifies the types of products, processes and actors involved in the production activities. The second element is the *geographical coverage* (i.e. the territory covered), which describes the spatial dispersion or concentration of the specific industry, the sizes of the producers and the distribution networks. The third element is the *governance structures* and it identifies the authority and power relationships that determine how financial, material and human resources are dispersed and distributed in a chain. The final element is the *institutional framework* and it comprises the conditions under which control market access and information are exercised on a global level. In other words, how small producers, via their buyers, gain indirect access to markets, knowledge and technologies at a lower cost.

Two governance structures are identified in a GCC, i.e. a chain can be either producer-driven or buyer-driven. However, these two governance structures described by the GCC framework are inadequate for certain industries (e.g. the electronics industry). Therefore, Gereffi, Humphrey and Sturgeon (2003) developed five basic types of chain governance, which form part of the GVC approach (see section 3.1).

Another important aspect of the GCC approach is *upgrading*. It refers to how a producer or firm improves its position in the global industry to improve its competitiveness (Sverrisson, 2004). Upgrading can be conducted on various levels, namely on product, process, intra-chain and inter-chain level (Gereffi, 1999b).

## 3.2 Global value chain (GVC) analysis

GVC analysis has been developed to explain the dynamics of inter-linkages within the productive sector, especially the way in which firms and countries are globally integrated (Kaplinsky & Morris, 2001: 2). The value chain describes the full range of activities that are required to develop a product or service from conception, through the different phases of production, delivery to the final consumers, and final disposal after use (Kaplinsky & Morris, 2001: 4).

Kaplinsky (2000a & 2000b) and Kaplinsky and Morris (2001) describe the three fundamental elements of the GVC approach. The first element is *barriers to entry*. Barriers to entry determine the distribution of profit. A decrease in barriers to entry leads to an increase in the number of global producers, which causes competition to increase and results in lower profits. Consequently, economic rent (or profit) is lower. Global producers must continually seek new forms of rent in order to gain both a competitive advantage and economic rent. The second element is *governance*. Governance implies that one party is responsible for coordinating and regulating the various activities performed in the development of a product, in other words, from a product's conception to its consumption. Value chains are governed when parameters are set regarding products, processes and logistics. Gereffi *et al*. (2003) developed five types of governance, as an extension of the producer- and buyer driven chains identified in he GCC approach. The five types of governance are:

- Markets. Market linkages do not have to be completely short-term, as typical of spot markets. They can persist over time, with repeat transactions. The essential point is that the costs of switching to new partners are low for both parties.
- Modular value chains. Suppliers in modular value chains make products to a customer's specifications, which may be less or more detailed.
- Relational value chains. Complex interactions exist between buyers and sellers, which often creates mutual dependence and high levels of asset specificity (asset specificity is investment by the actors in a chain in order to obtain or complete a particular transaction). This may be managed through family, reputation, or ethnic ties.
- Captive value chains. In these networks, small suppliers are transactionally dependent on much larger buyers. Suppliers face significant switching costs and are, therefore, 'captive'. Such networks are frequently characterised by a high degree of monitoring and control by lead firms.
- Hierarchy. This governance form is characterised by vertical integration. The dominant form of governance is managerial control, flowing from managers to subordinates or from headquarters to subsidiaries and affiliates.

The third element is *systematic efficiency*, which implies that the governing party in a chain ensures that close cooperation and trust between the parties in the chain exist. The governing party is involved in assisting the participants in their chain, which are located in developing countries, to upgrade. Due to the global nature of such a chain, governing parties have a greater degree of responsibility. This involves helping participants in the chain (those that are located in developing countries) to upgrade. The objective is to ultimately increase the efficiency of the chain.

Intertwined in these elements is the continuous process of *upgrading* and *innovation*. Producers need to continuously innovate (i.e. add value to their products and operations) in order to remain competitive. However, a producer needs to innovate at a faster rate than his competitors do, otherwise it would mean very little (Kaplinsy & Morris, 2001: 37). By increasing value-added activities, countries become more successfully integrated into the global arena, which leads to an increase in the country's economic activities, higher levels of exports and the attraction of foreign direct investment. Ultimately, the country's competitive position increases, as the only source of value creation in a country are its enterprises (Garelli, 2003: 702).

