



# CHAPTER 1

## INTRODUCTION

### 1.1 Background

The retail<sup>1</sup> industry worldwide is a dynamic industry. The changes in the retail industry are driven primarily by technology, increased urbanisation, a shift in consumer shopping behaviour and heightened competitive forces. In both developed and developing countries large multinational retailers are expanding (Reardon *et al.*, 2002; Ghezan *et al.*, 2002). The rapid expansion of these large retailers has led to changes in supply systems, increased integration and concentration in the food retail market resulting in stiff competition to local businesses and producers. Profound changes have occurred in the agrifood systems such as increased agro-industrialisation of agriculture (Boehlje, 1999; Reardon & Barret, 2000). The increasing dominance of multi-national retailers and processors has brought to the fore issues concerning market power in the food industry and concerns of how the activities of these firms impact on suppliers and consumers (Dobson & Waterson, 1997; Dobson *et al.*, 2003; Cooper, 2002; Gohin & Guyomard, 2000). As supermarkets consolidate and increase their market share, they may be large enough to exert market power and may have both negative and positive impacts on the suppliers and consumers of agricultural and manufactured/processed products.

The transformation occurring in agrofood systems<sup>2</sup> in developing countries is as a result of increased agro-industrialisation, combined with improvement in packaging, communication and transportation technologies (air cargo and internet) and trade liberalisation. Improvements in technology and trade liberalisation have also enabled

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<sup>1</sup> *Retailing* is all activities involved in selling products and services to final consumers for personal consumption domestically or internationally.

<sup>2</sup> *Agrofood systems* consist of interdependent sets of enterprises, institutions, activities and relationships which collectively develop and deliver material inputs to the farming sector, produce primary commodities, and subsequently handle, process, transport, market and distribute food and other agro-based products to consumers (Jaffe *et al.*, 2003: p3).

supermarkets in developed countries to engage in complex global supply chains leading to increased trade in fresh fruit and vegetables (FFV) from developing countries to developed countries. For example, in the 1990s, there has been an increase in trade of fresh horticultural produce from African countries such as Kenya, Zambia and Zimbabwe to the United Kingdom (Dolan & Humphrey, 2000). Multinational supermarkets in Britain and other European countries have spearheaded this trade. This implies that producers in African countries are intricately linked to food supply chains of developed countries and are affected by issues such as grades and standards that apply to farmers in the developed world.

The growth and expansion of supermarkets in Africa is a recent phenomenon mainly spearheaded by South African supermarkets expanding into other African countries. The rapid expansion of retail supermarket<sup>3</sup> chains has occurred since the mid-1990s with South African supermarkets increasingly becoming involved in food retailing in African countries (Weatherspoon & Reardon, 2003). Through acquisitions of smaller supermarket chains, mergers and franchising, the multinational supermarkets, mainly from South Africa, have been able to expand and increase their market share in other African countries (Games, 2003).

The increased involvement of supermarkets in food retail in Africa and especially in the Southern African Development Community (SADC)<sup>4</sup> has been encouraged by the positive developments enhancing the ability of the region to attract foreign investment. These positive developments include encouraging economic growth, positive political changes (independence of Namibia in 1990, end of civil conflict in Mozambique in 1992 and end of apartheid and international sanctions in South Africa in 1994), and sub-

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<sup>3</sup> *Supermarket* is used to denote modern-format retail stores (hypermarkets, supermarkets, department stores and other large format stores) involved in retailing of food and non-food groceries. *Supermarket* is a large service store in branches (chains) or independent with a floor space of 350 to 400m<sup>2</sup> or more and /or with 3-4 or more cash registers. Hypermarkets are larger than supermarkets.

<sup>4</sup> **SADC** is the Southern African Development Community. It consists of 14 countries that came together as an economic block to foster development: Angola, Botswana, the Democratic Republic of Congo (DRC), Lesotho, Malawi, Mauritius, Mozambique, Namibia, the Republic of South Africa, Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe.

regional integration arrangements such as the SADC trade protocol which aims to create a free trade area in the region (University of Cape Town, 2000). Since the advent of democracy in South Africa and the removal of sanctions in 1994, there has been increased trade between South Africa and other African countries. The favourable political situation and the trade potential in other African countries have encouraged South African companies to invest in these countries. For example, one retail chain, namely Shoprite, has made investments in 14 African countries and it is set to invest in more countries in the coming years (Economist, 2004). At the same time, Pick 'n Pay has invested in four SADC countries, Spar in five countries, Massmart in five countries and Woolworths in seven. Increased retailing activities in food and other agricultural products by these supermarket groups are changing food-marketing systems in SADC countries (Muradzikwa, 2002; Daniel *et al.*, 2003; Economist, 2004).

Supermarkets are gradually expanding and are becoming a common feature of the landscape especially in urban and peri-urban areas of South Africa. Whether this trend will be continued in other African countries in the near future will depend on whether the conditions for supermarket growth are attained in the poorer sub-Saharan African countries. In the past, policy-makers and development economists paid little attention to supermarkets because they were assumed to be markets for the rich and middle class. As supermarkets expand and increase their market share in retailing of fresh and processed/manufactured food products and have moved to poorer neighbourhoods and countries, supermarkets have the potential to impact either positively or negatively on the rural and urban populations. This is possible owing to the fact that in sub-Saharan Africa agriculture is the mainstay of the economy. Agriculture provides employment and a livelihood to 50 to 80% of the population, especially in rural areas, and is important for food security and poverty alleviation in African countries.

