Competition in the tridimensional urban fresh produce retail market: The case of the Tshwane Metropolitan area, South Africa

By:

Hilton Madevu

Student number: 23137496

Submitted in partial fulfilment of the requirements for the degree of

M.Sc. (Agric) in Agricultural Economics

in the

Department of Agricultural Economics, Extension and Rural Development

Faculty of Natural and Agricultural Sciences

University of Pretoria

April 2006

To the Madevus

My parents Nkululeko & Sisinyana & siblings Victoria & Arnold

ACKNOWLEDGEMENTS

DECLARATION

I declare that the thesis hereby submitted in partial fulfilment of the requirements for the degree Master of Science (Agricultural Economics) at the University of Pretoria has not been submitted by me for any other degree at any other institution.

Given and family name: <u>Hilton Madevu</u>

Signature: <u>   </u>

Date: <u>July 1, 2006</u>

ABSTRACT

Competition in the tridimensional urban fresh produce retail market:
The case of Tshwane metropolitan area, South Africa

By

Hilton Madevu

Supervisor:	Professor Andre Louw
Co-supervisor:	Professor Johann Kirsten
Department:	Agricultural Economics, Extension and Rural Development
Degree:	MSc. (Agric) Agricultural Economics

A few vertically integrated retail chains increasingly dominate South Africa's agro-food supply chain. M+M Planet Retail (2004) placed the market concentration among retailers to be as high as 96% for the top four chains leaving only 4% to the small competitors. The onset of this trend has led to the demise of a large number of "mom and pop" general dealers in favour of the sleek new stores as they were either priced or bought out of business.

Players in the fresh produce market have proved to be resilient to this onslaught. The green grocers and hawkers have survived the "category killers" and appear to be able to face this competition head on. It is this resilience that is of interest to this study.

The review of literature revealed a dearth of studies and hence methodology into the nature of the interaction between the three forms of retail. A preliminary survey also revealed the lack of coherent and detailed information, particularly among the greengrocers and hawkers. Thus the established methods of modelling competition analysis, namely the Structure Conduct Performance and the New Empirical Industrial Organisation frameworks, were deemed inappropriate. The study therefore took an exploratory form that relied on measures of central tendency and the perceptions of

leading industry practitioners to reveal the nature and magnitude of competition between supermarkets, green grocers and hawkers.

The study primarily drew on 'Porter's forces' competition model to structure the investigation. It also employed a chain analysis approach including supply and value chain analysis (VCA) tools to analyse this competition. The study therefore sought to unpack the retail sections of the three chains in terms of identifying role-players; their relationships and interaction; as well as to account for the relative values that different types of fresh produce retailers generated for the final consumer. Besides the contribution to the general body of knowledge about the nature of the system that feeds us, this study provides means for the competing channels to upgrade and improve efficiency. A developmental and empowerment point of view was emphasised in the research, as such, identifying possible measures to upgrade and improve the informal sector was given precedence.

The objective was to describe and analyse the competitive environment in which FFV was retailed in the Tshwane through a determination of the competitive and strategic behaviour of retailers and a mapping the flow of value. It was hypothesised that fresh produce retailers competed by varying elements of their marketing mix to suit their niche markets. The investigation was conducted in two phases; a pilot study followed by a survey involving a six-step sampling frame targeting a total of 120 respondents including 15 supermarkets, 30 greengrocers and 75 hawkers. This analysis was limited to the bounds of the Tshwane metropolitan area, South Africa, and focused on six fresh fruits and vegetable lines concurrently traded by supermarkets, greengrocers and hawkers.

The main findings of the investigation include that tri-dimensional FFV retail competition was most intense in the middle-income areas of the city. The low income areas were dominated by informal traders while the large supermarkets chains and the large format greengrocers dominated the high income areas. The non-syndicated greengrocers were confined to the middle-income areas where competition was most intense. When the marketing strategies and chain maps were compared it was concluded that the tridimensional competitive environment was facilitated by the existence of multiple niches; the equalising effect of produce market based pricing;

the general upgrade in product quality offered by all retailers; characteristics of fresh produce itself as compared to other foodstuffs and the existence of multiple market niches in the sector.

Concluding the study were recommendations to improve (upgrade) the marketing performance of each of the three channels.

Key Words: Competition analysis, fresh produce retail, chain analysis, Tshwane

CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF BOXES

ACRONYMS

AMPS	All Media and Products Survey
BMR	Bureau of Market Research
CTMM	City of Tshwane Metropolitan Municipal Area
DFID	Department for International Development (UK)
DoA	(National) Department of Agriculture
DOT	Department of Transport
FFV	Fresh Fruit and Vegetable(s)
FPM	Fresh Produce Market(s)
GJFPM	Greater Johannesburg Metropolitan Fresh Produce Market,
IDRC	International Development Research Centre
nd.	Not Dated
NEIO	New Empirical Industrial Organisation
RAMS	Radio Audience Measurement Survey
RNRA	Renewable Natural Resources and Agriculture
SAARF	South African Advertising Research Foundation
SCP	Structure Conduct Performance
SC	Supply Chain
SWOT	Strengths Weaknesses Opportunities and Threats
TAMS	Television Audience Measurement Survey
TM	Tshwane Market
VC	Value Chains
VCA	Value Chain Analysis

Chapter 1: Introduction & Background

1.1 Background: The Fresh Produce Industry

The fresh produce industry possesses some characteristics that make it a particularly difficult sector to engage. Researchers have identified four important challenges factors in fresh fruit and vegetable (FFV) namely perishability, susceptibility to shocks, seasonality and subjective standardisation (Cook, 2003; Rathogwa *et al.,* 1998; Louw *et al.,* 2004 and Farina & Machado, 1999). These authors independently argue that the products' perishability and subjective standardisation have the effect of limiting and varying shelf life. They also find that FFV susceptibility to weather shocks also affected supply and demand. This leads to price volatility which forces firms to rely on the spot market prices as opposed to list prices used in other economic sectors. The seasonality element adds to the price volatility and raises the risks involved in the business. Concurrently few risk management tools exist to protect market players beyond geographic and product diversification.

South Africa (RSA) has a well-developed and self-sufficient fresh produce production and processing industry. The fresh fruit industry is largely geared towards export especially in the citrus, deciduous fruits and grape industries (ISHS, 2006). The country also exports fresh and processed vegetables (ISHS, 2006 and DoA, 2005b). The National Department of Agriculture (DoA, 2005a) estimated that horticultural production in the 2003/4 season was valued at R 20.78 billion (US$ 3.46 million[1]) which was 29.0 % of the entire value of national agricultural production. Vegetables were valued at R 6.60 billion (US$ 1.10 billion) with potatoes making the bulk 62.6 % of this subtotal. Fruit production - including viticulture, citrus, subtropical, deciduous and dried fruits - amounted to R 13.28 billion (US$ 2.21 billion).

---

[1] Unless otherwise specified Rand/US$ = 6

At the retail level, consumers spent R 26.41 billion (US$ 4.40 billion) or 16% of their R 165 billion (US$ 27.5 billion) food budget on fruit and vegetables (including potatoes) in 2003/4 (DoA, 2005a). The players sharing this in fresh produce market, beyond the farm-gate level, can be classified in numerous ways (NAMC, 2000; DoA, nd.; GJFPM, 2004) but intrinsically into three broad levels in terms of bulk handled namely (i) wholesalers, (ii) wholesaler-retailers and (iii) retailers. The focus of this study is on the functioning of the retail sector and how it allows for the existence of three types of retail formats namely hawkers (informal traders), greengrocers, and supermarkets. Wholesalers and wholesaler-retailers were briefly reviewed as they provided important context to the study.

Municipal fresh produce markets (FPM) are the most prominent players in the South African fresh fruit and vegetable (FFV) industry (DoA, nd.; NAMC 2000). Being the largest wholesalers, the FPMs have emerged as the FFV price-setters for the entire industry (GJFPM, 2004; NAMC, 2000; and HSRC, 1991). FPMs serve as a wholesale and warehouses for both producers and retailers, and also perform informal hygiene, grading and quality assessment of most fresh produce (GJFPM, 2004). Other FFV wholesalers include independent FFV wholesalers (Asian markets), wholesale subsidiaries of retail chains (buying centres) as well as direct (farmgate) sales (DoA, nd.; NAMC 2000).

The second level of the market is named the wholesaler-retailers sector. With regards to food marketing as a whole, there are two dominant corporations at this tier namely Metcash (Metro Cash and Carry) and Massmart (National Brands, 2003). Their business was concentrated at the branded fast moving consumer goods (FMCG) with little if any fresh produce. However a relatively new wholesaler-retailer chain established in 1993 - Fruit and Veg City - does focus on the distribution and retail on FFV retailing (Fairweather, 2004 and www.fruitandvegcity.co.za).

FFV retailing in South Africa (RSA) exists in the formal and informal sectors. The formal or registered retailing sector has a complex oligopolistic structure with approximately 70,000 outlets composed of large retail outlets (hypermarkets and supermarkets), medium sized retail stores, and small retailers (Weatherspoon & Reardon, 2003). The latter includes greengrocers and convenience stores. Most food

retailers tend to stock negligible amounts of fresh produce e.g. fuel station kiosks. Thus formal fresh fruit and vegetable retailing is by and large limited to supermarkets and greengrocers.

Formal food retail is concentrated with a small number of very large, formal supermarket chains controlling around 70% of retail turnover and had continued to expand. The large formal chains include Pick'n Pay, Shoprite-Checkers, Woolworths and the Spar group. These top four supermarket chains lead the race for the retailers' market share in South Africa with a concentration ratio (CR4) of 96% and growing in 2004 (M+M Planet Retail, 2004). Concentration was lower at 67.5 % (CR4) when the wholesale-retail category was included in the 2004 figure and this figure rose to 68.3 % in 2005 (Planet Retail, 2006a). This retail consolidation is expected to continue in South Africa and has already begun to spread, through mergers and acquisitions, into other African states and the world (Weatherspoon & Reardon, 2003; Louw *et al.*, 2004).

Greengrocers, also known as fruiters, are classified under the larger population of smaller stores in the formal fresh produce retailing industry. These small format stores collectively control approximately 30% of total retail and 4% food retail turnover (Economist Intelligence Unit, 2004 and M+M Planet Retail, 2004). Despite the relatively small and declining market share of smaller retailers they have collectively commanded a formidable R3 billion in annual turnover over the past decade (M+M Planet Retail, 2004).

Another side of FFV retail is the informal sector, which was estimated to generate a monthly turnover of R2.62 billion (Statistics South Africa, 2002b). This group includes hawkers on commuter trains, door-to-door traders, street and pavement stalls, as well as *spazas* (tuckshops). Informal traders represent a major force in the fresh produce sector. According to a survey in Louw *et al.* (2004), hawkers at the Tshwane market represent 27-29% of monthly turnover and at the Johannesburg market the figure stands at 50%. Hawkers' trade in both food and non-food items but FFV is the most commonly traded (Karaan, 1993; Ligthelm & Van Wyk, 2004; and Ligthelm 2006b). In Tshwane FFV was estimated to constitute 22.6 % of all informal trade with

the other foods adding up to 25.1 % and the balance being various non-food items (Ligthelm & Van Wyk, 2004).

Little research attention is afforded to informal marketing as a business sector despite its importance in reaching the lower income/township markets (Van Rooyen, 2002). Karaan (1993) listed the advantages of this sector over the formalised marketers as that it ensures food security in the townships; absorbs labour in a climate of unemployment; has more legitimacy in low income areas; is demand driven; promotes economic activity within townships as it is cash driven and is a valuable source of income for the players and their typically high number of dependents.

1.2 Research Gap

In the face of expanding corporate (chain) retailing and their every day low pricing strategies most competing forms of food and grocery retailing are finding it difficult to compete. The opening of a new chain store often spells the pricing out and eventual demise of existing independent grocery retailers. This is evidenced by the expansion of the supermarkets' share of the market at the expense of the smaller format stores [Brandt, 2004; M+M Planet Retail, 2004; and various supermarket Annual Reports (Tiger Brands, 2002; Massmart, 2005; METCASH Trading Africa, 2005; Pick'n Pay, 2002; Shoprite Holdings Limited, 2002; Spar South Africa; 2003)]. Weatherspoon & Reardon (2003) found that supermarkets held 55% of the national *food retail* in South Africa, similar to the share in Argentina, Chile, Philippines and Mexico (and not far behind that of the U.S., currently at 70%).

Unlike traditional retail formats such as general dealers, bakeries and butcheries that have tended to be overrun for market share and absorbed by supermarkets internationally (Boudreaux & Macaulay, 1996), fresh produce hawkers/informal traders and greengrocers in South Africa have proven to be resilient to this onslaught. One often finds a thriving multiplicity of vendors situated at the very entrance of competing large retail outlets. Along the same street or around the corner one often also finds a greengrocer plying his trade. In fact, the all three fresh produce retailers

appear to attract their own set of consumers who eventually patronise all the retail formats for different needs. This possibly indicates a level of co-opetition beyond plain rivalry.

The relatively slow takeover of supermarkets in the fresh produce market is not unique to South Africa. Weatherspoon & Reardon (2003) found that shifts in the retail trade have tend to occur first in dry goods and later in perishables and sighted examples in France and Italy (Braudel, 1979 in Weatherspoon & Reardon 2003, and Dries *et al,* 2004). In a separate study, Reardon *et al*. (2003) further asserted that supermarkets were less successful in penetrating the fresh fruit and vegetable (FFV) market than the overall retail food markets. Their research sighted examples in Latin America where supermarkets' FFV market share was on average between 50% and 75% of their share in overall food retail. The authors attributed this lagged penetration of the FFV market on the ability of small shops (such as greengrocers) and traditional wetmarkets[2], to maintain a fresh and convenient shopping option. This explanation however fails to explain why the lag is peculiar to the FFV markets and why similar effects were not witnessed in other food and retail markets. Reardon *et al*. (2003) predicted that supermarkets would eventually take over the FFV markets as they have done in other food sectors but tied this outcome to a significant overall rise in affluence levels. Given that the poor population has persistently formed the majority in RSA (GCIS, 2005) this income effect is unlikely to occur in the near future.

A possible explanation for the resistance shown by hawkers and fruiters could be that they offer fresher products in greater variety or that they simply offer lower prices than supermarket indicating some negative scale economies in the market. Thus to rule this prospect out a mini price survey was performed with six retailers in a middle income neighbourhood to determine whether any of the three fresh produce retailers, namely hawkers, greengrocers and supermarkets, was inherently cheaper. Potatoes and tomatoes were used for this illustration because they are high volume products commonly traded across the three retail channels. It was found, as expected, that not al retailers used weight in price determination and also that the product packaging was

---

[2] Such as feria libres in Chile or warungs in Indonesia

not homogenous. The prices were therefore standardised to a Rands per kilogram scale to allow comparison.

Table 1.1: Price survey in Sunnyside (October 2004)

Retailer	Potatoes			Tomatoes		
	Price (R)	Quantity (kg)	R/kg	Price (R)	Quantity (kg)	R/kg
Hawker 1	10.00	3[†]	3.33*	5.00	0.3[†]	16.67**
Hawker 2	10.00	3[†]	3.33*	5.00	0.3[†]	16.67**
Shoprite	4.99	1	4.99**	4.99	0.3	16.63
SPAR	4.95	1	4.95	6.99	0.5	13.98
Greengrocer 1	8.95	2[†]	4.48	3.95	0.3[†]	13.16*
Greengrocer 2	8.99	2[†]	4.50	6.95	0.5[†]	13.90

[†]*Approximate weight;*   **Cheapest;*   ***Most expensive*

The results of the exercise (table 1.1) showed that potatoes were the most expensive in Shoprite at R4.99 per kilogram and were cheapest among the hawkers at R3.33 per kilogram. Tomatoes were most expensive at R16.67 per kilogram with the same hawkers and least expensive at R13.16 per kilogram with greengrocer 1. The middle order prices were also inconsistent between the two products. The results thus suggest that none of the three channels was inherently cheapest.

This could therefore indicate that competition between the chains was not based on the price alone but on some combination of all the elements of the marketing mix (product, price, place, promotion). Although results of this preliminary survey were not conclusive they did indicate a need for further investigation to reveal the peculiarities of the competition in this sector and how it allows this multiplicity of chain forms to exist in the Tshwane metropolis contrary to the reality in other retail sectors. Another possibility to investigate is whether a selection/basket of fruits and vegetables rather than individual product lines would further illuminate the retailers' competitive practices.

Little literature may be found documenting the competition between the informal formats of retail let alone that of inter-format competition, that is, between formal & informal retail formats. Business, academic and policy research typically concentrates

on the formal retail sector and in particular the impact of supermarkets. Examples of such studies include the series of articles on the (Rapid) Rise of Supermarkets in various parts of the developing world by Thomas Reardon, Dave Weatherspoon and others (2002, 2003 and 2004); and the collection of international reports on issues of market access (and particularly access to supermarket markets) found on www.regoverningmarkets.org.

The focus on the formal sector is driven by the relative ease of access to data such as costs, sales, turnover and inventory since this information forms the accounting system which is require to facilitate taxation and has become all the more accessible given the increasing use on computerised barcode scanners. Informal retailing is therefore largely ignored due to the scarcity of accounting data, difficulties involved in accessing the little available information and the dispersion of the subjects. This is despite the informal sector's importance in reaching the lower income/township markets (Van Rooyen *et al*., 2002) and as a source of income, employment and ultimately a source of livelihood.

Where studies in the informal food and beverage retail have been performed they have been limited to a description of the informal trade business within townships. The interaction between the formal and informal is not explicitly explored. Examples of such studies include one by Van Rooyen, Mavhandu, Anseeuw and D'Haese (2002). These authors described the informal trade in fruits, vegetables and cut flowers in the townships of Gauteng province. Another was by Karaan (1993), which investigated informal meat marketing in Western Cape townships of South Africa.

An extensive literature search revealed only one published investigation into formal versus informal retail. This documented a 1976 study performed by Victor Tokman (1978) in the South American city of Santiago, Chile. Other than this rather old and contextually removed study, the other studies paid little attention to the competitive environment and interactions between different types of retailers as they attempt to capture a portion of the consumers' income.

This study asserts that understanding this competitive behaviour is important in understanding how the FFV industry players coexist. Understanding this ability to

coexist could possibly be the first step towards extending this aptitude to other sectors of the economy where informal traders and small businesses struggle to survive. This gap in literary knowledge is what this thesis sought to fill.

1.3 Research Question

The coexistence of the three forms of retailers begs the question, how have the comparatively small hawkers and greengrocers managed to compete against the highly capitalised supermarkets? In answering this question one needs to answer the following supporting questions:

i)   What is the nature of competition in the fresh produce retail market?

ii)   What attributes of fresh produce retail sector make it possible for comparatively small informal traders and greengrocers to participate?

iii)   What is the structure of the FFV retail sector in terms of how and why it allows multiple retail formats?

iv)   Are there barriers or constraints peculiar to each type of fresh produce retailer and how do they create space for competitors?

Conclusions drawn here may be used to draw lessons from this sector will contribute towards upgrading the channels under investigation and where possible applications of lessons learnt will be explored. In so doing there was a deliberate partiality towards seeking upgrading pathways and solutions to the challenges faced by the informal sector.

1.4 Hypotheses

The following hypotheses are tested:

i)   Fresh produce retailers compete for market share by optimising the levels of a mix of marketing attributes including the four marketing mix Ps (product, price, place and promotion)

ii) The structure of the value chains employed by each of the three retail formats gives each one an advantage in accessing different types of markets for fresh produce and thus contributes positively to their competitiveness.

1.5 Study Objectives

The primary objective of this paper is to describe and analyse the competitive environment in which fresh produce is retailed in the Tshwane Metropolitan area (formally Pretoria) of South Africa. Accomplishing this objective required the fulfilment of the following supporting objectives.

i) Determining the competitive and strategic behaviour of players in the three forms of fresh produce retail in terms of how they adjust their marketing mix to compete for market share

ii) To map out the links and nodes in the flow of goods, services and ultimate value within the retail channels in Tshwane

iii) To seek to understand the power dynamics including the degree of chain governance in Tshwane's fresh produce retail market and

iv) Ultimately to identify challenges and opportunities for improving efficiency in the value chains through innovation and upgrading.

1.6   Research Method

The study of competition in fresh produce retailing in Tshwane was conducted in two phases; the first was a pilot study and the second a survey of a sample of retailers. The initial stage involved spending up to one week working as an assistant to a member of each of the types (formats) of retailers with an aim to become embedded into the issues affecting the trade "first hand", generate rapport and establish contacts in the industry. This phase also involved interviews with (a) other relevant and influential chain members including selected wholesalers and agents (b) lobby groups and representative bodies of the fresh produce retailers. Information gathered at this stage was contributed to the subsequent phase by forming a basis for the sample and

questionnaire design as well as selecting a set of three fruits and three vegetables to be used as reference products for the study.

The second phase of investigation was the interviewing of a sample of fresh produce traders in Tshwane. A six-step sampling frame was designed to target a total of 120 respondents including 15 supermarkets, 30 greengrocers and 75 hawkers across three living standards/affluence groups in the city. The enumeration tool was a semi-structured questionnaire/checklist derived from a template developed by Louw *et al.* (2004). The template was adapted to generate five questionnaires designed to capture information relevant different subsets of respondents namely: informal traders, greengrocers, supermarkets, selected wholesalers and selected retailer organisations.

A more detailed description of the investigation method, the steps involved, phases as well as the impetus driving the choice of respondents, the tools of investigation and analysis are discussed in detail and diagrammatically summarised in the methods and procedure section, Chapter 4.

1.7 Scope

Given the breath of the fresh produce industry described before it is necessary to reiterate the boundaries within which this study was confined. This is in terms of the types of individuals, businesses and the products of interest to this study.

1.7.1 Selected retailers

The fresh fruit and vegetable retail industry of interest to this study includes hawkers (informal traders), greengrocers (fruitiers), and chain retailers (supermarkets) in the Tshwane metropolis.

The supermarkets of interest are mainly the four top chains in South Africa namely Shoprite-Checkers, Pick'n Pay, Spar and Woolworths. These retail chains were of

targeted because they were found throughout the metropolis and each brand has a standard design that included a substantial in-store fresh produce department thus meeting a minimum requirement of this study. However the smaller chains such as Freedom supermarkets and other independent supermarkets were also included in the survey where they were the dominant supermarkets in an area.

Small formal retailers tend to be diversified and trade in a variety of products including fresh produce. For the purposes of this survey the discriminating factor used to identify a retailer as a greengrocer was that at least 50% of the value all merchandise trade were fresh fruit and vegetables.

Similar to greengrocers, informal traders are also diversified. Thus to qualify as a part of the survey population the hawkers needed to stock at least 80% of the value all merchandise as fresh produce. The higher minimum to greengrocers is due to the relatively smaller scale of these vendors.

1.7.2   Focal products selected

To further limit the number variables the study focused on the top three fruits and top three vegetables traded in the FFV market. This was in an effort to ensure that the products were found in all three retail formats, were representative of fruits and vegetables in general and hence facilitating inter format comparison.

The first step in product selection was identification of the top four high turnover, high volume and high value FFV products. These products also needed be commonly traded in all three of the supply chains. Therefore a preliminary survey was performed as part of phase 1 to select the products. Based on that exploratory survey and the volumes traded at the Tshwane Market, the six products selected were apples, oranges bananas, potatoes, tomatoes and onions.

1.7.3 Study area

The study area for this research is the City of Tshwane Metropolitan Municipal Area formally known as Pretoria (figure 1.1). This city serves as the administrative capital of the Republic of South Africa (RSA). The area was originally named after a Ndebele chief, Tshwane (meaning "Little Ape"). Tshwane is a cross-border municipality located mostly in the small and most economically active central province called Gauteng. Some parts of the city, namely Ga-Rankuwa, are part of North West Province.
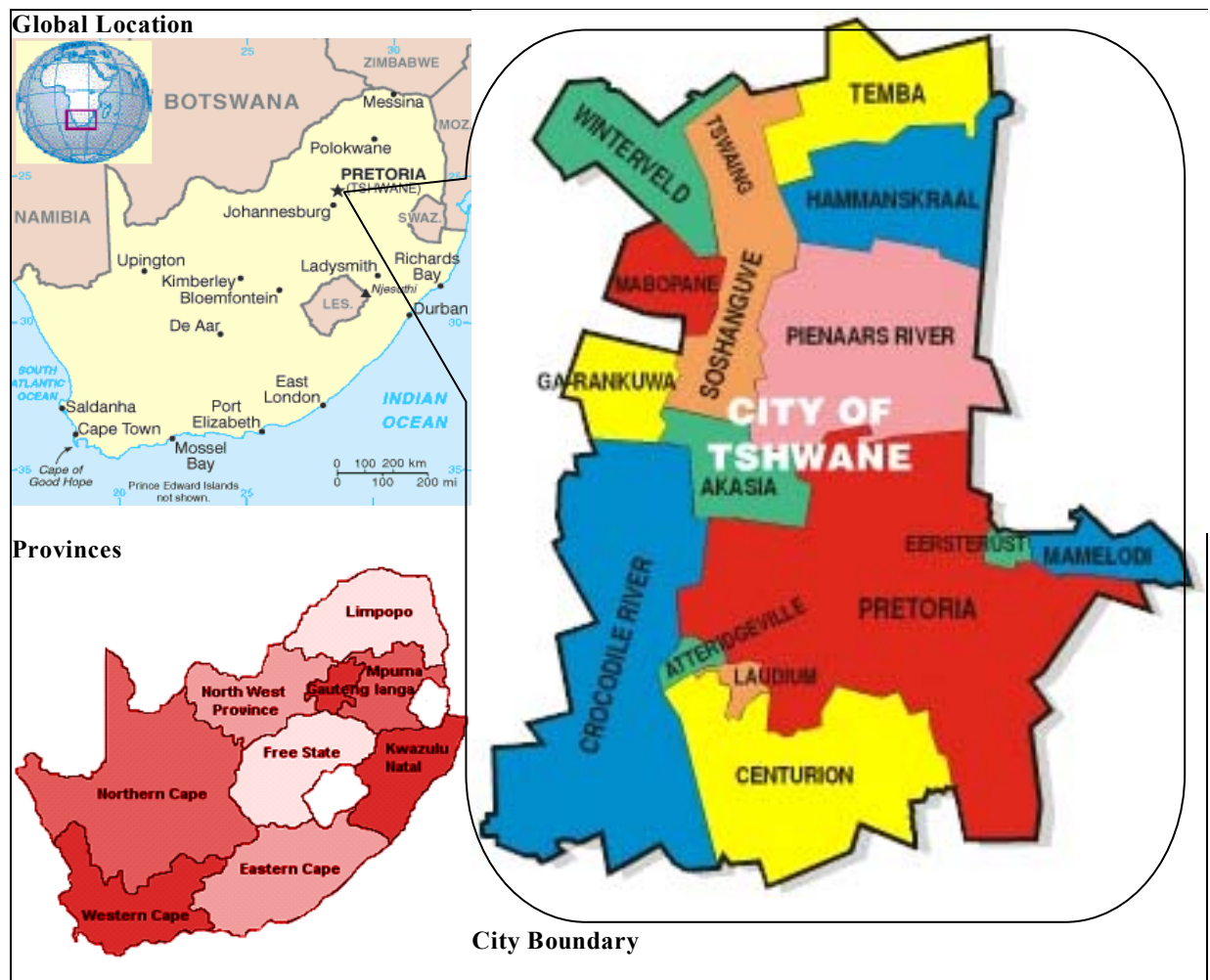
Figure 1.1: Study Area: City of Tshwane Metropolitan Municipal Area

Sources: City of Tshwane (2005) and Municipal Demarcation Board (2004)

Tshwane covers approximately 2199 square kilometres and is home to 2.05 million people (HSRC, 2005) and was declared a metropolitan area on December 5, 2000. The City of Tshwane Metropolitan Municipality (CTMM) is a result of the integration of thirteen (13) former city and town councils. The physical areas administered by the CTMM includes Pretoria, Centurion (formerly Verwoerdburg), Akasia and Soshanguve, as well as the surrounding areas of Mabopane, Atteridgeville, Eesterrust, Ga-Rankuwa, Winterveld, Wallmannsthal, Hammanskraal, Temba, Pienaarsrivier, Crocodile River and Mamelodi (City of Tshwane, 2005 and Municipal Demarcation Board, 2004).

This metro is composed of five types of residential areas, namely the suburbs, townships, inner city (CBD), formerly coloured suburbs and informal settlements (Louw, 2004). These are formally grouped into 2043 areas including farms, townships, suburbs, business and industrial areas. These fall into seventy six (76) municipal wards, managed by means of an executive mayoral system headed by an executive mayor who chairs an eleven (11) member Mayoral Committee including the mayor as chairperson and ten departmental heads designated as strategic executive officers.

This study seeks to present the nature of competition among fresh produce retailers across the metropolitan area thus the area level of 2043 units/suburbs will form the first stage in stratifying the survey sample. This process is detailed in the methods and procedure chapter.

1.8 Organisation of study

The dissertation is organised as follows; the current section, Chapter 1 presents an overview and justification of the research project including the project background, the gap literary knowledge to be filled. It also includes the study questions, objectives, hypotheses and research bounds. Chapter 2 is a further review of the FFV industry and the peculiarities that render it worthy of the current investigation. It also contains a report on the results of a pilot study (phase 1). Chapter 3 explores the concepts and

tools used in competition analysis focusing in on Porter's forces and chain analysis. Chapter 4 systematically outlines the methods and procedure employed in the research process. In so doing it reports on the design of the survey, the sample and the enumeration tools and details other nuances about the execution of the second research phase. The subsequent two chapters (5 and 6) present the findings from phase 2. These results were discussed in terms of their implications towards answering research questions and meeting the research objectives. The final segment, Chapter 7, reviews the study in its entirety and gleans the conclusions and implications as well as areas of possible future research.

Chapter 2: FFV Retailing in South Africa: A Literature Review & Exploratory Study

2.1 Introduction

The South African retail market has a concentrated, oligopolistic structure that meets the domestic demand for food, beverages and tobacco (Economist Intelligence Unit, 2004). This second chapter reviews the section of this complex industry that handles the marketing of fresh produce. The review is based on the findings of previous studies on the subject and is augmented by an exploratory study (phase 1) of the sector in Tshwane.

This review begins with a discussion of the special characteristics of fresh produce that make it a challenging and unique industry. Next it describes the institutional structures that have evolved to handle produce in retailing in South Africa. The next section presents the exploratory study of the FFV industry in Tshwane. This study was aimed at going beyond literature (generally pitched at the national level) to gain an improved perspective of the FFV retail; to identify the value generation nodes; and to enrich the review with anecdotal information. The section also shows how the phase 1 study served as an important preparatory tool for the subsequent survey in terms of facilitating the testing and improvement of the questionnaire-checklists; refining the phase 2 sample design and by helping in the selection of focal FFV products. The chapter closes with a summary of the findings from literature review and exploratory study.

2.2 Unique Characteristics of the FFV Industry

The fresh produce industry possesses some special characteristics that make successful participation particularly challenging. There are four important factors to consider when planning venturing into this sector. These are perishability, susceptibility shocks, seasonality and subjective standardisation (Cook, 2003 and Farina & Machado, 1999). Authors argue firstly that the products' perishability and

limited storability make it necessary for fresh products to be harvested, dispatched and marketed without delay. This factor places a premium on the maintenance of efficient logistics to move the produce quickly; the related infrastructure to maintain a cold chain; and careful inventory management to minimise wastage.

The second factor identified was that these sensitive products are highly susceptible to weather shocks which in turn affect supply and demand (Cook, 2003 and Farina & Machado, 1999). These shocks lead to price volatility that forces firms to rely on the spot market prices as opposed to list price sales that characterise other sectors. Concurrently there are few risk management tools to ameliorate these possible hazards beyond geographic and product diversification (Cook, 2003).

Another uncertainty that fresh produce traders must absorb is that FFV quality is difficult to measure objectively and varies even within the same lot (Farina & Machado, 1999). This is despite strides made towards inducing some standardisation through standards and grading (GJFPM, 2004). These variations have an impact on the returns of a market player through varying shelf lives, fragility and therefore how much one can charge the subsequent links in his supply chain.

Fourthly, seasonality that has been identified in most fresh products also resulted in price volatility and led to elevated risks in conducting the business (Rathogwa *et al*. 1998, Cook, 2003). A product may appear profitable during off-season price boom but prove to be a loss-making sector when a glut is experienced at market floors on season. For instance, Louw *et al*. (2004) found that small-scale producers supplying tomatoes to the Johannesburg FPM were particularly susceptible to these price swings. These farmers failed to capitalise on the higher off-season prices because of a lack of storage facilities, in adequate access to transport, a poor to none existent cold chain and inadequate management skills to produce the more demanding off-season tomato varieties.

2.3 Overview of Fresh Produce Retailing

According to the statistics division of the DoA (2005a) the South African food retail market was worth R 165 billion (US$ 27.5 billion) in 2004. In the same statistical abstract fruit and vegetables retail (including potatoes) was said to have contributed towards at least 16% of this food market. The major players sharing this fresh produce retail market can be classified three broad levels (by bulk handled) namely wholesalers, wholesaler-retailers and retailers (NAMC, 2000; HSRC, 1991 and DoA, nd.). In practice, although the industry players will have a core speciality at a certain level/class, they often strive to penetrate the other classes/levels of the market. Therefore there is a degree of overlap in the classifications. None the less, the distinctions serve as a useful tool in giving an overall perspective of the sector. This discussion was performed in the subsections below. Of note is that the wholesaler and wholesaler-retailers were on the periphery of the scope of this study, therefore emphasis was placed on the retail portion of the industry.

2.3.1 Wholesalers

Statistics and market observers concur that municipal fresh produce markets (FPMs) are, by far, the dominant player and form of wholesaling in the South African FFV sector (DoA. nd.; DoA 2005b, City of Johannesburg, 2006 and AgriTV, 2006). However other wholesale forms do exist including independent wholesalers, contract buyers, supermarket wholesaling subsidiaries, farmer sales direct to retailers and final consumers (DoA, nd.).

The fresh produce market (FPM) system is the biggest distribution channel for fresh produce in South Africa and is unique in the world (GJFPM, 2004). There are sixteen major municipal fresh produce markets in the country; mainly owned and operated by local authorities with three privately exceptions (GJFPM, 2004). Tshwane Market is an example of a wholly municipal owned market.

The prominence of FPM in the national FFV sector is shown in that it has consistently handled over half of all domestic fresh produce over the past ten years. More specifically, in 2005 approximately 54% (figure 2.1) of the volume of vegetables produced was traded on the sixteen major FPMs (DoA, 2005b). Also, although most fruit produced in RSA is exported, the FPMs account for over 50% of all domestic sales (DoA, 2005a and DoA, 2006). Supermarkets and retailer statistics are not specifically noted. The retailers' part of the off-take is captured under farm sales, FPM and processors as they are customers in all three markets.

Being the largest wholesalers, the FPMs have emerged as the FFV price-setters or, as nicknamed, the "fresh produce stock exchange" (AgriTV, 2006 and CTMM, 2006). The prices at the FPMs are arrived at through a bargaining process mediated by market agents who have a dual objective to collect the best prices (and hence commission) for sales while ensuring that the highly perishable stocks are cleared. These prices are then used as reference prices even in private transactions outside the FPMs (NAMC 2000; CTMM, 2006).
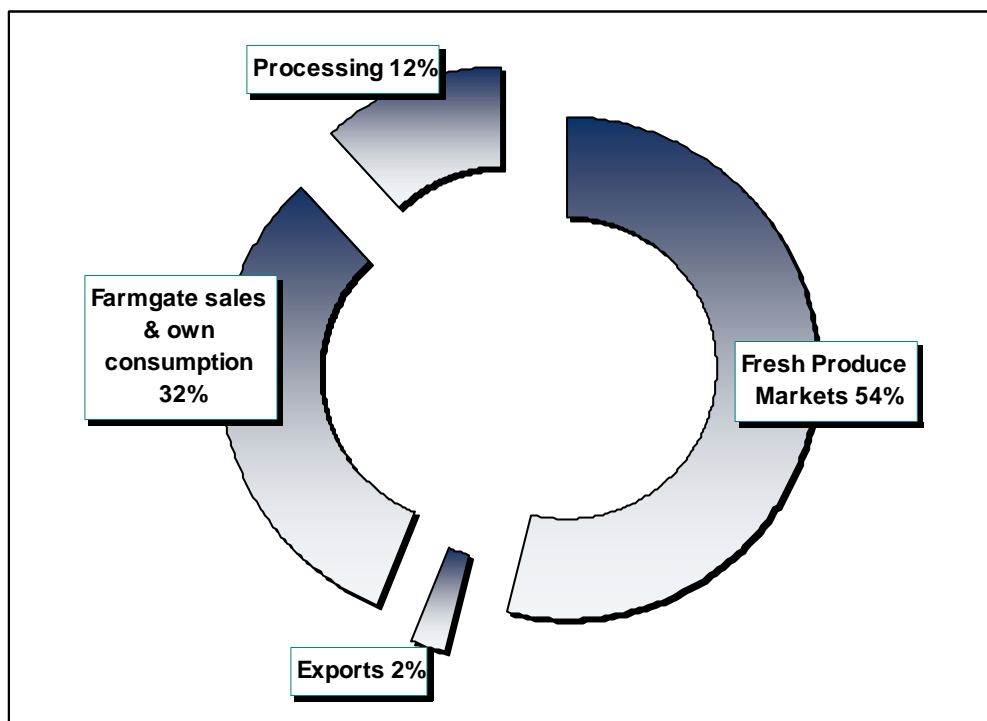
Figure 2.1: Relative size of vegetable channels in 2005 (excluding potatoes)

Source: DoA 2006

Although there is no formal grading of most fresh produce, the markets also assert control measures to ensure that all produce meets high quality levels and stringent hygiene specifications. In an effort to diversify their offering, many municipal markets also sport auxiliary services including loading spurs for buyers, cold storage facilities, ripening facilities and trading areas for merchants dealing in foodstuffs and commodities. FPMs also serve as a warehouse for both producers and retailers. Most of these additional services are related to the marketing of fresh produce (CTMM, 2006; City of Johannesburg, 2006).

Besides the FPMs other fresh produce wholesalers include non-syndicated FFV wholesalers (Asian markets), wholesale subsidiaries of retail chains (buying centres) and farmgate sales (DoA, nd.; NAMC 2000). The smaller wholesalers primarily target the local retailers including hawkers and greengrocers. Direct farmer sales are commonly restricted to the producers' locality, mainly involve newly established farmers and produce sold here is lower and highly variable quality (DoA, n.d.). This is a result of farmers either not grading this produce or using this channel to dispose of lower grade produce while cutting transaction costs associated with accessing urban markets.

In-house or corporate wholesalers have been established to exclusively supply retail chains, such as Freshmark supplying the Shoprite-Checkers group. These subsidiaries are tasked with stocking and managing the entire chain's FFV inventory through its network of regional distribution centres. These firms constitute the vertical integration of supermarket supply chains. This integration is motivated by the need to reduce transaction costs as well as maintain and grow competitive advantage by controlling produce volumes, grades and standards. This is achieved by increasingly procuring directly from preferred farmers using verbal contracts (Louw & Emongor, 2004). These contracts are backed by the building of long term relationships and establishing a database of preferred suppliers.

2.3.2 Wholesale-retailers

Two large corporations dominate the lucrative food market located in the niche between wholesaler and retailer format stores. These are Metcash (Metro Cash and Carry) and Massmart. The stores are classified as wholesale-retailers because their clientele include both final consumers and traders in similar proportions. This sector focuses on high volume, low margin and low cost distribution of mainly branded fast moving consumer goods (FMCG) (Massmart, 2005 and National Brands, 2003). With the exception of Fruit and Veg City type stores, the wholesale-retailers by and large, fall outside the bounds of this research because their ware does not normally include fresh produce.

However these businesses partially fall within the bounds of this study in that they operate supermarket franchises and supplies buyers' clubs/associations that do handle FFV. For instance Metcash has a comparatively stronger involvement in FFV than Massmart as it runs five franchise brands it calls symbol groups. These are Lucky 7, Square Deal, Viva, Buy Rite and Pop In (Metcash, 2005). Massmart, on the other hand, operates two major buying alliances - Shield and Furnex - which both supply over 600 members and retail outlets including independent supermarkets and especially small grocers with FMCG but not necessarily FFV (Louw & Emongor, 2004). Thus the retailers involved in these alliances access their FFV from other channels so for the purposes of sampling in this study they are grouped among the independent retailers.

