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ECONOMIC ASPECTS OF THE SOUTH AFRICAN FLOWER INDUSTRY

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In this paper some interesting findings from recent studies regarding the economic aspects of the South African flower industry are highlighted. By looking at South Africa's competitiveness and doing a comparative advantage study, an international perspective is firstly developed. The contribution of the flower industry in the South African economy is then discussed. This includes a case study on flower growers in the Gauteng Province. The final section notes some challenges for this industry. This network of studies provide a basis from which a conclusion can be drawn that it would be important to structure government initiatives to assist the private sector to expand this industry. A strategic planning exercise where the South African flower industry is positioned within an international perspective as well as to take note of the current transformation stage of the economy will be required.

1. INTRODUCTION

Recent studies highlighted a number of interesting findings as to the relevance and economic potential of the South African flower industry (Nederwieser et. al., 1997; Wessels et. al., 1998; Van Rooyen, 1998). In this paper some of the interesting findings from these studies will be highlighted. An international perspective will firstly be given by evaluating South Africa's competitiveness. Comments will then be made on comparative advantages of this industry with a large emphasis on South African flower exports. The role of the flower industry in the South African economy and its contribution to development will be discussed in the next section. A case study on flower growers in the Gauteng Province can give a glimpse of some interesting grower perceptions and the situation of farm level. The final section will note some challenges for this industry.

2. INTERNATIONAL COMPETITIVENESS

From an international perspective the South African flower industry is still operating marginal. In comparison with 24 international countries, South Africa with a per capita consumption of approximately R3,04 per capita, ranked last

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(Van Rooyen, 1998). Switzerland ranked number one with a per capita consumption of R385,00; Germany ranked sixth with a per capita consumption of just under R200,00; and the Netherlands seventh with a per capita consumption of over R170,00; Japan ranked eighth; Britain fifteenth and the United States thirteenth (Flower Council of Holland, 1996). In terms of cut flower exports, South Africa is also performing marginally. Out of 20 countries, South Africa is ranked at number 17. Countries such as Israel - number 1; Chilli - number 5; Zimbabwe - number 6; Equador - number 8 and New Zealand - number 9 outperformed South Africa by far (IFTS, 1997).

However, the high demand for South African flowers experienced in many international markets provide a sound basis for expanding international trade. One important reason is the time differential. South African flower production can therefore earn valuable foreign exchange in the international market if it can be more competitive vis-à-vis time, place and form.

The competitiveness of Kenya and Zimbabwe in the international arena has shown that African countries have the ability and potential to compete in Europe. South Africa's competitiveness in terms of other flower exporting countries in Africa can be summed up as follows : South Africa has advantages in the form of the most advanced economic and physical infrastructure, the largest and most complete (domestic) floriculture industry and a highly developed domestic market with a growth rate of approximately 19% per annum over the past 5 years (De Bruin, 1998). South African manufacturers can supply nearly any input needed for floriculture and the country has the best logistics and freight situation (Malter, 1996). However, the South African growers face numerous disadvantages such as high import tariffs in the European Union, less favourable climatic conditions for floriculture production, higher labour costs, labour unrest, difficulty organising growers scattered over such a large geographic area, a lack of motivation to export and a good local market, but one with low standards that do not prepare growers to compete overseas (Van Rooyen, 1998). So far, the balance of these factors has not stimulated large-scale development of cut flowers exports.

3. COMPARATIVE ADVANTAGES

The question of how to determine the competitiveness of this industry is more complex than one would imagine. There are a number of descriptive and quantitative methods to describe components of the wide concept of competitiveness. In this paper international competitiveness is analysed. The method used is called the Revealed Comparative Advantage Model (Balassa,

1989) and is used to describe South Africa's actual competitiveness in international trade. The model is:

$$1/2\ [(xAj^{ii} / xA^{ii}) + (xAj^{ii} / xA^{ii}) \times (xAj^{ii} / xA^{ii}) / (xAj^{i} / xA^{i})$$

Where: A=Country (e.g. South Africa); x=Relative share of country A; j=Product (e.g. flowers); w=Total world exports; X=Exports; t=Total of all agricultural commodities; and i., ii.=Period 1 and Period 2 (e.g. 1994)

The theory of comparative advantage states that a country should specialise in commodities in which it has the largest absolute advantage, in comparison to other countries, and import products in which the relative absolute advantage is the smallest. If this situation exists resources will be allocated efficiently and production will increase. Thus, a country will have a comparative advantage in the production of such commodities (Salvatore, 1995).