Part of the development challenges is to commercialise smallholder agriculture in Africa. This commercialisation could be achieved by linking small farmers to agribusiness firms such as agro-processors and supermarkets to improve household income in rural areas and spur economic development in these countries. This might provide a solution to

Africa's problem of a lack of market access. Africa is beset with various kinds of market failures and in some cases missing markets in both inputs and outputs which make it difficult for small-scale farmers, processors and manufacturers to access markets because of high transaction costs (De Janvry *et al.*, 1991; Makhura, 2001). Availability and accessibility of markets are prerequisites for agricultural and industrial development. Supermarkets therefore offer an opportunity for farmers and food processors to access markets for their products if, and only if, conditions for accessing markets are made conducive for small-scale farmers and processors.

As the market share of supermarkets in the retail market increases, supermarkets may change their procurement systems from decentralized to centralized systems with increased use of private quality standards (Balsevich *et al.*, 2003; Freidberg, 2003). Supermarkets may also use contracting in buying and procuring food and non-food products from suppliers in an effort to integrate supply chains and reduce transaction costs. By doing this, supermarkets may increase efficiency in their supply chains and thus enable supermarkets to offer products at considerable lower prices giving them a competitive advantage over other smaller traditional retailers of food products. Therefore, the sourcing and procurement policies of supermarkets could have a direct impact on the income of rural households and also the well-being of urban households. The perceived benefits can be realised if supermarkets source/procure from local producers including small-scale farmers and food manufacturers and/or processors. This could greatly improve market access for locally produced agricultural, manufactured and processed products and may have a potential to reduce poverty in the rural areas of Africa.

Food processing is an important sector of many of the SADC economies, particularly in Tanzania (16%), Zimbabwe (12%), Zambia, Malawi, and Mozambique (11%), (Lewis *et al.*, 2002). The level and stage of development of the food-processing sector in the SADC varies from country to country. Some countries in the SADC region have a large agricultural potential and are able to produce raw materials for the agrofood industry such as South Africa, Zimbabwe, Zambia and Tanzania. However, this sector has not yet been

fully developed in the majority of these countries except in South Africa and Zimbabwe. In most of these countries, the grain industry and especially the milling industry are reasonably developed. Most of the milling companies are protected by imports bans (Namibia, Zambia) and other non-tariff barriers (Botswana). The canning industry in most countries such as Angola, Mozambique, Zambia, Swaziland, DRC, Tanzania and Botswana are under-developed. Due to lack of processing capacity most of these countries need to import processed food products because they have shortages in their production or they cannot process when they have surplus production.

South Africa has the most developed food-processing/manufacturing sector in the region. In 2003, the manufacturing sector contributed 17.2% to total gross domestic product (GDP). With a turnover in excess of R77 billion, the South African food and beverage industries contributed 21% to the total manufacturing sector GDP and employed 5% of the economically active population (Republic of South Africa, 2006). Small-scale processors (with a turnover of about \$0.36 million or less) and large processing firms (with a high turnover of over \$10-million per annum) operate alongside each other. The food-manufacturing and food-processing sector has attracted a number of international and local companies (Table 1.1), which use South Africa as a base to reach the domestic South African market as well as other countries in Africa (Republic of South Africa, 2006). Some of these companies have moved into and invested in other SADC countries such as Parmalat (SA), which has invested in Zambia. These large multinational and South African firms operate sophisticated production technologies and logistic systems compared to small manufacturing firms that use basic manufacturing technologies and less sophisticated logistic systems.

**Table 1.1: International and local companies operating in the South African agrofood industry**

<b>Company</b>	<b>Country</b>	<b>Industries</b>
Unilever	Netherlands	Processed foods
Coca-Cola	USA	Beverages
Parmalat	Italy	Dairy, beverages
Nestlé	Switzerland	Processed foods
Danone	France	Dairy
Kellogg	USA	Cereals, processed foods
HJ Heinz	USA	Processed foods
Pillsbury	USA	Beverages
Virgin Cola	UK	Beverages
Cadbury-Schweppes	UK	Processed foods, beverages
Minute Maid	US	Beverages
McCain Foods	Canada	Processed foods
Dole	USA	Fruit and vegetables
Del Monte	USA	Fruit and vegetables
Catmark	France	Fruit and vegetables
South African Breweries	UK	Beverages
Bulmers	UK	Beverages
Tiger Brands	South Africa	Cereals and beverages, culinary, confectionary and health care products
Premier foods	South Africa	Processed foods
Clover	South Africa	Dairy products
Pioneer foods	South Africa	Cereals, processed foods
Foodcorp	South Africa	Processed foods
Tongaat Hulett Group	South Africa	Sugar
Langeberg Holdings	South Africa	Processed foods
National Brands	South Africa	Processed foods
Illovo Sugar	South Africa	Sugar

*Source: Republic of South Africa. Department of Trade and Industry (2004)*

The food-processing sector in South Africa consists of 11 downstream sectors, namely meat processing; dairy products; preservation of fruit and vegetables; canning and preserving of fish; vegetable and animal oils and fats; grain mill products; bakery products; sugar milling and refining; cocoa, chocolate and sugar confectionary; other food products; and prepared animal feeds. Meat processing is the single largest food sub-sector, contributing 25% of total processed food output, followed by grain milling and animal feeds sub-sectors, accounting for 13% and 10% of the total processed food output, respectively. The other eight sectors contribute between 4 and 9% of the total processed food output (Imani Development Limited, 2000a). In comparison to its neighbours, the food-processing industry in South Africa is well developed.