A relatively new form of wholesale-retailing is one pioneered by the Fruit and Veg City chain established in 1993. Unlike traditional wholesale outlets that maintain an industrial/minimalist appearance, this format sports sleek, tiled, well lit and clean supermarket style outlets. These act as both wholesalers and retailers in that not only do they market directly to the public but they also have a significant customer base among the smaller retailers and food outlets (restaurants and caterers).

2.3.3 Formal retailers: Supermarkets and Greengrocers

Formal retailing in the Republic of South Africa (RSA) refers to companies that are registered with the Companies and Intellectual Property Registration Office (CITRO) of the Department of Trade and industry (DTI). Formal registration is associated with a legal obligation to submit tax returns. These taxation laws prescribe that the firms in the formal sector maintain records of their transactions to facilitate the collection of Value Added Tax (VAT). The information generated in the process therefore lends the sector well to research attention since information about the locations, turnovers, ownership etc. become available from the relevant public authorities such as the DTI, CITRO and STATSSA. This is in contrast to the informal sector which operates without such record keeping.

South Africa has a complex retailing structure of approximately 70,000 outlets with sales of over R 275 billion/US$ 45.8 billion (constant 2000 prices) in 2005 (STATSSA, 2005) and the BMR predicts an average real growth in sales of 6.4 % in 2006 (Ligthelm 2006a). As mentioned previously, the retail sector as a whole is concentrated and in 2005 the top four large formal retail banners (including wholesale retail) controlled 68% of turnover (Planet Retail, 2006a) while in retail alone the CR4 was much higher at 96% in 2004 (M+M Planet Retail, 2004). The retail sector can be broken down into three broad categories: large retail outlets (hypermarkets and supermarkets), medium retail stores (medium sized retail stores), and small retailers including greengrocers and convenience stores (Weatherspoon & Reardon, 2003).

Although almost all food retailers stock some fresh produce including for instance petrol station kiosks, the traders of interest are those trading in significant amounts of this produce. The logic being that such firms are more embedded in the FFV sector and would have a clearer understanding of its workings. Retailers fitting this criterion among the formal retailers are supermarkets and greengrocers. These are discussed in turn below.

2.3.4 Supermarkets

Retail market concentration is most apparent in the intensely competitive supermarket sector where 2% of supermarkets are responsible for between 50% and 60% of all food sales in South Africa (Weatherspoon & Reardon, 2003). The top large formal supermarket chains include the listed companies Pick'n Pay, Shoprite-Checkers and Woolworths, and the recently listed Spar group.

These large retail chains often trade under a variety of brand names in order to better target separate market segments. This strategy also serves to obscure the concentration within the sector. For instance the four main companies (Pick'n Pay Group, Shoprite, Woolworths and Spar) trade under about ten different store names. For example, Shoprite operates store brands that include Shoprite supermarkets, Shoprite Checkers, Usave, Sentra, 8 Till Late, Checkers Hyper and OK stores. Pick'n Pay stores include not only Pick'n Pay hypermarkets, supermarkets, family stores, liquor, clothing and garage stores; but also the brand names Score, TM and Boxer supermarkets as well as Franklins in Australia. The top four supermarket chains are currently leading the race for the retailers' market share in South Africa. Table 2.1 indicates that this has increasingly been the case over the eleven years between 1993 and 2004. Unfortunately these statistical series have been discontinued to focus on banner sales (including wholesale retailers) since the merger of M+M EURODATA of Germany and Planet Retail of UK to form a new Planet Retail (2006b).

Table 2.1: Market share (%) and turnover of South African supermarkets

Supermarket chain	1993		2003		2004	
	Market share (%)	Turnover/ Retail sales (R million)	Market share (%)	Turnover/ Retail sales (R million)	Market share (%)	Turnover/ Retail sales (R million)
SPAR	18.3	5 255.0	26.1	19 312	26.3	21 873.8
P'nP	22.5	6 423.5	35.4	26 194.2	35.2	29 276.0
Shoprite/Checkers	43.4	12 462.7	29.4	21 754.5	27.8	23 121.4
Woolworths	4.2	1 206.1	6.9	5 105.6	7.1	5 905.1
Others	11.6	3 331.0	2.2	1 627.8	3.6	2 994.1
Total	**100**	**28 715.8**	**100**	**73 992.3**	**100**	**83 170.5**

Source: Brandt (2004); Various Annual Reports and M+M Planet Retail (2004)

A point of caution in interpreting the table is that the statistics do not show the contribution of the informal sector in the retailing total. In addition the turnover figures include all sales made in supermarkets, including hardware, electronics, clothing etc and not just the food or FFV which are of interest to this study. The figures do however highlight the scale of market concentration - 96% to the top four retailers - and the growth of the chain store format. The consolidation reflected in the table is expected to continue within the South African market and to spill over into other African states (Weatherspoon & Reardon, 2003).

Supermarkets mainly operated through centralised procurement systems where distribution centres perform the assembly function of buying FFV from various sources including directly from farmers and then supply to the various branches. Individual branches were in instances allowed to perform their own purchasing but this was an exception rather than a norm. Also this prerogative was the reserve of outlets in remote locations and franchised stores. The extent of centralised management and procurement also varies according to corporate culture. Louw *et al*. (2004) found that central control was much stronger in the Shoprite and Pick'n Pay chains than in the SPAR group.

The spreading dominance of supermarkets could be viewed as a progressive step for livelihood development and food security because supermarkets brought about new higher product standards, variety and at lower prices (D'Haese & van Huylenbroeck, 2005). On the other hand this expansion could also be viewed negatively as it was typically at the expense of existing small local retailers, thus killing off local entrepreneurship. This is evidenced in table 2.1 by the concurrent fall in 'other' formal retailers share from 11.6% in 1993 to 3.6% in 2006.

Research shows that this supermarket takeover has not been uniform across the food sectors in South Africa and internationally (Boudreaux & Macaulay, 1996). Unlike the general dealer, bakery and butchery retail formats, the fresh produce retailers have proven especially resilient. Weatherspoon & Reardon (2003) found that supermarkets' entry path has tended to be first through dry goods and later in perishables. They sighted historical cases in this point with the evolution of the markets in France and

Italy (Braudel, 1979 in Weatherspoon & Reardon 2003). In a separate study, Reardon *et al*. (2003) further asserted that supermarkets were less successful in penetrating the fresh fruit and vegetable (FFV) market than the overall retail food markets. The study sighted examples in Latin America where supermarkets' FFV market share was around 30% in Brazil, 10% in Costa Rica and on average between 50% and 75% of the overall food retail market share across the region. As mentioned previously, the authors failed to explain why FFV markets proved more challenging than other food and retail markets.

Researchers warn that supermarkets will eventually take over the FFV markets as they have done in other food sectors (DFID RNRA, 2005). However this prediction was premised on the correlation between improve livelihoods (the emergence of two-earner households, ownership of cars and refrigerators) increased Foreign Direct Investment and the spread of supermarkets (Reardon *et al*., 2003). RSA has a dual economy with both a significant wealthy population and a growing middle class but an even larger poor population (48% below poverty datum) (GCIS, 2005). Thus the predicted income effect driving the dominance of supermarkets is unlikely to occur in RSA in the near future. Institutions such as the DFID and IIED have identified this as an opportunity to initiate programmes for mitigating action to ensure the survival and prosperity of the smaller food chain players including farmers and agribusinesses (DFID RNRA, 2005 and www.regoverningmarkets.org/).

2.3.5 Greengrocers

Greengrocers, also known as fruiters, are classified under the larger population of smaller stores in the formal retail industry. These small format stores collectively control 30% of retail turnover (Economist Intelligence Unit, 2004). Despite the relatively small and declining market share of smaller retailers (referred to as others in table 2.1) the approximately R3 billion turnover is still a formidable figure. Additionally the declining share data refers to all retailers including for instance hardware stores and other retailers that trade in little if any fresh produce.

Greengrocers are specialised sector classified by Statistics South Africa (STATSSA, 1993) under the standard industry code (SIC 62201) "Retail trade in fresh fruit and vegetables." However, small formal fresh fruit and vegetable (FFV) retailers typically also trade in a variety of other grocery items. They therefore prefer to register their businesses as general dealerships SIC6211 formally defined as "Retail trade in non-specialised stores with food, beverages and tobacco predominating". Unfortunately this was the same code under which supermarkets classified and renders the SIC ineffective as a sample stratification tool. Thus for the purposes of this study rather than using the SIC, the qualifying criterion for classification as greengrocers was that at least 50% of the trader's ware be FFVs.

This format of stores is quite versatile because it has displayed the ability to co-exist with both the hawkers and supermarkets in FFV retail. Unlike informal retailers, greengrocers are able to compete for market share in the shopping malls where the urban population increasingly shops. Concurrently greengrocers have been recorded as holding their own in the townships. For instance a 1988 survey of avocado consumption among the black population in Pretoria found that 22% bought from greengrocers this was more that the 20% share of supermarkets although lower than the street vendors' average of 48% (Van Zyl & Conradie, 1988).

However as shown in the supermarkets section (table 2.1) the greengrocers and other small formal retailers are collectively loosing market share to the large retail chains. A steady declining trend for the greengrocer market share has also been detected in the UK where it fell from 46% in 1980 to 26% in 1991 (Dolan & Humphrey, 1998). The decline coincided with the growth of large retailers' share of FFV retail from 50% in the 70s to 76% of the trade by 1998 (Dolan & Humphrey, 1998; Liff & Turner, 1999).

The decline of independent greengrocers presents a problem in that the demise of small retailers represents an erosion of opportunities for entrepreneurship. This is a key economic asset that has been widely acknowledged as major source of economic dynamism within capitalist economies such as that of RSA. Entrepreneurship is also credited with creating up to 90% of the new jobs in countries where the relevant research has been conducted (Morris, 1997). Seeking ways of fostering small business is therefore of importance to the economy as a whole.

Research and literature targeting greengrocers is scarce. This is possibly a symptom of them falling outside the mandate of development research because they are considered relatively affluent yet they are concurrently too small to be subject of research conducted by big business. Thus the current dissertation will help to shed more light on the frequently overlooked greengrocer retail format.

2.3.6   Informal retailers

Informal retailers/hawkers or vendors in this study refers to the traders not formally registered as businesses with the Companies and Intellectual Property Registration Office (CITRO) and are also not registered for Value Added Tax (VAT). They may be registered with municipal or regional services councils but only a minority of about 7.3% of the total appears in such registers (Statistics South Africa, 2002b).

Accurately measuring the social and economic impact of the informal sector in South Africa remains a challenge. Due to its amorphous and none permanent nature, the structure and performance of informal business is not routinely monitored along with other national economic data. In an attempt to bridge this information divide Statistics South Africa (STATSSA, 2002a and 2002b) endeavoured to estimate the contribution of the informal sector to the RSA economy using data from the Labour Force Survey (LFS) of March 2001. The survey estimated that the total turnover of the informal sector was R2.62 billion in February alone (Statistics South Africa, 2002b, p.4), a significant sum given that the GDP for first quarter of 2001 was R 243.95 billion at current prices (Reserve Bank, 2006). They reported that out of the 44.4 million national population, an estimated 2.3 million (5.1%) ran at least one informal, non-VAT-registered business and approximately 616 000 (7.7%) of these businesses were in Gauteng province (Statistics South Africa, 2002a, p.6). Informal businesses totalled 1.3 million (57.8%) in urban, and 1 million (42.2%) in non-urban areas. The vast majority (89.4%) of the business owners were African and the industry was dominated by women who owned 1.4 million units (60.6%). The wholesale and retail trade, catering and accommodation industry, which includes FFV retail, hosted two

thirds (69.4%) of the national total count of informal businesses and over half (53.5%) of turnover (Statistics South Africa, 2002b, p.4 and p.51).

Informal traders represent a major force in Tshwane's fresh produce sector. Censuses conducted in Tshwane by the Bureau of Market Research (BMR) (Ligthelm & Van Wyk, 2004) and the City of Tshwane (2005) respectively found a total of 3614 and 3385 informal retailers operating in the City if Tshwane. The difference was attributed to the none-permanence of the traders businesses as well as the widely varying operating days and times. Also according to research by Louw *et al*. (2004), hawkers on the Tshwane FPM represent 27-29% of monthly turnover and 50% of purchases off the Johannesburg market. In the present study and presented later the figure was found to have grown from 20% to 30% of the TFPM between 1999 and 2005.

The BMR study, commissioned by the CTMM to look into the regulation of informal trade in Tshwane (Ligthelm & Van Wyk, 2004) found that, of the 3 614 businesses interviewed, six types goods traded accounted for 73.5% of all informal business. These six were fresh fruit and vegetables (22.6 %); clothing, sewing and tailoring (14.6 %); soft drinks, sweets, cigarettes (13.5 %); prepared food (11,6 %); telephone, fax and photocopying (5.8 %); toiletries, and cosmetics (5.4 %). The remaining quarter of all traders dealt in 16 different mostly non-food items and individually accounted for less than 4% of the total. These figures confirmed that FFV as the dominant form of informal retailing in the City. An explanation for this is offered by the DFID RNRA team (2005) is that the FFV market was a fairly scale-neutral sector meaning that it allowed entry to even the smallest of entrants and thus was also a promising route out of poverty.

Some economist, theorists and legislators were of the opinion that the informal sector was an important means of reaching the lower income/township markets, ensured food security in those areas; and was an important employer especially for the low skills level groups. They also found that it had more legitimacy than formal business in low income areas where socio-political forces were quick to destroy businesses that were perceived to be exploitative; was consumer oriented hence demand driven; promoted entrepreneurship and economic activity in the poor areas as it is cash

driven; and was a valuable source of income for the players and their dependents (Karaan, 1993; Van Rooyen, 2002; and Ligthelm & Van Wyk, 2004).

On the other hand, antagonists to this positive view of the informal sector point to a number of its shortcomings. Primary among these was their observation that informal trading was geared towards personal survival as opposed to maximising a return on investment (Rauch, 1991) and as a result only generated a subsistence existence for the players (Morris, 1997). To add to this argument, Hirschowitz (1992) showed that there was a net flow of money from the informal to the formal sector and that the sector was characterised by low and intermittent returns. From a labour perspective the sector was also judged to be insecure and unstable, involving long working hours as well as poor working conditions (Devarintert & Watson, 1981). Given these factors and his own analysis, Marius (1987) concluded that the informal economy was an overall indicator of a general level of poverty and underemployment in an economy. Of note however is that these authors fell short of condemning the informal sector as detrimental because it intuitively has a net positive socio-economic impact on a growing economy.

Restrictions to informal trade were relaxed significantly in the 1990s through the Business Acts of 1991 and 1993 and the subsequent amendments to various municipal bylaws (ILO, 2003). Local governments were charged with the overall administration of the sector and have widely varying approaches to this task. For instance the Johannesburg Municipality followed an antagonistic approach while there were cordial relations between Durban Municipality and local hawkers (eThekwini Online, 2004). Irrespective of the approach, the bylaws have limited the trading locations as well as the number of traders. Trading areas such as road verges, pavements and islands are considered to be obstructions to traffic yet these locations form the most lucrative markets because of the high volumes of traffic. Van Rooyen (2002) noted that informal traders have done little to have their point of view heard by policy makers. The hawkers are fragmented and are hardly ever part of lobby groups or traders' associations that may serve as rallying points for their concerns.

Aside from the static head counts such as those of Statistics South Africa the BMR and the CTMM, little business, economic or marketing research attention has been

afforded to informal retailing. This is despite its importance as a livelihood option for the lower income groups. The primary reason sighted by researchers for avoiding this sector has been the lack of reliable data on these traders (NAMC, 2000. p.38 and Morris, 1997) forcing each one to rely on individual surveys and case studies which make generalisation difficult. The result is that the few studies on the sector collect information specific to their objectives or collecting general information that leaves little room for subsequent use of this data (such as in Statistics South Africa, 2002a, Myburgh, 1997 in NAMC, 2000, Morris *et al*., 1992 and Morris 1997). Thus gaps in knowledge of the business of informal trade exist, including that of the nature of competitive interaction between the different forms of retailers of fresh produce.

2.4 Exploratory Study (Phase 1)

Most retail industry literature reviewed so far was pitched at the national level and pertained to a single type of retailer at a time. While these provided the broad macro level background it was not sufficiently targeted towards Tshwane and/or missed the interplay between the three types of retailers. It was therefore judged that an exploratory study (phase 1) was necessary to fill this information gap and establish an informed basis for a broader survey needed to fulfil the research objective namely to describe and analyse Tshwane's competitive FFV retail environment.

The terms of reference for phase 1 were to characterise the FFV industry in Tshwane, identify preliminary value generation nodes and form a basis to testing and fine-tuning the phase 2 survey questionnaire-checklists as well as to refine the phase 2 sample design. This exploratory study would also enrich the study with anecdotal information and thus help to gain an improved perspective of the FFV retail industry. In addition phase 1 set out to help to identify FFV to focus on in the study.

Operationally the exploratory study began with an embedding period. This involved spending up to one week shadowing and working with a member of each of the types of retailers thereby learning about the fresh produce retail business "first hand". This embedding and rapport building was especially important among the hawkers who

tended to be suspicious of the intentions of the research. The three Tshwane retailers chosen for this exercise were Pick'n Pay Supermarket at the Tramshed Shopping Mall in the Central Business District (CBD), a registered informal trader in Attridgeville and a Greengrocer in Mamelodi. This embedding period was followed by a series of key informant interviews with officials and agents at Tshwane Market; Freshmark (Shoprite's in-house fresh produce wholesaler); the Informal Business Forum (IBF) and the Gauteng Hawkers Association (GHA). The aim of the interviews was to gain additional background on the current issues in the industry and the state of competition from their point of view.

2.4.1 Players in Tshwane's FFV retail sector

Expert interviews and the embedding process conducted in phase 1 revealed a number of nuances about structure of the fresh produce industry beyond the descriptions found in literature. The first observation was that FPMs play an increasing role in international FFV trade. Not only have they always been an important FFV source for cross boarder traders (CTMM, 2006) but some produce markets authorities, especially those with significant private ownership, are beginning to export some produce (Dodds, 2005; personal communication).

Another observation was that produce markets, in this case the Tshwane Market (TM), are important information hubs in the fresh produce sector due to two factors. Firstly these markets hold a key role as the largest wholesaler in the sector handling at least 80% of all fresh produce in the country (Dodds, 2005; personal communication). Secondly the markets, including the TM, routinely record all transactions performed on their floors using a system of prepaid buyer's cards. TM therefore has a database of daily purchases made by each of its clients.

Although the TM possesses this raw data, the processing of this data is at its infancy. The main use of the data has been little more that price monitoring. Only four brief market analysis reports had been compiled at TM by December 2005. The first report was written in 1999 with the process being subsequently abandoned until 2005 when three monthly reports were produced. Results of these reports are summarised in table

2.2 that presents the percentages of sales off the TM attributed to each of the industry players. The top 10 buyers accounted for 26% (R70 865 784), 25% (R75 058 406) and 26% (R83 345 219) of the market's turnover in January, February and March of 2005 respectively.

Table 2.2: Distribution of turnover sources for Tshwane Market

Period	Informal trade (%)	Retail (%)	Whole-sale (%)	Contract Buyer (%)	Chain Store (%)	Processor (%)	Final Consumer (%)
1999	20	28	29	1	18	1	1
Jan 2005	28	27	23	4	14	2	2
Feb 2005	31	24	25	3	13	2	2
March 2005	30	26	24	3	13	2	2

Data source: Dodds & Sedutla (2005)

Another output of the TM information system is the classification of the fresh fruit and vegetables (FFV) industry into seven classes namely wholesalers, chain stores, retailers, informal traders, processors, contract buyers, and final consumers. The definitions of each type of buyer are not entirely novel but present an interesting perspective of the industry. In addition, when discussed in cognisance of table 2.2 the classifications better illustrate the relative size and contribution of each class of FFV player.

Similar to the current study, wholesalers are defined as buyers who sell more than half of their stock to other businesses. This class is considered critical because they individually "move" of large volumes of fresh produce and they collectively account for about a quarter of the TM sales.

Buyers off the TM are considered retailers when they sell more than 50% of their goods directly to final consumers. This cluster, including small formal retailers (greengrocers and convenience stores) and the none-syndicated supermarkets, buys a second 25% of the all TM sales. An interesting note was that a large proportion of greengrocers and fruitiers in this group were owned and run by immigrants (or their decedents). These were typically South Africans of southern European decent (including the Greek, Italian and Portuguese). Key informants commented that these people traditionally consumed large amounts of a wide variety of fresh produce and

therefore had a long history of handling these products. Observers also point out that the independent greengrocers have all but disappeared in small towns and cities such as Nelspruit in Mpumalanga province. Most have converted their stores to convenience stores especially as franchises under the SPAR brand. (Roos B. 2006, personal communication). However, the business format was currently vibrant within the large cities and metros (Dodds, 2005; Bezuidenhout, 2006, personal communications)

Chain stores constitute the fourth largest market to the TM and were classified separately to other formal retailers. Chain stores are only recognised as such when they employ a centralised procurement system. Thus when a single outlet makes a purchase it is classed among the other retailers and not as a chain store. Their share of purchases off the TM was on the declining from 18% in 1999 to 13% in March 2005 (table 2.2). The primarily sourced FFV directly from producers about (70%) and the rest from produce markets (30%) except when produce was out of stock when they imported. Specialised supermarkets procurers such as Freshmark stated that they maintained verbal contracts with supplying farmers and had formal contracts with corporate as well as franchise outlets with regards to the conditions of accepting fresh produce, pricing and payment procedures.

Processors are defined as businesses that buy produce in bulk, transform to add value and then resell it. Processors, constituting 1% to 2% of TM turnover, typically acquire slightly lower grade produce with the types of defects (such as minor blemishes) that only affect aesthetic appeal. In so doing they take advantage of the relatively lower prices.

The contract buyers' class are another relatively small group not mentioned in previous literature accounting for 1% to 4% of sales at TM. They include individuals or companies that enter into contracts with private and state bodies to buy and deliver bulk produce to specified locations as set out in the contract documents. Typical clients of contract suppliers include the catering and hospitality sector (i.e. fast food chains, hotels, corporate canteens) as well as institutions (hospitals, prisons, children's and retirement homes) Contract buyers play the important product assembly and risk mitigation functions. Essentially they charge client institutions a premium for

insulating them from the hassle of finding their produce needs from a variety of suppliers as well as reducing the ever-present risks of wastage in transit, quality variations, seasonality, daily price movements and other shocks associated with the FFV industry.

In March 2005 informal traders were the largest single buyer category at TM (table 2.2). This group refers to individuals or groups of individuals operating in small units and who are not formally registered as businesses. Although players in this group make small individual orders informal traders are considered important not only because of their collective size but their versatility. They are most able to recognise and react to price differentials and take advantage of special offers while other buyer classes tend to follow rigid buying patterns and schedules. This market agility is an important trait because it helps to clear instances of oversupply at the market thus reduces potential wastage losses.

Informal traders were observed to operate three modes namely fixed location, semi-mobile and roving. The majority operate from fixed locations such as rented municipal stalls, tables and pavements (Dube P. 2005, personal communication). The semi-mobile traders' business model included a combination of a fixed base (a roadside stand or train station) and sales to customers in transit (motorists in traffic stops or commuters seated in trains and buses). Their bases where primarily used to store and process (sort, package and clean) inventory although some sales were also made there. This second format existed at busy neighbourhood intersections and at major accesses routes to the central business district. Semi-mobile traders operating in the railway system located their bases at minor train stations that had ample space and limited interference from rail officials such as the Mears Station. These traders carried their ware on their person making sales within train cars and restocking was performed during the brief stops at base stations.

The roving operators included those marketing their ware by displaying it on portable displays including shopping trolleys, baskets, boxes, bags, self styled displays and displays hung on the sellers' person. The mobile format hawker, and particularly those using old shopping trolleys, focused on door to door sales and special events. Some could be classed as semi-mobile since they tended to 'park' their trolleys at a

particular preferred location on most days. These classifications cover the comparable list of locations of informal traders presented in Ligthelm & Van Wyk (2004; p. 10 and 21). Another interesting observation was that informal tuck-shop (*spaza*) typically avoided FFV focusing instead on fast moving consumer goods (FMCG). Although this factor excluded many *spazas* from the scope of this research the observation warranted further enquiry. This revealed that the comparatively frequent (if not daily) restocking necessary in the FFV trade was a strong deterrent for *spaza* owners.

The final consumers group identified at the TM were individuals that buy fresh produce in relatively small quantities for personal household use. An additional category named 'cash sales' encompasses all buyers who prefer to remain anonymous. These buyers were reclassified in table 2.2 based on their transaction histories, which showed that 40% of the unregistered group displayed the traits of retailers and 60% could be linked to informal traders.

Exploratory study interviewees emphasised the importance of produce markets (FPMs). Despite the supermarkets trend towards more direct procurement from farmers (Louw *et al*., 2004), they are still among the top buyers off the national fresh produce market floors. For instance Shoprite obtains approximately 70% of its fresh produce from various produce markets (Du Toit G. 2005, personal communication) and as shown before, chain stores typically account for 13% to 18% of the TM's turnover (Dobbs 2005, personal communication). Procurement directly from producers was mainly reserved for acquiring the more sensitive and/or specialised product lines such as baby marrow, lettuce and spinach. This is so because an intimate knowledge of post harvest treatment (that is, cold chain management, traceability etc.) is critical to making full use of the products' short shelf lives and ultimately to reducing the wastage bill (Du Toit G. 2005, personal communication). Also as shown in the subsequent phase 2, the smaller retailers purchased almost all their FFV supplies from municipal produce markets.

Key informants and practitioners reported another interesting trend that, in response to consumer preference and demand, all retailers had progressively moved towards exclusively trading in high quality, first grade FFV. The lower grades have increasingly become the reserve of fresh produce processors. This revolution had in

part been facilitated by the use of the HACCP (Hazard Analysis and Critical Control Point) processes to improved grading and classing at the TM and other markets. Existing and new suppliers were also provided with specific packaging, grading and sorting requirements for all FFV thus facilitating uniformity, increasing speed of transactions and reducing the need for inspection.

2.4.2   Market segmentation in Tshwane

Another interesting find of the exploratory study was that although all three FFV retail formats (supermarkets, greengrocers and hawkers) exist across Tshwane their relative strengths as a market competitor vary according to the affluence areas. The tri-dimensional nature of retail competition is most evident in the middle-income areas (LSM 5, 6 & 7) of Tshwane where all three formats appeared to be virulent. This was less so in other affluence group areas. This observation was contrary to comments in Ligthelm (2006b) that hawkers only accessed (an undefined set of) low income areas.

The low-income areas (LSM 2, 3 & 4) were dominated by informal traders and there were very few greengrocer outlets found in these areas. The few supermarkets present in the low-income areas do not deal in fruits or vegetables. A senior Freshmark official noted that FFV are perennial loss making sections of their outlets in low income and lower middle income areas such as Hillbrow, Johannesburg and Silverton in Tshwane (Du Toit G. personal communication, 2005). Nevertheless the FFV sections in these outlets were kept running primarily to maintain the strategic corporate brand image which includes an assurance that all branches under the same store brand would be similarly stocked nationwide. Another remedy to this problem was to use store brands that have a small to zero FFV component in such areas. Examples of such supermarket brands (and particular outlets) include Freedom (Belle Ombre), BuyRite (Attridgeville), Usave (CBD) and Boxer Supermarkets. Interestingly, these supermarkets tended to serve as draw cards for the informal traders' customers as they would typically buy groceries in the supermarket and fresh produce from the hawkers outside.

FFV market shares in Tshwane's high-income areas (LSM 8, 9 & 10) were held almost exclusively by supermarkets and the wholesale-retail chain Fruit and Veg City. This outcome was facilitated, in part, local residents access to private transport, and an observed preference for enclosed shopping malls. Shops in these malls tend to be the reserve of chain retailers. A few small greengrocers were observed in isolated shopping centres within these affluent neighbourhood but the hawkers were effectively confined to public transport nodes including taxi ranks, bus and train stations. A survey by the National Department of Transport (DOT, 1998) found that the majority (78% to 94%) of high income households in South Africa do not use public transport. Thus the informal FFV sector observed at transport nodes is serving a minority of the areas' residents and mostly non locals in transit.

The revealed structure and location of the three tier competition in FFV industry had a significant impact on the survey (phase 2) sample design. It was initially envisaged that equal samples would be drawn from high, middle and low affluence areas. However, in light of phase 1 findings, it was judged that the types of respondents were unlikely to be found in the high and low-income areas. Therefore the resolution was to focus on middle-income areas while maintaining the gross sample size. Details of how was achieved are outlined in the methods and procedure chapter.

2.4.3   Reference product selection

Other than the important perspective forming function documented thus far, phase 1 also assisted in the selection of the set of top three fruits and three vegetables to be used as reference products in the study. The need for this product selection was firstly to limit the number of variables under review, secondly to ensure that the products selected were commonly traded in all three retail formats, thirdly that they were as perennially traded as possible and lastly that the chosen products were representative of the FFV industry. Fulfilling these conditions would therefore facilitate the intended inter retail format comparisons.

The first step in product selection was identification of the top, high turnover, high volume and high value fresh products in the domestic retail market. Based on

historical data on the average value of vegetables sold at local produce markets (DoA, 2005a), the top three vegetables sold in South Africa are potatoes, tomatoes and onions. Over the last twelve years they have consistently been the most prominent products both among the top twenty vegetable lines (figure 2.2) and among the top seven perennial vegetables lines sold across the country's sixteen major fresh produce markets (FPMs).
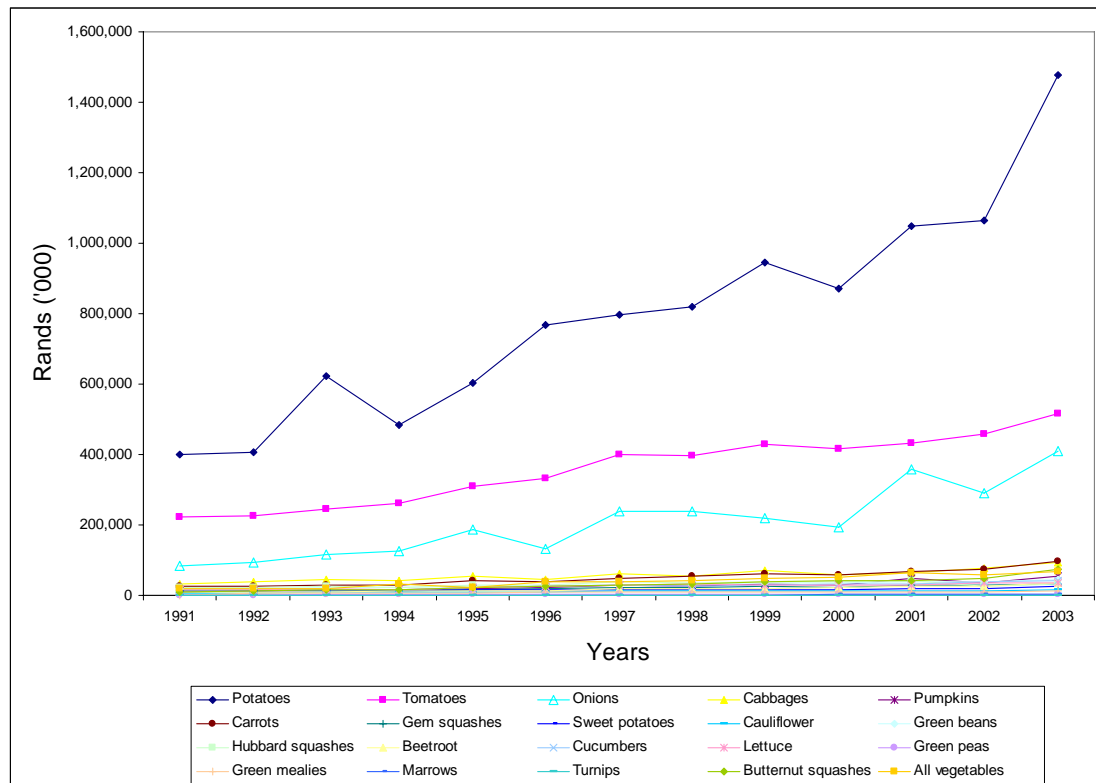
Figure 2.2: Average value of top vegetables sold at major FPMs (1991-2003)

Data source: DoA (2005a)

A similar result was obtained in the domestic fruit retail sector where three product lines (bananas, apples and oranges) had been dominant over the last twenty years. The average rand values of the three fruits was found to be highest among the set of 27 top fruit lines sold across the country's 16 major FPMs (figure 2.3) (DoA, 2005a).
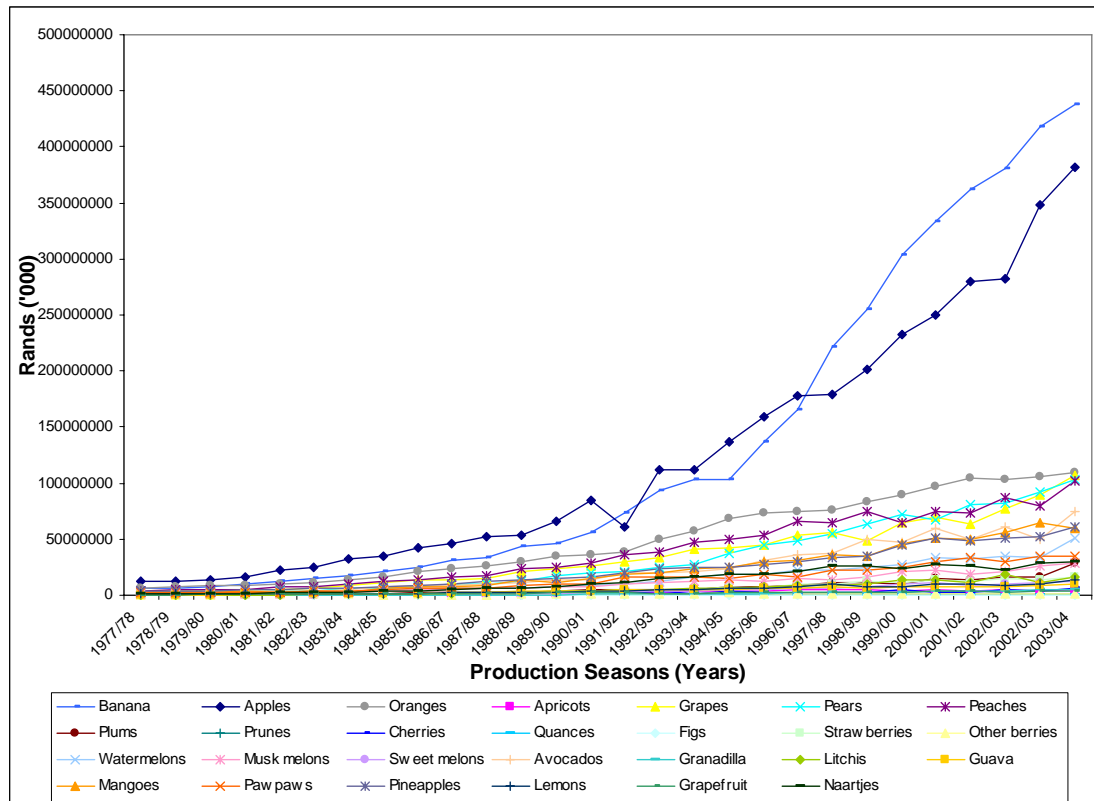
Figure 2.3: Average value of top fruits sold on the 16 major FPMs (1978-2004)

Data source: DoA (2005a)

The second criterion for product selection was that they be commonly traded in all three of the retail channels (supermarkets, greengrocers and informal traders). Verification of whether this criterion was met by the six highest volume and turnover FFV involved evidence and views gathered from different sources. These were (i) the three retailer hosts of the phase 1 embedding period, (ii) interviews with TM officials, (iii) interviews with retailer organisations and (iv) author's observations of which FFV were commonly traded. These sources subsequently confirmed that the six products identified above (bananas, apples, oranges, potatoes, tomatoes and onions) were suitable as reference FFV for the present study.

2.4.4 Under and over reporting

A high incidence of under and over reporting of financial information was detected among the hawkers and greengrocers. This included data on turnovers, profit margins

and costs. This was not a surprise since numerous statistical, financial and economic studies have also reported this underreporting, overreporting and misreporting particularly in the informal sector (Luttikhuizen & Kazemier, 2000; IMF, 2003; UNESCAP, 2004; and Gholami, 2005). This error source also featured in a comparable South African study by the BMR (Ligthelm, 2006a). The problem is tied to various strategic and economic motives. Profits, for instance, are typically understated to avoid and minimise taxes due. In the case of development studies, respondents understate the incomes obtained to qualify for assistance. On the other hand incomes may also be overstated to impress peers, partners and stakeholders. They may also be overstated to intimidate competitors. In many cases respondents were found to be reluctant to share financial information and resulting in a high amount of misreporting or none response errors.

Wherever inconsistency was verified either the interview was redone or that respondent was replaced with another similar case. In contrast the supermarkets were far more willing to share detailed reports of trends in sales over years. This problem underscores the lack of trust displayed by these traders especially among the greengrocers who clearly knew the figures but chose not to disclose them. In the case of informal traders the possibility of this error occurring was confounded by their lack of record keeping.

A related observation was that the concept of turnover was foreign to hawkers as they separated the cost of purchasing stock from the profits. Greengrocers also tended not to maintain a record of turnover *per se*. They immediately separated the profit from the cost of sales. Conversely respondents from corporately owned supermarkets (store managers and fresh produce supervisors) were generally ignorant of the costs involved in the purchase and transportation of stock. They therefore were only aware of the turnover they made at store level. The sources of profit and cost data were therefore the regional and national heads of the FFV sections. Thus in cognisance of these differences, care was taken during the data collection process to distinguish between costs, turnover and profits. This was particularly important where the interviews were conducted in languages other than English.

2.5 Summary

This chapter provided a review of the FFV industry based on literature and an exploratory study. It began with an illustration of the exceptional difficulties and risks involved in conducting business in this industry due to, among other things, perishability, seasonality, and susceptibility of the products and sector to systemic shocks. It went on to describe the previously documented players geared towards tackling these challenges at three levels namely wholesalers, wholesaler-retailers and retailers.

The municipal fresh produce markets (FPM) were found to be dominant in the sector and perform a vital price-setting function. Other wholesalers were the independent wholesalers, supermarket wholesaling subsidiaries and farmer's gate sales (DoA n.d; NAMC 2000). Wholesaler-retailers were primarily involved in the FMCG trade, with a relatively few focusing on FFV besides the relatively new Fruit and Veg City chain. These newer wholesaler-retailers were found to closely resemble supermarkets in appearance and practices.

The FFV retail sector found to have two categories, the formal and informal traders. Being in the formal sector implied a need to be registered for VAT and thus following legal prescriptions for record keeping. This made the sector easy to study, and especially so for the supermarket chains that were often also listed in stock exchanges making their information ever more publicly accessible. These studies on formal retailing have found that formal retailing is highly concentrated but less so in FFV retail. Penetration into the sector has proven to be more challenging for supermarkets. This lagged market entry has also been witnessed in other regions including Europe and more recently in Latin America. The reasons for this have been subject to speculation and form part of the questions addressed by this study.

Resilience of small retailers (greengrocers) and the informal traders has lead theorists to define the FFV market as a scale neutral sector offering access to all sizes entrepreneurs. They cite it as a possible ground for the growth of small businesses and thus new employment. The review of literature also noted that most studies were at

the national level and failed to compare the three forms of FFV retailing. This implied that a hybrid method of analysis was needed to obtain this background, thus an exploratory study (phase 1) initiated.

Phase 1 involved observations made during an embedding period and key informant interviews. These helped to confirm the presence of all the national level FFV players in Tshwane. It went on to define the relative sizes of the players based on sales off the Tshwane Market. Although the existence of this inter-format retail competition is confirmed, it was most apparent in the middle income areas with the high income areas dominated by large format retailers and the low income areas primarily being the reserve of informal retailers. This prompted an adjustment to the phase 2 sample design. Six products were then selected as reference products for the present study. This was based on phase 1 findings backed by data on volumes and product value from national produce markets. These selected six were apples, oranges, bananas, potatoes, tomatoes and onions.