## 4. Empirical research

### 4.1 Background and method of research

Numerous studies have been done in terms of the GCC and GVC analyses. In each case these analyses were applied to specific sectors such as the global tourism industry (Clancy, 1998), the garment industry in Singapore (Van Grunsven & Smakman, 2001 & 2002), the global food and agro-industries (Hamman, 2001), and the African horticulture industry in Kenya and Zimbabwe (Dolan *et al.*, 1999; Dolan & Humphrey, 2000). Several studies have been conducted on South African industries, for example, the wood furniture industry (Kaplinsky, Memedovic, Morris & Readman, 2003) and the clothing sector (Gibbon 2002). However, no such study has been done on the South African export floriculture industry.

The aim of the empirical research was to develop a profile of the South African floricultural producer's international competitiveness. This research differs from the studies mentioned above, as the purpose was to evaluate the data collected on the position of South Africa's floriculture industry in terms of each of the elements of both the GCC and GVC analyses. The purpose was to identify the variables in these chains that influence the ultimate competitiveness of the exporters.

A questionnaire was used to collect data from exporters in the South African export floriculture industry. A total of 56 mail-based questionnaires were sent out to the South African exporters of floricultural products. Their businesses and contact details were obtained from the 2002 SAFEC (South African Flower Export Council) membership list. Ultimately, 29 questionnaires were returned, which corresponds with a 59 percent response rate and can be considered high for a mail-based questionnaire. The questions in the questionnaire each represented one or more of the elements of the GCC and GVC analyses. The questionnaire contained five sections. They were: firm profile and production (geographical and demographical aspects), markets (export activities), distribution (distribution channel structures), innovation (positions on competitiveness) and governance (governance structures). Two sections of the questionnaire, each containing related questions, were tested with the Cronbach alpha coefficient. The larger the overall alpha coefficient, the more likely those items were to contribute to a reliable scale. Nannally (cited in the SAS manual, 1999) suggests 0,70 as an acceptable reliability coefficient. Smaller reliability coefficients are regarded as inadequate (SAS manual, 1999). The Cronbach alpha coefficient for the sections was 0,834801 and 0,686861 respectively. This indicated that the scale was reliable. In other words, the respondents understood the statements correctly.

### 4.2 Findings

The empirical data collected are discussed and interpreted in terms of the elements of the GCC and GVC analyses, as explained in sections 3.1 and 3.2.

### 4.2.1 GCC analysis

- **Input-output structure**

The first element of the GCC analysis is the input-output structure. It was found that the most of the respondents use greenhouses for the production of their floricultural products (44,68 percent), with the second most open fields (29,79 percent) and the third most shaded fields (23,40 percent). According to the Kaiser Study (2000), greenhouses require more capital expenditure and infrastructure than the other production methods. This implies that the South African floricultural producers incur large production costs, which may deter their price competitiveness. Also in line with the input-output structure, it was found in the empirical data that the majority of the respondents produce cut flowers (65,79 percent). The largest volume demand worldwide is for cut flowers, which implies that South Africa is competitive as it supplies what is demanded. However, South African producers need to focus more on indigenous products such as fynbos and foliage (The Kaiser Study, 2000). The empirical data indicated that few respondents (13,16 percent) focus their production on foliage.

- **Geographical coverage**

The second element of the GCC analysis is the geographical coverage. It was founding the empirical data that most of the respondents (61,29 percent) are located in Gauteng, with the second most in Mpumalanga (12,90 percent) and the third most in the North West province (9,68 percent). None of the respondents were located in the Free State, KwaZulu-Natal and in the Northern Cape. The exporters that did not respond are located in the following provinces: 65,38 percent in Gauteng; 7,69 percent in Limpopo; 3,85 percent in KwaZulu-Natal; 3,85 percent in the Western Cape and 19,23 percent in Mpumalanga. The fact that the larger share of respondents is in the Gauteng province is a positive indication for competitiveness, as the producers are located in the vicinity of the largest international airport in South Africa. This enables them to remain competitive, because they are able to export their perishable products quickly and deliver them in a good condition. Being located near the airport also saves storage and cooling costs. The data also provided the size distribution of the floriculture farms in South Africa. The sizes of the exporters' farms vary, but most of the farms are medium-sized (42,86 percent). This indicates that the volumes of floriculture production are sufficient, but not nearly that of the other developing countries' export volumes (Van Zyl, 2002; Poggiolini, 2001).