The manufacturing sector in Zambia was worth 274-billion kwacha (R386 million) in 2001, contributed about 10.5% to total GDP and employed approximately 90 000 people (Republic of Zambia, 2004a). The food-processing industry is the largest of the manufacturing sub-sectors in Zambia contributing approximately 60% to the manufacturing GDP. It has nearly 300 enterprises employing approximately 18 000 people. The majority of these are in industries such as brewing, soft drinks, malting, sugar refining, grain milling, oil processing, dairy, and meat processing (Giovannucci *et al.*, 2001). About 65% of agro-processing enterprises are engaged in grain milling (Imani Development Limited, 2000b).

Grain milling and dairying are carried out by both small-scale and large-scale firms. The majority of the small-scale processing firms are located in Lusaka province and most had a turnover in the region of US\$ 32 000 each in 1998. Most of the products produced by the agro-processing enterprises are sold in the domestic market (Imani Development Limited, 2000b).

The manufacturing industry in Namibia contributed 12.2% to total GDP in 2001 and employed a total of 32 995 people (Republic of Namibia, 2003). The food and beverages sub-sector is the largest sub-sector in manufacturing contributing about 67% to total manufacturing output in Namibia; as well as approximately 8.2% to total manufacturing GDP and employs about 32.6% of all labour in manufacturing. The food and beverages processing sector in Namibia consists of three downstream sectors, namely meat processing contributing about 6.6% to total manufacturing GDP, fish processing contributing 12% to total manufacturing GDP and the manufacture of other foods and beverages contributing 48.6% to total manufacturing GDP in 2001 (Republic of Namibia, 2002).

Investments by Retail Transnational Corporations (TNCs) are on the increase worldwide since the mid-1990s but are poorly researched compared to manufacturing TNCs in the globalization literature (Wigley *et al.*, 2005; Senauer & Venturini, 2004). In Africa there has been a rise in the number of South African retail TNCs investing in other African

countries in the same period (Goldstein, 2003; Weatherspoon & Reardon, 2003). A number of studies carried out in Africa that have analysed foreign direct investment (FDI) flows in the continent and SADC, acknowledge that FDI including retail TNCs investments can play an important role in the development process in African countries by providing the much needed capital for economic growth, which may result in income growth and employment, hence improved welfare for the people in these countries (UNCTAD, 1999; Basu & Srinivasan, 2002; DBSA/NEPAD, 2003).

In the past, Africa has performed poorly as regards attracting FDI compared to other developing countries in Latin America and Asia due to unfavourable conditions which had a negative impact on FDI such as macroeconomic instability, investment restrictions, corruption and political instability (Asiedu, 2003). Since early 1990s there have been concerted efforts by African governments to attract more FDI. This is because FDI is seen as a beneficial factor that can be an important source of much needed capital, technology and knowledge (Dries & Swinnen, 2004). These efforts have resulted in an increase in the flow of FDI into some Africa countries. Increased FDI into Africa and SADC in particular has been encouraged partly by resource endowments, economic reforms especially trade liberalization.

Many African countries have undertaken economic and policy reform measures such as privatisation, foreign exchange liberalization, tariff reforms, regional integration and liberalization of FDI policies which have encouraged foreign firms including those from South Africa to invest in African countries (Thomas, 2004; Kandiero & Chitiga, 2003). Due to these measures, there has been a general increase in FDI flows to Africa and SADC countries. South Africa has become a major source of FDI to sub-Saharan African countries since mid-1990s and surpassed countries such as the UK, Germany, and other traditional investors in Africa (Thomas, 2004; UNIDO, 2003). South African companies investing in Africa include private firms as well as public companies.

There are various reasons why foreign firms may choose to invest in foreign countries. These reasons include rent seeking, market seeking, efficiency seeking and strategic-

assets (Dunning, 1993 as quoted in Kandiero & Chitiga, 2003). The expansion of South African retail firms has been a search for markets as the retail markets in South Africa are near saturation and also in search of higher margins (Weatherspoon & Reardon, 2003). Increased FDI by South African TNCs into African markets viewed as risky by investors from developed countries may be attributed to South Africa's close geographic and geopolitical links with SADC economies.

Other factors that further explain this trend are the huge trade flows from South Africa to these countries, which has helped to develop local contact networks enabling South African companies to invest. There are also large tourist flows from South Africa to several SADC countries, strong transport-linked interactions with other African harbour towns (Mombasa, Maputo, Luanda), energy and water supply from other African countries to South Africa (Lesotho, Zambia) and strong South African involvement in the construction and professional services spheres of African countries (Thomas, 2004). The increased South African FDI in Africa may further be explained by the preceding linkages, which are catalysts for further investment in the continent by South African firms.

The retail and food sectors have probably seen the most visible investments in the continent by South African business. South African retail operations in Africa include Shoprite, Pep Stores, the JD group (trading under a variety of brands such as Morkels, Price'n Price and Bradlows), Pick'n Pay, Ellerrines, Game, Makro, and Metro Cash and Carry. Franchising is increasingly seen as an effective way to empower local businesses and to draw them into the formal economy. In the retail and food sectors, Woolworths, Truworths, Steers, Nando's, Debonairs and St. Elmo's have chains of franchises in African countries (DBSA, 2003). From the preceding, the involvement of South African companies in retail and food sectors in Africa is growing steadily. Apart from FDI being one of the major facilitators of this growth, other factors such as urbanisation, changing consumer preferences, as detailed in section 2.8, are responsible for the spread of supermarkets in Africa.

## 1.2 The problem statement

As South African supermarkets grow, expand and increase their market share in food retail and industrial goods in SADC countries and Africa as a whole, the increased supermarket foreign direct investment (FDI) into these countries may be impacting on firms, households and the economy as a whole in various ways. While many concur that South African FDI is an important source of capital for development in Africa, the impact of these investments is least understood (DBSA, 2003). Even less understood is the impact of the investment of South African supermarkets in the retail sector and especially how it affects agricultural and industrial development in the SADC and the rest of Africa. Many view these investments as a new form of “colonisation” and in many quarters it has been seen as stifling agricultural and industrial development in the region.