Chapter 3: Techniques in Competition Analysis

3.1 Introduction

This chapter provides a review of the theory, methods and tools used in the evaluation of competitive economic agents. It begins with a review of the basic economic model of competition, perfect competition. It subsequently evaluates popular classical and contemporary competition analysis tools in terms of their suitability for the current study. The section subsequently zeros in on Porter's framework, market targeting, the marketing mix (Ps) and chain analysis as the appropriate tools to investigate the competitive environment in Tshwane's fresh produce retail market. It further describes how chain analysis and associated tools including chain mapping, radar charting and the factor evaluation matrix (FEM) help to quantify an otherwise qualitative and descriptive evaluation of competing FFV players.

3.2 Perfect Competition: The Grounding Concept

As stated in the objectives this study seeks to analyse competitive behaviour in a specific setting. It is therefore important to define this economic phenomenon named competition. Basic economics texts such as one by Samuelson (1967) use "perfect competition" as point of departure in teaching ideal conditions for economic activity, that is, to achieve a Pareto[3] optimal equilibrium. A set of four requirements is necessary to achieve this point:

   i)   Perfect knowledge of market conditions and instantaneous resource mobility
   ii) A large number of buyers and sellers in an industry (so that none can influence prices)

---

[3] Pareto optimal equilibrium is where no improvement in the well-being of an economic agent can be achieved without resulting in a reduction in the well-being of another.

iii) A standardised or non-differentiated product throughout an industry (thus, no brand names nor advertising)

iv) Free entry (meaning relatively costless admission of a new operating company into an established industry)

Having defined perfect competition, textbooks describe models of lesser competition in terms of their failure to meet requirements. Thus "monopolistic competition" is pure competition without meeting the standardisation. Also, "oligopoly" (from Greek, meaning "few sellers") is pure competition without meeting the 'many sellers' requirement for perfect competition. Monopoly is thus the opposite of perfect competition. Monopoly consists of one seller selling a unique product and that is "protected" by high costs of entry (Peterson, 1973).

Critics to the optimality of meeting these four requirements often point to it being a static point of analysis and thus object to its use in analysing a dynamic world. However this model retains its value as a tool for analysing the competitive environment. One need only use other analytical tools to complement this model and therefore not to judge a market purely on how far it departs from the purely competitive state.

Similar to international studies (Richards & Patterson, 2003), Chapter 1 of this study and literature quoted demonstrates the levels of concentration in South African retail (Brandt, 2004; Weatherspoon & Reardon, 2003 and M+M Planet Retail, 2004) and specifically in the agro-food chains. This is a violation of the "many sellers" requirement. Similarly other requirements are violated to different extents including "perfect knowledge", through branding and costs of market entry. The study therefore maintains the a-priori persuasion that the fresh produce market under review will depart from the ideal perfectly competitive market. The severity of this departure among Tshwane fresh produce retailers will therefore form part of the subject matter to be analysed and discussed.

3.3 Competition Analysis

Competitive behaviour is intrinsically the choice of marketing strategies with the aim maximising profit through increased market share. Numerous studies have been performed to evaluate the choice of marketing mix and its effect on the profitability of firms. Empirical research of this nature began in the 1950s and followed what is named the structure conduct performance (SCP) paradigm of empirical industrial organisation. The SCP uses cross-sectional data across industries to find empirical patterns across industries. Many of these studies in marketing have used the Profit Impact of Marketing Strategies (PIMS) data (Buzzell & Gale, 1987 for a review of PIMS studies). These studies were successful in drawing statistical relationships between marketing mix choices such as the marketing Ps and costs to the profits of firms (Kadiyali, 2001).

Developments in game theory in the 1970s led to criticisms of the SCP framework for failing to account for industry and firm specific characteristics (Moorthy, 1993). As a result the New Empirical Industrial Organisation (NEIO; reviewed in Bresnahan, 1989 and Kadiyali, 2001) was proposed to remedy these shortcomings. However as with all modelling techniques, access to comprehensive and reliable data is critical.

For the purposes of this study one could assume that supermarkets had sufficient data for modelling. However this data would not be available at store level and would be aggregated at their distribution centres in addition such information would be strategically confidential and only available internally. Phase 1 of this survey revealed that greengrocers barely kept accounting records let alone formulated or kept record of a marketing strategy. In addition the lack of records, let alone marketing strategies in the informal sector was almost universal. Therefore any attempt to empirically analyse or model competitive behaviour using SCP, NEIO or any modelling methods was deemed infeasible.

At the level of international competition there are similarly numerous ex-post and predictive methods used to measure competitiveness. These models include real exchange rate, foreign direct investment, accounting methods, domestic resource costs

and mathematical models (Frohberg & Hartman, 1997 in Esterhuizen & Van Rooyen, 2004). Of these, Michael Porter's forces and Balassa's Revealed Comparative Advantage (RCA) method are the most widely used (Esterhuizen & Van Rooyen, 2004). Given their international focus and, for instance, their reliance of RCA on trade data these models were also deemed inappropriate for the purposes of this study.

Porter (1979) had earlier developed the five forces model. This model was considered appropriate for this study used in market or industry level competition analysis. As illustrated in figure 3.1, Porter's five forces model refers to how four forces (namely bargaining power of customers, the bargaining power of suppliers, the threat of new entrants, and the threat of substitute products) combine to influence a fifth force, the level of competition in an industry.
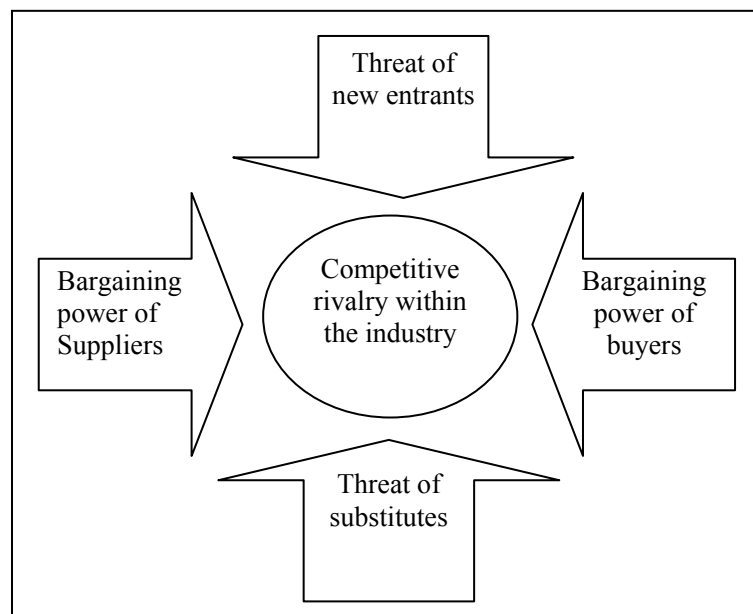
Figure 3.1: Porter's Five Competitive Forces

The strength of Porter's forces (Porter's diamond) is that it was able to condense the study of microeconomics into one simple model as shown in table 3.1.

Table 3.1: Simplifying power of the Porter's forces model

Porter's Forces	Areas of Microeconomics
Bargaining power of suppliers	Supply and demand theory, cost and production theory, price elasticity
Bargaining power of customers	Supply and demand theory, customer behaviour, price elasticity
Rivalry between existing players	Market structures, number of players, market size and growth rates
Threat of substitutes	Substitution effects
Threat of new entrants	Market entry barriers
→ Industry attractiveness	→ Profitability, supernormal profits

Theorists propose two related extensions to Porter, first is the concept of limited cooperation between market rivals to achieve mutual benefit. This named cooperative competition or co-opetition (Brandenburger & Nalebuff, 1996). Secondly are complementors (strategic alliances) as seen in game theory.

The detractors of Porter's framework (Coyne & Subramaniam, 1996) highlight the weakness in three underlying assumptions: (a) that buyers, competitors, and suppliers are unrelated and do not interact and collude; (b) that the source of value is structural advantage (creating barriers to entry); (c) and that uncertainty is low, allowing participants in a market to plan for others behaviour.

Albeit these shortcomings Porter's framework remains a useful tool in the analysis of inter-form competition in Tshwane's fresh produce retail industry. The model is also simple enough to apply in an environment where perceptions of industry players will be more readily available than detailed historical data. Figure 3.2 illustrates an application of Porter's model to represent the postulated competitive rivalry in the fresh produce industry of Tshwane.
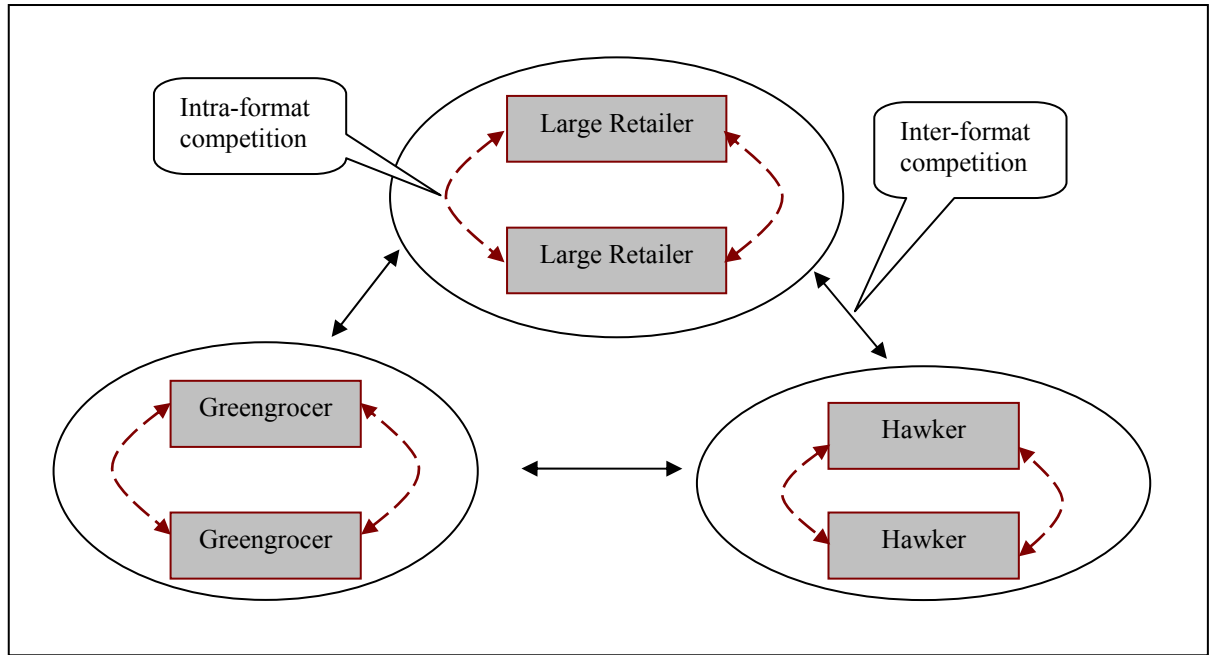
Figure 3.2: Postulated competitive rivalries within the fresh produce industry

Traill & Pitts (1997) proposed a means of operationalizing Porter's model in analysing competitiveness in the business environment. This is done by answering a series of questions as listed in the following checklist (Box 3.1).

Box 3.1: Competition analysis checklist

1. Who are your five nearest direct competitors? (Intra-market competition)

2. Who are your indirect competitors? (Inter-market competition)

3. Why do you consider these your competitors?

4. Is their business growing, steady, or declining (turnover over the past 5 years)? - Is the market for your product growing sufficiently so there are enough customers for all market players (Industry and trade association publications; Industry research and surveys)

5. What can you learn from their operations or from their advertising?

6. What are their strengths and weaknesses? - The customer's viewpoint. State how you will capitalise on their weaknesses and meet the challenges represented by their strengths.

7. How does their product or service differ from yours? – In terms of location, quality, advertising, staff, distribution methods, promotional strategies, customer service, etc

8. How can you overcome your challenges?

9. How do you see your prospects for the future?

Another useful exercise is to start a file on each of your competitors including advertising, promotional materials, and pricing strategies. Review these files periodically, determining how often they advertise, sponsor promotions, and offer sales. Study the copy used in the advertising and promotional materials, and their sales strategies.

Adapted from Traill & Pitts (1997)

This checklist provides a practical list of issues to address in conducting a competitive analysis and therefore also served as a useful guide to the design of the enumeration tool used in this study. The questionnaires (appendices 2 to 7) were designed to address these questions and thus elicit the respondents' perception of the competitive environment in the fresh produce market.

3.4 Market Targeting & the Marketing Mix (4Ps)

Market targeting and the marketing Ps are two related marketing tools employed both in the analysis and pursuit of competitive advantage. Given the focus of this research the two concepts require a brief review.

3.4.1 Market segmentation and targeting

Market segmentation is based on the principle that one product cannot serve the needs of all consumers. Thus segmentation involves the division of a population of possible customers (prospects) into homogenous groups using for instance, the LSM. Theorists suggest that this intra-group similarity implies that prospects in each segment are likely to respond similarly to a given set of marketing stimuli. The purpose of segmenting (dividing) a market is therefore to allow a business to focus on the subset of prospects that are most likely to react positively to a marketing strategy (purchase the product).

Successful segmentation ensures the business is able to identify the segments with the highest return for marketing/sales expenditures. The enterprise then selects (targets) one or more of these segments and adapts or designs its offering to meet that segment's needs (Kotler, 2003). In investigating competition, this study will therefore investigate the means by which FFV retailers have chosen to segment and target their prospects.

3.4.2 Marketing Mix

An important element of this study was to establish the means by which fresh produce retailers adjust their offering to better 'compete' by attracting more customers, market share and ultimately profits. The marketing mix is a model designed to analyse this offerings matrix. The marketing mix approach stresses the mixing of various factors in such a way that both organisational and consumer (target market) objectives are attained (figure 3.3). The marketing mix model originates from work by Neil Borden (1964) who first started using the phrase, in 1949. The most common variables used in constructing a marketing mix are price, promotion, product and place (location and distribution) commonly referred to as the four Ps as suggested by Jerome McCarthy (1960).

Figure 3.3: The marketing mix used to target a market segment

Sources: Wikipedia (2002) and NetMBA.com (2005)

Bitner & Booms (1981) extended the model to seven P's by adding participants, physical evidence, and process. The 'participant' or 'partners' P was to highlight the importance of the human element and collaborative channel relationships in marketing; 'process' to account for intangible service element of an offering. 'Physical evidence' or 'peripheral clues' refer to the physical surroundings this is therefore closely related to the place and promotion variables. Given that the exact number of Ps used can vary in each situation the terms marketing Ps or just Ps were preferred in this research.

Robert Lauterborn (1990) proposed a four C's model that has more of a consumer focus. This model involved the transformation of the marketing mix Ps to Cs, which was accomplished by converting Product into "customer solution", Price into "cost to the customer", Place into "convenience" and Promotion into "communication". However, this transformation added little value because it merely amounted to a renaming of the four Ps while maintaining its essence.

Given this review, the marketing mix was judged to be an ideal instrument in answering the research questions which involve evaluating the strategic marketing and competitive behaviour of the players Tshwane's fresh produce retail market

3.5 Chain Analysis

A foresighted international survey conducted by Zuurbier (1999) (in Van Rooyen, 2000) indicated that vertically integrated supply chains, networks and trust relationships would determine the structure of the food and agribusiness industry. He listed the drivers to be technology and an understanding of consumer behaviour. The report concluded that the winners in the competition for market share would be those that achieve efficiency in their supply chains. The dominance of vertically integrated supermarkets serves to verify Zuurbier's forecasts. In support of this view, Philip Kotler (2003) noted that, firms no longer only compete against each other. It is now a matter of competition between supply chains. Theorists therefore agree that players in the business environment need to focus on becoming more than islands of efficiency, but to ensure that their partners both up and down stream are equally if not more adept (Kaplinsky & Morris, 2000).

Given this school of thought it was appropriate to analyse competition within the fresh produce market in terms of competition between three supply channels/routes, namely between supplying FFV through supermarkets, greengrocers and the informal traders. However this study does not investigate the entire farm to fork supply chains and is limited to the last portion from when retailers take possession of FFV and pass it on to consumer. Thus the supply chain (SC) and value chain analysis (VCA) methodology serve as an important supporting tool. The following text puts the key concepts of the SC and VCA in the contextual of the current study.

Value chains (VC) describes the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer

services), delivery to final consumers, and final disposal after use (Kaplinsky & Morris, p.4, 2000).

Michael Porter (1985) introduced a generic value chain model that comprises a sequence of activities found to be common to a wide range of firms. Porter identified primary and support activities as shown in the following diagram:
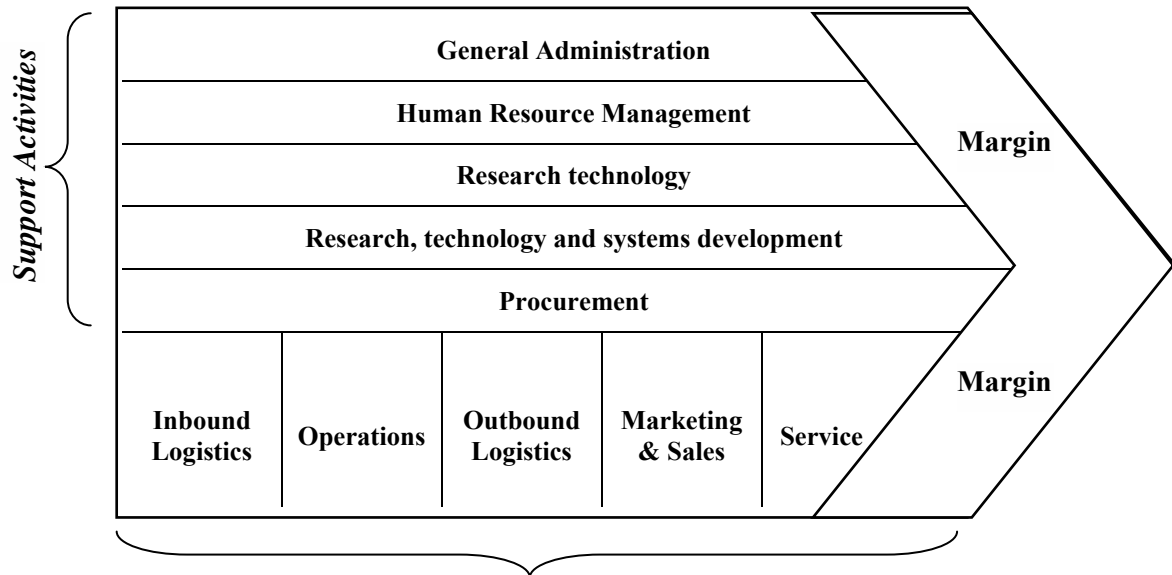
Figure 3.4: Porter's Generic Value Chain

Adapted from Porter (1985)

Van Roekel (2002) described supply chains (SC) as institutional arrangements that link producers, processors, marketers and distributors. They are forms of industrial organisation that allow buyers and sellers separated by space and time to progressively add and accumulate value as products pass from one member of the chain to the next.

These terms VC and SC describe closely related concepts. The SC is more popular in agribusiness literature as it more explicitly involves the flow (supply) of some physical product. VC is a more general term as it emphasises the importance of intangible services in the delivery of a final product. Value chain analysis (VCA) will be favoured in this text because it possesses more robust and formal analytical tools and methodology that will be of use in decomposing the fresh produce market. It also

allows for analysing the value generated at the retailer level without necessarily having to refer to upstream players.

Upgrading and improving efficiency of the value chains was named as an important aim of this research process. Kaplinsky & Morris (2000) listed four broad means by which this may be achieved using the VC approach:

Process upgrading: an introspection to improve internal efficiency

Product upgrading: introducing new products and improving existing lines

Functional upgrading: improving the mix of activities within the organisation and shifting the general focus (e.g. from manufacturing to a design orientation)

Chain upgrading: moving to new lucrative value chains

The VC model and its approaches to channel upgrading were therefore also seen to contribute to the framework through which this study will seek to analyse the three competing fresh produce retailer formats and identify possible avenues for improvement.

From a game theory point of view, the outcomes of any attempt to upgrade in a competitive environment are not guaranteed because of the range of possible reactions of other market stakeholders. From Porter's model, these stakeholders include the up and down stream players, possible new entrants, substitutes, as well as current peers within the industry. Therefore investigating the possible outcomes of each suggested upgrade to find an optimal solution would lead to a whole other research study. Thus the current study is limited to identifying opportunities for channel upgrades without speculating on the range of possible outcomes.

3.6 Quantifying Competition

Competition analysis, as with other qualitative social and managerial evaluation tools, are often labelled as *woolly* because they were not generated through rigorous statistical methods and therefore do not facilitate easy generalisation (Epstein, 1992). Thus tools that add quantitative elements and systematic structure add to shared

understanding and reduce inherent subjectivity (Taylor & Bogdan, 1998). For this purpose, three VCA tools were employed to add this element of measurement to the competition analysis. These were namely 'value chain mapping', 'critical success factor charting' and the 'factor evaluation matrix tools'. These are described in the following sub-sections.

3.6.1 Value chain mapping

Value chain maps provide a basic diagrammatic layout of a food system which forms the basis for subsequent development and analysis (Humphrey, 2005). The iterative steps involved in the mapping process are laid out in box 3.2.

Box 3.2: Value chain mapping

1. Identify about six main function/activities between the start of the production process and sale to the final customer.
2. Identify distinct marketing channels or final outlets (for example, supermarkets, wholesale markets, etc.). Choose not more than three of these (in this case supermarkets, greengrocers and informal traders)
3. Work backwards along the chain identifying the types of enterprises and participants that carry out each successive function as well as what these functions and activities entail.
4. Consider the governance relationships and inter-relationships between adjacent enterprises in the chain using the following conventions:
   - A dotted line to denote an arm's-length/ uncoordinated market relationship.
   - A single unbroken line to show a persistent, network relationship between independent firms (e.g. contractual relationships)
   - A thickened line representing vertical integration (successive stages value chain activities within a single enterprise)

Indicate areas for which adequate information is not available by placing question marks on the map.

Source: Humphrey (2005) and McCormick & Schmitz (2001).

This process produces value chain maps similar to figure 3.5 depicting Kenyan fresh vegetables export channels to the UK.
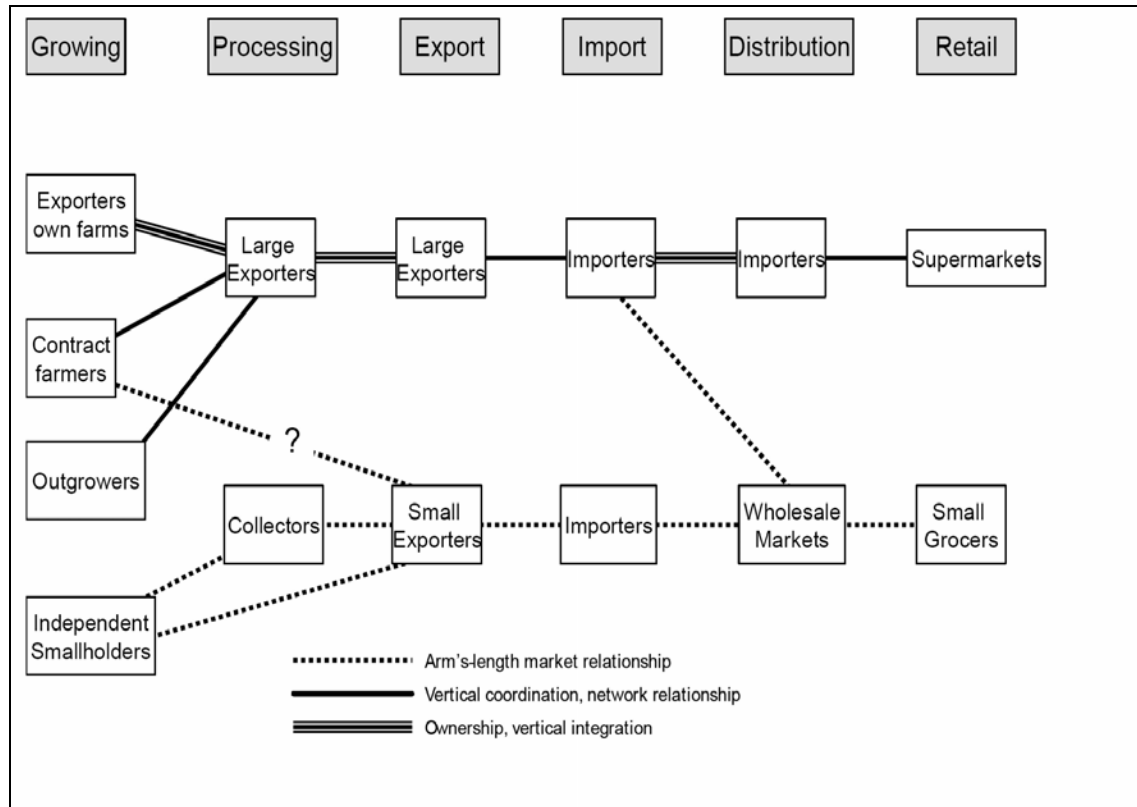
Figure 3.5: Example, the Kenya-UK Fresh Vegetables Chain

Source: Humphrey (2005)

Having carried out the first iteration, the map produced would be checked for adequacy in terms of number of stages detected; level of detail; need to divide into separate maps; the accuracy of connecting and end points; as well as its validity for all products in the defined category (FFV in this instance).

Of note though is that although the tool displays the entire farm to folk value chain and can stretch back to input sources too. This mapping tool is typically used in mapping international chains (see: Schmitz & Knorringa, 1999; McCormick & Schmitz, 2001; and Humphrey, 2005). However, given that the subjects of interest in the current study are fresh produce retailer within a city, application of this charting system to will be limited to the retail portion of the chain within this environment putting less emphasis on the production and international trade.

3.6.2   Performance charting

Polar, or `Radar' charts of performance are another important tool in VCA and competition analysis. Their power lies in facilitating a visual comparison between several quantitative and/or qualitative aspects of a situation using the same axes (poles). Thus competitive performance of an industry, channel or a single player can be judged against rivals and/or benchmarks.
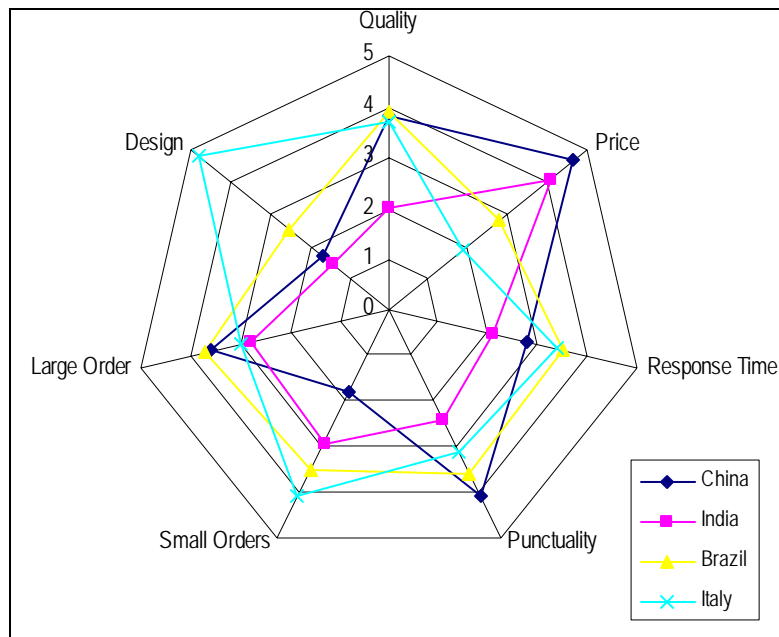
Figure 3.6: Buyer Assessment of Producer Performance (average scores)

Data source: Schmitz & Knorringa (1999)

The example in figure 3.6 is a plot of the average producer performance scores of footwear producers in four countries according to global buyers (Schmitz & Knorringa, 1999). For clarity, the number of attributes on each plot is limited to between three and eight with scales for each attribute arranged radially. The points plotted on each radius are joined to generate a shape that can be compared different entities or to perform a gap analysis between a desirable/benchmark state and the present situation to demonstrate graphically the gap between them.

This tool will therefore be ideal in the comparison of the performance of each of the FFV retail channels and in identifying the opportunities for their upgrading.

3.6.3 Factor evaluation matrix

The factor evaluation matrix (FEM) has been used in business as a means of quantifying and summarising the SWOT analysis (Ehlers & Lazenby, 2004). FEM was therefore an ideal tool to help evaluate and compare the competitiveness of the three retail FFV formats, in a less qualitative manner. The application of FEM in this study began with the inclusion of table 3.2 in the enumeration tools (see appendices 2 to 7). Note that the original form of the FEM handles the internal (strengths and weaknesses) and external (opportunities and threats) environments separately. The current application of FEM presents the two environments simultaneously with a particular focus on the marketing Ps as key strategic issues.

Table 3.2: Factor evaluation matrix for the informal FFV retailers

Strategic Issues	Importance *(Weight out by all retailers)*	Hawkers' Performance *(Out of Ten)*	Hawkers' Score *(Multiply)*
Place	α	β	χ
Price			
Product			
Promotion			
Other (Name)			
Other (Name)			
Total	δ		ε

Adapted from Ehlers & Lazenby (2004)

Generating the FEM includes firstly listing the strategic issues, in this case, beginning with the marketing mix Ps. Next step is to generate weights (α) to each factor with the total weight (δ) adding up to 1. Respondents were then asked to rate performance out of 10 (β). Then scores for each factor (χ) are calculated by multiplying weight by rate. Finally the scores are totalled to come up with an overall performance score (ε) for that business (Ehlers & Lazenby, 2004 and Frost, 2003).

Overall weights are generated collectively in order to create a peer review mechanism for each business' performance (Frost, 2003). This is done by averaging the weights out across respondents so that the performance of each enterprise is judged on the

basis of a collective weighting generated by averaging the weights assigned by all respondents.

3.7 Summary

This chapter reviewed procedures used in the evaluation of competition. This began with the view of seeing real life competition as a departure from perfect competition. Next were popular competition analysis tools such as Structure Conduct Performance (SCP) and the New Empirical Industrial Organisation (NEIO). These were disqualified for the current study due to their heavy reliance on detailed marketing data, which cannot be found particularly among the FFV greengrocers and hawkers.

Porter's forces competition model was subsequently most appropriate to serve as the overall guide to the investigation into the competition between the three channels of FFV distribution. Being mindful of market targeting, the marketing mix (Ps), the research was to use chain analysis (CA) as the operationalizing tool. CA was to be used in unpacking the retail section by identifying role-players; their relationships and interaction; opportunities for channel upgrading; as well as to account for the value they generate. The chapter further describes how associated tools - chain mapping, radar charting and the factor evaluation matrix (FEM) - would help to quantify this evaluation.

It was envisaged that the chosen set of tools; namely Porter's diamond, chain mapping, performance charting and FEM as motivated in the text; would result in the best view of competitive situation needed to answer the research questions and supply the opportunities for upgrading the chains as required to fulfil the study's objectives.

Chapter 4:   Research Methods & Procedure

4.1 Introduction

The methods and procedure chapter describes the means by which the study wishes to perform three functions which are (i) to answer the research question (how competition in FFV retail is occurring); (ii) how it would address the research objective (describe and analyse the competitive environment) and; (iii) how the research hypotheses were tested. It also serves to fulfil scientific requirement of repeatability since it is a detailed guide to allow other researchers to replicate the study whether in the same location or elsewhere.

The chapter begins by locating this study among the available methods of investigation. This is followed by a brief review of how the competition analysis framework was applied. Next is an account of how the phase 2 descriptive-cross sectional survey was conducted including a detailed breakdown of the sample design. The enumeration tool, a questionnaire-checklist, was then deconstructed followed by a discussion of the measures used to minimise the occurrence of research errors. A summary section forms the last part of Chapter 4.

4.2 Selected Investigation Type

Research can be broadly classified into two, the intervention and non-intervention studies. Non-intervention studies involve the observation and analysis of researchable objects or situations without intervening. This includes systematic observations, synthesis, and social sciences. Researchers in intervention studies, on the other hand, manipulate the objects or situations and measure the outcome of this manipulation. This includes designed experiments and system design (Varkevisser *et al*., 2003 and Rossiter, 2005). This study is thus firmly in the non-intervention category since the

researcher could not possibly affect competition in Tshwane's fresh produce retail for purposes of analysis but can only observe it in action.

After classification, the selection of the type of study in research depends on the type of problem, the state of knowledge available about the problem and the resources available for the study (Varkevisser *et al*., 2003). Table 4.1 presents the classifications of types of study according to these three decision factors.

Table 4.1: Classification of investigation according to research strategies

Knowledge of the problem	Type of research questions	Type of study
Knowing that a problem exists but knowing little about its characteristics or causes	• What is the nature/magnitude of the problem? • Who is affected & how? • What do they know, believe about the problem & its causes?	*Exploratory studies or descriptive studies*: • Descriptive case studies • Cross sectional studies
Suspecting certain factors contribute to the problem	Are certain factors indeed associated with the problem? (e.g. is low education related to low productivity related to quality)	*Analytical (comparative) studies*: • Cross-sectional comparative studies • Case-control studies • Cohort studies
Having established that certain factors are associated with the problem: desiring to establish the extent to which a particular factor causes or contributes to the problem	• What is the cause of the problem? • Will the removal of a particular factor prevent or reduce the problem? (e.g. providing training)	• Cohort studies *Experimental or quasi-experimental studies*
Having sufficient knowledge about cause(s) to develop and assess an intervention that would prevent, control or solve the problem	• What is the effect of a particular intervention/strategy? (e.g. being exposed a certain training program) • Which of 2 or more alternative strategies is more effective and or efficient	Experimental or quasi-experimental studies

Adapted from: Varkevisser *et al*., 2003

Given this classification (table 4.1), the exploratory and descriptive studies category was judged to be the closest fit to the situation in this study thus warranting further investigation.

4.2.1   Exploratory studies/ case studies

Case studies are small-scale studies of relatively short duration, and are carried out when little is known about a situation or a problem. They typically include description as well as comparison. These studies may be called exploratory case studies if they lead to plausible assumptions about the causes of the problem and explanatory case studies if they provide sufficient explanations to take action (Yin, 1984).

Exploratory studies gain in explanatory value through triangulation where the problem is simultaneously probed from different angles. For instance, in this study financial data was verified when respondents' answers to questions on turnover, profit margin, and average costs were consistent. A form of exploratory study the 'rapid appraisal' is commonly used in management and may provide sufficient information to take action. Otherwise, a larger, more rigorous comparative study will have to be developed to test differences between groups with respect to various independent variables (Briggs, 1992)

4.2.2   Descriptive studies

There are two types of descriptive studies the small-scale case studies and larger-scale cross sectional surveys.

Descriptive case studies are common in social sciences and management sciences. They involve the description of the characteristics of a particular situation, event or case. Such a study can provide quite insight into a problem. However a more extensive, cross-sectional survey is necessary if one aims to generalise the findings to the population (Moser & Kalton, 1989)

A cross-sectional survey seeks to describe and quantifying the distribution of certain variables in a study population at one point of time. Cross-sectional surveys can cover a selected sample of the population or the total population. In the latter cases they become a census. Given the frequently large number of units involved these surveys

investigate a limited number of variables in order to avoid problems with analysis and report writing. At this scale the surveys are also invariably costly (Patton 1990).

If cross-sectional surveys are smaller they can be more complex. Thus small surveys can reveal interesting associations between certain variables, such as that between level of affluence and their preferred form of fresh produce retailer. Descriptions of study population are frequently combined with a comparison of a number of groups within that population. Thus there exists a grey area between descriptive and comparative studies (Yin, 1984).

4.2.3 Selected study type

Given the appraised literature it was decided that the study of competition in fresh produce retail would best be performed in two phases. The investigation was to begin with a series of short exploratory case studies (phase 1) followed by a descriptive - cross sectional survey (phase 2). A further description of how this process was implemented and the chronology of events are described in the subsequent chapter of this report that discusses the methods and procedure of the study.

4.3 Analytical Tools

Two types of investigation, namely value chain and competition analysis, were employed as the core investigation tools in this research. Theory behind these tools was discussed in detail in the previous chapter. Highlighted below is how the two tools were subsequently used in the investigation of the nature of competition in the fresh produce retail market.

The competition analysis provided a framework that set the bounds of analysis of the competition in Tshwane's FFV industry. This was achieved by means of viewing this rivalry in terms of the five competitive forces namely: competitive rivalry within the industry, the threat of new entrants, bargaining power of suppliers, threat of

substitutes and bargaining power of buyers. The primary force of interest in this research was the intra-industry rivalry. Further detail was then extracted using value chain analysis.

In essence VCA is a descriptive tool that was used to unpack and lay out the three supply/value chains. This was achieved by firstly producing a map outlining the flow of value generating activities in the three retail channels. This chart demonstrated how and at which points each of these types of economic agents generated value. Secondly VCA sheds light on the governance and ownership structures involved in the business. It showed who owns and controls these FFV retail channels. The tool also facilitated the documentation of the relationships within and between three forms of retailers. The final step in VCA was a situation analysis (Strengths, Weaknesses, Opportunities and Threats) of the players in the competitive environment. These were geared at understanding the standpoint of each of the players and opportunities for channel upgrading.

4.4 Phase 2: Survey Sample Design

Assessment of the competitive environment and delineation of the value chains was conducted in two phases. The first was a pilot and case study conducted during the preparatory literature review stage (Chapter 2). The phase 2, presented here, included a survey of 120 fresh produce retailers in the City of Tshwane.

Phase 2 followed a systematic, although non–probabilistic, sample selection process that paid cognisance of the available marketing data and findings from phase 1. The sampling procedure was a multi-level stratification followed by a random sample of the fresh produce retailers in Tshwane. The following text presents a breakdown of how the 120 respondents in a total of six (6) sampling strata were selected.

4.4.1   Stratum 1: Population

The population of study, the FFV retailers, is found within the 2043 areas (townships, farms, suburbs, business and industrial areas) in the City of Tshwane. This therefore forms the first level of the sampling frame.

4.4.2   Stratum 2: Affluence levels

Market segmentation was demonstrated to be an important determinant of the nature of competition (Chapter 2). Therefore the second sampling stratum involved dividing Tshwane into market segments. The tool identified for this purpose was the Living Standards Measure (LSM[4]) designed and maintained by South African Advertising Research Foundation (SAARF, 2004). The LSM differentiates the South African population into ten market segments from LSM 1 to LSM 10 in order of increasing affluence. Stratum 2 of the study was created by aggregating the 2043 areas/suburbs of Tshwane into ten affluence group areas by means of calculating the dominant LSM group in each. This aggregation revealed that the lowest wealth group, LSM 1, was not populated in the city. This observation was in line with the conclusions of SAARF demographics report that stated that LSM 1 is composed almost entirely of the rural population. Thus the second stratum produced nine sample groups, LSM 2 to 10.

4.4.3   Stratum 3: Survey groups

Stratum 3 was a further aggregation of the nine LSM groups into three survey groups according to affluence levels. That is; low (A), medium (B) and high (C) income groups as shown in table 4.2.

---

[4] The construct, origins and trends of the LSM index are outlined in Annexure 1

Table 4.2: Aggregation of the nine LSM groups into three survey areas

Survey Group	Affluence levels (LSM groups)	Description
A	2, 3 and 4	Low income
B	5, 6 and 7	Middle income
C	8, 9 and 10	High income

As part of phase 1 (Chapter 2), each of the three survey areas was checked to ensure it contained a sufficient set of supermarkets, greengrocers and hawkers from which random sample could be drawn. It was found that areas A and C did not have sufficient sets of the three retail types. As a result of the observed distribution of FFV retailers and recommendations made by the key informants, it was decided that the study (and hence stratum 3) would focus on the middle-income areas (B) while maintaining the target sample size. This was achieved by reducing the sample drawn from the high and low income areas and redirecting the bulk of the survey to the middle-income areas as shown in table 4.3.