- **Governance**

The third element is governance. It involves the authorities that influence the activities and participants in the chain. One such a regulating agency is the various international (mostly European) bodies that implement programmes which encourage, for example, quality, protection of the environment and the health and safety of the employees on the farms (CBI, 2003a & 2003b; Van Liemt, 1999). In the Kaiser Study (2000), South African floriculture producers are urged to participate in such programmes, as they are becoming significant trade barriers. It was found that the majority of the respondents do not participate in any programmes (73 percent), which deters their competitiveness, as participating in these programmes may serve as a competitive advantage (buyers prefer to buy from producers registered with such a programme, as the demand for environmentally sound products is increasing) (CBI, 2003b). The buyers in the distribution networks also influence the producers through their requirements. It was found that the majority of the respondents (38,64 percent) are excluded from their distribution network if their products are of an inferior quality. This indicates that they are aware of the fact that their products are perceived in the international market as not of internationally approved quality (Nofal, 2001; De Looze, 2003). Hence, they are improving their competitive positions by ensuring that their quality is according to the requirements set by the international standards.

- **Institutional framework**

The fourth element is the institutional framework. This element contributed to the competitiveness profile of the South African floriculture industry by providing understanding of the aspects of their information practices. Current market information is vital for any floriculture exporter, as it provides insight into the products and varieties in demand, consumption patterns, prices and marketing strategies. In other words, it conveys the continuously changing wants and needs of the consumers (i.e. the trends). It is also one of the areas where the industry has been experiencing problems (Van Rooyen, 1998). It was found that the majority of respondents view current market information as an essential aspect for their competitiveness (71,43 percent). They use a wide range of sources to obtain market information, the most popular being electronic databases (24,14 percent). According to Van Rooyen (1998), South African floriculture exporters receive inadequate market information and do not determine what consumer preferences are. However, it was found that most of the resondents (51,72 percent) use their information proactively by adjusting their production to the current market trends, which enhances their competitiveness. Examples of how they do this include following fashion colours and varieties in demand, changing the percentage of colours grown, breeding stronger varieties, catering for St. Valentine's Day, producing various varieties and colours and finally changing the colour, bud size and length of the products.

- **Upgrading**

Another important aspect, not included in the elements discussed above, is upgrading. Due to the floriculture industry's many competitors, competition in the floriculture industry is based on non-price factors such as quality and innovation and not on direct production factors (e.g. costs), as already discussed in section 2. Therefore, floricultural producers need to differentiate themselves from other producers in order to achieve sustainable income. Upgrading is one such a method through which a floricultural producer can differentiate himself (i.e. gain a competitive advantage). It was found that most of the respondents (57,14 percent) do not upgrade their products (i.e. differentiate or add value to it). Some of the respondents do add value to their products by using their brand name or only producing the best quality. However, they indicate that they have a competitive advantage in terms of their products (50 percent). A competitive advantage is vital for exporters to succeed in this industry. In other words, how producers differentiate themselves from the fierce competition will determine if they will be able to compete successfully. In terms of upgrading, it was also found that the respondents do add value to their processes or activities (55,17 percent). For example, they by pack their products according to their customers' requirements and have their own patent on their packaging methods. Unfortunately, South African floricultural exporters are still far behind their developing-country counterparts in terms of competitiveness (Poggiolini, 2001). Upgrading all products and processes needs to be a priority.

### 4.2.2 GVC analysis

- **Barriers to entry**

The first element of the GVC analysis is barriers to entry. This element gave insight into innovation, as it is the only way through which a competitor can differentiate himself and so be profitable in a market where a large number of producers produce similar products. Innovation implies that a firm continually improves the development of its products and processes. According to De Groot (1998: 18-19), African floriculture producing countries do not innovate. However, it was found in the data that the majority of the respondents (75 percent) feel that innovation is very important for the industry's competitiveness. Most of the respondents (42,86 percent) state that they are innovative in their operations. Innovation, the result of research and development, is only efficient if it is conducted before competitors do. Research and development promotes competitiveness for any industry. Due to the high number of competitors in the world floriculture market (Pathfast Publishing, 2004), it is important for the South African floriculture industry to continuously engage in research and development activities in order to enhance the exporters' competitiveness. Research and development should therefore be a priority. It was found in the empirical data that most respondents (50 percent) believe that research and development is very important for the industry. Most of them (45,83 percent) undertake to some extent research and development activities in their own firms. The majority of the respondents (55,17 percent) also conduct research on their competitors' operations and products, in an attempt to innovate and before their competitors do and so remain competitive.