The reasons for these sentiments revolve around the sourcing and procurement practices of these supermarkets. Supermarkets prefer to source/procure their products from large to medium farms and large processing/manufacturing firms in South Africa and other developed countries (Reardon & Berdegue, 2002; Weatherspoon & Reardon, 2003; Timmer, 2004). This implies that small-scale farmers, processors and manufacturers may be potentially excluded from these lucrative urban markets. A study carried out in Zambia (Muradzikwa, 2002) estimated that approximately 60% of all products sold by Shoprite supermarkets in Lusaka were imported from South Africa. This has raised concern among firms and other stakeholders in host nations that production may have declined in the countries where large South African supermarkets have invested.

The potential marginalisation of small-scale farmers, processors and manufacturing firms has been documented in many developing countries, for example in Latin America, south East Asia and Africa (Reardon *et al.*, 2003). Various factors combine to make it difficult for small-scale farmers and processors to access and supply to supermarkets. Supermarkets respond to the demand for goods and services by consumers and basically maximise profits in the face of stiff competition from other supermarkets and traditional food retailers. To remain competitive and survive in the market-place, supermarkets set high quality standards for their products and may offer low prices to consumers

compared to other smaller food retailers as supermarkets exploit economies of scale and efficient procurement systems. To reduce transaction costs, supermarkets may integrate their supply chains and centrally procure products (Weatherspoon & Reardon, 2003). Supermarkets also impose stringent private grades and standards in order to comply with consumer demands for consistent high quality products throughout the year. Because of the high cost of transacting with small-scale producers and processors, supermarkets prefer to source from large-scale farmers and processors and therefore further marginalise the small-scale farmers and processors.

To comply with supermarkets' sourcing requirements, small-scale farmers, small processors and manufacturing enterprises in host nations may have to make investments that increase their costs (both production and transaction costs). The high costs make their products more expensive and uncompetitive compared to cheaper products from South Africa and the rest of the world. Fresh fruit and vegetable farmers may need to invest in cold storage and transport facilities in order to deliver produce of high quality on time to supermarkets or central buying centres. Empirical evidence shows that many small producers in Latin America and Africa are not able to meet these conditions and many are struggling to comply with the requirements set by the supermarkets (Reardon *et al.*, 2003). As a result of procurement practices and policies, many small-scale farmers and processors may be potentially excluded from these emerging urban and rural markets unless they can adapt to these changes or they can access other markets. Likewise, as firms (processing and retail firms) amalgamate and become larger and develop global supply chains with increased use of private grades and standards in their procurement systems, small to medium local processing companies may face phenomenal competition from these well-developed multinational companies. This competition may lead to diverse impacts such as local firms adjusting to these requirements and beginning to make high quality products to meet supermarket requirements or closing owing to an inability to compete.

### **1.3 Gaps in the literature and research questions**

#### **1.3.1 Gaps in the literature**

There is a growing empirical literature about FDI in Africa, which can be categorised into two groups. The first group covers FDI with a focus on Africa in general and the second group focuses on FDI in some regions in Africa such as the SADC. The studies focusing on FDI in Africa in general have shown that FDI is important to Africa's development process, many of them give details of FDI flows into Africa in the last two decades and the reasons why Africa has lagged behind in attracting FDI compared to other developing regions (Asediu, 2003; Basu & Srinivasan, 2002; UNCTAD, 1999; UNIDO, 2003). Some of these studies have analysed the impact of openness and regional integration on FDI flows in Africa and SADC (Kandiero & Chitiga, 2003; Lewis *et al.*, 2002) and some have specifically addressed South African FDI in Africa (Thomas, 2004; DBSA, 2003).

A number of empirical studies have focused on South African FDI in SADC countries. A few of these studies provide an analysis of the South African retail FDI in SADC. One such study is the study by Goldstein (2003) which analyses FDI trends in SADC and the ability of the region to compete in global markets following economic liberalisation and regional integration. The paper discusses South African supermarkets in Zambia basing its analysis on the Weatherspoon and Reardon (2003) paper which was the first paper to analyse the rapid rise of supermarkets in Africa and its implication for agrofood systems and the rural poor in Africa. The Weatherspoon and Reardon (2003) paper was based on "preliminary evidence and emerging examples drawn from the trade press, private research firms and direct interviews with stakeholders and collaborators". No quantitative analysis was done owing to lack of official data (authors acknowledge the data problem). These papers (Weatherspoon & Reardon, 2003; Goldstein, 2003) note that there has been an increase in supermarket involvement in the agrofood system in Africa especially in southern and eastern Africa, which has been accompanied by displacing small businesses, and small-scale farmers and processors. These businesses could not compete with the well-capitalised South African retailers. On the other hand small-scale farmers and food processors could not meet the quality standards of South African supermarkets.

Another study by Muradzikwa (2002) reported that South African retail firms in Zambia were selling goods sourced from South Africa. The major question is why South African retailers choose to source from South Africa and not from local producers. So far there has been no study on the sourcing practices of South African supermarkets in SADC and what these practices actually imply for market access by local producers. There is thus a need for more research to unpack the sourcing and procurement practices of South African supermarkets and the impacts these practices have on local producers (farmers and processors).