Table 1: Comparative advantage/disadvantage of the floriculture sector

Sector	Comparative advantage	Comparative disadvantage
Floriculture	**1.124**	**xxxx**
- Flowers	*xxxxx*	*0.707*
- Cut flowers	*xxxxx*	*0.697*
- Cut foliage	*7.370*	*xxxxx*
- House plants	*xxxxxx*	*0.518*

Values greater than 1 represent a comparative advantage and values smaller than 1 represent a comparative disadvantage

Table 1 represents the comparative advantage (disadvantage) of the total floriculture, flower, cut flower, cut foliage and house plant sectors in South Africa if compared to other agricultural sectors. As described above, a figure greater than 1 will represent a comparative advantage, like in the case of the total floriculture sector. The total floriculture sector with a figure of 1.124 shows that South African floriculture as a whole has a comparative advantage. This comparative advantage is largely due to the high comparative advantage of the cut foliage industry of 7.37 since, the flower, cut flower and house plant sectors show a comparative disadvantage with figures (below 1) of 0.73, 0.70 and 0.518 respectively.

The comparative disadvantage of the flower (0.70), and cut flower (0.69) sectors are mainly a result of a relative share to world exports (of flowers and cut

flowers) which is lower than the relative export share of the South African agricultural sector as a whole. This relatively low share in world exports by South Africa is the result of a combination of the following factors:

(a) Political isolation kept the South African flower industry out of international trade.

(b) Large growers who supply the local market and who have been involved with floriculture for many decades dominate the South African flower industry. Most large flower growers concentrate on the local demand and are reluctant to export.

(c) Distribution channels for South African exports are not well developed.

(d) The South African market demands a much lower quality than the European market. Thus, the growers are not prepared to produce constant high quality flowers to adhere to international standards.

(e) The local demand for flowers are large enough and it is not necessary to export to make profits.

4. CONTRIBUTION TO THE SOUTH AFRICAN ECONOMY

Studies indicated that flower production plays a surprisingly significant role in the South African economy. Flower production ranks as one of the most efficient contributors to development and growth in the South African economy. This finding is based on the impact of this sector on aspects, such as value added to the economy, employment creation and income and wealth distribution within the local economy. A recent study by Eckert & Liebenberg (1997) compared flower production to forty-seven other agricultural and non-agricultural activities in the economy of the Western Cape. The flower industry ranked sixth highest in employment creation and also sixth highest with value added per million rand investment. From an equity viewpoint, the flower industry scored fourth best where the impact on income and wealth redistribution was measured. The redistribution impact occurred in particular through employment and income creation within the poorer segments of the society. When these factors were combined (employment generation, added value and wealth redistribution) into a development impact index, the flower industry performed the third highest of all 48 sectors analysed. Due to the nature of this industry, it is possible to extrapolate the Western Cape results to other areas of the country. From this it can be concluded that the flower

industry can make a major contribution to economic growth and redistribution and development in South Africa.

To fulfil this potential, however two major forces will have to be dealt with in future. The first of this is related to the increasing globalisation and opening up of markets in the international trade of commodities. South African flower producers therefore expect to face increasing competition from producers elsewhere in the world. The competitiveness of the South African flower industry should thus receive attention from a policy and industry level focus to promote the viability in the industry. Policies should focus on levelling the playing fields, especially in view of the subsidisation and preference trade agreements which often favour other countries, especially countries in Sub-Sahara Africa (Kenya, Zambia, Uganda, Zimbabwe). Policies should also facilitate the promotion of technology to enable South African producers to compete cost effectively in international markets. At industry level the challenge should focus on the creation of "time, place and form" utility to provide markets with the required quality of flowers (Kohls & Uhl, 1990).

5. CASE STUDY : GAUTENG FLOWER GROWERS

A study on the impact of research conducted through the agricultural research system to support the flower industry indicated substantial rates of return for proteas and lachenalias (Niederwieser, 1997). From this we learnt that effective linkages between technology, research and development and producers could clearly provide a major boost to the South African flower industry. In a case study a number of cut flower producers in the Gauteng Province were interviewed to describe their production systems and to determine the constraints and problems as it relates to the technology support and research system. The main problems identified by these producers were related to value adding due to constraints in information on markets and consumer preferences, high financial start up costs, and technical matters related to quality loss during distribution and storage.

Interesting perceptions came to light in the case study on production systems, marketing and farmer support services. A number of flower producers in the Gauteng Province were interviewed and information was verified through an interactive procedure. A logical framework analysis was used to establish farmer problems (Van Rooyen, *et al.*, 1997).

i) Production

Total cut flower production in South Africa is currently valued at an estimated R400 million (De Bruin, 1998) produced on approximately 420ha of protected area and 20 000ha natural environment where cut flowers are harvested in their natural state (Tashner, 1997). Roses generally dominate the markets followed by chrysanthemums and carnations. The following information characterise the industry:

- 45% of the production area are unprotected, 27% under shade netting, 16% in greenhouses with natural ventilation and 12% with fan ventilatio.