- **Governance**

The second element is governance. Governance is an important aspect of competitiveness, as the governing party influences all of the exporters' activities, from production to final sales. The party that determines the parameters, i.e. the types of products the exporters produce, the processes they use in production and the logistic arrangements of the floricultural exporters were assessed. The results are indicated in table 1.1:

Table 1.1: Governance parameters

| Parameters | Market | Parties involved in your distribution channel | You determine it yourself |
|---|---|---|---|
| Who or what determines the type of products that you produce? | 45.16% | 9.68% | 45.16% |
| Who or what determines the type of processes that you use in production? | 6.25% | 18.75% | 75.00% |
| Who or what determines the logistic arrangements (how much and when to export) | 34.29% | 34.29% | 31.43% |

Concerning the parameters surrounding products, it seems that both the market and the respondents themselves determine the types of products to be produced. The respondents themselves also determine the type of processes they use in their production operations. Parameters regarding logistics, i.e. the party that determines the volumes and time of export, appears to be divided among the market and parties in the chain.

As part of the governance element of the GVC analysis, Gereffi *et al.* (2003) have developed five types of governance chains (see section 3.1). It was found in the empirical data through a series of questions, illustrated in table 1.2 that two forms of governance structures exist. The South African floriculture chains are identified as market value chains and as modular value chains.

The majority of respondents export to the same party repeatedly and find that the costs involved in switching trade partners are low. Hence, there is a definitive form of market governance in the South African floriculture chains. This implies that in South African floriculture:

- there is a low degree of explicit coordination and power asymmetry;
- the transactions are not complex;
- similar knowledge and information can be transmitted effectively to all suppliers; and
- the suppliers are capable to produce the products in relation to the requirements of the transaction.

Most respondents supply their products according to their customers' specification. In other words, a form of modular governance also exists in the South African floriculture chains. This implies that in South African floriculture:

- there is a lesser degree of explicit coordination and power asymmetry than in market governance;
- the transactions are complex;
- similar knowledge and information can be transmitted effectively to all suppliers; and

- the suppliers are capable to produce the products in relation to the requirements of the transaction.

The majority of the respondents' production are not monitored and controlled by buyers and importers, nor are they dependent on large buyers. Therefore the South African floriculture chains indicated no form of captive governance. Relatively low dependence exists between the respondents and their trade partners, which indicates that the floriculture chains are not relational value chains. Finally, most of them are not vertically integrated into a chain, i.e. they are not part of an organisation where managerial control flows from headquarters to subsidiaries. Hence, there is no form of hierarchy governance. In light of these findings, the market appears to be the governing party in the South African floriculture chains, with the parties in the chain to a lesser extent.

Table 1.2: Governance structures

| Structures | All of the time | Most of the time | A good bit of the time | Some of the time | Hardly ever | Never |
|---|---|---|---|---|---|---|
| Do you export to the same party repeatedly? | 38.46% | 38.46% | 38.46% | 7.69% | 0.00% | 0.00% |
| Is the cost to switch trade partners low? | 25.00% | 25.00% | 10.00% | 25.00% | 15.00% | 0.00% |
| Do you supply your products according to the customers' specifications? | 70.37% | 25.93% | 3.70% | 0.00% | 0.00% | 0.00% |
| Do the importers/buyers monitor and control your production? | 33.33% | 11.11% | 0.00% | 0.00% | 11.11% | 44.44% |
| Are you and your trade partner dependent on each other? | 15.38% | 19.23% | 7.69% | 19.23% | 7.69% | 30.77% |
| Are you dependent on large buyers? | 6.90% | 24.14% | 6.90% | 13.79% | 24.14% | 24.14% |
| Are you vertically integrated into a chain (part of a MNO)? | 4.35% | 8.70% | 4.35% | 4.35% | 8.70% | 69.57% |

- **Systematic efficiency**

The third element of the GVC theory is systematic efficiency. Systematic efficiency is relevant to competitiveness in the sense that a competitive exporter has a strong degree of trust and cooperation in his chain of activities (i.e. distribution chain). It was found in the empirical data that the majority of the respondents (48,15 percent) experience a strong degree of trust and cooperation in their distribution chains. This advances their competitiveness, as they have a strong support base. It can also be concluded that trust and cooperation are two fundamental aspects in the international trade of floricultural products.

## 5. Discussion

The empirical findings in section 4 enabled an analysis of the South African export floriculture industry's competitive position.