4.4.4 Stratum 4: Focal supermarkets

The aim of sample stratum 4 was to select a set of nodal/focal supermarkets in each of the sample groups (A, B, and C) through a random sampling process. To do this a sample frame was generated listing all supermarkets in Tshwane and the sampling groups within which they were located. This list was obtained from a combination of sources including business directories; the yellow pages; Mbendi online directory; memberships in retailer organisations as well as branch lists from supermarket websites. As stated in stratum 3, focus was on the middle income group B. Thus a total of 15 supermarkets were randomly selected including 13 in group B, one drawn from group A and a final one in group C. As shown in table 4.3 this selection was structured such that the targeted 120 respondents would be organised at a ratio of 1:2:5 between nodal supermarkets, greengrocers and hawkers.

Table 4.3: Phase 2 sampling units

	Supermarkets	Greengrocers	Hawkers	Area Totals
Low affluence areas (A)	1	2	5	8
Middle affluence areas (B)	13	26	52	104
High affluence areas (C)	1	2	5	8
Totals per retail format	**15**	**30**	**75**	**120**

4.4.5 Stratum 5: Greengrocers

Similar to the supermarkets case, the greengrocer sample frame involved a listing of all greengrocers and their locations in Tshwane. The difference though was that there was a purposeful sampling of two establishments within the vicinity of each nodal supermarket. Compilation of the greengrocer list was complicated by the observation that many were not necessarily registered as greengroceries but as general dealers. The additional selection criteria that at least 50% of the value of merchandise traded be FFV, helped ameliorate this problem.

4.4.6 Stratum 6: Informal traders/hawkers

As noted in the literature review (Chapter 2) just over 7% of all informal traders/hawkers in South Africa are registered with municipal or regional services councils (Statistics South Africa, 2002b). This combined with the transitory nature of the business format (Ligthelm & Van Wyk, 2004) frustrated attempts to compile a formal sampling frame for hawkers. Thus the informal trader sample units were identified mainly by means of a rolling sample where the first few near the nodal supermarket located on sight. The subsequent units were located by means of referrals. The target sample size in this case was 75 across the board including 52 in group B, five drawn from group A and another five from group C (table 4.2).

4.4.7   Overview of sample design

Figure 4.1 shows a schematic overview of the entire sample design. Of note, as shown in table 4.2, is that the selection of five hawkers (stratum 6) and two greengrocers (stratum 5) competing with each nodal supermarket (stratum 4) formed a 5:2:1 ratio.
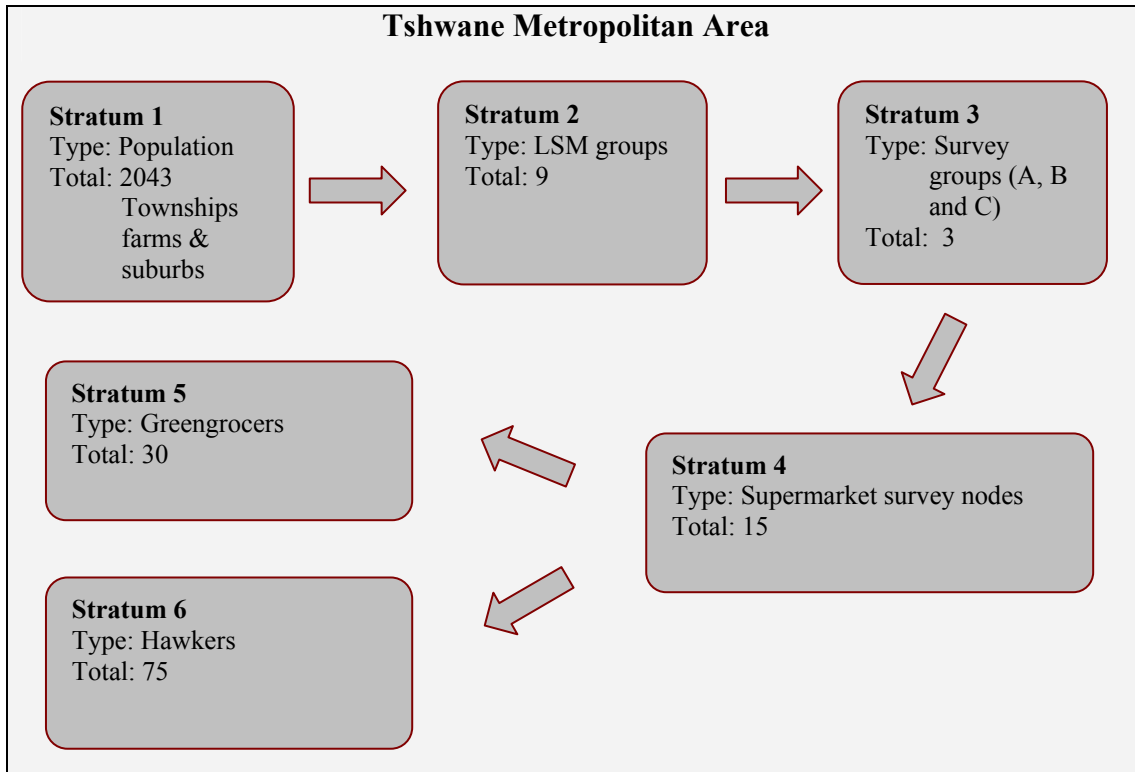
Figure 4.1: Summary of Sample Design

Also of note was that the target number of respondents sampled in per survey group was eight in group A, 104 in group B, and eight in group C. This tally totalled 120 respondents composed of 15 supermarkets, 30 greengrocers and 75 hawkers.

4.5   Design of the Enumeration Tools

The primary data collection tool in phase 2 was a set of semi-structured questionnaire/checklists (appendices 2 to 7). These were deemed the ideal tool due to the dual nature of information required from the study. On the one hand, to facilitate

comparison, there were key, often numerical, questions to be asked across the board. Concurrently, open ended questions were required to allow the enumerators enough flexibility to capture anecdotal information which was essential in capturing the more qualitative and opinion related questions on the competitive situation needed to the mapping the value chains.

Numerous guides to research stress that the quality of research is largely influenced by the quality of the data collection tools (Pretty *et al*., 1995 and Varkevisser *et al*., 2003). Thus, as recommended in the guides, the enumeration tools were developed and tested in an iterative process.

Experience and literature (Streiff *et al*., 2001 and Armstrong & Overton, 1977) notes that people generally have little patience for questionnaires and 'form filling' unless if they can accrue tangible benefits for it. This was especially true among businesspeople, the target respondents of this study's survey. Therefore minimising the questionnaire length and simplicity were important design principles. However this aim needed to be balanced with the need to for triangulation, an important facet of cross sectional surveys (Varkevisser *et al*., 2003) used to verify information and add value to the study. The use of flexible (semi-structured) interviews was also recommended especially in studies such as the present one were there is little *apriori* knowledge about the problem or situation and where the topic is sensitive/confidential as is the case in eliciting strategic business information. This semi-formal approach also reduces the problem of no response errors. Given these insights a system of six questionnaire-checklists was designed to serve as the enumeration tools in the investigation.

The six questionnaire-checklists were derived from a template developed by Louw *et al* (2004) and the competition analysis checklist (Box 3.1, Traill & Pitts, 1997). The template was modified to meet the study's information requirements and then subdivided to capture information relevant to the hawkers (appendix 2), greengrocers (appendix 3), supermarket outlets (appendix 4), wholesalers & supermarket distribution centres (appendix 5), the Tshwane Market (appendix 6) and Hawkers' Representatives (appendix 7). This was followed by further rounds of modification since some questions were not relevant to all retailer formats. The final rounds of

adjustments were performed in response to observations made in phase 1 of the study, which included questionnaire testing.

4.5.1 Questionnaire Structure

The enumeration tool was organised in such a way as to capture the following categories of information firstly identification of the study units; the marketing mix elements - which formed the core of the study; and a situation analysis.

The identification section briefly recorded the name and position held by the respondent; the establishment name and location; contact information as well as the interview date. The enumerators were also instructed to record their assigned codes and whether this trader was located in the low (A), medium (B) or the high (C) income areas.

The marketing mix section sought to record the marketing strategies employed by the respondent retailers. This included eliciting data on the respondent retailer's choice of a competitive strategy. That is, the structure of marketing mix elements (the marketing Ps) namely place, product, price and promotion. The section also included a review of the respondent's perceptions of the competitive environment and their reactions to the thereof. A situation (SWOT) analysis was performed to further understand the competitive environment faced by fresh produce traders.

The data discussed in the results chapters (five and six) may appear to have excluded some questions raised in the questionnaire-checklists. This is a result of three factors that expanded the enumeration tools. Firstly the triangulation process required that some questions be posed in different forms to check for consistency of responses. Secondly some variables were dropped because the questions and sections were not applicable to the majority of respondents and thus did not warrant attention. Lastly the interview also contained numerous qualifying questions. For instance greengrocers were disqualified from the survey if less than half of their stock was FFV.

4.5.2 Scales of measurement

In order to allow for comparison and to apply some context to the data collected it was necessary to apply a standard period within which perceptions of the competitive situation were elicited. The selected period for this survey was July 2004 to July 2005. This was to allow for a long enough period to have formed opinions about the prevailing competitive trends. Another motivation for this period was that monthly average over the period was needed. For instance questions on turnover and profit margins referred to the average monthly figure during the reference year. An implication of this standard was that one of the criteria to qualify as a respondent was to have been in business for a minimum of the one year in question.

There were numerous instances within the interview were interviewees were asked to rate a variable. One such instance was in eliciting the perceived strength of a competitor. This was performed using a scale of 1 (main competitor) to 4 (not a competitor). Although scales are considered to be analytically clumsy, the mode was selected in preference to the more conventional attitude scales, more complex bipolar Likert-type scales and Osgood's (normally seven or nine point) semantic differential scales. Statisticians recommend this simpler positive scale measure because it would be more comprehensible especially when interviewing the generally less educated informal traders and therefore would yield better results (Sangster *et al.*, 2001, Kotler p.135, 2003).

4.6 Measures to Minimise Survey Errors

Although the study had a qualitative inclination efforts were made to maximise the representativeness and hence validity of the findings. Minimising statistical errors was essential to achieving this end. Statistical theory highlights two types of errors inherent in survey data, random and systematic errors. To mitigate their occurrence and severity the following measures were implemented.

Mitigating random (non systematic) error:

Stratification of the population into the similar residential areas served by fresh produce retailers as well as treating each of the three supply chains differently would minimise the possible sampling errors. These measures are explained in the sample selection section above.

Mitigating systematic errors:

Possible systematic errors in this study could range from badly-phrased questions to a dishonest enumerator. Incidence of this type of error was minimised through a number of methods. The phasing of the study into two helped mitigate systematic errors by offering the researcher the opportunity to pre-test the questionnaire, gain an appreciation for the challenges involved in interviewing each type of business and most importantly to gain rapport among the respondents. Cases of non-response errors in phase 2 were drastically reduced due to the trust built in the first phase. Moreover, wherever possible, telephonic appointments were made to increase convenience and to reduce cases of non-response. Appointments were scheduled so as to simultaneously survey all sample units within a geographic area of Tshwane before moving to the next. This strategy not only reduced systematic errors by allowed immediate call-backs but it also reduced travel costs.

Firstly the research used a small team of three enumerators including the researcher himself. The use of the two assistants introduced the risk of systematic errors since questionnaires may be misinterpreted, falsified or incompletely enumerated. In mitigation the assistants were carefully selected trusted individuals experienced in enumeration and fellow post graduate students in agricultural economics who were conversant with the dominant local languages (Pedi, Afrikaans and English). Additional error reduction measures included a two-day training exercise was to gain a common interpretation of the questionnaires. Enumerators were also inspected by having a supervisor during their first two interviews.

Another important source of systemic error detected in the exploratory phase (Chapter 2) was the high incidence of under and over reporting particularly with regards to financial information such as monthly turnover, profit margins and costs. Although sophisticated models have been developed to minimise the effect of misreporting (Maki, 1996), these were deemed inappropriate given the scope of this study and the available data. Varkevisser *et al.* (2003) recommended that the observations be verified through a simpler process of triangulation, whenever this misreporting was suspected, as in the case of outliers. This process entailed checking the consistency between average monthly turnover (t), average profit margins (m) and average costs (c) against the following algebraic formula:

$$t \approx c + mc$$

As highlighted in Chapter 2 this error was especially prevalent among the hawkers and greengrocers indicating their reluctance to share such information.

Other potential sources of errors

Results of this survey were expected not to be readily representative of the country due to a big-city bias. The competitive situation in small towns and rural areas may differ from those in Tshwane Metro. Thus the study of competition in these environments will be left to future studies.

Despite the measures listed before some non-response errors were experienced as sampled respondents refused to cooperate. This however was concentrated among the hawkers alone. Reason for refusal was that many hawkers were knowingly operating without licences. Thus any attempt to collect information about their business was viewed with suspicion. Replacing these respondents was relatively easy in the low and middle income areas (survey groups A and B) given the large population of hawkers in most areas. However in the high income areas (survey groups C) there were cases of insufficient available substitutions in specific suburbs. These units were replaced in other similar areas. In contrast little resistance was encountered among the formal retailers with numerous requests for copies of the completed research report.

A final error reduction exercise was to perform random call-backs with sample units to verify accuracy of the information provided.

4.7   Data Entry & Analysis

Data collected using the six questionnaire-checklists (see annexure) was initially entered, verified, coded and cleaned using the Microsoft Excel software package due to its ease of handling both string and coded variables. The coded data was subsequently exported into the Statistical Package for Social Sciences (SPSS 13.0) for Windows. SPSS was chosen for its superior analysis capabilities while retaining an ability to handle the multiple forms of data collected in the survey. SPSS was therefore used to calculate all frequency and descriptive statistics as well as most graphical presentations presented in the findings chapters. Supplementary charts, such as the chain mapping, were generated either in the Microsoft Excel or Microsoft Word software packages due to their compatibility with the final document layout and that unlike SPSS they permitted post production editing.

4.8   Summary

This chapter described the procedure by which the research tools were operationalized to answer the research questions, meet the research objectives, test the hypotheses and thus to achieve repeatability. Competition analysis was briefly discussed in terms of how it was used in the study. Next was an outline of the sample selection process used in phase 2 survey. This was followed by an account of the contents and design of the questionnaire-checklist (appendices 2 to 7) as well as the measurement conventions used. The final section discussed the measures used to minimise the occurrence of errors in the research.

Chapter 5:   The Marketing Mix in Action: Findings & Discussion

5.1 Introduction

This chapter discusses the results of the second stage of the investigation, which was a survey of the competitive environment in the fresh fruit and vegetable retail sector of Tshwane. The chapter contributes towards meeting the study objective, to describe and analyse the competitive environment, and especially the first sub objective (Chapter 1) by; firstly, substantiating some anecdotal phase 1 findings by establishing some indication of their prevalence; and secondly by providing a more systematic review of the competitive environment by applying the frameworks of marketing mix analysis, Porter's forces to a broader set of industry respondents than the key informants in phase 1.

Execution of phase 2 involved a series of interviews held with a total of 120 fresh produce traders in Tshwane including 15 supermarkets, 30 greengrocers and 75 hawkers. A detailed description of the sampling frame is provided in the methods and procedure section (Chapter 4).

This chapter is organised to respond to the research objective by presenting survey findings in an order that address each of the supporting objectives (stated in Chapter 1). It begins by evaluating the competitive and strategic behaviour of players in the three forms of fresh produce retail. Thus findings on how the players tweak their marketing mix (place, price, product, promotion, people and processes); target market segments and how they perceive their competitors are presented. Once again a summary of the main outcomes forms the concluding section of chapter.

5.2   Location & Distribution (Place Variables)

This section deals with first of the Marketing Mix Ps – Place. It analyses the group of variables pertaining to and related to the influence of business location and distribution on the competitiveness of the FFV retail enterprises.

5.2.1   Selection of trading sites

Most of the sampled FFV hawkers (72.4%) stated that they sought to locate their businesses at a prime or busy site. This included transport links, flat residents and customers visiting the nearest malls and shopping centres. For the balance, location was simply a function of where stalls were assigned by the municipality. Secondary but important motivators for location were that of following the customers and were other traders had been successful. All responses indicated that main driver for trading location among informal traders was the presence of high volumes of traffic and this included both motor and pedestrian. This is similar to findings in previous studies including Motala (2002) and Ligthelm & Van Wyk (2004). Statistics South Africa (STATSSA, 2002b) also found that the modal motivation for informal business location was near customers however at a lower average of 58.0%.

As established in phase 1, informal traders operated from a variety of locations that may be classed into fixed, semi-mobile and roving. Fixed location traders formed the majority, 89.5% of the sample. Their stall sizes varied from one to twelve square metres ($12m^2$), the modal size being four square metres ($4m^2$) and with the mean at five square metres ($5m^2$).

Greengrocer locations were chosen mainly for two related reasons. These were to access large customer bases (53.8%) and accessibility (26.9%). The remaining 19.2% had merely occupied the first available space. Popular locations were therefore shopping centres (50.0%); close to shopping malls 36.7%; hospitals and other large institutions (6.8%); and main access routes and intersections (6.6%).

As shown in figure 5.1 supermarkets were located near shopping malls (40.0%), in shopping malls (33.3%), at neighbourhood centres (20.0%) and at train stations (6.7%).
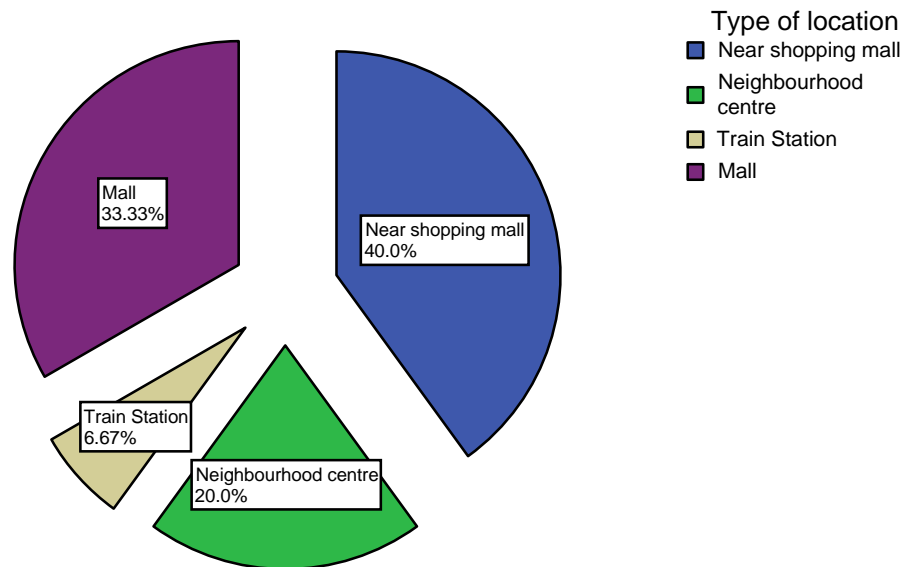
Figure 5.1: Supermarket location types in Tshwane

The majority (66.7%) of the supermarkets were corporately owned. This meant that the store location decision had been taken at corporate level. Thus the interviewed store level managers were usually ignorant of the motives behind store location. However, according to their tallied speculations, 46.2% of store sites were chosen to access a prime area like a transport link or an area with dense population. Other motives included finding a convenient and accessible site (30.8%); available space (15.4%) while a few had merely taken over an existing business (7.7%). Therefore, and similar to both greengrocers and informal retailers, supermarket sites are primarily chosen to tap into existing customer bases. It is also feasible that shopping complex developers target supermarkets and other retail chains to secure a stable set of branded stores as tenants.

5.2.2 Trading space

Size of trading areas devoted to FFV indicates the level of commitment to the sector, and limits the product range on offer. Thus it also affects turnover, profitability and competitiveness of a venture.

The size of hawker trading stands varied from one to $12m^2$ in size with a mean and mode of 4.79 and $4m^2$ respectively. The limiting factor to size was primarily the area that could be operated by a single individual. Hawker stalls that were less than $4m^2$ were typically limited by available space.

Modal store size of greengrocer was $200m^2$ (25.8% of the sample) with a range of between 40 and 375 square meters. These areas were limited by the physical property sizes forcing the booming businesses to minimise aisle space and place some produce on pavements adjacent to the store. The majority (48.4%) of the sampled small businesses were located in neighbourhood centres, 35.5% were in shopping malls while the balance (13.3%) were in other locations including near hospitals, and converted caravans. Similar to hawkers, the majority (83.9%) of respondents among the greengrocers stated that the choice of store location was primarily to tap into an existing large customer base. However 16.1% stated that they had purchased failed businesses thus had no real control over their location and they were merely seeking any "available space". Only one incidence of store relocation was recorded and this was because the business had failed in the previous location.

The size of fresh produce sections in supermarkets ranged from 30 to $266m^2$ with a mean of 135 m^2. This meant that the area dedicated to FFV was, on average, smaller in the supermarkets than in the greengrocers, which averaged 188 square meters.

5.2.3 Establishment ages

The range of ages of establishments within a business format can be viewed as an indicator of the success rates, ease of entry and exit, future prospects as well as the attractiveness of the sector to budding entrepreneurs.

Mean age of informal traders' businesses was a relatively young six years with almost a quarter of the sample having been in business for just over a year and the first half concentrated in the one to four years old group. Numerous cases were also excluded from the sample because they fell below the one-year minimum required to participate in the survey. However the range of business ages was wide stretching from one to twenty (20) years in operation with 20% of the sample being over ten years old. A study into the regulation of informal trade in Tshwane (Ligthelm & Van Wyk, 2004) found a similar low modal age informal businesses. This can be attributed to an apparent ease of entry and exit in the sector as well as an apparent gradual relaxation of the enforcement of by-laws and reduced harassment of informal traders since the end of apartheid in 1994 (Motala, 2002). Contrary to findings in the current study, Ligthelm & Van Wyk (2004) found that informal business ages were more evenly spread. Their divergent result may be a result of a dissimilar sampling frame as their investigation was not limited to the fruit and vegetable hawkers as is the case here.

The greengrocers group was found to be composed of relatively old businesses with average of 23.7 years in operation with the youngest business being 5 years old and the oldest at 70 years. The low incidence of new entrants and the numerous instances of fail businesses among this group may indicate that the sector is atrophying. This was consistent with expert views that the small independent greengrocer format was in decline (Roos B., 2006, personal communication).

The supermarkets also had a fairly old set of stores ranging from 3 to 75 years with over 60% of the cases being at least 10 years old. However from a portfolio analysis point of view (such as the BCG Matrix), supermarkets had a comparatively balanced set of store ages. That is, one quarter of stores being between 3 and 6 years old, a

second quarter up to 15 years old, the third up to 26 years and the last quarter between 27 and 75 years old.

5.2.4 Ownership structures

The ownership and management structure of a business has important implications for instance on the access to finance needed for any venture to expand. Bankers and investors alike are more willing to put money into publicly owned corporations than in a sole proprietorship let alone into an informal one. This subsection looks into how FFV retailers in Tshwane are owned and run.

As illustrated in figure 5.2, at 40.3%, partnerships were the most prevalent ownership structure among FFV hawkers followed by independent the owner operated (35.5%) and family alliances (19.4%). This finding deviated from that of Ligthelm (2006b, p.32) who found owner operated businesses in FFV retail to be at 91.1%. The difference may be due to a differing classification of ownership as that study was only concerned with whether the respondent was an owner or employee.
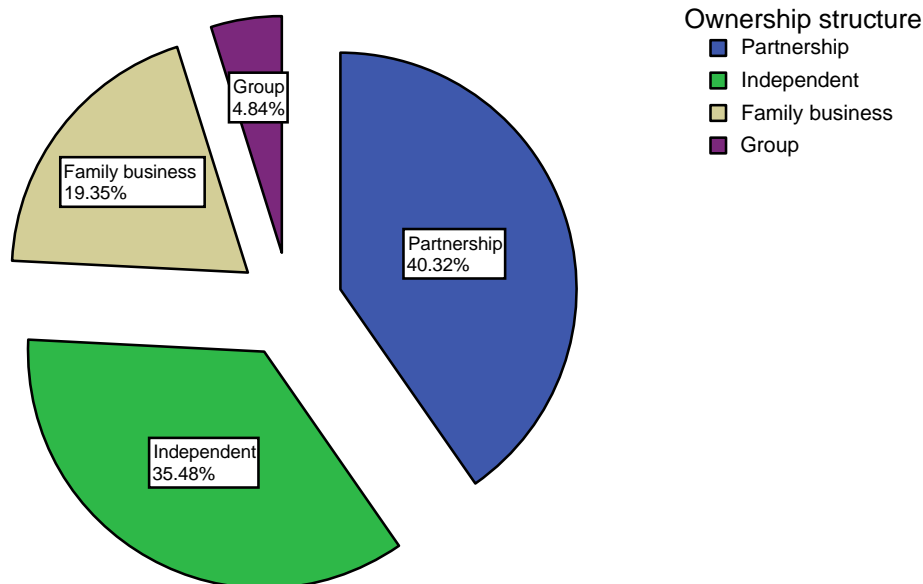
Figure 5.2: Ownership structure of informal FFV retail businesses in Tshwane

Of the informal FFV retailer businesses approached, hired employees operated 27.4%. Otherwise over half of the ventures were owner operated including 51.6% single proprietors and 21.0% run by one of the partners. This also confirmed the, albeit none-quantified, observations in Motala (2002) that the hawker trade was either owner operated or run by employees (*bambelas)*.

None of the greengrocers were part of retail chains or franchise groups. Family businesses was the dominant ownership structure accounting for 61.3% of greengrocers and the balance, 35.5%, classified themselves as independent retailers. The high incidence of independent and family ownership supports the assertion made in the problem statement (Chapter 1) that the greengrocer sector was highly entrepreneurial. In addition, an impressive 40.0% of the greengrocers stated that they had more than one outlet. Among these, two outlets in the group accounted for the modal (50.0%) of the stores with more than one outlet. The largest number of outlets reported was four and this was 12.9% of the subgroup. However none of the ventures had ventured beyond the country's borders.

In summary therefore, the majority of the supermarkets were corporately owned with the rest being franchises and family owned businesses. Similar to greengrocers and informal retailers, supermarket location was primarily chosen to tap into large existing customer bases.

5.3 Turnover, Costs, Margins & Pricing (Price)

This section presents the results of enquiries into how FFV retailers in Tshwane used the second market mix element, pricing, in their competitive strategies. This includes the issues of turnover, cost of sales, profit margins and pricing. However, before presenting these results it is important to reiterate (as in Chapter 2) that eliciting financial information was a particularly delicate challenge. Financial data was often under or over stated for various strategic and economic reasons. For instance profits could be understated to avoid taxes or to access possible assistance. On the other hand, incomes may be overstated to impress peers or to intimidate competitors. As

described in the methods chapter, this potential research error was mitigated by checking for consistency of responses as part of the triangulation processes.

5.3.1 Turnover/income

Turnover refers to the amount of money retailers received for their goods and services (revenue in US English). It is also termed income in the case of individuals. This value is an important indicator of the relative volumes of business handled by each of the retailers. An interesting note about the definition is that the distinction between profit and turnover was not always apparent among the informal traders. The variable often needed to be calculated by adding their reported costs to profits. Conversely, many fresh produce managers in corporate supermarkets were only aware of, and were judged upon, trends in store or section turnover and not profits or costs. This was a symptom of store level managers being excluded from the pricing and margin setting decisions.

Turnover for informal traders varied from R600 to R63 515 per month and averaged at R15 538 per month. As shown in the scatter plot, figure 5.3, the cases were somewhat evenly spread throughout the range of values. The first quartile of the respondents had turnovers between R600 and R2 126, the second quartile was up to R9 778 and the third set was at R25 718. This spread illustrated the variety of types of informal traders in existence from the survival to successful types. This result was different from findings in Ligthelm (2006a) whose average turnover was R2 357 for FFV with only 7.1% of the sample exceeding R10 000. A possible reason for the differences is that his sample was concentrated in the low income townships while the current study focused on the middle income suburbs.
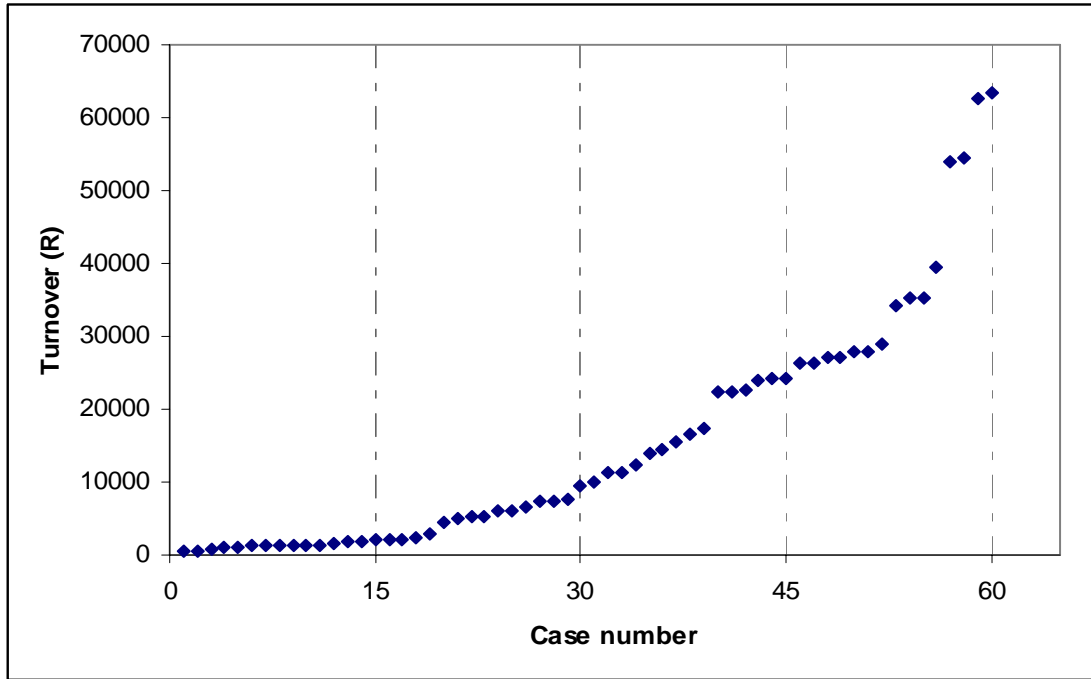
Figure 5.3: Monthly turnover of Informal FFV retailers in Tshwane

Among the greengrocers' turnover varied from R21 000 to R400 000 per month with an average takings of R165 521 per month. Wider gaps can be seen in the distribution of incomes (figure 5.4) but this could merely reflect the small sample size.
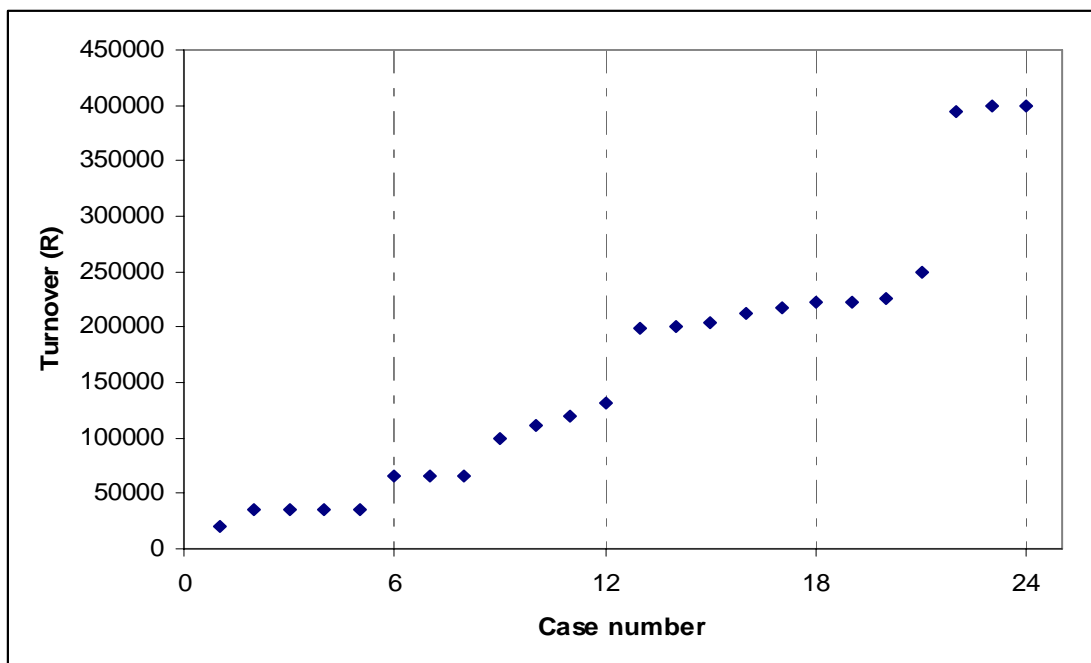
Figure 5.4: Monthly turnover of Greengrocers in Tshwane

Supermarket turnovers for their fresh produce sections started out lower than the greengrocers ranging from R7 000 to R1.5 million per month but had a higher average of R480 692 per month. The low minimum turnovers illustrate the point made by key informants that FFV was a loss-leader component of some outlets. The focus was on maximising the consumers spending on the 'shopping experience' rather than on individual store sections. A successful strategy when one considers the overall turnovers reported in table 2.1. An additional contributor to the low minimum turnovers was that, as shown in the place variables section (above), the greengrocers were on average larger than the supermarket FFV sections. Thus they carried more variety leading to higher turnover.

The relative sizes of the three FFV market players are apparent from the average turnovers with supermarkets dwarfing the rest followed by greengrocers and informal traders being smallest on average. Interestingly the ranges of turnovers show considerable overlap in these sizes given that there were large informal traders whose FFV sales outstripped those of some of the small supermarkets.

5.3.2   Pricing strategies & mechanisms

Marketing margins (mark-ups) charged by retails are a key leaver used by retailers to adjust their final prices and thus have an impact on their competitive position. The retailers confirmed the literature that all FFV prices were derived from average produce market (TM and JPFM) prices, which are driven by supply and demand. As a result prices at retail level fluctuated seasonally in the long run albeit at a less volatile rate. Although marking up was not the universal pricing mechanism as shown in the subsequent text, it was a convenient parameter for comparing pricing behaviour across the three FFV channels.

Table 5.1 presents a summary of informal traders' pricing behaviour for the select list of reference products. For the fruits, the mean mark-up was 25.3%; for apples it was, 41.1%, and 29.8% for bananas. For the vegetables the mean mark-up was 25.4% with 29.4% being charged for potatoes, 26.8% for tomatoes and 45.5% for onions. Across

the board the absolute minimum margin was 8.0% charged for tomatoes. However the average minimum for all six products was 9.5%. The maximum was 125.0% on the purchase price charged for oranges with an average maximum margin of 83.7% across the product lines. Over half the respondents (50 percentile) typically charged a mark-up below 25.0% except for tomatoes, which were at 22.5%.

Table 5.1: Average mark-up rates on selected FFV among hawkers

		Apples (%)	Oranges (%)	Bananas (%)	Potatoes (%)	Tomatoes (%)	Onions (%)	FFV Average
Mean		25.28	41.07	29.78	29.40	26.84	45.47	32.97
Mode		15.00	15.00	15.00	15.00	15.00	15.00	15.00
Minimum		10.00	10.00	9.09	10.00	8.00	10.00	9.52
Maximum		50.00	125.00	75.00	69.60	70.00	112.50	83.68
Percentiles	25	15.00	15.00	15.00	15.00	15.00	15.00	15.00
	50	25.00	30.00	25.00	25.00	22.50	25.58	25.58
	75	32.00	66.00	42.38	44.74	35.29	48.14	48.14

Of note was that at face value hawker prices were very sticky. This was a symptom of their mode of price setting. They would first set an offer price, which was a round figure to the nearest 50 cents. The traders then calculate their returns from sales so that the amount would covers costs plus a profit. Rather than varying their prices in response to wholesale price fluctuations, hawkers adjusted bundle sizes while keeping the price constant. That is, by packaging less fruit per package or packing a mix of FFV when their respective prices were offsetting each other. Collusion in pricing was witnessed whenever hawkers traded in close proximity. However a single city block was considered enough to allow for independent pricing. Another observation was that mark ups were also added through a complex and rather irregular process. That is, a group of traders at a single location would decide to add a fixed amount of profit, say R10, to the wholesale price of a crate of produce and would proceed to repackage the produce so as to reach that target final profit.

As shown in table 5.1, the mean mark up for the selected FFV was 44.7% in greengrocery stores. The floor rate for mark ups was 10% across the board while the maximum rate was between 70% and 80%. The percentiles section of the same table shows that over half the respondents kept their mark-ups below the 50%.

Table 5.2: Average mark-up rates on selected FFV among greengrocers

		Apples (%)	Oranges (%)	Bananas (%)	Potatoes (%)	Tomatoes (%)	Onions (%)	FFV Average
Mean		43.74	40.04	34.74	45.96	40.43	45.33	41.71
Mode		70.00	50.00	60.00	80.00	80.00	80.00	70.00
Minimum		10.00	10.00	10.00	10.00	10.00	10.00	10.00
Maximum		70.00	70.00	60.00	80.00	80.00	80.00	73.33
Percentiles	25	20.00	20.00	18.00	20.00	16.70	19.12	20.00
	50	50.00	50.00	35.00	50.00	35.00	45.00	50.00
	75	70.00	55.00	60.00	80.00	80.00	70.83	80.00

An interesting note was that greengrocers typically reported that their pricing procedure was to charge a fixed mark up on all fresh produce except in exceptional cases when they ran promotions in the form of price discounts.

As expected, the supermarkets store level managers in corporate stores were typically unaware of, or in some cases unwilling to divulge their pricing procedures and/or mark-up rates. Efforts to source this data at corporate level proved even less fruitful due to confidentiality. The independent supermarkets were the primary source of cost and pricing related data although they also on occasion chose to pass the finance related questions. Given that the sample was already small for supermarkets these non-response error made the results even less representative. With these data inadequacies in mind it was found that supermarket margins ranged between 10.0% and 50.0% with a mean and mode of 22.5% and 15.0% respectively.

Although it was possible to obtain secondary information on supermarket price and cost spreads from data mining agencies such as ACNielsen and Planet Retail, this route was not pursued due to a number of compatibility issues. Firstly, and as the authors (ACNielsen, 2006) admit, this data was generated by 'integrating information from a variety of sources' and not from direct observation. Hence the information had reliability problems associated with merging data sources. Secondly the data was not specific to the sampled nodal stores or LSM areas of Tshwane as the sampling frame demanded (Chapter 4). Thirdly, accessing the data involved significant subscription

fees which were beyond this study's budget. Therefore this avenue was left for pursuit in future studies.

The Food Pricing Monitoring Committee (DoA, 2004) also reported (based on ACNielsen data and their own survey) that fresh produce prices were generally stable aside from seasonal fluctuations. They also did not specifically refer to price spreads between different types of retailers. The subsequent update of this publication (NAMC & DoA, 2006) came closer to being statistically relevant to this study. However, its farm-to-retail price spreads included the contributions of food manufacturing, distribution, wholesaling as well as retailing (NAMC & DoA, 2006, p.10-11) rendering those figures too broad for use in the current assessment.

Generally, this sub section showed that the hawkers charged both the highest and lowest margins for FFV. This is in contrast to assertions by Van Zyl & Conradie (1988) that (for avocados) supermarkets were consistently cheaper followed by greengrocers and hawkers being the most expensive channel. Of note, however, was that the authors were surveying consumer perceptions and did not substantiate this perceived pricing hierarchy.

5.3.3 Cost structures

The way in which costs of trading are incurred has a significant bearing on what pricing the retailers' can afford; their revenues; profitability and thus on their competitiveness.

Hawkers on average incurred running costs of R20 419 with a wide range from R1 550 to some R61 289 per month and these were dependent on the scale of operation. Procurement of stock was generally the top expense in the informal FFV trade and on average constituted 88.7% of the costs. This was similar to findings in Ligthelm (2006b) and this was because hawkers paid little if any overheads. Another important cost was that of transportation averaging at 6.6% of the costs. Two other frequently occurring costs were stall rentals and packaging, which accounted for 2.0% and 2.3%

of costs on average. Other costs including electricity, hired help, storage, taxes and licence costs rarely occurred.