- 59 % of the total production area are occupied by roses, 13% by carnations and 25% by chrysanthemums.

- The growers interviewed have on average more than 33 years experience in cut flower growing.

- The average farm size is 4.5ha in the Gauteng area.

- Growers interviewed employ approximately 16 full-time and 3 part time labourers per hectare.

To be competitive and maintain the ever-increasing quality and quantity demands, growers must stay informed about the latest research and scientific development.

ii) Research and information services

South Africa's scientific floriculture research and information systems are presently constrained by its capacity. Government support is limited and producers are not mobilised yet to contribute significantly. As to research and development the following interesting statistics were found in the case study:

- All respondents make use of research and information services;

- A need for formalised research was identified by more than 85% of the respondents and less than 60% of the make use of the information and services available from the ARC-Roodeplaat;

- 42% made use of only local services, 14% of only foreign services and 57% make use of both.

- 85% of the growers make use of technical information from input distributors, 14% of an export agent and 71% of private consultants.

- Growers spend on average R5 571 (per capita) per year on these services and R8 285 (per capita) on own (self conducted) research (time + expenses).

- 60% are willing to make such information and knowledge accumulated available. However, 40% state that their knowledge are not available for publication.

iii) Marketing

To produce a product is one thing but to find a suitable distribution channel to reach the target audience is a vitally important prerequisite to compete on both the local and international markets. The focus of the South African growers is currently still on the production side rather than on marketing. This is visible in the lack of developed distribution channels available (especially export channels) to the growers. The following confirm the lack of attention paid to aspects of marketing:

- Only 42% of the growers embarked in some form of market research.

- Less than 60% of the growers identified the need for formal market research.

- More than 50% of the production area are reserved for production of produce distributed through Multiflora, 16% is exported through an agent, 6% are exported directly, 12% are sold to local wholesalers and 11% directly to the public.

In creating strong marketing and production infrastructure South Africa can improve its competitive position in international floriculture.

iv) View's on the competitiveness of the industry

Flower growers interviewed, identified factors that have a negative influence on their competitiveness and the extent to which these factors influence the competitiveness of the South African flower industry as a whole. To illustrate a strong negative effect on competitiveness a large value was awarded, while a low value indicates a weak negative influence on competitiveness with values ranging between 0 and 3.

According to the interviewed growers, labour problems like low productivity and high wage rates, which scored 2.4 and 2.5 respectively, have got the largest negative effect on South Africa's competitiveness with respect to other African countries. The availability of affordable credit scored a 2, which shows the strong negative effect that this factor has on competitiveness. Limited affordable credit is followed closely by unfavourable climate (1.63); ineffective information services (1.5); lack of research support (1.25); and the high cost of plant material (1.13). The remaining factors scored values below 1 which indicates a small negative effect on competitiveness: Timely delivery of inputs (0.87); transport cost (0.85); availability of new varieties (0.57); information cost (0.5); inefficient domestic market capacity (0.38)

6. CHALLENGES

It will not only be important to promote efficient production and to expand international trade, but measures should also be considered to promote flower consumption in the local South African market. A study indicated a substantial potential to serve the market via informal street vendors (Anseeuw, 1997). The analysis of constraints experienced by these street vendors showed that business training and management could improve their ability to deliver substantially. Improved storage facilities are also required. Efforts should therefore be directed to improve the efficiency with which a street market operates.

Another challenge relates to the ability to create equal access and equity in the flower industry for previously disadvantaged producer groups. Due to the high capital and managerial requirements entrance of such producers into the flower industry may be severely constrained and limited. The high development impact however, makes it important to promote a wider participation of such groups. Innovative agri-business models and structures are therefore necessary. In a recent study on a flower farm in Mpumalanga (Ngqangweni and Van Rooyen, 1996) the provision of equity shares to farm labourers in a flower farm in the Badplaas area was considered to be highly viable as a model to promote access to farm business opportunities. Outgrower schemes and contract farming can also be considered to facilitate the entrance of such producers.

7. CONCLUSIONS

The results of recent studies indicate a clear potential in the South African flower industry. The South African flower industry is believed to be one of the most efficient contributors to development and by enhancing this industry's international competitiveness and concurrently it's comparative advantage stronger linkage effects to its different production factors are developed. Since,

there are currently no government support for the South African flower industry, it would be important to structure government initiatives to assist the private sector to expand this industry. A strategic planning exercise where the South African flower industry is positioned within the current transformation stage of the economy will be required.

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