The strengths of the South African export floriculture can be summarised as follows: the South African floriculture exporters produce overall traditional greenhouse products, which are in demand worldwide. These products are cultivated in greenhouses. Greenhouses are the most labour-intensive method of floriculture production. It is, however, also the most expensive. The distribution channels of the floricultural products are effective and efficient. The exporters regard research and current market information as their link with the consumers and use it to innovate and keep up to date with the trends. The exporters differentiate themselves from other producers by adding value to their activities. The overall industry's competitive advantage is situated in its products and to a lesser extent the exporters' organisational functions. Both the market and the exporters themselves determine the types of products that they produce, consequently only the products in demand are produced. The logistical arrangements for the export of the floricultural products are made by both the market and by the parties in the exporters' distribution channels, which means that their production is coordinated with these parties.

The South African export floriculture industry's weaknesses can be summarised as follows: the majority of exporters have been exporting for less than five years, which implies that they have not yet gained adequate experience. Most of the exporters do not export on a regular basis (57,69 percent), and when they do, they export less than 25 percent of their total sales (66,67 percent). These are indications that they are not committed to exporting – the largest percentage of their sales goes to the domestic market. There is little participation in international floriculture programmes, which deters the industry's competitiveness and may be problematical when these programmes become compulsory. The exporters do not add sufficient value, or differentiate their products to enhance their competitive positions in the global industry (e.g. produce new varieties) in the medium and long-term. The exporters themselves determine the types of production processes used for cultivation, which may not be in line with the quality requirements of the international markets.

From empirical findings it was possible to construct of a profile of the more competitive floriculture exporters. For the purposes of this study, the more successful exporters are those that export more than 50 percent of their total sales. According to the literature, they are described as 'committed' exporters (Johanson & Vahlne, 1977). These floriculture exporters are mostly located in Gauteng and have comparatively large (i.e. 26 to 100 hectares) farms. Their production methods are mainly open fields, in which they produce cut flowers.

Although these exporters are committed to export and they export on a continuous basis throughout the year, they have been exporting for less than five years. They have gained market access mostly through personal visits to the import market. However, more than 5050cent of them do not participate in an international floriculture programme.

These South African floriculture exporters enter the foreign market via agents and domestic export agents form the immediate link in their distribution channel. They have been part of their distribution channels for less than five years and all of them are satisfied with the manner in which their products are distributed. Most of them distribute their products via several distribution channels. The largest perceived obstacle for the exporters is quality. These exporters experience a high degree of trust and cooperation in their distribution channels.

Innovation and research and development are regarded as high priorities for the exporters in both the South African floricultural industry and in their respective companies. Current market information is important and is obtained mostly through the parties in the exporters' distribution channels and through electronic databases as well as the Internet. However, they do not make great efforts to They do not incorporate the information, as they do not adjust their production according to the trends. These exporters conduct research on their competitors' operations and feel that they have a competitive advantage – mainly through their products, but also through their organisational functions.

There is a large market influence in the successful South African floriculture exporters' operations. The market influences the types of products they produce and, together with the parties in their distribution channels, the logistical arrangements (i.e. the volumes and time of exports). The exporters themselves determine the types of production processes used for cultivation.

## 6. Conclusion

This paper assessed the challenges that the South African floriculture industry face in the competitive environment of the international market. The method of research was to use the elements of the GCC and GVC analyses as a framework for the assessment. A mail-based questionnaire conducted in 2004 among the South African Flower Export Council members, indicated that the South African floriculture export industry does not participate to its full potential in the global market, and lacks competitiveness.

Competitiveness is hampered by several internal weaknesses such as the lack of commitment to exporting (they export only a small percentage of their total sales and exporting does not occur on a continual basis), lack of participation in international floriculture programmes and lack of a competitive advantage concerning differentiating and adding value to products. All of these factors may be the result of the general inward-orientation of the South African floriculture producers. They need to shift their focus from the domestic market and become more export-oriented, as the domestic market's turnover is small in comparison to the world market's turnover and is slowly becoming saturated. Several external problems also hamper their competitiveness. Examples of these problems are the appreciation of the rand, the rigidity of the labour market and minimum wages, high cost of certain production methods and high transport costs.

It can therefore be recommended that South African floriculture exporters need to become further integrated into the global market by increasing both the volumes and values of their exports and though participation in international floriculture programmes. In order for this to occur, exporters need to move into better and more competitive global chains (i.e. export more directly). Improving the industry's competitive position could also be achieved by providing financial and managerial assistance to the numerous domestic floricultural suppliers that do not export or export only a small percentage of their total sales.

The case is thus that whilst the South African floriculture industry has potential to become a more significant role player in the international markets, it is still hampered by its relative lack of internationalisation. The floriculture industry has to react by addressing the challenges that lie in improving their weaknesses and weak competitive positions.

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