Other studies on supermarkets and agrofood systems carried out in other developing countries showed that small-scale farmers and processors face threats of exclusion from supermarket supply chains (Reardon & Berdegué, 2002; Reardon *et al.*, 2003; Brown, 2005), whereas some producers benefit from regional and global sourcing networks of TNCs (Goldstein, 2003). For the SADC region, Goldstein (2003) argues that the regional procurement systems of South African supermarkets may stimulate intra-regional trade, which implies that supermarkets may have impact on food security and livelihoods in urban and rural areas (Arda, 2006; Van Roekel *et al.*, 2003). Despite these arguments it is evident that no empirical work has been done on sourcing and procurement strategies of transnational retail companies, the restructuring of their procurement systems and their impacts in developing countries (Wigley, 2005; Reardon *et al.*, 2007). This gap in literature is especially true for the SADC region.

Some empirical studies in South America show that some small-scale well-capitalized farmers are able to access and remain part of the supermarkets' supply chain for FFV and dairy either as individuals or in organised groups (Berdegué *et al.* 2005; Hernandez *et al.*, 2007). However, in SADC there are no empirical studies estimating the determinants of farmer access to the supermarkets' FFV and dairy supply chains in the region and the impact of producer access to the supermarket on income of producers in the region. It is therefore not clear whether the same argument applies in the southern African region. This study aims to fill this gap in the literature.

Games (2003) examined the experiences of South African firms doing business in Africa. The study examined four sectors (mining, retail and food, telecommunications and banking) in four countries: Morocco (North Africa), Ghana (West Africa), Mozambique (southern Africa) and Uganda (East Africa). The study reported that the retail and food sectors have seen the most visible FDI by South African firms.

In the retail and food sectors, Games (2003) argued that the advent of South African retail firms into Africa may bring both positive and negative effects. On the positive side, South African firms investing in Africa bring much needed capital for development, new technology and may have spillover effects in increasing domestic production as retailers procure from local companies. Among the negative effects that the author mentions are that the well-capitalised South African retailers offer stiff competition to local retailers and producers, and may drive out small-business leading to the closure of these firms and hence concentration of retail food markets. Another negative effect reported was that South African retailers dump substandard goods on host-nation markets. Games (2003) reached these conclusions based on scanty data such as press reports and qualitative interviews. No statistical analysis was offered to back up these findings. The issue is that data is scarce which poses a serious constraint to anyone carrying out such an analysis in the region outside South Africa. The data constraint on FDI and especially supermarkets impacts on producers in Africa as has been reported (Goldstein, 2003; Weatherspoon & Reardon, 2003 and DBSA & NEPAD, 2003).

So far no empirical study has determined the impact of South African supermarkets on the agricultural and industrial (food processing) sectors in the host nations using firm-level data. This study, therefore, addresses this gap by investigating the impact of South African supermarkets by using a case study approach and using both qualitative research methods (semi-structured interviews, focus-group discussions, key informant interviews and secondary data) and quantitative methods (survey of farmers, supermarkets and food processors in selected case study countries). A study on how South African supermarkets are impacting on agriculture and industry should contribute to the current on-going debate about South African FDI in Africa and is needed to inform policy and to help

chart the future development of supermarkets and other related food retail markets, agriculture and industry in the region.

A study by D’Hease and Huylenbroeck (2005) in South Africa showed that rural consumers gained by shopping in chain supermarkets which offered food products (especially processed foods) at low prices compared to the traditional retailers (vendors and small shops). The study recommended that development programmes in the area should aim at linking farmers to the supermarkets procurement systems, as consumers prefer supermarkets as they obtain low prices and variety (D’Hease & Huylenbroeck, 2005). One way the economy may gain from the expansion of supermarkets may be in reduced food prices as supermarkets exploit economies of scale, efficient management and procurement systems. Is this happening in host nations where South African supermarkets are investing? This study attempts to fill this gap by determining whether prices obtained by consumers are actually lower for selected products. As chain supermarkets’ sourcing and procurement systems change how these changes affect the various participants including consumers in SADC.

### **1.3.2 Choice of products.**

In order to determine the direct impacts of the South African supermarkets on agriculture and manufacturing the study chose a limited number of fresh and processed food products that are normally sold through supermarkets and other traditional channels such as wholesalers, local-spot markets and small shops. The products included in the study are: fresh fruit and vegetables, dairy products, processed grains, processed fruit and vegetables and baked products. Fresh fruit and vegetables and dairy supply chains were chosen because FFV and dairy were the products chosen by the Regoverning Markets Project of which this study was a part in the first phase of that project (<http://www.regoverningmarkets.org>). The results of the phase 1 of the Regoverning Markets project carried out in Zambia and South Africa showed that FFV and dairy had the potential to increase incomes and reduce poverty if more small-scale farmers could be involved in the production of these products and supply to supermarkets and food processors in the region. This is because FFV and dairy are high value products not

withstanding that these products are being promoted by governments in the region as a means of creating employment and hence reducing poverty. Therefore, due to the perceived potential of these products in improving income and welfare and hence reduction of poverty among producing households in the three countries if their production is increased, this study opted to continue analysing these products (FFV and dairy) and other selected processed foods in the subsequent phases of this study. Processed grains were chosen because these products are important for household food security in urban and rural areas in SADC.

### **1.3.3 Research questions**

From the above identified research gaps, this study attempts to answer the following research questions:

1. What is the extent of growth and expansion of South African supermarkets in case-study countries?
2. What are the nature of sourcing and procurement practices and the factors influencing the choice of supermarket choice of procurement system?
3. What are the impacts of these sourcing and procurement practices on farmers and food processors in case-study countries?
4. Do farmers gain by participating in the supermarkets' FFV supply chain in case-study countries?