Greengrocers spent between R21 000 and R125 000 on monthly expenses averaging at R84 435. Inventory was also the largest single cost item but on average constituted less than half (41.6%) of reported costs. Other important costs as a percentage of the total were staff (22.9%), rentals (20.2%), taxes (11.8%) as well as repairs and maintenance (12.0%). Some other comparatively lower costs were as transportation (5.1%), packaging (6.1%), and utilities at (7.1%).

Once again the supermarket respondents displayed low response rates. From those that answered the range of monthly costs was between R68 494 and R300 000 with an average monthly cost R145 663 for the FFV sections alone. Rentals featured as the main cost item accounting for 15.0% of the total followed by staffing salaries (11.4%) and utilities (11.0%). Inventory featured at a low 6.5% of monthly costs but this was partly because many of the main costs such as salaries and utility were bundled costs and thus could not be charged to FFV section in their entirety. It is notable here that the literature review (Chapter 2) established that supermarkets enjoyed scale economies associated with central bulk buying and sourcing from farmers.

The overall observation was that the informal sector had the significant advantage of having little if any overhead costs. This is especially true when compared to corporate retail stores that not only needed to cover store level costs but a portion of the corporate overhead and staff costs too. This could potentially erode their scale economies. The situation for greengrocers differed in that they avoided the corporate costs by conducted all administrative tasks at store level and this was typically the role of owner-managers thus leaving more funds for operational activities. On the other hand the greengrocer overheads and staffing costs were still quite high, constituting at least a fifth of the monthly bills. In addition they had limited scale advantages over the hawkers.

5.4 The Offering (Product)

Results of data on the next P of the Marketing Mix 'product' are presented in this section. This pertains to the means by which competing channels manipulated the physical offering in order to maximise their market share. This included modification of form, sourcing and the associated services.

5.4.1 Processing

Value addition on the product offering has the important benefit of adding variety, increasing shelf life, which broadens access to the customer base by personalising the products to their needs and allowing more time for the sale and thus if used effectively improves competitiveness.

The array of value addition activities, reportedly performed by retailers at store level, included packaging (breaking bulk), washing, cutting, freezing, and ripening. Over three quarters (77.8%) of hawkers, half (51.6%) of the greengrocers and a third (33.3%) of the supermarkets were performing at least one of these processing activities. Of note however was that all supermarket chains stated that they performed some value addition activities at distribution level. Therefore the 33.3% highlighted before referred to supermarkets performing value addition at store level.

Repackaging was the predominant activity among those that did perform some processing activities featuring in 98.0%, 93.8% and 100% of the cases for hawkers, greengrocers and supermarkets respectively. This activity was primarily a bulk breaking exercise where products were brought down to household sized portions. As stated before, this repackaging process was closely linked to the pricing strategies. Package sizes and assortments were such that the targeted profit margins were reached. All respondents who performed the repackaging activity accepted that it had a positive effect on sales. This perceived effect was intuitive to hawkers and greengrocers since none had empirically evaluated the efficacy of the processing activity. Some store level management at supermarkets that performed processing in-

store also could not explicitly state the effect of repackaging on sales. Where they did answer this question the responses were guesses of 100% and 50% sales increases.

The only other processing activity hawkers performed was washing and cleaning and this was done in 5.9% of the cases where some processing was performed. Just over a tenth (11.1%) of processing greengrocers also performed washing, cleaning and pre-cutting of FFV in-store. Among the processing supermarkets 60.0% did washing, cleaning and pre-cutting[5] and 40.0% also produced their own frozen FFV.

5.4.2 Supply sources

The source of FFV stocks has an impact on the possible margins that can be earned, quality sold, shelf life and thus competitiveness.

Tshwane market (TM) was a clear favourite supply source for informal traders with 85.5% sighting it as their primary supplier and none of the hawkers who could access TM used it as a secondary supplier. Marabastad satellite market was the supplier of choice for 14.5% of the hawkers. These were mainly the informal traders moving smaller volumes (average monthly turnover below R10 000). A third (33.3%) of hawkers who had a secondary source sighted Marabastad market as their secondary supplier but the remaining majority (66.7%), bought supplies direct from farmers in the Brits area (in the surrounding North West province) as the secondary inventory source. The primary drivers for supplier selection were quality (30.2%), low prices (17.5%), proximity (3.2%) and ability to buy as a group (9.5%). The remaining 39.7% of the hawkers could not state any reason for their choice. Being cheap or having the 'best deals' was the secondary reason for source choice in 18.1% of the cases with being nearest featured 3.2%. The remaining respondents had no secondary source selection criteria to report. Informal traders also stated that the procurement practices, choices and perceptions did not differ by product thus the presentation of results as FFV rather than on a target product basis.

---

[5] Where FFV is presliced and packed in 'ready to cook' portions. This may be fresh or frozen FFV.

Nine out of every ten greengrocers favoured TM (90.0%) over Marabastad (10.0%) as the primary source of trading stock. Johannesburg FPM was the only secondary market identified by only 9.7% of the sample. JFPM was only visited after there were critical stock-outs at the TM or in cases where the trader happened to be collecting other stocks in Johannesburg. Surprisingly and unlike hawkers, most greengrocers (38.7%) highlighted distance to the market as their first sourcing criteria over quality (9.7%). Prices and 'choosing the best deals' featured as the most important consideration in 9.7% of the cases. Similar to hawkers, greengrocers showed no differences in policies on a product-by-product basis. They did however stress that quality gained prominence when sourcing the more sensitive leafy vegetables, exotic lines and products with short shelf lives. Surprisingly, few respondents identified secondary criteria for source selection and there was a high incidence (41.9%) of 'I don't know' or non-response answers. This was attributed to interview fatigue, as procurement issues were one of the last topics raised.

Only two supply sources were highlighted at supermarket store level management. These were 73.3% from buying centres and 26.7% from TM as the primary supply source. Corporate buying centres were identified as the only secondary source of FFV for 13.3% of the cases, while the balance did not procure from any other sources but the primary one. Similar to the previous two channels, there were no product specific procurement strategies. Managers of corporate supermarket in Tshwane stated that they had no choice over selecting a supply source because the corporate policy was to purchase all FFV through the corporate buying centres. Although franchised stores had more freedom over supply source they found that the buying centres offered the best deals and thus only used produce markets in cases of stock-outs of key produce lines. Non-syndicated supermarkets behaved similar to the greengrocers and primarily patronised the TM and Marabastad markets.

The findings presented in this section confirm the overall dominance of FPMs, and particularly Tshwane Market in this case, as highlighted in the literature review (Chapter 2). What was interesting was the importance of the secondary, Marabastad municipal market, as a FFV supplier for hawkers, greengrocers and independent supermarkets. Although prices at this secondary market were higher since Marabastad sourced produce from the TM, it was chosen over TM because the TM favoured bulk

customers and that TM ran out of stock very early in the morning since its trading hours were between 03h00 and 10h00. These were important considerations especially for traders that moved small volumes of FFV and/or had no access to their own/reliable transport. Another interesting overall observation was how frequently hawkers could not state their reasons selecting any particular product lines beyond the experience that certain lines sold more than others. Greengrocer operators and more so, supermarkets were more aware of the comparative attributes of their produce lines in terms of flavour, texture, nutritional content, cooking qualities and shelf life. This knowledge made them better able to target their offering to particular market segments. For instance one greengrocer near a school stated that when stocking apples he focused on the sweeter varies of apples that were popular among the school children.

5.4.3 Procurement arrangements & relationships

This sub-section discusses findings regarding the means by which retailers interact with upstream suppliers. This is with regard to transaction modes and their interaction with suppliers.

All informal traders in the survey stated that they did not enter into any form of contracting verbal or otherwise with suppliers. Some sighted loose social relations with 'friendly agents' at the produce markets but were quick to point out that they always shopped around for the best deals despite these relationships. All respondents also stated that they always paid for merchandise on a cash-on-delivery basis. Almost all (96.8%) of the surveyed hawkers stated that they faced predetermined produce prices. The 3.2% that was able to negotiate for lower prices only did so occasionally and this was when they purchased as a group.

Although informal traders highlighted an array of problems they faced while procuring stock, the majority (52.3%) could not identify any problems. Top on the list of problems was the fluctuating prices sighted in 17.5% of the cases. This was a major problem because the hawkers' clientele was highly price inelastic thus any price changes had to be absorbed at retail level. Other priority problems included failing to

secure lower bulk purchasing prices (11.1%), poor and inconsistent quality (9.5%), early market stock-outs (6.3%), perceived racial discrimination (3.2%) from market agents. Secondary problems were merely a repetition of the above list and only 9.5% of the hawkers sighted more than one procurement problem. The majority (54.9%) of the valid cases said they did nothing to resolving these problems while 13.5% stated that building rapport with market agents helped. Some 9.5% made sure they compared prices and inspected produce received in an effort to avoid quality problems. With regards to the stock-outs the only recourse identified was to wake up earlier.

All greengrocers sampled also stated that they operated on a cash only basis with their suppliers. A lower than expect 20.0% stated that they were in a position to negotiate terms of trade with suppliers. The majority 80.0% were faced with predetermined prices. The same 20.0% of greengrocers stated that they entered into verbal contracts with the suppliers. The contracts primarily related to reserving quantities of stock or certain grades and were then purchased at prevailing market rates. Half of this group (10% of the total) stated that prices were also secured as part of the verbal contracts. Interestingly, most (80.6%) of the greengrocers could not think of any problems relating to their supply source. The balance sighted poor security as their top concern and this was at the produce markets. The only other concern was the inconsistent quality offered for some produce lines. Half the complainants stated that they felt powerless to resolve the problem while the other could resolve the quality problems by returning the products.

With regards to the supermarkets the procurement relationships depended on FFV the sources. This resulted in three distinct groups (and thus sets of data) pertaining to corporate, franchise and independent supermarkets. Since the supermarket sample was the small (15 respondents), it was deemed necessary to drop the statistics and report on the results in an anecdotal manner.

Corporate supermarket sourcing decisions were performed at the buying centres. Thus store level management were ignorant of most procurement issues and problems. Results of enquiries with the buying/distribution centres (DCs) were presented as part of the exploratory study in Chapter 2. Store level managers did however state that they faced intermittent problems with regard to quality and late deliveries. DCs were

able to take advantage of on-season price slumps to stock up on those product lines and then progressively release them to the outlets. The downside however was that if a farmer resided next to a chain outlet they normally could not sell directly to that store. The produce was typically transported to the central DC only to be shipped back to the same outlet. Besides the increased logistical costs the system also increased the time from harvest to presentation for sale. This was a problem since food technologists agree that fresh produce loses nutrients and hence quality over time (unless frozen).

Independent supermarkets faced a situation similar to greengrocers but none were able to negotiate prices received because their volumes were even lower than that of the greengrocers. They also did not secure contracts with suppliers beyond general rapport with preferred agents. Other procurement problems highlighted were stock-outs, the power of agents in determining terms of trade, and the high frequency of FFV price fluctuations. Independent outlets also implemented remedies similar to those of the greengrocers. These solutions included developing preferred agents, checking quality of purchases and returning spoilt purchases.

Size of transactions therefore a critical factor in securing favourable terms of trade. This finding concurred with Louw *et al*. (2004) who found that although FPM agents strove to give similar terms of trade to all clients, there were clear benefits associated with securing the larger volume buyers. Thus extra effort was made to secure these deals including lowering prices, reserving better quality for them and an overall preference for them. A personal relationship with market agents was also revealed to be critical to the level service received. For instance building such a relationship ensured that a buyer received better prices, was able to return spoiled stock and was assured of stocks even during the periods of shortages.

5.5 Communicating the Offering (Promotion)

The last marketing mix variable, promotion is presented in this section. This text highlights how players in the three competing retail formats used the tools and

methods of creating awareness of their products and services and thus encouraged patronage.

In general hawkers relied on personal selling and other forms of promotion that did not involve a direct payment. The promotion strategies sighted as 'primary' included announcing the FFV and the attributes to potential customers (39.7%); an attractive, carefully arranged and clean display (38.1%); building rapport especially with regular customers (6.3%); as well as offering free samples (4.8%). Many of these same answers were repeated as secondary strategies including good customer relations (4.8%), attractive displays (3.2%) and announcing (3.2%). A few (3.2%) of the informal traders and especially those in residential areas stated that they offered limited monthly credit to preferred customers. Similar informal credit sources were highlighted in Motala (2002). A sizable proportion (11.1%) stated that they did not perform any active promotional actions. Also of note was that none of the promotional efforts were product specific.

The most favoured promotional mechanism among the greengrocers was price discounts (specials). This was sighted as the primary strategy in 64.5% of the cases. Although specials were, for the most part, applied to fast moving FFV lines (tomatoes, onions and potatoes) they were also implemented to the slower lines particularly when that line's prices fell at the market. This was particularly the case when products such as mangoes and oranges came into season. A number of greengrocers (19.4%) highlighted the print media (advertisements, flyers and posters) as their primary promotion method. Comparatively few (3.2%) considered attractive displays their first line of promotion. The balance (12.9%) of greengrocers was not actively promoting their businesses. Specials featured as the only a secondary promotional activity in 19.4% of the cases with the balance sighting none.

Corporate supermarkets were seen to use the full array of mass marketing tools from, television and radio promotion to print advertising and publicity. These activities were conducted at regional and national levels and were usually not specific to FFV promotion but aimed at promoting the store brands. Thus corporate supermarket FFV promotion as was primarily conducted at outlet level similar to the non-syndicated

supermarkets. Print media was sighted as the most popular primary promotion strategy in 60.0% of the cases (figure 5.5).
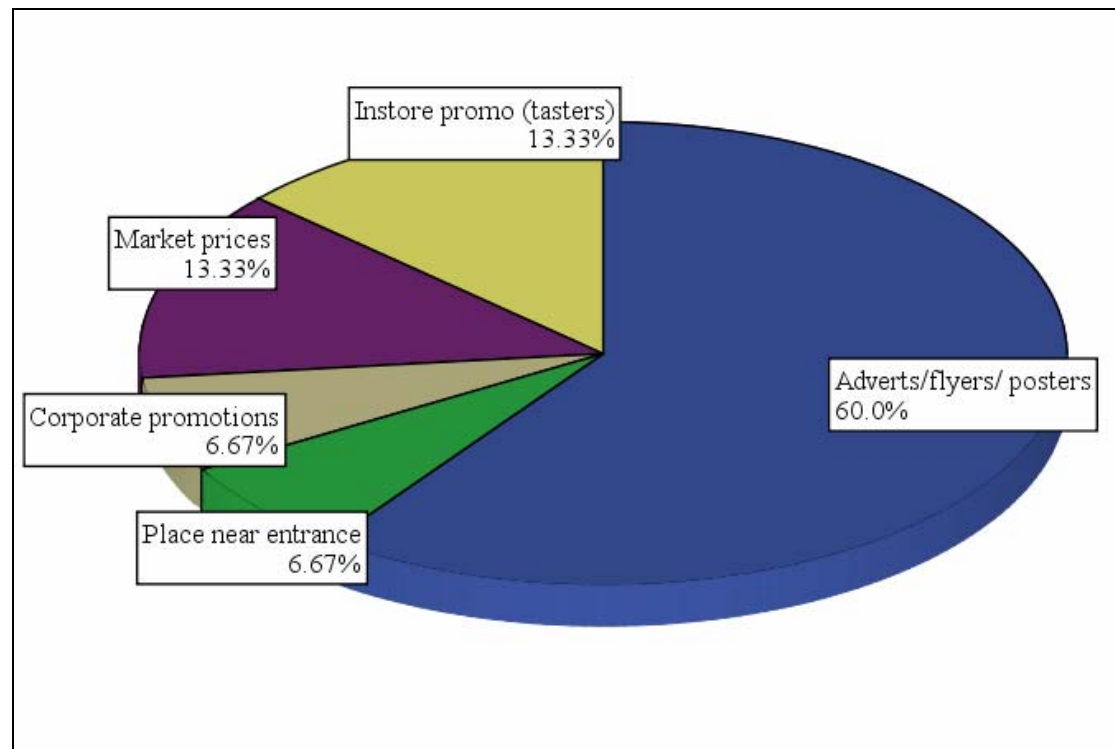
Figure 5.5: Primary supermarket FFV promotion strategies

This was followed by in store promotions (13.3%) these included free tasting and promotional in store announcements. Price related promotions were similarly popular at 13.3% and these included discounts, lower margins and in some cases selling FFV below cost price. Corporate coordinated promotions were also important at 6.7%. This involved the synchronisation of promotions for stores within a brand. Placement of FFV stands and attractive displays was another important promotional activity used in 6.7% of the cases as a primary strategy. In terms of the secondary promotion of FFV corporate sponsored efforts featured prominently (66.7%). Maintaining superior quality was used 13.3% of the time and an attractive display in 6.7% of the cases.

All supermarkets considered in this investigation identified at least one active primary promotional activity and only 13.3% failed to identify a second activity. This was a comparatively high proportion figure given that their competitors, hawkers and

greengrocers, respectively had 11.1% and 12.9% incidence respondents with no promotional strategy at all.

5.6 Other Competitive Practices

This section begins with a presentation of findings on other general competitiveness variables that did not quite fit under the marketing mix Ps. It also reviews the issues of risks and problems faced by FFV retailers, how they have sort to address these issues and their impact on the competitive environment. This part of the study also began to elicit possible avenues for product, process, function and chain upgrading.

5.6.1 Targeted markets

As explained in Chapter 3, one of the keys to a successful competitive campaign is correctly identifying the segments of ones market followed by selecting the most promising targets.

It was clear from the onset and in the pre-testing phase that hawkers did not employ formal methods of segmentation and targeting. However the overwhelming majority (98.7%) were intuitively aware of the types of customers to whom they aimed to market their wares. Some 17.5% of the hawkers identified at least three target segments. Top among the primary targets were commuters (73.0%), followed by residents in the surrounding area (17.5%), children (4.8%) and others primarily targeted people as they left a nearby shopping centre/mall (3.2%). Secondary segments were mall customers (27.0%), locals/residents (7.9%), commuters (3.2%) and passers-by (1.6%). The third level of hawkers' targeted clients was residents/locals (12.7%) and passers-by (4.8%).

Greengrocers were surprisingly less specific with regard to their target markets. The most frequent response was that the primary target was 'all people' at 48.4% followed by a similarly none specific 'locals and passers-by' at 32.3%. A group specifically

highlighted as an important target market were flat dwellers (10.7%). This indicated the importance of lower middle affluence groups (around LSM 4 and 5) in densely populated apartment blocks as greengrocer customers. Another 9.7% chose the 'don't know' category for this question. At the secondary target market level 'all people' was still the prime target at 22.6%. Restaurants and caterers were seen as the second most important secondary target market (12.9%) followed by passers-by (9.7%). The remaining majority 54.8% could not identify a secondary target.

Supermarket managers were similarly nondescript about their target market as compared to hawkers. The majority of respondents, 46.7%, stated that they targeted all people. Residents of surrounding apartments (flats) were the next most important group with 20.0% of the supermarkets identifying them as their primary target market. Adults and black people were equally important as a primary target market as identified by 13.3% (each) of the supermarkets. Finally, 6.7% of the supermarkets primarily targeted office staff. Given that the majority had already stated that they targeted all people, there were few supermarkets that identified a secondary target market. These second level targets included 'LSM 2 to 8' (6.7%) and workers from surrounding businesses (6.7%).

The comparatively low amount of market targeting among the supermarkets and greengrocers may be explained by the observation that the two traded in a larger variety of merchandise in store. Another issue to consider, in the case of corporate supermarkets, is that store level respondents were not privy to the strategic marketing decisions involved in targeting and segmentation. Therefore observing the location of stores and differences in varieties of stock were clearer indicators of the intended market targets than the store managers' perceptions. Enumerators observed that greengrocers carefully avoided commenting directly on any racial elements of their typical customer. However enquires into perceived shifts in the industry (elaborated in the future prospects sub-section of Chapter 6) revealed an implied view that the increasing in black population in a greengrocer's vicinity spelt a decline in patronage. Another overall, but expected, outcome was that market targeting was a function of location with those in residential areas targeting residents and those in business areas focusing on workers in the vicinity.

5.6.2   Business hours

Tracking the operating hours and periods of best FFV sales serves as a further indication of the comparative types of consumers or markets that each of the retail types served. This is the subject of the current subsection that presents results of enquiries into the operating hours and peak periods experienced in the FFV retail sector (also see section C of annex 2 to 7).

Informal traders were generally operational between 9 and 11 hours a day, six days a week. About 25.4%, 61.9% and 47.6% did not operate on Saturday, Sunday and public holidays respectively. Table 5.3 shows the top three peak sales periods per day, week month and over the year. The figures in percentages show the proportion of respondents that highlighted particular periods as their peaks.

Table 5.3: Peak FFV sales periods for informal FFV retail

| | Period | Proportion of retailers experiencing peak sales | | |
		Best (%)	Second Best (%)	Third Best (%)
Daily sales periods	Mornings	25.4	-	-
	Mid-morning	4.8	-	-
	Afternoons	31.7	17.5	-
	Late Afternoon	11.1	15.9	17.5
	Throughout	25.4	-	-
	Evening	-	3.2	9.5
	Subtotal	**98.4**	**36.5**	**27.0**
	Do not have	1.6	63.5	73.0
	Total	**100**	**100**	**100**
Weekly sales periods	Monday	12.7	-	-
	Tuesday	-	9.5	-
	Wednesday	-	-	9.5
	Thursday	6.3	3.2	-
	Friday	11.1	3.2	3.2
	Saturday	-	11.1	-
	Sunday	3.2	-	3.2
	Throughout	47.6	-	-
	Week days	9.5	-	-
	Subtotal	**90.5**	**27.0**	**15.9**
	Do not have	9.5	73.0	84.1
	Total	**100**	**100**	**100**
Monthly sales periods	Early month	17.5	-	-
	Month-end	20.6	17.5	-
	Throughout	52.4	-	-
	Subtotal	**90.5**	**17.5**	**-**
	Do not have	9.5	82.5	100
	Total	**100**	**100**	**100**
Yearly sales periods	Jan-Feb	7.9	-	-
	March-Apr	9.5	-	-
	May	-	3.2	-
	June -July	-	3.2	-
	Sept-Oct	-	4.8	-
	Nov-Dec	12.7	3.2	11.1
	Throughout	50.8	-	-
	Subtotal	**81.0**	**14.3**	**11.1**
	Do not have best	19.0	85.7	88.9
	Total	**100**	**100**	**100**

Highlights of this analysis of peak sales periods include that informal traders typically experience two daily peak sales periods as 31.7% and 25.4% of the respondents identified afternoons and mornings as their best sales periods. The afternoon peak was more pronounced as it stretched into the late afternoon and was considered as primary and secondary peaks (table 5.6). Over a quarter (25.4%) had even sales throughout the

day. Almost half the hawkers found that they had steady sales throughout the week with some experiencing their primary peaks on Mondays (12.7%), Fridays and Thursdays (11.1%) and Thursdays (6.3%). As expected month-ends were important primary (20.6%) and secondary (17.5%) sales peaks but over half the cases (52.4%) had even sales throughout the month. The results were similar on a yearly basis with 50.8% showing steady sales throughout the year. The yearly 'bonus' period (November and December) was also recognised in 12.7%, 3.2% and 11.1% of responses as a good primary, secondary and tertiary peak sales period respectively.

The majority (74.2%) of greengrocers operate seven days a week for between 10 and 15 hours on weekdays then closing two to three hours earlier on Saturdays and operating for half a day (6 hours) on Sundays and public holidays. The peak turnovers periods highlighted in the greengrocers' businesses are as shown in table 5.4.

Table 5.4: Peak FFV sales periods for greengrocers

	Period	Proportion of retailers experiencing peak sales		
		Best (%)	**Second Best (%)**	**Third Best (%)**
Daily sales periods	Mornings	29.0	-	-
	Afternoons	38.7	-	-
	Late Afternoon	-	19.4	-
	Evening	25.8	-	9.7
	Fluctuates	3.2	-	-
	Subtotal	**96.8**	**19.4**	**9.7**
	Do not have	3.2	80.6	90.3
	Total	**100**	**100**	**100**
Weekly sales periods	Thursday	3.2	-	-
	Friday	38.7	-	-
	Saturday	35.5	32.3	-
	Sunday	-	35.5	19.4
	Throughout	9.7	-	-
	Week days	9.7	-	-
	Subtotal	**96.8**	**67.7**	**19.4**
	Do not have best	3.2	32.3	80.6
	Total	**100**	**100**	**100**
Monthly sales periods	Early month	38.7	-	-
	Midmonth	32.3	-	-
	Month-end	25.8	19.4	-
	Subtotal	**96.8**	**19.4**	**-**
	Do not have best	3.2	80.6	100
	Total	**100**	**100**	**100**
Yearly sales periods	Jan-Feb	45.2	-	-
	March-Apr	-	9.7	-
	Sept-Oct	9.7	9.7	-
	Nov-Dec	12.9	25.8	9.7
	Throughout	9.7	-	9.7
	Subtotal	**77.4**	**45.2**	**19.4**
	Do not have best	22.6	54.8	80.6
	Total	**100**	**100**	**100**

Mornings, afternoons and evenings were the best sales periods for 29.0%, 38.7% and 25.8% of greengrocers. On a weekly basis, the Fridays and the weekend featured as strong sales periods (table 5.4). Unlike hawkers, greengrocers experienced widely differing monthly sales peaks with none reporting constant sales throughout an average month. The yearly figures also differed from the competitors with 45.2% of the greengrocers highlighting January and February (Christmas and New Year) as their best selling periods.

Only 13.3% of the Tshwane supermarkets operated six days a week as the balance was open seven days a week. These supermarkets were open between 10 and 16 hours a day on weekdays and just over half (53.3%) reduced their operating hours to seven on Saturdays. Only 13.3% and 33.3% were closed on Sundays and public holidays with the rest either closing two to three hours earlier or not adjusting trading hours at all.

Table 5.5: Peak FFV sales periods for supermarkets

	Period	Proportion of retailers experiencing peak sales		
		Best (%)	Second Best (%)	Third Best (%)
Daily sales periods	Mornings	13.3	-	-
	Mid-morning	46.7	-	-
	Afternoons	-	13.3	-
	Late Afternoon	13.3	13.3	-
	Evening	13.3	20.0	13.3
	Night	-	13.3	13.3
	Throughout	13.3	-	-
	Do not have	-	40.0	73.4
	Total	**100**	**100**	**100**
Weekly sales periods	Monday	26.7	-	-
	Wednesday	13.3	-	-
	Thursday	20.0	-	-
	Friday	-	13.3	-
	Saturday	-	33.3	-
	Sunday	-	-	20.0
	Throughout	26.7	-	-
	Do not have	13.3	53.3	80.0
	Total	**100**	**100**	**100**
Monthly sales periods	Early month	26.7	-	-
	Midmonth	26.7	-	-
	Month-end	46.7	40.0	-
	Do not have	-	60.0	100
	Total	**100**	**100**	**100**
Yearly sales periods	Jan-Feb	13.3	-	-
	June –July	6.7	-	-
	Sept-Oct	-	-	-
	Nov-Dec	13.3	20.0	-
	Throughout	60.0	-	-
	Do not have	6.7	80.0	-
	Total	**100**	**100**	**100**

Supermarkets in this study highlighted midmornings as their first peak period in 46.7% of the responses. Evenings featured strongly as primary (13.3%), secondary 20.0%) and tertiary (13.3%) peak periods. Monday, Wednesday and Thursday were

weekly peaks in 26.7%, 13.3% and 20.0% of the stores respectively. Another 26.7% had even sales throughout the weeks. Although month-ends were important primary (46.7%) and secondary (40.0%) peak periods; many stores had early and mid month peaks (table 5.5). More than half the supermarkets (60.0%) had steady FFV sales throughout the year. The festive season was also an important primary and secondary period in 13.3% and 20.0% of the instances.

5.6.3   Competitive edges

Another key to trade success is in knowing and exploiting the business's fortes or, in the words on the questionnaire-checklist (appendices 2 to 7); the key is in knowing 'Why customers buy fresh produce from you as opposed to other traders?' Thus this subsection presents findings on retailers' perceptions of what draws customers to their businesses and what they use as barriers to fend off competition.

As shown in table 5.6 informal traders highlighted low prices as their key draw/competitive factor in the overwhelming majority 71.4% of the cases. This finding contradicted with conclusions in Van Zyl & Conradie (1988) that the informal sector was generally more expensive than the others. Being conveniently on the way home was the primary draw card for 12.7% of the cases. The other three factors were less frequently identified as primary.

Table 5.6: Key competitive factors for informal traders' FFV retail

Factors attracting patronage	Primary factors (%)	Secondary factors (%)	Tertiary factors (%)
Low price	71.4	-	-
On the way home	12.7	42.9	-
Close to home	-	-	3.2
Wide variety	3.2	7.9	-
High quality	3.2	3.2	-
Long/flexible trading hours	3.2	-	-
Kinship with locals	-	3.2	-
Subtotal	**93.6**	**57.1**	**3.2**
None	6.4	42.9	96.8
Total	**100**	**100**	**100**

Being on the route home was the most prominent secondary draw card at 42.9% the next was having a wide variety at 7.9%. Generally these findings concurred with the results were in line with findings in Ligthelm (2006b) where reasons for buying from hawkers was that they carried the right mix of products (52.0%), were affordable (36.2%), convenient (7.1%), long flexible trading hours (2.0%). Surprisingly, no mention was made of product quality. Another interesting finding was the identification of the kinship bond with fellow low-income earners as one of the draw cards. This is similar to a conclusion made by Karaan (1993) that informal traders have socio-economic legitimacy in areas low income areas. This finding is indicates the use of another P of the marketing mix namely, people and processes.

Greengrocers also perceived low price as their primary selling point in 64.5% of the cases (table 5.7). Quality and freshness featured as the key secondary (19.7%) and tertiary (9.7%) attractant. A high 12.8% professed ignorance with regards to any particular draw cards.

Table 5.7: Key competitive factors for greengrocers' FFV retail

Factors attracting patronage	Primary factors (%)	Secondary factors (%)	Tertiary factors (%)
Low price	64.5	-	-
High quality and freshness	3.2	19.4	9.7
Industry experience	9.7	-	-
Convenient location	9.8	9.7	-
Wide Variety	-	3.2	-
Subtotal	**87.2**	**32.3**	**9.7**
None	12.8	67.7	90.3
Total	**100**	**100**	**100**

Other important selling points were securing a location that is convenient to customers (nearby) and having experience in the industry. Contrary to expectations that consumers sought an exotic variety of FFV from greengrocers, the practitioners rated variety as a small secondary factor.

Over half the supermarket respondents identified low price as their key selling point for their FFV retail (table 5.8). Being conveniently located also featured highly in the competitive factor list (20.0%) followed by long operating hours (13.3%).

Table 5.8: Key competitive factors for supermarkets' FFV retail

Factors attracting patronage	Primary factors (%)	Secondary factors (%)	Tertiary factors (%)
Low price	53.3	-	-
Convenient location	20.0	-	-
Habit	6.7	-	-
One stop shop	6.7	13.3	-
Open till late	13.3	6.7	-
Cleanliness	-	13.3	-
High product quality	-	13.3	13.3
Customer service	-	-	26.7
Subtotal	**100**	**46.7**	**40.0**
None	-	53.3	60.0
Total	**100**	**100**	**100**

Other key issue stressed by supermarkets respondents that being able to acquire all food requirements under a single roof was an especially unique and powerful factor in their favour.

Retailers in all three channels on average perceived their top selling point to be low prices. This confirms the earlier assertion that lowest prices were not the reserve of any particular channel. Thus maintaining low prices appears to be a minimum entry point rather than a distinguishing edge. Further interpretation of the three preceding tables shows that beyond this primary factor each retail format possesses a key competitive factor above and beyond the others. For hawkers this is the convenience of making a quick small purchase without interrupting the journey home. Greengrocers emphasise high product quality and freshness and to a smaller extent location. Supermarkets on the other hand, rely on their long working hours and the one stop shopping experience to encourage patronage.

5.6.4 Identified competitors

The competition analysis checklist (Box 2.1) emphasized the importance of tracking the relative performance of competitors. This is also a key aspect in Porters forces analysis as this process tracks the strength of perceived competitive threats surrounding each of the three channels. This subsection explores the FFV retailers' perceptions of their peers' relative competitive strength.

Figure 5.6 shows that hawkers considered 'fellow hawkers' as the main competitor in most (63.5%) of the cases (comparing the red 'main competitor' bars). Another 17.5% considered other hawkers as minor competitors and 11.1% saw their peers as serious competitors (comparing the yellow 'serious competitor' bars). Greengrocers were, in 76.2% of the cases, viewed as non-competitors and minor competitors in 14.3% of the cases. Also shown in figure 5.6 is that views on the effect of supermarkets were mixed That is, 11.1% of hawkers saw supermarkets as the main competitor, 22.2% saw supermarkets as serious competition, 30.2% as minor competition and 34.9% felt they did not compete with supermarkets.
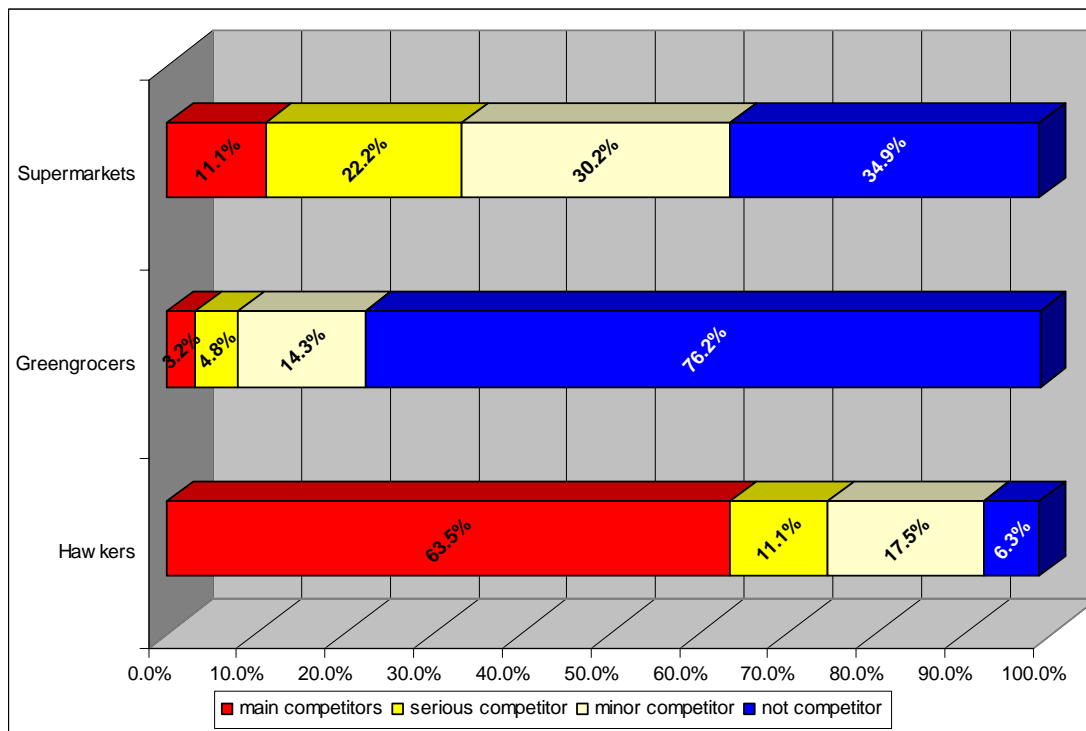
Figure 5.6: Informal FFV retailers' perceptions of relative competitive strength

A separate enquiry into the impact of these main competitors revealed an almost even split between those who felt no effect (51.6%) and those who thought sales had declined (48.4%). Most hawkers (73.7%) did not change their pricing in response to this competition. The primary reaction was to stock wider variety and higher quality of FFV.

106

When greengrocers were asked to rate their competitors they highlighted supermarkets as their main competitors in 64.5% of their responses. The views on the efficacy of fellow greengrocers were mixed as seen in figure 5.7. A few (9.7%) of the greengrocers added wholesaler-retailers among the 'other' competitors category and labelled them as serious competitors. Note that 'missing data' was not added as a category in figure 5.7 so some bars fall short of 100%. That is, as shown below, wholesale-retailers were highlighted as serious competitors by 9.7% of greengrocers. The balance, 90.3%, did not recognise wholesale-retailers among the players in FFV retail and thus did not rate them at all (missing data). Therefore this was excluded from the diagram.
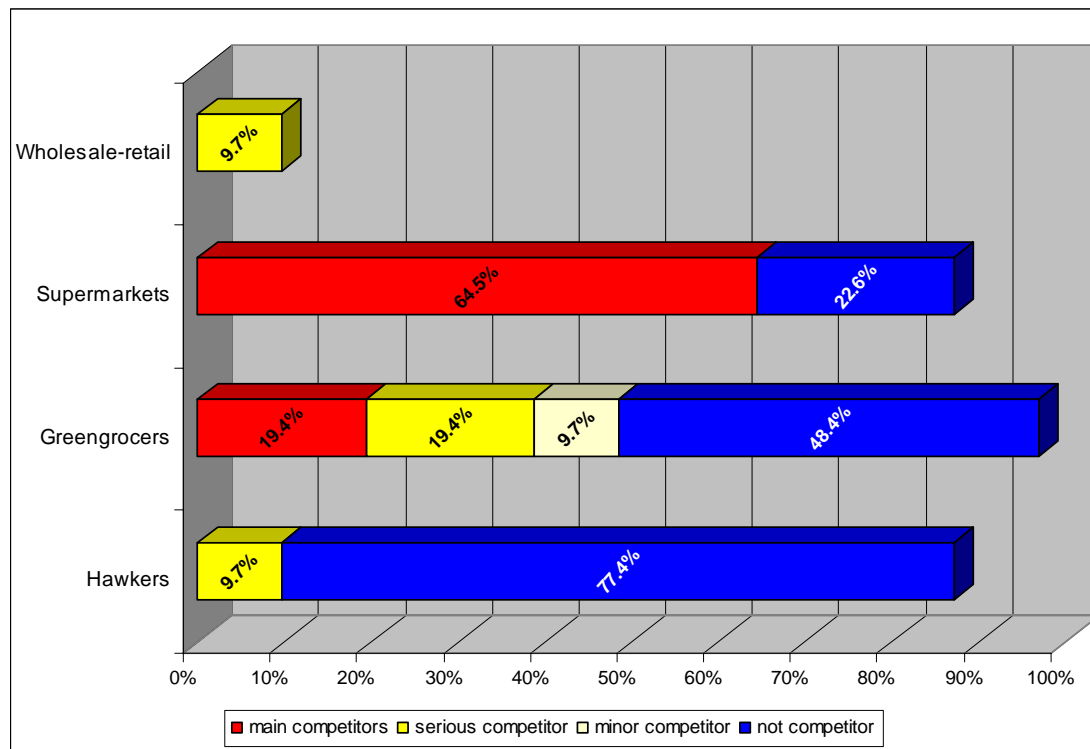
* Bars may not make 100% because 'missing data' was not counted

Figure 5.7: Greengrocers' perceptions of relative competitive strength

As a result of this competition 46.7% of the greengrocers stated that their sales had declined while 43.3% had no change in sales. Another 10.0% actually recorded better sales as the competition brought more customers for all. In terms of the pricing reaction to competition 46.7% of the greengrocers stated that they had reduced prices while 53.3% had not changed prices.

The supermarkets identified their strongest threat in FFV retail as their fellow peers. As shown in figure 5.8, supermarkets were typically rated as the main competitor (20%) and serious competitors (66.7%). This means competing supermarkets were at rated at least as serious competitors in 86.7% of the case. Greengrocers and hawkers were also considered serious threats to supermarkets in at least 20% of the cases. Wholesale-retail and fresh produce markets were also identified as competitors of supermarkets, albeit minor ones, in 13.3% and 6.7% of the cases respectively.
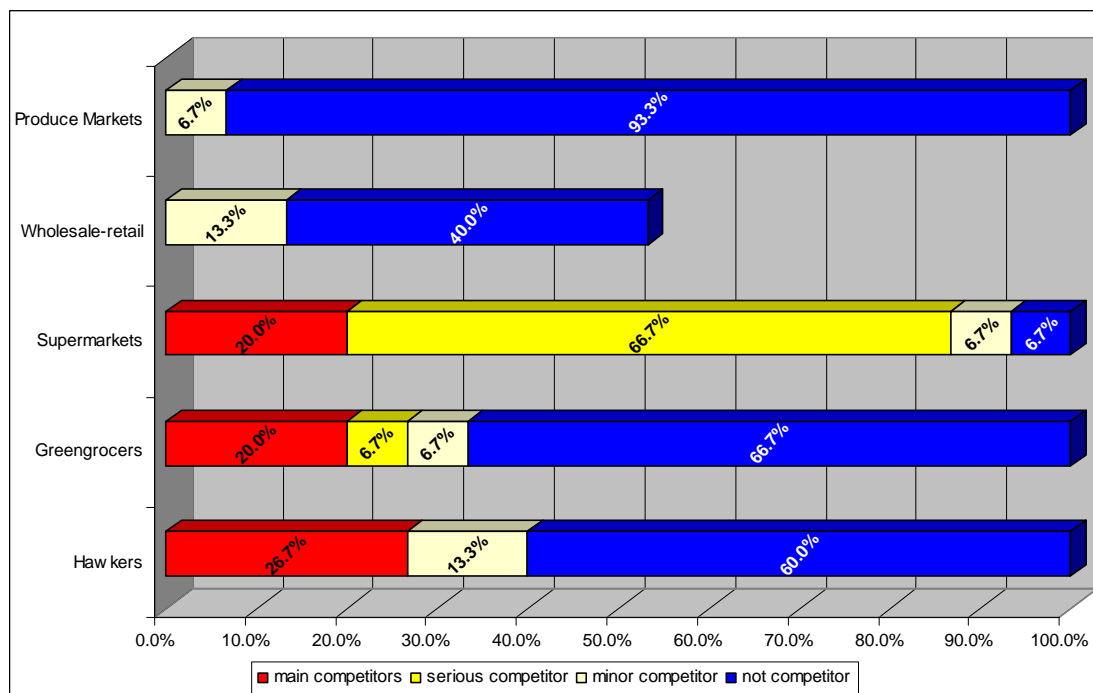
* Bars may not make 100% because 'missing data' was not counted

Figure 5.8: Supermarkets' perceptions on competitive strengths

Just over half (53.3%) of supermarkets felt that their main competitors had no effect on sales. The others (33.3%) felt that they had lost sales to competition while a few (13.3%) thought the effect was seasonal. In terms of pricing responses to competition, 60.0% had made no price changes while 13.3% had reduced retail prices in response to competition. Interestingly 26.7% of the respondents reported that they had increased their prices in response to competition. The logic in these cases was to opt to widen variety and product quality rather than to compete in terms of pricing. This

had the effect of increasing wastage as well as stocking costs thus the need to increase the retail price.

Thus in summary, intra-format was considered more serious among supermarkets and among hawkers than inter-format competition. Greengrocers found cross format competition with supermarkets as being most intense. It was also observed that the closer a competitor was, the more likely he was to be perceived as the main competitor. The perceived effect of competition on sales was generally indeterminate and more than half the retailers reiterated that competitors did not affect their pricing.

Smaller supermarkets and convenience stores also stated that their main threat to survival, outside the FFV sector, was the proliferation of expanded fuel station kiosks. Their advantages were seen to be the longer business hours (often 24 hour) and that customers could refuel and perform their convenience shopping at one stop.

5.7 Summarised findings

This chapter presented and discussed the results of the competition survey. This included the findings on how FFV retailers adjusted their marketing mix (place, price, product, promotion, people and processes) were presented first. Subsequent sections were on market targeting, as well as the relative perceptions of rivalry and competitiveness. All this was in aid of achieving the primary study objective, to understand Tshwane's the FFV retail trade. Highlights of the chapter include the following.

The FFV retailers generally sought to locate their businesses at prime/busy areas, which entailed the transport nodes and areas with high population densities. It was revealed that the area dedicated to FFV was generally smaller in the supermarkets (average 135 square meters) than in the greengroceries, (200 square meters). This meant that greengrocers could carry more variety. It was established that informal traders' businesses were relatively young, averaging six years. This reflected the relative ease of entry, exit and recent improved tolerance for the sector. The

greengroceries were found to generally be old businesses with average of 23.7 years. Combined with the low incidence of new entrants this could indicate a business format in atrophy. The supermarkets had a fairly balance set of ages ranging from 3 to 75 years. Partnerships were the most prevalent ownership structure among FFV hawkers, while greengroceries were primarily family run thus confirming their contribution to entrepreneurship. Supermarkets were a mix of corporately owned stores, franchises and family owned businesses.

Monthly FFV turnover for informal traders varied from R600 to R63 515 per month and averaged at R15 538 per month while the greengrocers' FFV turnover varied from R21 000 to R400 000 per month, an average of R165 521. Supermarket FFV sections ranged from R7 000 to R1.5 million per month and averaged at R480 692 per month. In terms of pricing behaviour, informal traders' charged a mean mark-up of 32.9% for the basket of reference FFV. In greengrocery stores the average was 44.7%. Supermarkets' pricing data was plagued with non-response errors. Based on the few valid responses supermarkets had mean and modal mark ups of 22.5% and 15.0% respectively. The informal sector had a cost advantage since they had few overhead costs, which may offset the scale economies enjoyed by supermarkets buying centres.

Retailers reportedly performed packaging (breaking bulk), washing, cutting, freezing, and ripening at store level. Over 75% of hawkers, 50% of the greengrocers and a 33% of the supermarkets were performing at least one processing activity but this was usually limited to repackaging. Tshwane market (TM) and Marabastad market were the supply sources of choice for both informal traders and greengrocers. All informal traders in the survey stated that they did not enter into any form of contracting verbal or otherwise with suppliers. Greengrocers and independent supermarkets occasionally had informal reservation arrangements with market agents. Corporate supermarkets chose to source FFV from the centralised distribution centres. Store level management were therefore generally ignorant of most procurement issues.

Hawkers primarily relied on personal selling as the only promotional activity while among the greengroceries, price discounts was the favourite mechanism. Non-syndicated supermarkets were similar to greengrocers in FFV promotions while corporate supermarkets were seen to use the full array of promotional tools but these

were implemented at corporate level and were rarely product specific. Surprisingly, hawkers were more able to define their target markets than greengrocers and supermarket managers as the latter two typically targeted 'all people' (that is all LSMs) .

Results revealed that most retailers in all three channels perceived their top selling point to be low prices. This confirmed an earlier assertion that lowest prices were not the reserve of any particular channel. Supermarkets and hawkers found intra-format competition to be more serious than inter-format competition. On the other hand greengrocers felt that cross format competition, particularly with supermarkets, was a more serious concern.

Chapter 6: Risk Analysis & Mapping FFV Flows

6.1 Introduction

This chapter serves the purposes of highlighting the risks and problems faced by fresh fruit and vegetable (FFV) retailers; followed by a situation (SWOT) analysis of the three FFV channels and lastly a mapping of the industry, based on evidence gathered in the study. Thus the chapter addresses important parts of the study objective by addressing sub-objectives four, three and two. These sub-objectives respectively dealt with identify challenges and opportunities; revealing power dynamics and mapping the channels (Chapter 1).

In terms of organisation, Chapter 6 begins with a discussion of the results of a situation analysis of each of the three FFV retail formats. It subsequently analyses the retailers' perceived risks and risk mitigation strategies. Both of these sections are based on results from the phase 2 survey. The next section addresses the mapping of the links and nodes in the flow of goods, services and thus value within the informal, greengrocer and supermarket FFV channels. Cognisance was also made of the power dynamics and the degree of chain governance. The mapping was based on evidence gathered during the literature review, exploratory study as well as survey sections of the research, hence its placement as the last set of study findings. A summary of the main outcomes is used to close Chapter 6.

6.2 Situation Analysis

As stated in the introduction, this section presents the weaknesses and threats faced by FFV retailers and the arsenal of strengths and opportunities employed to overcome them. The SWOT analysis could be seen as follow-on (triangulation) to the previous section on risk and mitigation. That is, in assessing the risks and challenges in FFV

retail, one also elicits the weaknesses and threats in SWOT language. Similarly strengths and opportunities analysis bears resembles the section on coping/amelioration strategies and analysis perceived future prospects. This sub-section adds value to the previous analysis by further quantifying the retailers' perceptions of their competitive situation in tabular and graphical forms. The section therefore looks into relative attractiveness of each of the channels (an element of Porter's framework).

The tabular part is the factor evaluation matrix (FEM) of the retailers' strategic marketing mix issues (table 6.1, 6.2 and 6.3). As described in the methods chapter, the importance/weights are average weights calculated across all three retail channels and the performance is an average self assessment within each channel. Scores were calculated by multiplying 'Importance' by 'Performance'.

The scores were then used to generate corresponding radar charts that graphically illustrate the relative performance of each channel by showing each channel's scores against the industry average scores. Note that, to facilitate comparison, only variables considered important in all three channels were included in the analysis. Thus people and processes were excluded and sourcing, which is technically part of the product variable, was added because respondents widely sighted it as a separate strategic marketing issue.

Table 6.1: Situation analysis of informal retailers using the FEM

Strategic Issues	Importance (Weight out of 1)	Hawker Performance (Out of 10)	Hawker Scores (Importance * Performance)
Place	0.1912	7.2857	1.4868
Price	0.2054	7.5370	1.5517
Product	0.2085	7.8519	1.6252
Promotion	0.1944	7.7037	1.4473
Sourcing	0.2005	6.9348	1.4910
Total	1.0000		**7.6020**

Figure 6.1: Performance profile of informal FFV retailers

According to their FEM (table 6.1) and performance profile (figure 6.1), hawkers performed better in the Place variable of the marketing mix as compared to the industry average. This reflects their relative mobility which means they were more able to relocate in pursuit of maximum patronage than other retailers. Informal traders generally underperformed in all other mix variables compared to the industry average. Overall, hawkers marketing performance rated at 7.6 out of ten or 76.0% (table 6.1).

Table 6.2: Situation analysis of greengrocers using the FEM

Strategic Issues	Importance (Weight out of 1)	Greengrocer Performance (Out of 10)	Greengrocer Scores (Importance * performance)
Place	0.1912	7.3462	1.5505
Price	0.2054	7.4231	1.8031
Product	0.2085	7.7308	1.8530
Promotion	0.1944	6.3846	1.3753
Sourcing	0.2005	7.6923	1.5375
Total	1.0000	-	**8.1195**
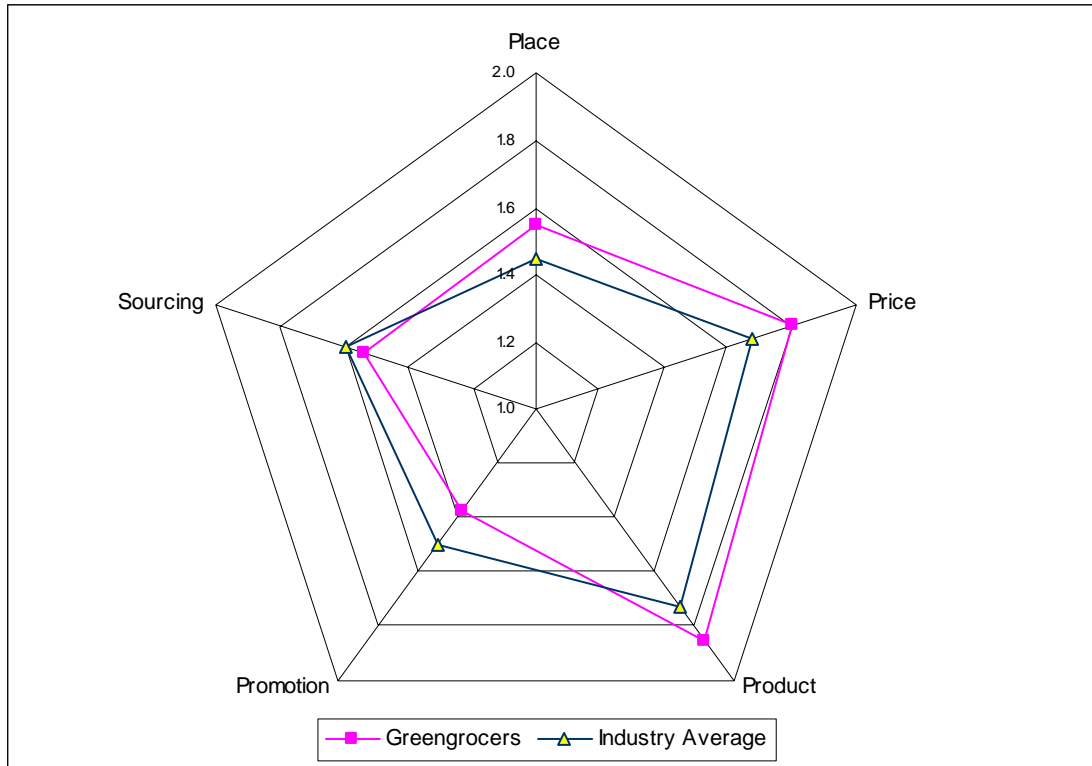
Figure 6.2: Performance profile of greengrocers

Greengrocers rated their marketing performance as being above average with regards to Place, Price and Product (figure 6.2). Their Sourcing and Promotion activities were found to be below par on average and as shown in table 6.2, greengrocers' total average marketing score was 8.12 out of ten or 81.2%.

Table 6.3: Situation analysis of supermarkets using the FEM

Strategic Issues	Importance *(Weight out of 1)*	Supermarket Performance *(Out of 10)*	Supermarket Scores *(Importance * performance)*
Place	0.1912	6.6923	1.3087
Price	0.2054	8.5385	1.6750
Product	0.2085	8.3077	1.6998
Promotion	0.1944	8.6364	1.6790
Sourcing	0.2005	8.4000	1.7648
Total	1.0000	-	**8.1272**
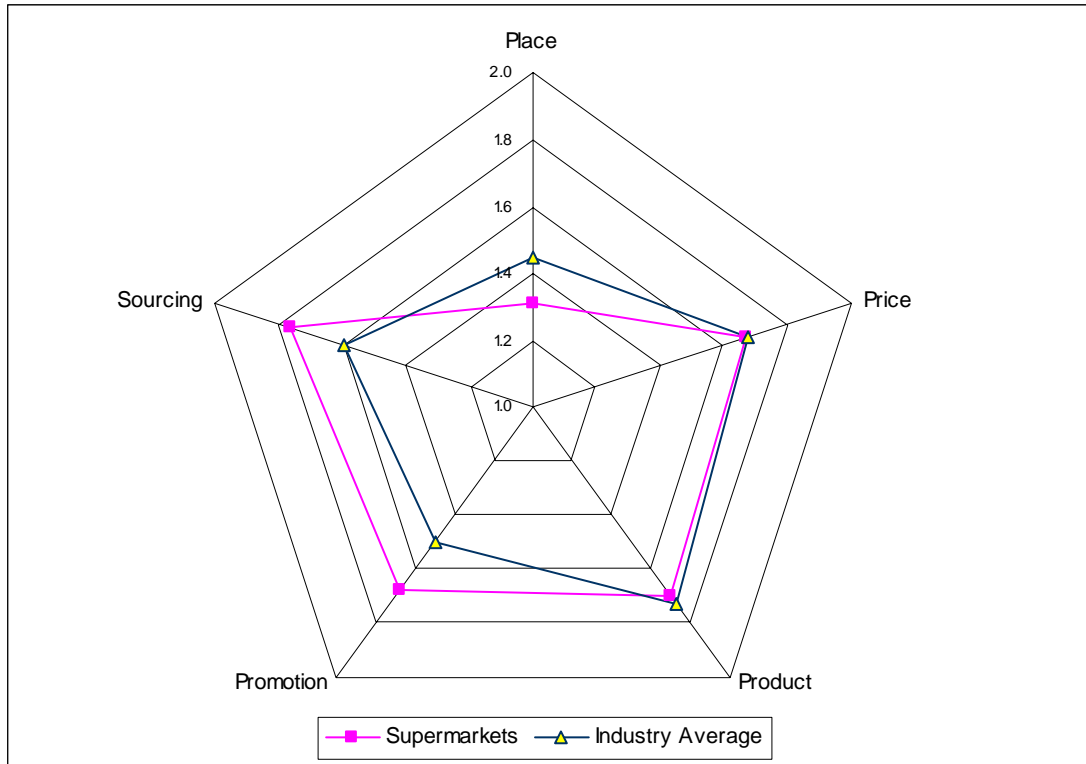
Figure 6.3: Performance profile of supermarket FFV distribution channel

Supermarkets outperformed the average retailer in their Sourcing and Promotions scores (table 6.3). They were marginally lower in terms of Pricing and Product and performed poorly for Place (figure 6.3). The overall score for this marketing channel was 8.12 out of 10 (81.2%).

To summarise and for comparison's sake, the radar chart in figure 6.4 shows the weighted scores of all three channels against the industry average scores (in one graph). The diagram graphically confirms the FEM marketing performance rankings that feature supermarkets fairing best with a score of 8.13, followed by greengrocers marginally lower at 8.11 and lastly hawkers at 7.60 out of ten.
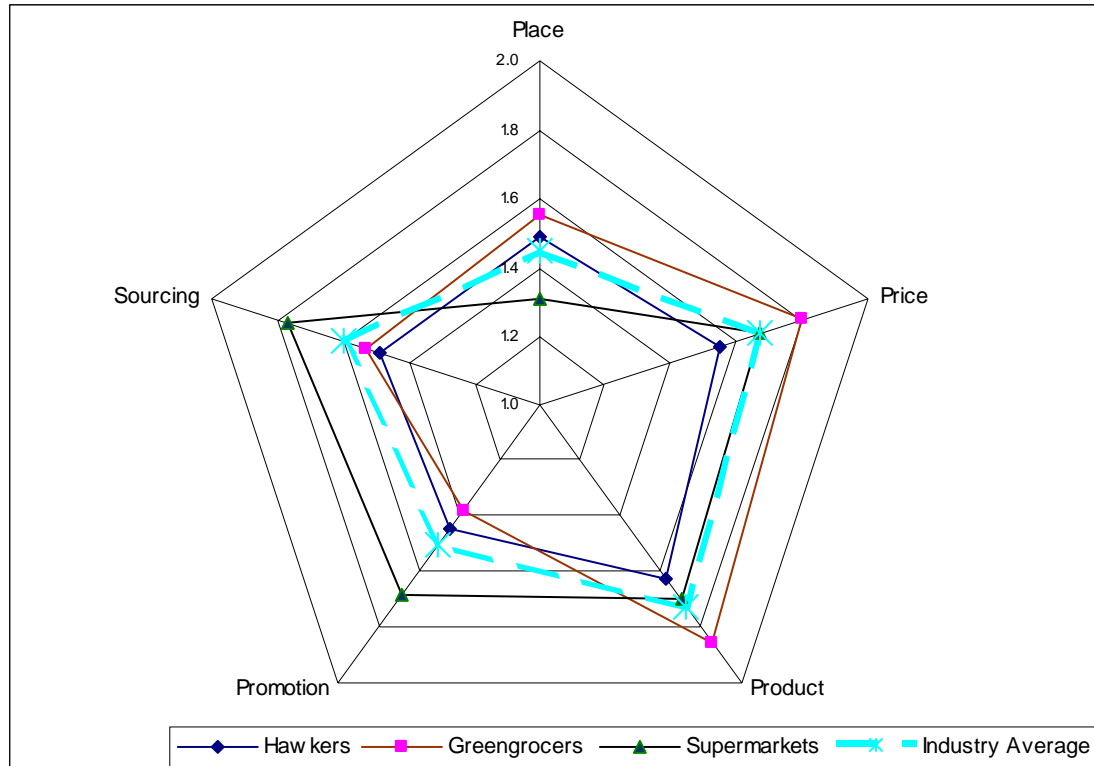
Figure 6.4: FFV retailers' relative performance profiles

Another point to note though is that the scores were based on a self assessment process. Thus they are more reflective of how retailers felt about their performance and not necessarily what consumers believed. Therefore beyond rankings, the performance profiles highlight each channel's comparative strengths as well as indicating the potential areas of improvement and upgrade. These are expanded upon in Chapter 7.

6.3 Risks, Coping & Future Prospects

This section presents the reported constraints and risks faced by FFV retailers as well as the measures they currently employ to cope if not solve the quandaries. This is an important consideration as it reveals the level of innovation, adaptability and thus competitiveness of players in FFV retail. This was more so given the retailers' lack of access to direct private or public assistance that ran respectively at 96.8% and 93.7%

for hawkers; 88.9% and 92.3% for greengrocers; and 96.8% and 100% for supermarkets.

6.3.1   Risks, coping & solutions

In keeping with the research theme the findings are presented channel-by-channel to enable comparison between informal retailers, greengrocers and supermarkets.

The primary constraint identified in the hawker business was a lack of shelter for trading and storage. This was identified in 20.6% of the sample followed by wastage or poor quality stock (16.7%), volatile FFV demand (12.7%), metro police raids on illegal and unlicensed trading (11.2%), and robbery (11.1%). Other less prominent constraints and risks included fines for expired stall rentals (6.3%), lack of transport (6.3%), fluctuating market prices (4.8%), stock-outs at the wholesales (3.2%), gambling among the young employees and helpers (3.2%) and competition (2.4%). Of note here was how low competition featured in the hierarchy of problems. Also of interest was that the ordering differed from that of Ligthelm (2006b). His ordered list of constraints included weather conditions, competition, police raids, crime, lack of shelter, bad debtors, stock-outs and others. Thus the list of constraints were more or less consistent albeit the differing hierarchy.

The majority (63.5%) of hawkers could not sight any means of mitigating their problems but to continue as usual. This was especially so with regard to the police raids where, when probed for a solution; some hawkers suggested 'running faster'. To cope with shelter and transport shortages informal traders aimed for zero carry over stock through trying to procure just enough daily stock, hard selling and disposal of day end stock at reduced prices. The threat of robbery forced many to either limit trading hours to daytime or to relocate their operations. As for the problems with late rentals and related fines, hawkers opted for weekly rather than monthly payments as they felt these were easier to budget for than the monthly payments. In terms of eradicating these problems in the long term, most respondents (66.7%) had no ideas. The remaining few suggested provision of secure overnight storage to alleviate that problem. This is a measure that was being pilot tested by the TM (Dodds, 2005;

personal communication). Informal traders also suggested spot fines rather than the mass confiscation and arrests that ensued during the police raids.

Over a quarter of greengrocers (25.5%) identified shrinkage (shoplifting) as the main risk in the trade. Wastage (i.e. losses due to reduced quality or rotten stock) was another major concern in 23.4% of the cases. Less prevalent problems included market stock-outs (12.8%) and fluctuating sales (8.5%). A sizeable proportion of the greengrocers (29.8%) stated that they had no problems to report. This may have been as a result of respondent fatigue since this was one of the last sets of issues covered in the questionnaire-checklist (annex 3).

Similar to the informal traders, a substantial third (33.3%) of the greengrocers that had identified constraints were simply 'carrying on'. Of those with mitigation strategies in place the shoplifting problem was being tackled through rearranging store layout to remove blind spots, removal of enterprises such as arcade games that attracted shoplifters as well as supporting municipal efforts to relocate street children who were the main shoplifting culprits. Coping with wastage and spoilage involved a combination of carefully checking all stocks upon delivery, using trusted suppliers (market agents) and avoiding overstocking. In terms of long-term solutions to the greengrocers' shoplifting problem, some were of the opinion that it would require a macroeconomic solution that solved the underlying problems of unemployment and poverty. Others considered implementing tighter surveillance and security. Wastage and spoilage problems were to be fixed by even better stock management.

Shrinkage was an even bigger problem in the supermarkets (41.5%) than with greengrocers. This included theft by delivery people, in-store staff, as well as the general public. Other supermarket FFV retail problems included wastage (31.7%), and this was compounded by fluctuating sales (9.8%), which made demand forecasting difficult. Labour disputes, go-slows and strikes were also an important business risk for this group (4.9%). The proportion sighting no problems or risks in their business was also high (12.2%).

A variety of coping strategies were suggested dealing with supermarkets' trading problems. For the theft problem, supermarkets had implemented tighter and more

sophisticated stock management, surveillance and security as well as hiring visible guards in the high shrinkage stores. Quality control was the catch phrase for dealing with wastage and this included checking all deliveries and returning all damages. Dialogue with trade unions was the current mitigation means for solving labour problems. In terms of long-term solutions to trading problems most supermarket managers (46.7%) felt that things would continue as is because this was the nature of the FFV business. They also could see little, other than more security, to solve the shrinkage problem. As for wastage, more detailed demand forecasting based on weekly, monthly and annual trends was planned wherever it was not yet in place. Proactive and ongoing dialogue with trade unions was the suggested long term solution to labour disputes.

As part of the risk analysis, inquires were made into reasons why corporate store management tended to exclude store level supervisors from the strategic marketing process. It was discovered that DC level managers and buyers at that level felt that the skills level at the stores was too low to engage. Concurrently, store level supervisors felt their supervisory posts were meaningless since they had little room to make decisions. One such supervisor commented that he was a 'glorified shelf packer'. In addition, an adversarial relationship was detected in some retail chains between store level supervisors and DC buyers as each one tried to push wastage losses to the other. This was therefore another important problem faced in corporate supermarkets.

6.3.2   Past trends & future prospects

Traders' views of past trends and future prospects are firstly an indication of how they have faired in the competitive environment and secondly, whether, in their overall assessment, they foresee a positive future for the trade and their enterprise. Findings from an elicitation of these views are presented as follows.

Popular opinion among the informal traders was optimistic about the past five years of FFV retail. However there were numerous detractors in their midst. The positive views were attributed to a general increase in income levels (24.3%), fewer confiscations by metro police (9.1%) and increased consumer demand for their FFV

(5.4%). A number of the respondents (31.1%) stated that the industry had been static over the period. The negative trends witnessed included the decreased earning from the retail trade (9.5%), and a decline in customer demand (10.8%).

Future prospects and plans shared by the hawkers included expanding operations (47.4%), expected further improvements in general income levels (23.7%), increased sales (10.5%), plans to formalise trading (5.2%). The group of traders expecting no future changes formed 10.5% of the sample while only 2.6% expected a worsening trade environment. This overall positive sentiment gives credence Ligthelm's (2006b) findings that most hawkers preferred to continue their current occupation as opposed to a hypothetical job offer in the formal sector.

Greengrocers were comparatively pessimistic about the FFV industry trends. The majority (38.5%) had seen little change over the past half decade. Some 15.4% had seen their customer's incomes decline while crime and shrinkage were on the increase for 7.7%, as well as fewer customers in 7.7% of responses. Another change highlighted by 15.4% of respondents was an increase in the number of black middle-income earners. Although not explicitly declared, there was an implied link between the changing demographics (to more black people) and a decline in the greengrocer trade. A sizeable 56.7% of respondents failed to comment on the envisaged near future for the FFV industry. The balance was optimistic with 33.3% predicting increased business and 10.0% expected their customers' incomes to rise.

Supermarket managers were divided about the past five years in FFV marketing. Some recalled an increase in crime and shrinkage (44.4%), while others felt this had decreased (22.2%). Some (11.1%) thought incomes and thus demand had increased while 5.6% though incomes and demand were falling. Another change highlighted by 11.1% of the respondents was the increased racial mix of their customers. Interestingly and unlike the other two retail formats, all the respondents felt trading conditions had changed in one way or the other.

In terms of expected future trends and changes the supermarket outlet managers were positive albeit that a quarter of them (25.0%) predicted no real changes for the next 5 years. The optimists attributed their view to improved FFV standards (25.0%), the

reported expansion of corporate retail chains both domestically and internationally (25.0%), as well as a general trend towards healthier living that generated demand for FFV. Some (12.5%) also envisaged the resolution of the shoplifting problem through their improved surveillance and because of the generally buoyant macroeconomic outlook in South Africa.

6.4 FFV Supply Flow in Tshwane

In keeping with one of the research objectives to map out the links and nodes in the flow of FFV value in Tshwane, figure 6.5 traces the overall flow of fresh fruit and vegetable products from producers to the consumers in the city. The structure was elicited from the various key informant interviews and augmented with observations made during the study. The figure purposefully omits all links and flows of fresh produce destined for consumption outside the City of Tshwane.
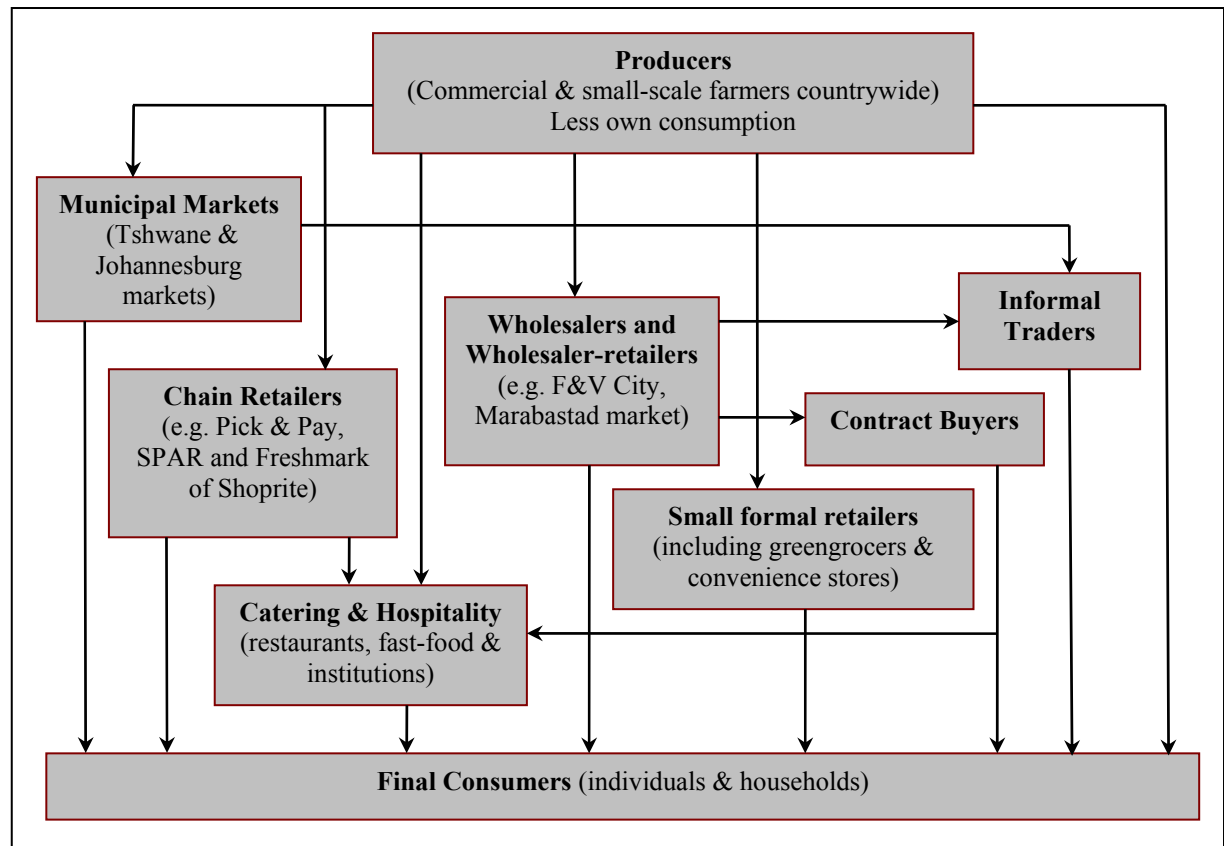
Figure 6.5: Overview of the supply route for fresh fruit and vegetables in Tshwane

Sources: Own findings, Dodds & Sedutla (2005) and Ligthelm & Van Wyk (2004)

An important note in interpreting the flow diagram (figure 6.5) is that each of the arrows in the figure show that FFV flows in that one direction. In addition and to avoid clutter, the arrows intersect wherever produce can join an alternate route. For example, the diagram shows that restaurateurs source their fresh produce from a combination of chain retailers, wholesalers, independent retailers as well as contract buyers and municipal markets although no direct links to the latter two are shown.

The proceeding three sub-sections represent a further breakdown of the FFV supply route into that used by each of the three retailers. These are presented in greater detail with additional information added on the power/governance structures faced and wielded by each of the three focal retail players. The breakdowns therefore contribute to an understanding of how the relevant competitive (Porter's) forces manifest in FFV retail. That is, at each link in the chains an assessment of the strength of the links were made and categorised at four levels as defined in Chapter 3 and by Humphrey (2005).

These are, in order of increasing strength arms length relationships, balanced relationship, directed networks, and hierarchical (subsidiary) relationships.

6.4.1   The informal FFV channel

The following figure 6.6 presents a schematic of the value chain associated with the FFV informal retail in Tshwane Metro. The flow diagram adds detail to the overview flow by omitting channel links that show FFV flowing through alternate channels. In other words only links that eventually go through the informal retailers are shown in figure 6.6.
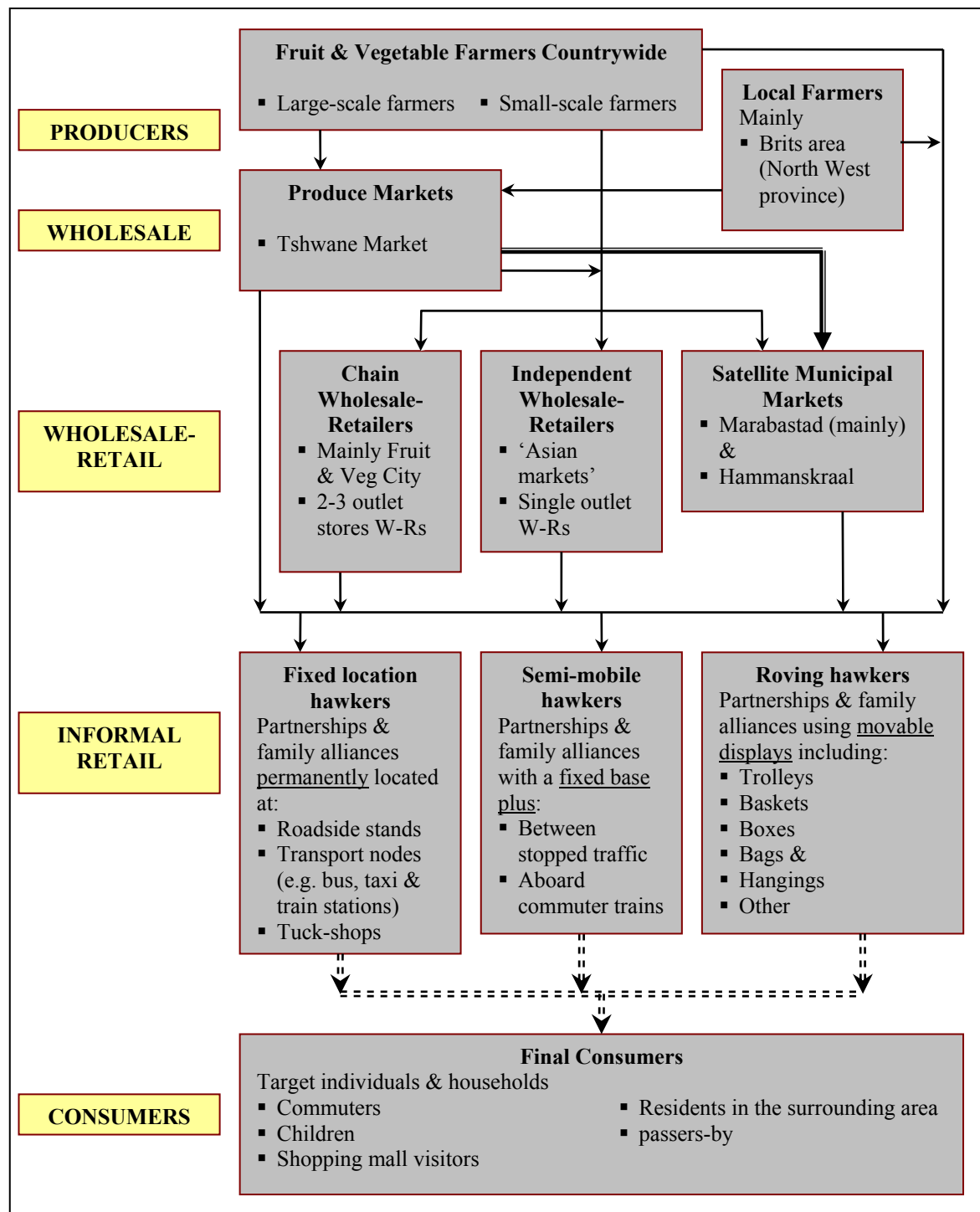
Figure 6.6: Informal trader channel for fresh fruit and vegetables in Tshwane

_____	= arms length market relationship	⋮ ⁼ ⁼ ⁼ ⁼	= balanced relationship
▬▬▬▬	= directed (top down) network	**▬▬▬▬**	= hierarchy (subsidiary)

Of note is that most links in this channel are arms length trading relationships characterised by short term, transaction related relationships. The exception included the directed link between municipal markets and their semi-autonomous satellite

markets. Another was the balanced relationship with customers who were said to share a kinship and good rapport.

As explained in the sourcing section of Chapter 5, informal traders typically used different suppliers and outlets as primary and secondary routes for their business under differing conditions. Thus, since the flow diagram is static, the quantities flowing through node were excluded in favour of simply acknowledging the nodes positions in the chains, their links and the direction of FFV flow.

6.4.2 The greengrocer channel

Following on the previous subsection, the current presents flows of FFV through the greengroceries channel in figure 6.7. Similar to the previous flow chart, only links showing FFV that eventually go through the greengroceries are shown here.

PRODUCERS	**Fruit & Vegetable Farmers Countrywide**
	▪ Large-scale farmers ▪ Small-scale farmers

WHOLESALE	**Municipal Markets** ▪ Tshwane Market ▪ Johannesburg FPM

Marabastad Satellite Municipal Markets

WHOLESALE-RETAIL	

RETAIL	**Greengrocers** Mainly single outlet but up to 3 stores owned: ▪ Family alliances ▪ Independently

FURTHER PROCESSING	**Catering** ▪ Restaurants ▪ Fast-food ▪ Functions & Events	**Hospitality** ▪ Hotels ▪ Bed & Breakfasts ▪ Lodges	**Institutions** ▪ Corporate ▪ Government ▪ Hospitals ▪ Prisons

CONSUMERS	**Final Consumers** Highlighted target individuals & households ▪ All people ▪ Apartment dwellers ▪ Locals and passers-by ▪ LSM 4 and 5

Figure 6.7: Greengrocer channel for fresh fruit and vegetables in Tshwane

	= arms length market relationship		= balanced relationship
	= directed network		= hierarchy (subsidiary)

Compared to informal traders, the greengrocers enjoy closer links (balanced relationships) with market agents and can negotiate for preferential treatment. This is due to the larger volumes of FFV traded per transaction. Some are also contracted as suppliers to the institutional, catering and hospitality industries. On the other hand they had weaker links to end consumers than the hawkers.