### **1.4 Hypotheses**

Two main hypotheses related to the above mentioned research questions are tested:

#### **Hypothesis 1**

The factors that determine the sourcing and procurement practices of supermarkets result in supermarkets sourcing from medium and large scale farms and food processors. In the process it is hypothesised that many small-scale farmers are excluded from these potentially lucrative markets.

## **Hypothesis 2**

Intuitively it can be argued that supermarket FDI in SADC countries is bad for development and bad for rural livelihoods. This study however argue that farmers and food processors who are included in the South African supermarket FFV supply chain in Botswana, Zambia and Namibia earn higher incomes/returns compared to those that supply the traditional markets (traditional wholesale, local shops) controlling for specific type and grade of the product.

### **1.5 Research methodology**

In this section a background about the study area and the choice of case study countries as well as the design of the study and the data sources are described in detail.

#### **1.5.1 Study area**

The Southern African Development Community (SADC) consists of 14 countries: Angola, Botswana, the Democratic Republic of Congo (DRC), Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, South Africa, Tanzania, Zambia and Zimbabwe as shown in Figure 1.1.

SADC countries have a total population of approximately 200 million people, and cover an area of approximately 9.3 million km<sup>2</sup> (Du Toit, 2000). Three countries (the Democratic Republic of Congo, South Africa and Tanzania) account for almost two-thirds of the total population (64%), while the six smallest members (Seychelles, Swaziland, Mauritius, Botswana, Namibia and Lesotho) comprise only four percent of the total population. This shows a large variation in population within the SADC countries.



**Figure 1.1: Map of SADC highlighting the case study countries**

*Source: Southern African Marketing Co. (Pty) Ltd & SADC Secretariat, 2004*

The total SADC gross domestic product (GDP) was approximately US\$245-billion in 2003, while average GDP per capita was US\$1175 (World Bank, 2006). However, there are wide variations in aggregate and per capita GDP for the 14 countries, implying that these countries are at different stages of development. On the basis of income per capita, eight SADC countries are classified as low-income (LI) economies (Angola, the DRC, Lesotho, Malawi, Mozambique, Tanzania and Zambia), while some countries are classified as upper-middle income (UMI) such as Botswana, Mauritius and Seychelles, whereas some countries are classified as lower-middle income such as South Africa and Namibia (Du Toit, 2000).

Economic structures also differ among the SADC countries; South Africa and Zimbabwe have a well-developed manufacturing sector. The agricultural sector contributes less than 10% to the GDP of Botswana, South Africa, Seychelles, Mauritius and Angola, whereas it contributes 44.2% in the case of Malawi, 39.4% in the case of Mozambique, 50% in the case of the DRC and 46.2% in the case of Tanzania (Table 1.2). South Africa is the dominant economy in the SADC constituting about 20% of the population and about 70% of the aggregate GDP (World Bank, 2006). South Africa, therefore, plays an important role in the region with its geographical location and the size of its economy, particularly in trade and transport. Almost all the landlocked SADC countries depend on South Africa's railways, ports (airports and seaports), highways and other transit facilities to export their products.

**Table 1.2: Basic population and economic indicators of SADC economies**

Country	Population (millions) <sup>a</sup>	GDP at market prices (current US\$, million)	Agriculture% of GDP <sup>b</sup>	GNP per capita at current US dollars	Agriculture labour share <sup>b</sup>	Average annual real GDP growth % p.a. <sup>a</sup>		
						1980-89	1990-94	1995-1999
Angola	12.4	5861	7.8	220	75	2.6	-5.9	6.8
Botswana	1.6	5996	4.2	3240	46	10.6	4.6	4.8
DRC	49.8	7752	50.0	130	62	1.8	-8.6	0.9
Lesotho	2.1	874	11.0	530	40	3.6	4.4	3.9
Malawi	10.8	1820	44.2	190	87	1.7	1.0	7.3
Mauritius	1.2	4233	9.4	3590	17	4.2	5.4	5.2
Mozambique	17.3	4169	39.4	230	83	0.1	2.6	8.7
Namibia	1.7	3075	13.6	1890	49	1.1	4.3	2.8
Seychelles	0.1	545	4.0	6540	11	2.1	4.8	2.4
South Africa	42.1	131127	4.4	3160	13	2.2	0.2	2.3
Swaziland	1.0	1223	12.5	1360	49	6.7	3.8	2.9
Tanzania	32.9	8777	46.2	240	84	3.9	2.7	3.7
Zambia	9.9	3325	18.7	320	75	1.4	0.2	1.3
Zimbabwe	11.9	5716	17.1	520	68	5.1	2.1	3.1
Total	194.7	184494		931	54.2	3.4	1.5	4.0

Source: <sup>a</sup>Lewis (2001) and <sup>b</sup>IFAD (2001)

### **1.5.2 Selection of study countries**

The study is concerned with the impact of supermarkets on agricultural and industrial development in the SADC region. Botswana, Namibia and Zambia, were chosen as case study countries, because of the presence of South African supermarkets in these countries. Four major supermarket chains, namely Shoprite, Pick 'n Pay, Spar and Woolworths, have invested in the case study countries.

### **1.5.3 Research design**

This study was carried out in two phases. Phase one was an exploratory survey of the three countries, which was undertaken in April 2004 (Namibia), June 2004 (Zambia) and September 2004 (Botswana). The purpose of phase one was to identify supermarkets involved in the selected food supply chains in the case study countries. During this phase secondary data was collected on South African supermarkets as well as vital statistics on the agricultural and processing sectors of SADC countries. Products on supermarket shelves and local shops in South Africa, Botswana, Namibia and Zambia were surveyed to determine their sources of origin (Appendix 3). Qualitative data was collected by means of key informant interviews, focus-group discussions and open-ended interviews using checklists (Appendices 1 and 2). In phase two, surveys of farmers, supermarkets, processors and other stakeholders involved in the supply chain for FFV and dairy was undertaken.

### **1.5.4 Data and data sources**

Both primary and secondary data were used in the study. Data were obtained from supermarkets, processing firms, farms, government ministries and market research companies. Secondary data on the growth and spread of supermarkets, income in agriculture and manufacturing/food processing sectors, and trade statistics in each case study country were obtained from central statistics offices, Food and Agriculture Organization (FAO) databases, market research firms (Planet Retail), supermarkets' annual reports, government ministries and non-governmental organizations (NGOs).

## **1.5.5 Sampling methods and data collection**

### ***1.5.5.1 Supermarkets***

The number of South African supermarkets and locations was documented from secondary sources and from a rapid exploratory survey. Supermarkets in Lusaka and Chipata (Zambia), Windhoek (Namibia) and Gaborone and other rural towns (Botswana) were studied. Most of the foreign supermarkets operating in SADC countries (Zambia, Namibia and Botswana) were of South African origin. But other local chain and independent supermarkets are also involved in food retailing and were included in the survey. The South African and local chain supermarkets have several branches, which are managed under one management with headquarters in South Africa or the selected capital city of the case-study country. Interviews with supermarkets' Chief Executive Officers (CEOs) for Shoprite, Pick 'n Pay and Spar were carried out in South Africa for Botswana and Namibia (Appendix 1) and with local General Managers of Shoprite Zambia in Lusaka and Chipata. These key informant interviews of supermarket CEOs yielded information on how the supermarkets in other locations were managed. Supermarket managers or procurement officers were interviewed using a structured questionnaire (Appendix 4). The list of sampled supermarkets and their locations are shown in Appendix 8.

Analysis of procurement systems for the selected products was carried out for Freshmark in Zambia and Namibia for FFV. For selected processed foods (processed grains, processed FFV, dairy and baked products) analyses were done for the all sampled supermarkets in Botswana, Namibia and Zambia.

### ***1.5.5.2 Sampled farmers***

In the second phase of the study, impact of supermarkets on farmers was estimated using both qualitative data (Appendix 1 for the list of key informants and focus-groups, and Appendix 2 for checklists) and quantitative data (survey of farmers) was undertaken using structured questionnaires (Appendix 6).

Farmers growing FFV<sup>5</sup> (vegetables) were only sampled in Zambia and Botswana as vegetable production in Namibia is rather limited.

### ***Zambia***

For large and medium farms key informant interviews were carried out on three large farms (York farm, Agriflora and Rowan farms). Agriflora and York farm supplied to Freshmark and the export market (European Union) and Rowan farms supplied to Fresh Mark and the local markets. The managers of these large farms were interviewed as key informants (Appendix 1).

The literature provided several arguments that small-scale farmers might face difficulties in accessing supermarket supply chains for FFV and may be under threat of exclusion. To test this hypothesis in Zambia, small-scale farmers were sampled to determine whether they access the supermarket supply chain, under what conditions and to assess the impacts on household income. A list of farmers that supplied Freshmark was obtained from the manager of Freshmark in Zambia. The list contained 22 small-scale farmers. From this list 20 farmers were identified and were interviewed on their farms.

To sample farmers who sold vegetables to the traditional market channel (as a control group), we relied on the extension staff working in the area to randomly select farmers growing these crops in Lusaka and Chipata. A total of 58 out 300 farmers were sampled and interviewed as already explained above using a structured questionnaire (Appendix 6). This purposeful sampling procedure has been applied by D'Hease and Huylenbroeck (2005) in South Africa when no list of farmers could be produced. The information obtained from farmers was triangulated by means of focus-group discussions and key informant interviews in Lusaka and Chipata in order to make deductions on impacts at the community level. The basis of obtaining qualitative data was to extrapolate the

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<sup>5</sup> From the exploratory survey results most fresh fruits such as apples, bananas, and other temperate fruits were sourced from South Africa and Zimbabwe. The three case countries did not produce fruit such as apples, bananas in large quantities. Therefore in the second phase the study focused on vegetables that most small scale producers were able to produce.

information obtained on individual firms and examine the impact of Freshmark on other producers in the FFV supply chain.

### ***Botswana***

The FFV sector in Botswana is still in its infancy (Republic of Botswana, 2004a). Also Botswana's environmental conditions are not so conducive to rainfed fruit and vegetable production. Production of vegetables was found in places where irrigation was possible and the government through various aid programmes has been making an effort to encourage people to produce horticultural crops. The Ministry of Agriculture provided a list of farmers producing horticultural crops. The farmers were all located in the Gaborone district/region (Table 1.3).

In the five extension regions of Gaborone district, there were 59 farmers, of which 22 were recorded as being out of production, leaving about 37 farmers who were still producing. Of these farmers who are still producing, 17 of them recorded no sales, implying that they could not be regarded as commercial farmers; this left only 20 farmers who are producing vegetables and thus available to be sampled. A stratified random sampling procedure was used to sample the farmers. Farmers were proportionally drawn from regions depending on the number of farmers who were currently producing and supplying vegetables either to supermarkets or through the traditional channel.