6.4.3 The supermarket FFV channel

The supermarket flow chart (figure 6.8) features many more organised links than the previous two. This is a symptom of two factors, their stronger bargaining power and the high level of integration and concentration in the channel.
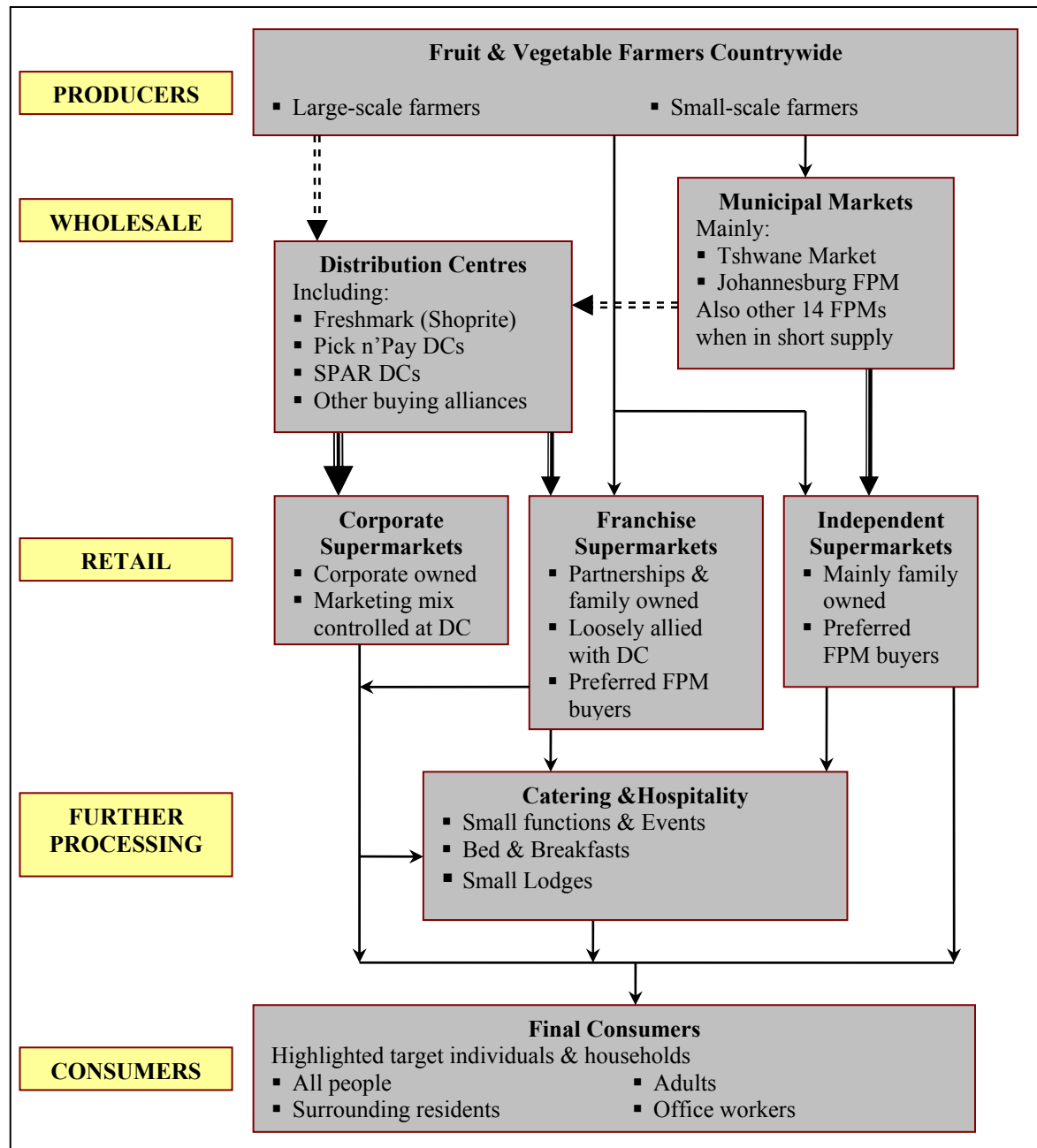
Figure 6.8: Supermarket channel for fresh fruit and vegetables in Tshwane

	= arms length market relationship		= balanced relationship
	= directed network		= hierarchy (subsidiary)

Of note is the absence of the wholesale-retailers in the supermarket channel (figure 6.8). This was replaced to some extent by the distribution centres (DC). These centres did not qualify as wholesale-retailers because they were not open to the public. Also of note is the use of a hierarchical link between DC and corporate supermarkets. This was a strong link compared to the link with the semi-autonomous franchise outlets. Another highlight in the figure is the link between supermarkets and the catering and hospitality industries. These were weaker (arms length relations) than in the case of greengrocers because there were typically no contractual arrangements between the two.

6.5 Summary

Chapter 6 analysed FFV retailers in terms of a SWOT analyses; the risks and problems they faced; how they mitigated or solved them; and ended with a set of channel maps of the three competing retail channels and the power dynamics therein.

A performance profiling based on the factor evaluation matrix revealed that informal traders required the most improvement in their marketing mix. Greengrocers were in an intermediary position with supermarkets scoring highest.

Informal traders highlighted the lack of shelter, wastage, volatile demand and Metro police raids as their prime constraints and mostly did nothing to ameliorate the problems. Most greengrocers could not site any significant challenges to their trade but others sited shrinkage, wastage and fluctuating demand. Over 33% of the sampled greengrocers just carried on despite the problems with a few suggesting solutions. Shoplifting was also a major problem for supermarkets followed by wastage and fluctuating sales. Their solutions were increased hi-tech security, quality control and improved demand forecasting.

Generally retailers shared a positive outlook for the FFV retail industry although there were marginally more pessimists among the greengrocers. The main source of this

positive outlook was the generally positive macro-economic trend leading to a growing middle class; higher incomes and less crime.

The last section on mapping graphically summarised the findings on what links and market governance relationships prevailed in each of the three retail channels which served to fulfil two important research sub objectives.

Chapter 7: Summary, Conclusions & Way Forward

7.1 Introduction

This chapter aims to review the study in its entirety so as to glean the main conclusions of the research findings as well as areas of possible future research. The guiding principles of the process were to pick out the key findings that address the specific (supporting) research questions as stated in Chapter 1 and thus the overall research questions, hypotheses and objectives.

In so doing the chapter begins with a review of the revealed structure of competing channels in FFV retail in terms of their comparative market positions. This is followed by an outline of factors that facilitate multiple retail formats in the sector including a discussion of the comparative barriers to trade and how they create space for competitors. Based on this review a brief action plan is suggested to show how each of the competing channels could upgrade.

The study is concluded with an account of areas beyond the scope of this research that could add to understanding the FFV sector and building more customised action plans.

7.2 Revealed structure of competing channels

The value chain diagrams in Chapter 6 provided a comprehensive overview of the FFV industry and the three channels in terms of structure, governance with an inference on competitive (Porter's) forces, thus meeting the study objectives. This section provides a summary of the text preceding those channel maps including a comparative review of the marketing strategies employed by the different channels. This gives a further overview of the competitive forces faced by the types of FFV retailer and how they employed other attributes and barriers to defend market share.

Concurrently the section highlights how the study as a whole tested and confirmed the hypotheses, stated in Chapter 1, that retailers compete by using differing levels of a mix of marketing attributes and that the structure of the value chains employed by each of the three retail formats gives each one an advantage in accessing different market segments.

7.2.1 Market structure

Fresh produce markets (FPMs) including Tshwane Market (TM) were confirmed as being the largest most important player in the FFV industry as it handles about 80% of all produce in the country and setting the price baselines. Thus the proportion of sales off their floors served as an indication of the relative size of the players.

These TM statistics showed that informal traders (hawkers) as a group were intermittently the top single buyer category. They were also acknowledged for their ability to react to price differentials that often helped to clear instances of market oversupply, thus reducing potential wastage losses. They operated in three business models, fixed location, semi-mobile and roving operations. Hawkers were found through out the city of Tshwane, dominated the sector in the low affluence suburbs, were competitive in the middle and confined to transport nodes in the exclusive neighbourhoods.

Despite their relative unit sizes, chain retailers were typically at fourth place on the TM books. This was because about a third or more of their FFV supplies were obtained directly from farmers. This direct procurement was mainly reserved for acquiring the more sensitive and specialised product lines. The independent supermarkets by and large operated their fresh produce departments similar to the greengrocers. The supermarkets were dominant in the high-income areas where they were strategically found in the shopping malls.

Experts and practitioners were divided over the general plight of greengrocers. Evidence suggests that the business format is declining in small centres but is still

viable in the big cities. TM statistics bundles greengrocers and independent supermarkets into a set that accounts for a significant quarter of market turnover. In terms of presence, the greengrocers have a weak showing in high income areas, competitive presence in the middle and are almost none existent in the poor neighbourhoods.

7.2.2   Comparative use of the marketing mix

The use of the marketing mix and other competitive variables in the three FFV retail channels is best summarised compared in the following table 7.1. This summary is derived not only from retailer responses but also from key informant reviews and observations made during the course of the research. It is especially geared towards highlighting differences in approaches to marketing FFV and thus answering the research question and its supporting plots as outlined in Chapter 1.

Table 7.1: Comparative use of the marketing-mix across the three channels

Variable	Informal FFV Retail	Greengrocers	Supermarkets FFV retail
Place	• A young (6.0 years) set of retailers located at transport nodes with small (4.8 m^2) often movable displays	• Relatively old (23.7 years) set of businesses found at neighbourhood centres. • Have the largest average area under FFV retail (188 m^2)	• A balanced mix of old and new outlets (average 25.3 years) located in shopping malls and centres with a relatively large area under FFV (135 m^2)
Price	• Low with a mean mark-up of 33.0% • Advantage of low to zero overhead costs but little bargaining power with suppliers	• Low on high volume ranges with mean mark-up of 41.7% • Relatively low overhead costs with some bargaining power	• Low, mark ups are kept secret but estimated at 22.5% • High overhead costs balanced by strong negotiating power
Product	• Source from FPM & satellite markets • High volume and quality over a limited range of popular FFV • Low if any carry over stock helped keep freshness and quality up to counter lack of shelter and refrigeration • Repackaging is the main processing activity with little else done • Strong personal relations & kinship bonds with customers	• Source almost exclusively from FPMs but Marabastad satellite used in stock-outs • Key in this channel was carrying a wide range of high quality produce. This comes at a cost of high wastage • Most repackaged FFV in store but a few also did some washing, cleaning and pre-cutting • Relatively personal/neighbourly rapport with little queuing	• Main source are direct from farmers but also include FPMs and off season imports • Relatively wide product range and quality range. Dependant on store location, brand and accepted balance between wastage losses and quality • Repackaging washing and cleaning performed mainly at DC but some in store • Impersonal service & queues
Promotion	• Aggressive personal selling is the main promotion route but also keep neat displays and personal rapport with clients • Also run limited monthly credit in residential operations	• Price discounts (specials) are favoured with some using print media (advertisements, flyers and posters) • An attractive display is also important	• Marketing corporate brand of one stop shopping using a wide range of mass media • Also run store level price and trail inducing promotions
Target market	• Uses a mass marketing approach with emphasis on low to lower middle affluence groups	• The mass market with emphasis on middle affluence areas	• Also mass marketing but with emphasis on middle to high affluence areas

7.3 Factors Facilitating Multiple Retailer Formats

Fresh fruit and vegetable business leaders were in agreement with the current study that the FFV sector is peculiar because of its ability to allow the existence of a wide spectrum of types and sizes of business entities. They report that this was not only true at the retail level but also among the producers, wholesalers, processors and consumers (Roos, 2006; Dodds, 2005 and Du Toit, 2005, personal communications). Their views and analysis in this report point towards a number factors causing this phenomenon including the existence of multiple niches; the equalising effect of pricing at TM; the general upgrade in product quality offered by all retailers; characteristics of FFV and an inability of any single players to satisfy all market segments.

7.3.1 Multiple FFV market niches

The existence of multiple FFV market niches was a key factor to explain the numerous retailer formats. As a result FFV retail in Tshwane, and similarly in other South African urban areas, had evolved into the three main retail formats – supermarkets, greengrocers and hawkers – and each concentrated on different but overlapping market segments serves different needs. That is, as indicated in table 7.1, the informal traders concentrate on the low to lower middle affluence groups (approximately LSM 2 to 6) especially when they are in transit by providing convenient and quick transactions at transport nodes. Greengrocers on the other hand target middle groups (about LSM 5 to 8) while supermarket FFV looks at middle to high affluence groups (LSM 5 to 10). Thus there is limited direct cross retail format competition. On the other hand, because there are a finite number of prospects for FFV, these target groups overlapped considerably. Therefore the existence of an alternate source of FFV meant that competitive rivalry does exist.

7.3.2   TM & other produce markets

Another reason for the multiplicity of retail formats in Tshwane's FFV retail sector was in the effect of the TM. This market created a relatively level playing field for retailers large and small. Firstly, although high volume buyers such as wholesalers and chain retailers could receive discounts for buying in bulk, these discounts had a marginal effect. The reason being, although the small retailers and informal traders made small individual purchases, their combined buying power formed more than half the turnover of the TM. This weakened the bargaining power of bulk buyers and effectively pushed the market closer to the ideal - many small buyers - scenario needed in perfectly competitive markets (Chapter 2). In addition the large players also faced high overhead costs that did not apply in the informal sector thus further levelling the competitive plane. At the centre of this price balancing process were market agents who sought to maximise prices (and hence commission) for farmers while still clearing the stocks while they are fresh. As noted in Chapter 2, the TM prices were referred to in transactions outside the market. Thus the forces of supply and demand ultimately influenced prices used across the board.

Another previous source of inequity and competitive advantage in FFV retail that had since been levelled was that of product quality. As reported in Chapter 2 all retailers had progressively moved towards exclusively trading in high quality, first grade FFV. The lower grades were increasingly the reserve of fresh produce processors. These changes had been facilitated by improved grading systems at the TM and other markets.

The central role of the TM in facilitating cross format competition is seen in the previous paragraphs. However the system was not flawless because the municipal markets also acted as FFV markets of last resort. Market managers complain that this meant that, for instance, when a consignment of produce was rejected by an export market, the exporter had the option to offload the produce at the municipal markets. This caused a flooding of the local markets and thus an abundance produce that either started out low grade or suffered from spoilage. This had the dual effect of

compromising prices received by other producers and lowering buyers' perception of quality supplied at the markets.

7.3.3 Characteristics of FFV versus other food & FMCG

The perishability of fresh produce does not only affect the retailer in terms of potential wastage but also in terms of altering consumers buying behaviour compared to the Fast Moving Consumer Goods (FMCG). Strategies employed at household level to maintain access to freshness include buying small quantities less frequently. This is contrary to the 'one stop shop' appeal of supermarkets where people purchase monthly food supplies in a single transaction. A further deterrent to one stop shopping at supermarkets is convenience. Accessing the larger supermarket typically involved some travel, incurring parking costs and sometimes also included queuing to make the purchases. In comparison, the day-to-day requirements of FFV may be purchased from a hawker while waiting at a traffic light. Alternatively one could do the same at the neighbourhood greengrocer.

Another consideration was that fruits were an important snack food allowing one to buy and consume without need for preparation and with minimal health risks given the wholesale level standards and grading. This risk is especially low where the fruits had a protective peel such as the case in bananas and citrus. FFV were also fairly easy assessed in terms of quality by their appearance, hence there was less need for the comfort of buying particular brands or from known outlets. Their low unit prices made them even lower involvement purchases. Therefore consumers were more likely to trust the smaller retailers.

The FFV retail sector was also characterised by asymmetrically low entry barriers (Ligthelm, 2006b) especially when compared to FMCG. That is, start-up and branding costs were so low that the sector allowed even the smallest player to trade. It had no special skills requirements since the main value addition processes were break bulk, some cleaning and simple arithmetic to ensure a profit was made. Many FFV were also hardy to handling and thus required even less skill or specialised handling. The

relaxation of city bylaws on street trading and lax enforcement reported in Chapter 2 also contributed towards lowering entry barriers.

7.3.4 Characteristics of the players

The large supermarkets suffered the fate of being perceived as part of the impersonal and faceless corporations versus the neighbourly, community and family rapport generated by informal traders and to a smaller extent with greengrocers. The supermarkets' self service approach adds to this impression compared to the more personal service offered in greengroceries and by hawkers.

The value chain mapping conducted in Chapter 6 indicated that the retailers' channels had a similar number of links from 'farm to fork'. However the time between harvesting and sale is usually shorter for the smaller retailers. This could be explained by two factors, storage capacity and volumes traded.

As indicated in Chapter 5 hawkers typically did not possess storage facilities and this was the top business risk identified in 20.6% of the interviews. Thus carry over stock was kept at minimal or zero level each day. A side effect of this problem was that hawkers' stocks were kept fresh by maintaining this daily 100% stock turnover. Greengrocers and small independent supermarkets were in a milder but similar situation as their storage space was limited to the size of the store/outlet.

Supermarket chains on the other hand, typically maintained DCs with massive ripening, storage and refrigeration facilities. For instance Freshmark Centurion, which supplies Shoprite and Checkers outlets in Tshwane, is the largest DC in the group. DCs also reportedly stocked up on some product lines in the on-season price slumps then progressively released them to the outlets (Chapter 5). Also highlighted in Chapter 5, centralised buying often increased the 'farm-to-fork' time and thus decreased FFV quality. However supermarkets could counter this with fewer chain links through sourcing from producers unlike its competitors who typically purchased through the TM (as shown in Chapter 4).

7.4 Channel Upgrading: Ways to improve

One of the primary aims of this research (Chapter 1) was to identify pathways to improve the functioning of each of the three channels. This is channel upgrading in value chain language (Kaplinsky & Morris, 2000). As shown in Chapter 3, this upgrading can occur at four levels: internal efficiency (process upgrading), improving the offering (product upgrading), improving and shifting productive activities (functional upgrading) or else moving into new value chains (chain upgrading).

Also as highlighted in Chapter 3, the outcomes of the upgrading are not guaranteed because of the possible reactions of other market players. These can range from copying the innovations to negating/blocking them. Thus the following text is limited to suggesting market improvements for each of the FFV retail formats based on opportunities identified in this study without exploring the range of possible outcomes. Also embedded in the text are potential institutional, policy and government intervention points where the relevant authorities could facilitate, initiate and contribute to channel upgrading.

7.4.1 Potential upgrades in the informal sector

In terms of process upgrades obtaining hawkers' licenses should occupy top priority for the informal traders. This is especially so given the recent regulatory changes enabling informal trade as shown by Motala (2002) and in Chapter 2. Informal traders are also missing opportunities to band together into business, lobby and advocacy groups such as marketing groups and unions to take advantage the current political dispensation that favours the small business development as guided by White Paper on Small Business Development (Parliament of RSA, 1995), the BEE policies as well as the Department of Trade and Industry (DTI) efforts through Ntsika Enterprise Promotion Agency and Khula Enterprise Finance (http://www.dti.gov.za). As the implementing bodies, municipal authorities have a direct role to play in facilitating the negotiated legalisation of hawking. This negotiation presents an opportunity to

identify feasible means of regulating hawking and thus remove the adversarial relationship between municipal (metro) police and hawkers.

Many barriers faced by informal traders are also related to their small scale of operation. A key upgrade recommendation for the sector is therefore to grow this unit size. Once again a group approach is the fastest means to do so. Groups have the potential to gain better terms of trade such as better sourcing prices, lower transaction costs access to training and other services (Louw *et al*., 2004). However, care must be taken to form natural alliances of like minded people because externally imposed groups have proven to be unsustainable. The DoA uses this approach on the supply side to facilitate smallholder production but struggles to access markets the resultant produce (Louw *et al.*, 2004). Thus the DoA could add a market development element to their efforts by facilitating a direct link between producer groups and informal retailer groups. A supporting finding to this suggestion is that in chapter 5 only 6.3% of hawkers had access to the farm-gate markets in Brits. This constituted lost opportunities for hawkers to collectively negotiate better and more stable sourcing prices thus widening their profit margins.

A key challenge for all FFV retailers including hawkers, in the product upgrade realm, is how to cope with fluctuating demand and wastage costs. To solve this would require better means of accessing market information, say though cellular SMS market updates as well as data on supply and demand trends, all of which would facilitate better FFV demand forecasting. Armed with this, the informal traders could improve the timing of their stocking levels in line with the demand and thus reduce wastage/spoilage loses. This solution may be expensive or beyond the scope of the individual hawker but a viable possibility if a group were to seek such services. A possible source of these services is TM and other municipal markets because they have expertise in the field and have a standing mandated to develop and assist small businesses. Another possible partner in the suggested upgrade is the National Agricultural Marketing Council (NAMC).

Finally in terms of chain upgrading, informal traders could look into widening product ranges to take advantage of their convenience appeal. This could include other convenience items such as snacks, cigarettes, confectionary and even more durable

convenience items like penlight batteries and toys (chain upgrades). Some hawkers were already successfully diversifying in this manner.

7.4.2 Potential upgrades for greengrocers

Greengrocers currently hold an advantage over the large supermarkets chains of having more personal service and neighbourly rapport. Entrenching and expanding this service advantage could be an important upgrade opportunity. Operationalizing this strategy could simply include more visible management and service teams in-store and an emphasis on courteous service, say at pay points. Since greengroceries were usually small outlets averaging less than 200 square metres, this could have the additional effect of reducing the shoplifting problem without intimidating potential customers with bag checks and more surveillance.

Fluctuating demand and the resultant spoilage costs was highlighted as key 'functional' and 'process' related challenges for the greengrocers yet there was little evidence of an effort to formally forecast demand and reduce this threat. This is thus an important avenue of upgrading and would only require more detailed record keeping that would feed into generating trends for future use. Statistics of the markets could also serve a valuable indicator of consumption trends. This is therefore a means by which municipal markets could assist greengrocers as part of their promotion of small businesses.

Another possible 'functional upgrade' for this channel would be to perform the purchasing and delivering services for smaller traders and hawkers in particular. This leverages the fact that greengrocers, who would already be going to the market for their own outlet's purchases, would get better deals for making larger purchases and could therefore form a side wholesaling business. On the demand side, it would solve the stated hawker problem of failing to reach the markets before stock-outs. The danger of generating competition for greengrocer's outlets is minimal given the assessment in Chapter 5 that 77.4% of greengrocers felt they were not in competition with hawkers and 0.7% found them as minor competition.

A final upgrade avenue to consider is that of joining franchised chains whether within FFV retail sector or among the supermarkets. This option could open up access to credit, management support, accessing market information, trend analysis, better terms of trade, advertising under known national brands and an opportunity to diversify into other FMCG items (chain upgrading). A milder version of this would be to associate with or form buying alliances so as to obtain most of these benefits while maintaining the independent identity and retaining control.

7.4.3   Potential upgrades for supermarkets

As reported in the risk analysis section (Chapter 6) there was friction between corporate management and store level managers because of the top down approach used by DC level managers and buyers. The problem indicated that frontline staff were undervalued and underutilised despite being a critical link to the final consumer. Therefore the upward flow of information was compromised. This is a critical loss to the chains particularly in FFV given their problems of wastage and demand fluctuation. Revising this trend through better communication, consultation and training are therefore key 'functional upgrade' opportunities for the supermarkets.

An innovative solution to the impersonal appearance of supermarkets was witnessed during the survey. This involved placing the supervisory team station on pedestals behind the pay-points, near entrances rather than in the traditional enclosed offices or behind two-way security mirrors. This approach had the synergic effects of having a visible management team monitoring and motivating junior staff, having a senior team easily accessible to customers on their way in and out of the store and being a possible additional deterrent to shrinkage and shoplifting. Although such a change may be unpopular for reducing the managers' privacy, it is an overall gain to the business to which people would eventually adapt.

Still on the 'process upgrade' front, although queuing is an unfortunate part of labour cost cutting and self service, the queuing times should be carefully optimised as they caused a loss of convenience sales.

On the product and chain upgrade front, numerous key informants identified processed fruits and vegetables and especially pre-cut FFV as the fastest growing fresh produce sub-sector. Given their current access to facilities, credit as well as the scale of operation the supermarkets were best positioned to take advantage of this growing market segment.

The informal traders at the store fronts are unlikely to disappear in the near future. Therefore rather than view them as a threat, supermarkets could see opportunities for mutual complementarities. One potentially replicable model was found where a supermarket began supplying hawkers with their FFV requirements at just below retail price. This was a win-win situation because it removed the need for the hawkers to travel to the FPM while the previously struggling supermarket FFV section made a profit by moving higher volumes of FFV. This also provided an opportunity to negotiate trading in different product ranges to reduce direct competition. The model could also be combined with selling a market information provision and demand forecasting service to the hawkers. Similar to the greengrocers' case this would not cause a conflict of interest given that only a minority (26.7%) saw them as competition and even so, this strategy would constitute turning an adversary into a potential customer.

7.5 Areas of Further Study: The Way Forward

The current study was an exploratory study by design hence it was intended to pave the way for further study in inter-format retail competition. The current section highlights issues that may add value to the subject matter but were not covered due to study scope and other reasons specified where appropriate.

This study was performed based on the supply side perceptions of the FFV retail industry. A demand/consumer side perspective would have been interesting to pursue but for a number of concerns. Firstly and as stated in Chapter 1, the interest here was on the comparative use of marketing strategy, a supply side issue. Secondly, eliciting consumer perspectives on the FFV retailers' actions would require a separate

sampling and enumeration procedure. Also, to draw conclusions about the types of consumers and their perception would require cross tabulation of responses with respondents' demographic data. These tasks were judged to be beyond the scope of a single study and thus are reserved for subsequent research.

The current study established that almost all FFV retailers conducted some sort of value addition but the effect of these practices was only intuitively judged as positive. Thus empirically testing the effect of value addition on profitability, sales and competitiveness could be an interesting area for further study.

Collective effort is often, including in the current research, recommended to resolve the scale issues facing the informal sector. An investigation into the economic and/or social feasibility of such efforts in FFV retail could be another subject to pursue.

Tshwane Market was reportedly losing clients due to early stock-outs and their early trading hours (Chapter 5). It would be useful for the market to investigate this issue to ascertain whether these were merely seasonal shortages or if allegations that wholesalers and secondary markets (such as Marabastad) were purposefully stripping FPM supplies to generate retailer demand for themselves. A symptom of this problem was that some Tshwane retailers were forced to obtain stock from the Johannesburg FPM some 50km away and yet still making a profit.

Stakeholders in the FFV sector argued that TM was slow to react to market trends and was missing opportunities because it was plagued with bureaucracy associated with being controlled by a local government. On the other hand, privatising FPMs stands the risk of placing FFV price setting into private hands driven by a profit rather than equity objective. Experience from privatised markets, such as Polokwane FPM, showed that where farmers controlled the markets, they manipulated terms of trade in their favour. The NAMC found that a similar but reversed situation could arise where buyers controlled privatised markets (Rathogwa *et al.*, 1998). Theoretically, market agents as middlemen would equalise the situation but in the long run they would also align themselves to market owners.

There has recently been a growth and transformation of FFV wholesaler-retailers into what can be termed 'super-greengrocers'. Cases in point include the Fruit & Veg City chain and the Evergreens Housewives Market at the TM. Unlike wholesalers this format is increasingly targeting the final (housewife) consumers rather than small retailers. This is evident in the supermarket like appearance of their outlets. They are therefore poised to become a fourth dimension in FFV retail. However, trends and commentators also indicated that small independent greengroceries were a dying business format (Bezuidenhout, 2006, personal communication). Therefore if they were to disappear the FFV retail sector would revert back to three competitors. Thus competition between retail, wholesale-retail and wholesale could be another topic to investigate.

References

ACNIELSEN (2006) *Retail Measurement Services: Your Global, Comprehensive Retail Coverage Solution.* URL: www2.acnielsen.com Accessed September 2006

AGRITV (2006) *The Tshwane Market. New Retail Facilities.* URL: www.agritv.co.za Accessed March 2006

ARMSTRONG S. & OVERTON T. (1977). Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research,* 14, p.396–402.

BITNER J. & BOOMS B. (1981). *Marketing strategies and organizational structures for service firms*, in DONNELLY J. & GEORGE W. (1981). *Marketing of Services*, American Marketing Association, Chicago.

BORDEN, N. (1964). The Concept of the Marketing Mix. *Journal of Advertising Research*, V4, June, 1964, p. 2-7.

BOUDREAUX D. J. & MACAULAY H. (1996), Competition and Cooperation. *The Freeman: Ideas on Liberty.* The Foundation for Economic Education. URL: www.fee.org Accessed July 2005

BRANDENBURGER A. & NALEBUFF B. (1996). *Co-opetition*. Profile, London, UK

BRANDT N (2004). *Beeld* 15 April 2002. URL: www.news24.com/Beeld/Home/. Accessed January 2005

BRIGGS C. L. (1992). *Learning How To Ask: A Sociolinguistic Appraisal of the Interview in Social Science Research*. Cambridge University Press (5th edition) Cambridge

BUZZELL R.D. & GALE B.T. (1987). *The PIMS Principles - Linking Strategy to Performance*. The Free Press, New York.

CITY OF TSHWANE (2005). *Official Website* URL: http://www.tshwane.gov.za/. Accessed August 2005

CTMM (2006) *Tshwane Market: Where Fresh Produce Supply and Demand Meet*. City of Tshwane Metropolitan Municipality (CTMM) URL: www.tshwane.gov.za/tshwanemarket Accessed Merch 2006

CITY OF JOHANNESBURG (2006). *Fresh Produce Market*. City of Johannesburg official Website. BIG Media and the City of Johannesburg URL: www.joburg.org.za Accessed March 2006

COOK R. (2003). *Forces Driving Change in Fresh Produce Marketing: Implications for Avocados.* Department of Agricultural and Resource Economics. UC Davis. September 2003. URL: www.agecon.ucdavis.edu/aredepart/facultydocs/Cook/Articles/avoCookfinal.pdf. Accessed July 2005

COYNE K. P. & SUBRAMANIAM S. (1996). Bringing discipline to strategy. *The McKinsey Quarterly*. 4: p.14-27.

DEVARINTERT D.I. & WATSON V. (1981). *Unemployment and the "Informal Sector": Some Proposals*. Cape Town, University of Cape Town, Urban Problem Research Unit.

DFID RNRA (2005). Supermarkets, fresh produce and new commodity chains: what future for the small producer? *Hot Topics*, DFID Renewable Natural Resources and Agriculture (RNRA), URL: http://www.livelihoods.org/hot_topics/Agriculture.html Accessed December 2005

D'HAESE M. & VAN HUYLENBROECK G. (2005). The Rise of Supermarkets and Changing Expenditure Patterns of Poor Rural Households Case Study in the Transkei Area, South Africa. *Food Policy* v30:1 p.97-113. Science Direct, Elsevier Ltd

DODDS M. & SEDUTLA S. (2005). *Internal Client Segmentation Study*. Economic Development Department, Tshwane Market, Tshwane

DoA (2004). *Food Pricing Monitoring Committee Final Report August 2004*. URL: http://www.nda.agric.za/docs/fpmc/default.htm Accessed October 2006

DoA (2005a). *Abstract of Agricultural Statistics*. Directorate: Agricultural Statistics, National Department of Agriculture, Pretoria

DoA (2005b). *Trends in the Agricultural Sector 2005*. Directorate Agricultural Information Services. National Department of Agriculture, Pretoria

DoA, (2006). *Crops and Markets Report No. 296*. Directorate Agricultural Information Services. National Department of Agriculture, Pretoria

DoA, (nd.). *Agricultural Marketing Extension Training Papers No 2 and 3: The South African Horticultural Market*. National Department of Agriculture and FAO Project TCP/SAF/0065 URL: www.nda.agric.za/docs/MarketExtension/2%203Horticulture.pdf Accessed March 2006

DOLAN C & HUMPHREY J. (1998). *Governance and Trade in Fresh Vegetables: The Impact of UK Supermarkets on the African Horticulture Industry*. Institute of Development Studies (IDS), Sussex

DOT (1998). *Moving South Africa: A Transport Strategy for 2020*. National Department of Transport, Pretoria

DRIES L., REARDON T. & SWINNEN J. F. M. (2004). The Rapid Rise of Supermarkets in Central and Eastern Europe: Implications for the Agrifood Sector and

Rural Development. *Development Policy Review*, 2004, 22 (5): 525-556 Overseas Development Institute. Published by Blackwell Publishing, Oxford, UK

EHLERS M. B. LAZENBY J. A. A. (ed.) (2004). *Strategic management: Southern African Concepts and Cases*. Van Schaik Publishers, Pretoria

ESTERHUIZEN D. & VAN ROOYEN J. (2004). *Determinants of Competitiveness of South African Agricultural Export Firms*. Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, Pretoria, South Africa

EPSTEIN, S.T. (1992). *The relationship between rapid rural appraisal (RRA) and development market research (DMR)*. In Scrimshaw N. S. &. Gleason G. R, (ed.) (1992) *Rapid Assessment Procedures: Qualitative Methodologies for Planning and Evaluation of Health Related Programmes*. International Nutrition Foundation for Developing Countries (INFDC), Boston, MA. USA

FAIRWEATHER T. (2004). Bottom Line: Fruit & Veg City, a top retailer that respects farmers. Set to become the world's top fresh –produce retailer? *Farmers' Weekly*, July 23 2004.Caxton/RP Magazines, Johannesburg, South Africa

FARINA E. M. M.Q. & MACHADO E. L., (1999) *Government Regulation And Business Strategies In The Brazilian Fresh Fruit And Vegetable Market*. International Congress on Economics and Agri-Food Chain Management, October 29 to 31st São Paulo Brazil. URL: www.fearp.usp.br Accessed March 2006

FROST F. A. (2003). The use of strategic tools by small and medium-sized enterprises: an Australasian study. *Strategic Change*. Volume 12, Issue 1, p. 49-62. John Wiley & Sons, Ltd.

GHOLAMI M. (2005). *The Underground Economy and Islamic Republic of Iran's GDP*. Expert Group on Informal Sector Statistics (Delhi Group). National Accounting Department of Statistical Centre of Iran

GJFPM (2004). *Johannesburg Metropolitan Fresh Produce Market: The fresh produce distribution channel.* Greater Johannesburg Metropolitan Fresh Produce Market (GJFPM), URL: www.jfpm.co.za Accessed August 2005

GCIS (2005). *South Africa Yearbook 2004/5.* Government Communication and Information System, STE Publishers, Johannesburg

HAUPT P. (2001). *The SAARF Universal Living Standards Measure (SU-LSM): 12 Years of Continuous Development.* South African Advertising Research Foundation (SAARF), Johannesburg

HIRSCHOWITZ, R. (1992). Informal Business: Opportunity for Entrepreneurship or Poverty Trap? *People Dynamics*, Volume 10, No. 8.

HSRC (2005). *2005 Population Estimates*. Human Sciences Research Council (HSRC), GIS Centre. Tshwane, South Africa

HSRC (1991) *Fresh Produce in South Africa: Marketing of Fresh Produce in the Republic of South Africa.* Human Science Research Council (HSRC), Pretoria, South Africa.

HUMPHREY J. (2005). *Shaping Value Chains for Development: Global Value Chains in Agribusiness.* Trade Programme, Sectoral Project Trade Policy, Trade and Investment Promotion Sectoral Project Agricultural Trade. Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ). Eschborn, Frankfurt URL: http://www.gtz.de/trade

ILO (2003). *Street traders and their organisations in South Africa* International Labour Organization (ILO) Geneva, Switzerland,

IMF (2003). *Data Quality Assessment Framework (DQAF) for National Accounts Statistics.* Real Sector Division, International Monetary Fund, Washington, D.C.

ISHS (2006). Country Report: South Africa. International Society for Horticultural Science (ISHS), Horticulture Research International. URL: www.hridir.org/countries/south_africa/index.htm Accessed, February 2006.

KADIYALI V., SUDHIR K. & RAO V. R. (2001). Structural analysis of competitive behavior: New Empirical Industrial Organization methods in marketing International *Journal of Research in Marketing*. Vol 18, 1-2 , June 2001, p 161-186

KAPLINSKY R. & MORRIS M. (2000). *A Handbook for Value Chain Research*, International Development Research Centre (IDRC)

KARAAN A. S. M. (1993), *Informal Red Meat Marketing: A Case study in the Western Cape Townships*. Master of Science Thesis, University of Stellenbosch, South Africa

KOTLER, P. (2003). *Marketing Management*, 11th Edition. Prentice Hall. USA

KRAMER M. (2005). *Univariate versus Multivariate Treatment of Repeated Measures*. University of Cincinnati. Reviewer: Fellner A. N., Doctoral Student in Psychology, University of Cincinnati March 1, 2005

LAUTERBORN, R. (1990) New Marketing Litany: 4P's Passe; C words take over, *Advertising Age*, October 1, 1990, pg 26.

LOUW A. & EMONGOR R. A. (2004). *Regoverning Markets: Securing Small Producer Participation in Restructured National and Regional Agri-food Systems*. Regional Overview. International Institute for Environment and Development (IIED) London

LOUW A., (2004). *Crime in Pretoria: Results of a city victim survey*. Institute for Security Studies URL: www.iss.co.za/Pubs/PTAVicSurvey/Contents.html. Accessed December 2004

LOUW A., MADEVU H., JORDAAN D. & VERMEULEN H. (2004). *Regoverning Markets: Securing Small Producer Participation in Restructured National and Regional Agri-food Systems*. South Africa Country Report. International Institute for Environment and Development (IIED) London

LIFF S. & TURNER S. (1999), Working in a corner shop: are employee relations changing in response to competitive pressures? *Employee Relations*. 21 No. 4 1999 p..418-429

LIGTHELM A. A. (2006a). *Measuring the Size of the Informal Economy in South Africa, 2004/05*. Bureau of Market Research (BMR) University of South Africa Pretoria

LIGTHELM A. A. (2006b) *Informal Markets In Tshwane: Entrepreneurial Incubators Or Survivalist Reservoirs?* Bureau of Market Research (BMR), University of South Africa, Pretoria

LIGTHELM A. A. & Van WYK A. M. A. (2004). *Informal trading in Tshwane: Regulatory, spatial and economic framework*. Bureau of Market Research. University of South Africa, for the City of Tshwane Metropolitan Municipality

LUTTIKHUIZEN R. & KAZEMIER1 B. (2000), *A Systematic Approach To The Hidden And Informal Activities*. Statistics Netherlands, Voorburg

MAKI A. (1996). *An Analysis of Under-Reporting for Microdata Sets: Misreporting for the Double Hurdle Model.* Keio University, Japan, and Shigeru Nishiyama, Otaru University of Commerce, Japan

McCORMICK D. & SCHMITZ H. (2001). *The Manual for Value Chain Research on Home Workers in the Garment Industry*. Institute of Development Studies (IDS). URL: www.ids.ac.uk/ids/global/pdfs/wiegomanualendnov01.pd

MARTINS J. H. (2006) *Trends in household expenditure in South Africa, 2001* Bureau of Market Research Bureau of Market Research University of South Africa, Pretoria

MASSMART (2005). *Annual report 2005*, Metcash Trading Africa (Pvt) Limited, URL: http://www.massmart.co.za. Accessed November 2005

METCASH TRADING AFRICA (2005). *Annual report 2005*. METCASH TRADING AFRICA (Pvt) Limited. URL: www.metcash.co.za/ Accessed November 2005

MOORTHY S.K. (1993). *Competitive marketing strategies*, In: ELIASHBERG J. & LILIEN G.L., edts (1993). *Handbooks In Operations Research and Management Science, Vol. 5: Marketing*, North Holland, Amsterdam.

MOTALA S. (2002). *Organizing in the Informal Economy: A Case Study of Street Trading in South Africa*. In Focus Programme on Boosting Employment through Small Enterprise Development Job Creation and Enterprise Department. International Labour Organization, Geneva

NATIONAL BRANDS LIMITED (2003). *Sales*. URL: http://www.nbl.co.za Accessed November 2005

NETMBA (2005). *The Marketing Mix: The 4Ps of Marketing. Internet Center for Management and Administration.* URL: www.netmba.com/marketing/mix/. Accessed November 2005

PATTON M. Q. (1990) *Qualitative Evaluation and Research Methods, 2nd ed*. Sage Publications, Newbury Park, USA

M+M PLANET RETAIL (2004). *Country Reports*. London, United Kingdom. URL: www.planetretail.net . Accessed November 2004

MARIUS, H. (1987). The Informal Sector in Developing Countries. *Small Enterprise*

Development: Policies and Programs, ed. Neck P. & Nelson R., Geneva, Switzerland: International Labor Organization.

McCARTHY, J. (1960). A Managerial Approach, *Basic Marketing* 13th ed., Irwin, Homewood, Illinois, 2001.

MORRIS R. (1992), *Marketing to Black Townships: Practical Guidelines*. Graduate School of Business. University of Cape Town, Cape Town

MORRIS R., JONES P. and NEL D. (1997). *The Informal Sector, Entrepreneurship and Economic Development*. Graduate School of Business. University of Cape Town, Cape Town

MOSER C.A. & KALTON G. (1989) *Survey Methods in Social Investigation*. (2nd edition) Gower Publishing Company. Hants, UK

MUNICIPAL DEMARCATION BOARD (2004). *Maps and demographics for municipalities and wards*. Hatfield, Pretoria.

NAMC & DoA (2006). *The South African Food Cost Review: 2005*. National Agricultural Marketing Council & Department of Agriculture, July 2006. URL: http://dms.namc.co.za/published/20060823-1616.pdf Accessed: October 2006.