**Table 1.3: Distribution of farmers and sample size in Botswana**

<b>Gaborone district/region</b>	<b>Number producing FFV according to the Ministry of Agriculture list</b>	<b>Number of farmers not producing anymore</b>	<b>Number of farmers recording no sale of FFV</b>	<b>Number sampled from each district/region</b>
<b>Kweneng West</b>	4	3	1	0
<b>Kweneng South</b>	15	0	5	3
<b>Kweneng North</b>	4	3	1	0
<b>Kagtleng</b>	26	8	10	8
<b>South East</b>	10	8	0	2
<b>Total</b>	59	22	17	13

*Source: Ministry of Agriculture, 2005*

A total of 13 farmers (10 supplied to supermarkets and 3 to traditional markets) were sampled and interviewed using the same structured questionnaire as used for Zambia (Appendix 6). This sample represented about 65% of those farmers who were actually producing vegetables for the market (Table 1.3). The interviews were carried out in English and where necessary translation into Setswana was done by the local enumerator.

A total of 30 farmers supplying supermarkets or procurement agents in Zambia and Botswana, and 61 farmers supplying traditional FFV markets in Botswana and Zambia were sampled and interviewed. Data were collected on the characteristics of the farms such as land size, household age and gender, household size, education level of household head, assets of the household; inputs and costs, products supplied to the market (quantities and prices), changes in income of households and labour use, etc.

### **1.5.5.3 Sampled food processors**

Sampling was done based on the various processed food categories: dairy processing, grain processing (milling), FFV processing and bakery and confectioneries.

#### **Dairy processors**

##### ***Zambia***

There were 19 dairy processors in the dairy processors directory (2003) provided by the Ministry of Agriculture and Cooperatives. The list contained both small-scale, medium-scale and large-scale dairy processors in Zambia. Dairy processors were distributed as follows: 9 based in Lusaka Province, representing approximately 50% of the dairy processors, 4 were based at Chipata in Eastern Province, representing approximately 20% of the dairy processors which implied that these two regions had approximately 70% of all dairy processors in Zambia. The remaining 30% were distributed in the remaining regions of the country. Both medium and large-scale processors were chosen from the two regions based on the information obtained from key informants and the register of processors. Two dairy processors were selected from Lusaka (1 large and 1 small-scale) and two from Chipata (1 large and 1 small-scale). Key informants and one focus-group discussion was carried out with Buteko cooperative which is both a dairy cooperative and

outgrower scheme for Agriflora. Two dairy farmers and other stakeholders in the dairy sector were interviewed to assess the impacts of supermarkets on the dairy sector in Zambia. This data was augmented with secondary data from the Zambia dairy sector study (Valeta, 2004).

### ***Botswana***

It was established with the Ministry of Agriculture that there are 3 main dairy processors in Botswana: Clover (Botswana) Ltd, Parmalat (Botswana) Ltd and Sally Dairy Ltd. All three companies were visited and their managers interviewed. Five dairy farmers were also interviewed as key informants (Appendix 1) in order to analyse the impacts of supermarkets on the dairy sector in Botswana.

### ***Namibia***

There was only one dairy processor in Namibia namely Namibia Dairies. Information about the dairy industry was obtained from key informants and secondary data.

## **Grain processors**

### ***Zambia***

We relied on key informants to draw up a list of grain millers in Lusaka and Chipata. Three firms (1 large scale, 1 medium and 1 small-scale) were selected in Lusaka and one medium scale in Chipata, the only one in the area (others were just hammer mills where people took their own grain for milling for home consumption) were interviewed using a structured questionnaire (Appendix 5).

### ***Botswana***

In Botswana there are two types of millers; large-scale millers such as Bolux Milling Company whose products were found in all chain supermarkets and small-scale millers. According to a key informant in the Ministry of Agriculture, large millers are responsible for importing grains (maize and wheat) for milling. Smaller millers are responsible for milling millets and sorghum (traditional grains). The organization and policies governing milling in Botswana were obtained from key informants.

### *Namibia*

There is only one milling company in Namibia (Namib Mills). The general manager was interviewed as a key informant.

Data were collected using a structured questionnaire (Appendix 5). Food processing firms involved in the processing of dairy products (three in Botswana, four in Zambia), milling (four in Zambia and one in Namibia) processing of vegetables (one in Zambia, two in Namibia) and baked products and confectioneries (one in Namibia and two in Zambia) were sampled and interviewed. Questions were structured to determine the ability of these firms to access the market (traditional and supermarket), constraints to accessing supermarkets and the impact of supermarket growth on these firms.

#### **1.5.6 Analytical methods**

Various analytical tools were used to determine the impact of supermarkets on agriculture and the processing/manufacturing industry in Botswana, Namibia and Zambia:

- A descriptive analysis of the sourcing/procurement practices of the South African supermarkets in the framework of supply chains in the case-study countries was carried out.
- Non-parametric statistics were used to analyse the determinants of supermarket criteria in sourcing and procurement of fresh fruit and vegetables and processed foods in Botswana, Namibia and Zambia. This was carried out using SAS software.
- Two-step treatment effects regression analysis was carried out to determine the factors that influence farmer participation in the supermarket FFV supply chain and the impact of this participation on farmer income.

#### **1.6 Organisation of the thesis**

The thesis is organized in eight chapters. Chapter 2 presents a literature review on supermarket involvement in retailing food and agro-industrial products in developing countries. Chapter 3 presents the conceptual and theoretical framework for analysing the impact of South African supermarkets on agriculture and manufacturing in SADC countries. Chapter 4 presents the supermarkets' sourcing and procurement practices in

SADC countries. Chapter 5 presents a profile of farmers supplying FFV to supermarkets and traditional market channels in Botswana and Zambia. Chapter 6 presents the analysis of the determinants and impact of farmers' participation in the supermarkets FFV supply chain in SADC. Chapter 7 provides a discussion of the impact of supermarkets on agriculture, manufacturing/food processing in SADC. Chapter 8 gives the summary, conclusions and recommendations of the study.