PICK'N PAY (2002). *Annual Report*. Cape Town, South Africa

PLANET RETAIL (2006a). *Country Reports*. London, United Kingdom; Frankfurt, Germany; and Tokyo, Japan. URL: www.planetretail.net . Accessed March 2006

PLANET RETAIL (2006b). *About Us*. London, United Kingdom; Frankfurt, Germany; and Tokyo, Japan. URL: www.planetretail.net . Accessed March 2006

PORTER M. (1979). How competitive forces shape strategy, *Harvard Business Review*, March/April 1979

PRETTY J. N., GUYT I, THOMPSON J & SCONES I. L. (1995) Participatory Learning & Action. A Trainer's Guide. International Institute for environment and Development (IIED) London

RATHOGWA M. G., KASSIER W. E., BENGU-BALOYI L., KÜGEL H. W. L., BAYLEY B. J., DU TOIT I. E. AND VAN DER WALT M. (1998). *The Section 7 Committee Report On The Investigation Into Fresh Produce Marketing.* Report 1 Johannesburg Fresh Produce Market. National Agricultural Marketing Council (NAMC), Pretoria

RAUCH, J. E. (1991). Modeling the Informal Sector Formally. *Journal of Development Economics*, 35:1, 33-47.

REARDON T., TIMMER C. P. & BERDEGUE J. A. (2003). *The Rise of Supermarkets and Private Standards in Developing Countries: Illustrations from the Produce Sector and Hypothesized Implications for Trade*. Contributed paper: International Conference: "Agricultural Policy Reform and the WTO: where are we heading?" Capri, June 23-26, 2003

RESERVE BANK OF SOUTH AFRICA, (2006). *Quarterly Bulletin Time Series: KBP6006K*. URL: www.reservebank.co.za/ . Accessed: January 2006

RICHARDS T. J. &. PATTERSON P. M. (2003). *Competition in Fresh Produce Markets: An Empirical Analysis of Marketing Channel Performance.* Electronic Report from the Economic Research Service. United States Department of Agriculture (USDA).

ROSSITER D. G. (2005). *Preparation for MSc Thesis Research.* International Institute for Geo-information Science & Earth Observation (ITC*). Enschede, Netherlands*

SCHMITZ, H. & KNORRINGA, P., (1999). *Learning from Global Buyers.* Institute of Development Studies (IDS), Working Paper, Brighton, URL: http://server.ntd.co.uk/ids/bookshop/details.asp?id=513

SAMUELSON, P.A. (1967). *Economics: An Introductory Analysis*. McGraw-Hill, New York

SANGSTER R. L., WILLITS F. K., SALTIEL J., LORENZ F. O. & ROCKWOOD T. H. (2001). *The effects of numerical labels on response scales*. Proceedings of the Annual Meeting of the American Statistical Association, August 5-9, 2001

SHOPRITE HOLDINGS LIMITED (2002). *Annual Report.* South Africa

SOUTHAFRICA.INFO (2004), *Black Middle Class On The Rise.* 9 November 2004. SouthAfrica.info   URL: http://www.southafrica.info/doing_business/trends/empowerment/buppie.htm

SOUTH AFRICAN ADVERTISING RESEARCH FOUNDATION (2001). *All About SAARF and AMPS.* URL: www.saarf.co.za. Accessed July 2005

SOUTH AFRICAN ADVERTISING RESEARCH FOUNDATION (2004). *Segmentation Handbook*. SAARF, Bryanston, South Africa

STATSSA (1993). *Standard industrial classification of all economic activities (SIC)*, 5th ed. Central Statistical Service, Pretoria: 1993 vii, p.217 CSS Report No. 09-90-02 URL: www.statssa.gov.za/. Accessed April 2005

STATSSA (2002a). *The contribution of small and micro enterprises to the economy of the country: A survey of non-VAT-registered businesses in South Africa Part 1 - Summary and tables.* Statistics South Africa, Pretoria

STATSSA (2002b). *The contribution of small and micro enterprises to the economy of the country: A survey of non-VAT-registered businesses in South Africa. Part 2 - Narrative Report*. Statistics South Africa, Pretoria

STATSSA (2005) Retail trade sales September 2005. Statistical release P6242.1. Statistics South Africa, Pretoria, South Africa

STREIFF M.B., DUNDES L. & SPIVAK J.L. (2001). A mail survey of United States hematologists and oncologists: a comparison of business reply versus stamped return envelopes. *Journal of Clinical Epidemiology* 54, p.. 430–432.

SPAR SOUTH AFRICA (2003). *Annual Report*. Pinetown, Durban

eTHEKWINI ONLINE (2004). *Durban National Fresh Produce Market*. URL: www.durban.gov.za/eThekwini. Accessed November 2004

TAYLOR S. J. & BOGDAN R. (1998). *Introduction to Qualitative Research Methods.* Wiley, New Jersey

TIGER BRANDS (2002). *Annual Report.* Sandton, South Africa

TOKMAN V. E. (1978). Competition between the informal and formal sectors in retailing: The case of Santiago. *World Development,* Volume 6, Issues 9-10, September-October 1978, Pages 1187-1198

TRAILL W. B. & PITTS E. (1997). *Competitiveness in the food industry*. Blackie Academic & Professional, London

TUSTIN D. H. (2006). Bureau of Market Research Bureau of Market Research University of South Africa, Pretoria

UNESCAP (2004). *Measuring the Non-Observed Economy (NOE): The Philippines experience.* United Nations Economic and Social Commission For Asia and the Pacific (UNESCAP). The OECD/UNESCAP/ADB Workshop on Assessing and Improving Statistical Quality: Measuring the Non-observed Economy 11-14 May 2004 Bangkok

Van AARDT C. J. (2005). *Forecast of the Adult Population by Living Standards Measure (LSM) For South Africa, 2005 to 2015*. Bureau of Market Research, University of South Africa, Pretoria

Van ROEKEL J., WILLEMS S. & BOSELIE D. M. (2002). *Agri-Supply-Chain Management: To Stimulate Cross-Border Trade in Developing Countries and Emerging Economies.* World Bank, Washington, D.C.

Van ROOYEN C.J., MAVHANDU F., ANSWEEUW W., & D'HAESE L. (2002). The Business of Informal Trading in the Food and Flower Sectors. In, Van Rooyen C.J., Doyer O.T., D'Haese L., edts (2002). *Readings In Agribusiness, A source Book for Agribusiness Training,* Volume 4 II, Case Studies. University of Pretoria, Institutional University Cooperation.

Van WYK H. J. (2006) *An evaluation of economic and sociopolitical issues in 2004 and 2007 compared with 2003.* Bureau of Market Research Bureau of Market Research University of South Africa, Pretoria

Van ZYL J. & CONRADIE G. J. (1988) *Factors That Influence the Domestic Demand for Avocados in South Africa With Special Reference to Urban Black Consumer Preferences.* South African Avocado Growers' Association Yearbook. 11:8-10. Pretoria

VARKEVISSER C. M., PATHMANATHAN I. & BROWNLEE A (2003). Designing and Conducting Health Systems Research Projects. Volume 1: *Proposal Development and Fieldwork.* KIT Publishers, Amsterdam, International Development Research Centre, WHO Regional Office for Africa, World Health Organization / International Development Research Centre

WEATHERSPOON D. D. & REARDON T. (2003). The Rise of Supermarkets in Africa: Implications for Agrifood Systems and the Rural Poor. *Development Policy Review*, 21(3), p. 1-17

WIKIPEDIA 2002. Marketing mix. Wikipedia, The free encyclopedia. URL: en.wikipedia.org/wiki/Marketing_mix. Accessed November 2005

YIN R. K. (1984) *Case Study Research: Design and Methods*. Sage Publications, London, UK

ZUURBIER P. (1999). *Supply chain management*. Lecture notes, Universities of Pretoria and Stellenbosch. Agricultural Business Chamber (ABC), Pretoria

8.1 Key Informants

BEZUIDENHOUT C. (2006). Representative, Tomato Producers Organisation (TPO), Pretoria, Tshwane

DODDS T. (2005), Deputy Manager, System Information and Development. Tshwane Market (TM), Pretoria West, Tshwane

DU TOIT G. (2005), Chief Executive Officer, Freshmark Distribution Centre, Centurion, Tshwane

DUBE P. (2005) Pretoria Informal Business Association (PIBA). Tshwane

MABUZA J. (2005). Perishables supervisor. Pick'n Pay, The Tramshed Shopping Mall, Van der Walt Street Tshwane

MOLEFE B. (2005). Informal Fresh Fruit and Vegetable Retailer. Siso Street Atteridgeville, Tshwane

MRASI C. (2005). Gauteng Hawkers Association (GHA) and National African Federated Chamber of Commerce and Industry (NAFCOC), Johannesburg

ROOS B. (2006). Fruit & Veg City Franchiser and Former Freshmark National Fresh Produce   Buyer. Value Mart, Whiteriver Road, Nelspruit, Mpumalanga.

WILLIAM W. (2005). Manager, Watloo Greengrocery, Set Street, Mamelodi, Tshwane

APPENDICES

9.1 Appendix 1: Living Standards Measure (LSM)

The LSM grouping was used as a major stratification tool in the sampling design process. Therefore before describing how this tool was employed it is necessary to discuss this index and why it was considered appropriate for use in the sampling task described in the methods section.

The South African Advertising Research Foundation (SAARF) developed the first version of the SAARF LSM™ (Living Standards Measure) in early 1990. The development of the LSM Index was stimulated by a realisation that single variable differentiators such as urban/rural, income or other demographic variables were loosing their power as segmentation indices. Statistical theory backs this observation in asserting that multivariate techniques have superior power especially given a large sample size ($n \geq a + 20$; where '*a*' means number of levels for repeated measurement) (Kramer, 2005). There was thus a need for a multivariate market segmentation index hence the development of the LSM index.

The LSM index was designed to divide the nation into relatively homogeneous groups according to their living standards. The LSM is therefore a wealth measure based on standard of living rather than income. Many commonly used demographic variables such as income; education and occupation were tested as part of the first LSM but proved statistically insignificant.

The latest LSM version used here, the Universal LSM, was created in 2001 out of four SAARF surveys (AMPS[6], RAMS[7] and TAMS[8])[9]. This LSM divides the population

---

[6] All Media and Products Survey
[7] Radio Audience Measurement Survey
[8] Television Audience Measurement Survey
[9] SAARF AMPS, RAMS and TAMS provide the common measure used by advertisers and their agencies to select and buy appropriate media space and time. Media owners on use the indices to market their media and for editorial and programme planning.

continuum into a hierarchy of ten groups according to affluence. That is from the least affluent at 1 at the bottom, to 10 at the top. The LSM groups were calculated using 29 variables derived from the SAARF All Media and Products Survey (AMPS). These variables are not only powerful in differentiators of the market but they were also found to be consistent in doing so. Despite this robustness, the LSM maintains its agility by being responsive to market developments. This is evident when the index variables and weights are reviewed periodically the latest, used here, being in 2004.

The LSM index has become one of most commonly used marketing research tools in South Africa. The tool is essentially a marketing segmentation tool that uses an index to differentiate between people with different behaviour patterns and group together those people with similar behaviour (Haupt, 2001). One of the primary aims of this study is to track the competitive efficacy of the three types of fresh produce retailers. As shown in a previous section, marketing theorists suggest that firms are more likely to succeed when they target the appropriate market segments. The LSM grouping is therefore an ideal means by which the fresh produce market in Tshwane may be divided into relatively homogenous segments.

9.1.1   Trend in Living Standards

From the onset of democracy in 1994 to 2005 the economy has grown at an average rate of 94% per annum, a considerable improvement on the two decades before 1994 when per-capita growth was negative. Real per-capita growth has been about 1% per year over the same period although this is a steady growth it is slow compared to most developing economies (GCIS 2005, p.56). Population growth has been subdued at 1.8% (mainly due to HIV/AIDS) over the same period. Concurrently the disposable income of households grew at an average of 3.96% (1994 to 2004). These figures indicate relatively small but positive changes over the decade. The real flux was recorded in the distribution of incomes.

An encouraging aspect of the growth in GDP has been the rapid growth in the number of black middle class South Africans nicknamed the *buppies* - black up-and-coming professional people. According to SouthAfrica.info (2004), at least 300 000 black

nationals became middle-income earners (LSM 5, 6 and 7) between 2001 and 2004 alone while the income composition of Asians and Whites had stagnated. The results were verified in similar - more recent - studies by the SAARF (2004) and the Bureau of Market Research (Van Aardt, 2005; Tustin, 2006; Van Wyk, 2006 and Martins 2006). These studies calculated that the share of whites in disposable income had declined from 70,4% to 44,6% between 1960 and 2005 while that of blacks had increase by 22,5% to 43,1%. Growth in the *buppies* was attributed to a combination of factors, including the government's black economic empowerment drive.

The impact of this transformed market on the competitiveness of fresh produce retailers will be of interest in the current study. Especially given that the previously low income *buppies* were likely to have a different attitude towards, for instance, purchasing from informal traders than their white counterparts.

9.2   Appendix 2: Hawkers questionnaire-checklist

A.   Identification

Establishment name ---------------------------- Date--

Name of interviewee ---------------------------- Position --
-- --
Address/Location------------------------------ Tel. ---
-- --

B.   Place - Trading History

1.   Year established   2.   Stall size (m^2)   3.   Ave. monthly turnover (R) last year

4.   Type of location
   Shopping mall   ☐   Neighbourhood centre   ☐   Train Station   ☐
Other (specify)------ --
----
5.   Why was this site chosen? ---
----
6.   Has it moved from other locations? *(Tick ✔)* Yes ☐   No ☐
If yes, why and when did you move? ---
----
7.   What is the ownership structure of this business? *(Tick ✔)*
   Independent stall   ☐   Group (describe) ☐   Other (specify)   ☐
Please explain: --

C.   Competition – Effect & Response

8.   What is your target market for fresh produce? (E.g. adults, office staff, flat dwellers,
learners etc…)---

----
9.   Why do you think customers buy fresh produce from you as opposed to other traders?
        Low price   ☐   On the way home   ☐   Habit   ☐   One stop shop   ☐
Other (specify)--
----

10. Who are your competitors in fresh produce sales?
Please rank (1 = main competitor; 2 =serious competitor; 3 =minor competitor; 4 =not competitor)
Greengrocers   ☐   Supermarkets   ☐   Hawkers   ☐   Other ☐
                                                                  (name)
11. If other please specify and rank---
----
12. How have your *main competitors* affected your sales? *(Tick ✔)*
   Increased   ☐   Decreased ☐   No change   ☐

13. Do you know of any fresh produce traders (retailers and hawkers) that have had to close down in the last 5 years? Why? ---
----
----

14. When do you make the highest fresh produce sales?
(Tick ✓ across if demand is evenly spread)

a.	**Daily▶**	Mornings	Mid-morning	Afternoons	Late Afternoon	Evening	Night	Late Night
b.	**Weekly▶**	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
c.	**Monthly▶**	Early			Mid-Month			Month end
d.	**Yearly▶**	Jan-Feb	March-Apr	May	June -July	August	Sept-Oct	Nov-Dec

15. How many days of the week do you operate? ☐

16. How many hours do you operate on:

a) Mon-Fri ☐   b) Saturday ☐   c) Sunday ☐   d) Public holidays ☐

D.   Price - Determination & Margins

17.   How has the competition stated above affected your pricing? *(Tick✓)*
  Increased   ☐   Decreased ☐   No change ☐
Why? --
----

18.   How do you determine the price for the following?

Product	**Price Determining Method (e.g. mark up = $\left[\dfrac{\text{price-cost}}{\text{cost}}\right]*100\%$)**
Apples	
Oranges	
Bananas	
Potatoes	
Tomatoes	
Onions	

E.   Product - Procurement/Sourcing (chain entry point)

19. What proportion of business/sales does fresh produce constitute? ☐ %
20. How is the buying of the fresh produce organised? *(Tick✓)*
Tshwane FPM ☐   Marabastad Market ☐ Buying Centre ☐   Agent ☐   From farmers ☐
  Other (specify)---

Where do you currently source the following products?

Product	Number of varieties	Source	% from each source	Why buy from these sources? (e.g. quality)
Apples				
Oranges				
Bananas				
Potatoes				
Tomatoes				
Onions				

21. How long do you take to pay suppliers after delivery of fresh produce? *(Tick ✓)*
Cash on delivery ☐   30 days ☐   60 days ☐   Other (specify) ☐

----

22. What pricing arrangements do you make with your supplies? *(Tick ✓)*
Predetermined ☐   Contractual ☐   Auction ☐   Other (specify) ☐

----

23. Do you enter into contracts with suppliers? *(Tick ✓)* Yes ☐   No ☐
   a. If yes, what types of contracts they? (Tick ✓)
Formal (Written) ☐   Informal (Verbal) ☐   Other (specify) ☐
   ----
   b. How often are contracts reviewed? ---
   c. Is price set in the contract? *(Tick ✓)*   Yes ☐   No ☐
   d. How? ---
24. What procurement problems do you face? --
----
25. How do you resolve these? --

----
26. Do you perform any processing e.g. Packaging/ Washing? *(Tick ✓)*   Yes ☐ No ☐
27. If so, by how much does it cost and how does this processing change sales?

Product	Packaging	Washing	Cutting	Freezing	Other (list)▶	
Apples Cost						
Sales Change						
Oranges Cost						
Sales Change						
Bananas Cost						
Sales Change						

Product	Packaging	Washing	Cutting	Freezing	Other (list)▶	
Potatoes Cost						
Sales Change						
Tomatoes Cost						
Sales Change						
Onions Cost						
Sales Change						

28. What are your main costs of doing business?

Item	Cost *(Specify units e.g. R/Km)*	Percentage of total of costs (%)
Stock of fresh produce		
Transport		
Rentals		
Packaging		
Electricity		
Staff		
Cooling		
Taxes		
Other (specify)		
Total		

F.   Promotion & Advertising

29. What do you do to get people to buy and/or buy more from you? ------------------------------
----

Products	Type of promotion per product (Please explain & cost activity)				
	Adverts/flyers/posters *(Cost R)*	Sale/discounts/coupons *(Cost R)*	Competitions/prizes *(Cost R)*	(Other, list) ▶	
Apples					

	Type of promotion per product (Please explain & cost activity)			
Oranges				
Bananas				
Potatoes				
Tomatoes				
Onions				

G.   Problems, Risks & Coping

30. How many people are direct dependants of this business? ☐

31. Do you have any other sources of income? *(Tick ✔)*   Yes   ☐
    No ☐

32. What are the problems and risks you face in your business? ----------------------------------
----
----

33. How do you currently cope with these problems and risks? --------------------------------------
----
----

34. What do you think could be done to solve the stated problems? ---------------------------------
----

35. Do you receive any private assistance in conducting your business (e.g. from
suppliers/financers)? If so what kind of assistance? --

----

36. Do you receive assistance from government, local authorities or NGOs in conducting
your business? If so what kind of assistance? ---
----

37. What changes have noticed in your business in the last 5 years in your business? E.g. in
terms of income, race, demographics, crime, etc.--
------------------------ --

----

38. What do you expect in the next 1or 2 years? --

H.   SWOT Analysis

39. How do you rate your performance in the following marketing mix elements?

Strategic Issues	Importance *(Weight out of 10)*	Your Performance *(Out of Ten)*	Score *(Multiply)*
Place			
Price			
Product			
Promotion			
Sourcing			
Other (Name)			
Total			

40. Finally, what are you top five strengths, weaknesses, opportunities and threats in the fresh produce industry (SWOT analysis)?

Strengths	Weaknesses
1) _____	I) _____
2) _____	II) _____
3) _____	III) _____
4) _____	IV) _____
5) _____	V) _____
Threats	**Opportunities**
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____

Thank you for your time!

9.3 Appendix 3: Greengrocers questionnaire-checklist

A. Identification

Establishment name ----------------------------   Date---

Name of interviewee ---------------------------   Position ---------------------------------------
---   --
Address/Location------------------------------   Tel. ---
---   --

B. Place - Company profile

1.   Year established   2.   Stall size (m^2)   3.   Ave. monthly turnover (R) last year

4. Type of location
Shopping mall ☐   Neighbourhood centre ☐   Train Station ☐
Other (specify)------ --
----

5.   Why was this site chosen? --

----

6.   Has it moved from other locations? *(Tick ✔)*   Yes ☐   No ☐
If yes, why and when did you move?

----

7.   What is the ownership structure of this business? *(Tick ✔)*
Independent store ☐   Family Business ☐   Part of retail chain ☐   Franchise ☐
Other (specify): ---

----

8.   If it is part of a chain how many branches or chains does it have?
      South Africa   SADC countries   Other (specify)

C. Competition - Effect & Response

9.   What is your target market for fresh produce? E.g. (adults, office staff, flat dwellers, learners etc…)

----

10.   Why do you think customers buy fresh produce from you as opposed to other traders?
      Low price ☐   On the way home ☐   Habit ☐   One stop shop ☐
Other (specify)---
----

11.   Who are your competitors in fresh produce sales?

Please rank (1 = main competitor; 2 =serious competitor; 3 =minor competitor; 4 =not competitor)

Greengrocers ☐   Supermarkets ☐   Hawkers ☐   Other ☐ (name)

If other please specify and rank--

----

12.   How have your *main competitors* affected your sales? *(Tick ✔)*

Increased ☐   Decreased ☐   No change ☐

13.   Do you know of any fresh produce traders (retailers and hawkers) that have had to close down in the last 5 years? Why? ---
----

------

14.   When do you make the highest fresh produce sales?
(Tick ✔ across if demand is evenly spread)

a. Daily ▶	Mornings	Mid-morning	Afternoons	Late Afternoon	Evening	Night	Late Night
b. Weekly ▶	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
c. Monthly ▶	Early			Mid-Month			Month end
d. Yearly ▶	Jan-Feb	March-Apr	May	June -July	August	Sept-Oct	Nov-Dec

15. How many days of the week do you operate? ☐

16. How many hours do you operate on:

a) Mon-Fri ☐   b) Saturday ☐   c) Sunday ☐   d) Public holidays ☐

D. Price - Determination & Margins

17. How has the competition stated above affected your pricing? *(Tick ✔)*

Increased ☐   Decreased ☐   No change ☐

Why? ---
----

18. How do you determine the price for the following?

Product	Price Determining Method (e.g. mark up = $\left[\dfrac{price\text{-}cost}{cost}\right]*100\%$)
Apples	
Oranges	
Bananas	
Potatoes	
Tomatoes	
Onions	

E. Product - Procurement/Sourcing (chain entry point)

19. What proportion of business/sales does fresh produce constitute? ☐ %
20. How is the buying of the fresh produce organised? *(Tick ✓)*

Tshwane FPM ☐   Marabastad Market ☐   Buying Centre ☐   Agent ☐   From farmers ☐

Other (specify)--
----

21.   Where do you currently source the following products?

Product	Number of varieties	Source	% from each source	Why buy from these sources? (e.g. quality)
Apples				
Oranges				
Bananas				
Potatoes				
Tomatoes				
Onions				

22.   How long do you take to pay suppliers after delivery of fresh produce? *(Tick ✓)*

Cash on delivery ☐   30 days ☐   60 days ☐   Other (specify) ☐

----

23.   What pricing arrangements do you make with your supplies? *(Tick ✓)*

Predetermined ☐   Contractual ☐   Auction ☐   Other (specify) ☐

----

24.   Do you enter into contracts with suppliers? *(Tick ✓)*   Yes ☐   No ☐

a. If yes, what types of contracts they? (Tick ✓)

Formal (Written) ☐   Informal (Verbal) ☐   Other (specify) ☐
----
b. How often are contracts reviewed? ---
c. Is price set in the contract? *(Tick ✓)*   Yes ☐   No ☐
d. How? --

25. What procurement problems do you face? ---
26. How do you resolve these? --

----
27. Do you perform any processing activities? *(Tick ✓)* Yes ☐   No ☐
28. If so, by how much does it cost and how does this processing change sales?

Product	Packaging	Washing	Cutting	Freezing	Other (list)▶	
Apples Cost						
Sales Change						

Product	Packaging	Washing	Cutting	Freezing	Other (list)▶	
Oranges Cost Sales Change						
Bananas Cost Sales Change						
Potatoes Cost Sales Change						
Tomatoes Cost Sales Change						
Onions Cost Sales Change						

29.   What are your main costs of doing business?

Item	Cost *(Specify units e.g. R/Km)*	**Percentage of total of costs** (%)
Stock of fresh produce		
Transport		
Rentals		
Packaging		
Electricity		
Staff		
Cooling		
Taxes		
Other (specify)		
Total		

F. Promotion & Advertising

30. What do you do to get people to buy and/or buy more from you? ----------------------------
----

Products	Type of promotion per product (Please explain and cost activity)				
	Adverts/flyers/posters *(Cost R)*	Sale/discounts/coupons *(Cost R)*	Competitions/prizes *(Cost R)*	(Other, list) ►	
Apples					
Oranges					
Bananas					
Potatoes					
Tomatoes					
Onions					

G. Problems, Risks & Coping

31. How many employees does your store employ? ☐

32. Do you have any other sources of income? *(Tick ✓)* Yes ☐   No ☐

33. What are the problems and risks you face in your business? ----------------------------------
----
----

34. How do you currently cope with these problems and risks? --------------------------------------
----

35. What do you think could be done to solve the stated problems? --------------------------------
----
----

36. Do you receive any private assistance in conducting your business (e.g. from suppliers/ financers)? If so what kind of assistance? --
----

37. Do you receive assistance from government, local authorities or NGOs in conducting your business? If so what kind of assistance? ---
----
----

38. What changes have noticed in your business in the last 5 years in your business? E.g. in terms of income, race, demographics, crime, etc.--
-------------------------------- ---

----

39. What do you expect in the next 1or 2 years? ---

H. SWOT Analysis

40.   How do you rate your performance in the following marketing mix elements?

Strategic Issues	Importance *(Weight out of 10)*	Your Performance *(Out of Ten)*	Score *(Multiply)*
Place			
Price			
Product			
Promotion			
Sourcing			
Other (Name) ▼			
Total			

41. Finally, what are you top five strengths, weaknesses, opportunities and threats in the fresh produce industry (SWOT analysis)?

Strengths	Weaknesses
1) _____	I) _____
2) _____	II) _____
3) _____	III) _____
4) _____	IV) _____
5) _____	V) _____
Threats	**Opportunities**
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____

Thank you for your time!!

9.4 Appendix 4: Supermarket questionnaire-checklist

A. Identification

Establishment name ----------------------------- Date---

Name of interviewee ---------------------------- Position --
-- --
Address/Location------------------------------- Tel. --
-- --

B. Place - Company profile

1. Year established   2. Stall size (m^2)   3. Ave. monthly turnover (R) last year

4. Type of location
Shopping mall ☐   Neighbourhood centre ☐   Train Station ☐
Other (specify)------- ---

----
5. Why was this site chosen? --

------
6. Has it moved from other locations? *(Tick ✓)*   Yes ☐   No ☐
7. If yes, why and when did you move? --

------
8. What is the ownership structure of this business? *(Tick ✓)*
Independent store ☐   Family Business ☐   Part of retail chain ☐   Franchise ☐
Other (specify): ---

------
9. If it is part of a chain how many branches or chains does it have?
    South Africa ☐   SADC countries ☐   Other (specify) ☐

C. Competition – Effect & Response

10. What is your target market for fresh produce? E.g. (adults, office staff, flat dwellers, learners etc…)

----
11. Why do you think customers buy fresh produce from you as opposed to other traders?
    Low price ☐   On the way home ☐   Habit ☐   One stop shop ☐

Other (specify)--
----

12. Who are your competitors in fresh produce sales?
Please rank (1 = main competitor; 2 =serious competitor; 3 =minor competitor; 4 =not competitor)

Greengrocers		Supermarkets		Hawkers		Other (name)	

If other please specify and rank---

How have your *main competitors* affected your sales? *(Tick ✓)*

  Increased ☐   Decreased ☐   No change ☐

13. Do you know of any fresh produce traders (retailers and hawkers) that have had to close down in the last 5 years? Why? --
----

14. When do you make the highest fresh produce sales?
(Tick ✓ across if demand is evenly spread)

a. Daily ▶	Mornings	Mid-morning	Afternoons	Late Afternoon	Evening	Night	Late Night
b. Weekly ▶	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
c. Monthly ▶	Early			Mid-Month			Month end
d. Yearly ▶	Jan-Feb	March-Apr	May	June -July	August	Sept-Oct	Nov-Dec

15. How many days of the week do you operate? ☐

16. How many hours do you operate on:

a) Mon-Fri ☐   b) Saturday ☐   c) Sunday ☐   d) Public holidays ☐

D. Price - Determination & Margins

17. How has the competition stated above affected your pricing? *(Tick ✓)*

  Increased ☐   Decreased ☐   No change ☐

Why? --

----

18. How do you determine the price for the following?

Product	Price Determining Method (e.g. mark up = $\left[\dfrac{\text{price-cost}}{\text{cost}}\right] *100\%$)
Apples	
Oranges	
Bananas	
Potatoes	
Tomatoes	

Product	Price Determining Method (e.g. mark up = $\left[\dfrac{\text{price-cost}}{\text{cost}}\right]*100\%$)
Onions	

E. Product - Procurement/Sourcing (chain entry point)

19. What proportion of business/sales does fresh produce constitute? ☐ %

20. How is the buying of the fresh produce organised? *(Tick✓)*

Tshwane FPM ☐   Marabastad Market ☐   Buying Centre ☐   Agent ☐   From farmers ☐

Other (specify)---

----

21. Where do you currently source the following products?

Product	Number of varieties	Source	% from each source	Why buy from these sources? (e.g. quality)
Apples				
Oranges				
Bananas				
Potatoes				
Tomatoes				
Onions				

22. How long do you take to pay suppliers after delivery of fresh produce? *(Tick✓)*

Cash on delivery ☐   30 days ☐   60 days ☐   Other (specify) ☐

----

23. What pricing arrangements do you make with your supplies? *(Tick✓)*

Predetermined ☐   Contractual ☐   Auction ☐   Other (specify) ☐

----

24. Do you enter into contracts with suppliers? *(Tick ✓)* Yes ☐   No ☐

  a. If yes, what types of contracts they? (Tick✓)

  Formal (Written) ☐   Informal (Verbal) ☐   Other (specify) ☐
  ----
  b. How often are contracts reviewed? --
  c. Is price set in the contract? *(Tick ✓)*   Yes ☐   No ☐
  d. How? ---

25. What procurement problems do you face? ---

26. How do you resolve these? ---

----

27. Do you perform any processing activities? *(Tick ✓)* Yes ☐   No ☐

28. If so, by how much does it cost and how does this processing change sales?

Product	Packaging	Washing	Cutting	Freezing	Other (list)▶	
Apples Cost						
Sales Change						
Oranges Cost						
Sales Change						
Bananas Cost						
Sales Change						
Potatoes Cost						
Sales Change						
Tomatoes Cost						
Sales Change						
Onions Cost						
Sales Change						

29. What are your main costs of doing business?

Item	**Cost** *(Specify units e.g. R/Km)*	**Percentage of total of costs** (%)
Stock of fresh produce		
Transport		
Rentals		
Packaging		
Electricity		
Staff		
Cooling		

Item	Cost *(Specify units e.g. R/Km)*	Percentage of total of costs (%)
Taxes		
Other (specify)		
Total		

F. Promotion & Advertising

30. What do you do to get people to buy and/or buy more from you? ------------------------------
----

Products	Type of promotion per product (Please explain and cost activity)				
	Adverts/flyers/ posters *(Cost R)*	Sale/discounts/ coupons *(Cost R)*	Competitions/ prizes *(Cost R)*	(Other, list) ►	
Apples					
Oranges					
Bananas					
Potatoes					
Tomatoes					
Onions					

G. Problems, Risks and Coping

31. How many employees does your store employ? ☐

32. What are the problems and risks you face in your business? -----------------------------------
----
----

33. How do you currently cope with these problems and risks? -------------------------------------
----

34. What do you think could be done to solve the stated problems? --------------------------------
----

35. Do you receive any private assistance in conducting your business (e.g. from suppliers/ financers)? If so what kind of assistance? --
----
----

36. Do you receive assistance from government, local authorities or NGOs in conducting your business? If so what kind of assistance? ---
----

----

37. Do you *give* assistance to any of you chain members? If so what kind of assistance? -------
----
----

38. What changes have noticed in your business in the last 5 years in your business? E.g. in terms of income, race, demographics, crime, etc.---
------------------------------- --
----

39. What do you expect in the next 1or 2 years? --

H. SWOT Analysis

40. How do you rate your performance in the following marketing mix elements?

Strategic Issues	Importance *(Weight out of 10)*	Your Performance *(Out of Ten)*	Score *(Multiply)*
Place			
Price			
Product			
Promotion			
Sourcing			
Other (Name) ▼			
Total			

41. Finally, what are you top five strengths, weaknesses, opportunities and threats in the fresh produce industry (SWOT analysis)?

Strengths	Weaknesses
1) _____	1) _____
6) _____	2) _____
7) _____	3) _____
8) _____	4) _____
9) _____	5) _____
Threats	**Opportunities**
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____

Thank you for your time!!

9.5 Appendix 5: Wholesalers & supermarket distribution centres

A. Identification

Establishment name: ---------------------------- Date: --

Name: -- Position: --
Contact no: ------------------------------------ --

B. Place - Company profile

1. Year established

2. Ave. monthly turnover (R) for F&V* in Tshwane in the last year

3. How many of these do have under your brand in South Africa?
   Corporate stores [ ]   Franchise [ ]   Other (specify & no.) [ ]

Other (specify & number): --

----

4. How many branches do you have in these areas?
   RSA [ ]   SADC countries [ ]   Other (specify & no.) [ ]   Other (specify & no.) [ ]

Other (specify & number): --

----

5. How do you communicate your marketing strategy to the stores?

C. Competition – Effect & Response

6. What is your target market for fresh produce? E.g. (Affluence level, LSM Groups, Regions)

----

7. Why do you think customers buy fresh produce from you as opposed to other traders?
   Low price [ ]   On the way home [ ]   Habit [ ]   One stop shop [ ]

Other (specify)-- ------

----

8. Who are your competitors in fresh produce sales?
Please rank (1 = main competitor; 2 =serious competitor; 3 =minor competitor; 4 =not competitor)

---

* Fruits and vegetables

| Greengrocers | ☐ | Supermarkets | ☐ | Hawkers | ☐ | Tshwane FPM | ☐ | Other (name) | ☐ |

If other please specify and rank---

--

9. How have your *main competitors* affected your sales? *(Tick ✓)*

Increased ☐   Decreased ☐   No change ☐

D. Price - Determination & Margins

10. How has the *main* competition affected your pricing? *(Tick ✓)*

Increased ☐   Decreased ☐   No change ☐

Why? --

----

11. How do you determine the price for the following?

Product	Price Determining Method (e.g. mark up $= \left[\dfrac{\text{price-cost}}{\text{cost}} \right] *100\%$)
Apples	
Oranges	
Bananas	
Potatoes	
Tomatoes	
Onions	

12. Do you have database of purchase and sales prices for the products above that I could use? *(Tick ✓)*   Yes (please attach) ☐   No ☐ (Please state why not) -----
----

E. Product - Procurement/Sourcing (chain entry point)

13. What proportion of total business/sales does fresh produce constitute? ☐ %

14. What selection process if any, do you employ to select suppliers?

----

15. Where do you buy your fresh produce supplies? *(Tick ✓)*

Tshwane FPM ☐   Agents ☐   Large scale farmers ☐ Small scale farmers ☐

Other (specify)--

----

16. Where do you currently source the following products?

Product	No. of varieties	Sources	% from each source	Why buy from these sources? (e.g. quality)
Apples				
Oranges				
Bananas				
Potatoes				
Tomatoes				
Onions				

17. How long do you take to pay suppliers after delivery of fresh produce? *(Tick ✔)*
  Cash on delivery ☐   30 days ☐   60 days ☐   Other (specify) ☐

----

18. What pricing arrangements do you make with your supplies? *(Tick ✔)*
  Predetermined ☐   Contractual ☐   Auction ☐   Other (specify) ☐

----

19. Do you enter into contracts with suppliers? *(Tick ✔)* Yes ☐   No ☐
  a. If yes, what types of contracts are they? (Tick ✔)
      Formal (Written) ☐   Informal (Verbal) ☐   Other (specify) ☐

  ----
  b. How often are contracts reviewed? --
      ----
  c. Is price set in the contract? *(Tick ✔)*   Yes ☐   No ☐
  d. How? --
      ----

20. What procurement problems do you face? ---
----

21. How do you resolve these? --
----

22. Do you perform any processing activities? *(Tick ✔)* Yes ☐   No ☐ (why)

23. If so have you measured the effect of the processing activities on sales? Yes ☐   No ☐ (why)

24. If so, by what percent does this processing change sales?

Product	Packaging	Washing	Cutting	Freezing	Other (list) ▶	
Apples Sales Change						
Oranges Sales Change						
Bananas						

Product	Packaging	Washing	Cutting	Freezing	Other (list) ▶	
Sales Change						
Potatoes Sales Change						
Tomatoes Sales Change						
Onions Sales Change						

F. Promotion & Advertising

25. What do you do to get people to buy and/or buy more fresh produce from you? ------------
----

----

26. How much do you your budget for the promotion of fresh produce? -------------------------
--- --
----

27. How do you calculate your fresh produce promotion budget? ---------------------------------
----

G. Problems, Risks and Coping

28. What are the problems and risks you face in your business? -----------------------------------
----

----

29. How do you currently cope with these problems and risks? ------------------------------------
----
----

30. What do you think could be done to solve the stated problems? --------------------------------
----
----

31. Do you receive assistance from (e.g. from suppliers, financers, government, NGOs in conducting your business? If so what kind of assistance? ---
----

----

32. Do you *give* assistance to any of you chain members? If so what kind of assistance? -------
----

----

33. What trends/changes have noticed in your business in the last 5 years in your business? ---
----

----

34. What trends/changes do you expect in the next 1or 2 years? ----------------------------------
----

H. SWOT Analysis

35. How do you rate your performance in the following marketing mix elements?

Strategic Issues	Importance *(Weight out of 10)*	Your Performance *(Out of Ten)*	Score *(Multiply)*
Place			
Price			
Product			
Promotion			
Sourcing			
Other (Name) ▼			
Total			

36. Finally, what are you top five strengths, weaknesses, opportunities and threats in the fresh produce industry (SWOT analysis)?

Strengths	**Weaknesses**
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____
Threats	**Opportunities**
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____

Thank you for your time!!

9.6 Appendix 6: Tshwane produce market questionnaire-checklist

A. Identification

Name of interviewee ----------------------------- Date--
--- ---
--------- ---------

Position --- Tel. --
--- -----
--------- Email--

B. Place - Company profile

1. Year established 2. Ave. monthly turnover (R) for F&V* in Tshwane in the last year

3. What is the structure of TFPM (number of branches, sections outlets)?
Please specify & number): --

----

4. How was the location of TFPM selected? --

----

5. Has it moved from other locations? (Tick ✓) Yes ☐ No ☐
If yes, why and when did you move? --

C. Competition – Effect & Response

6. What is your target market for fresh produce? E.g. (Affluence level, LSM Groups, Regions)

----

7. Why do you think customers buy fresh produce from you as opposed to other traders?
Low price ☐ On the way home ☐ Habit ☐ One stop shop ☐
Other (specify)-- ------

----

8. Who are your competitors in fresh produce sales?
Please rank (1 = main competitor; 2 =serious competitor; 3 =minor competitor; 4 =not competitor)
Greengrocers [   ] Supermarkets [   ] Hawkers [   ] Other [   ] Other [   ]
(name) (name)
If other please specify and rank---

---

* Fruits and vegetables

----

9. How have your *main competitors* affected your sales? *(Tick ✓)*

   Increased ☐   Decreased ☐   No change ☐

D. Price - Determination & Margins

10. How has the *main* competition affected your pricing? *(Tick ✓)*

   Increased ☐   Decreased ☐   No change ☐

Why? ---

----

11. How do you determine the price for the following? --

----

12. Do you have database of purchase and sales prices for the products above that I could use? *(Tick ✓)*   Yes (please attach) ☐   No ☐ (Please state why not) -----
----

E. Product - Procurement/Sourcing (chain entry point)

13. What proportion of total business/sales does fresh produce constitute? ☐ %

14. What selection process if any, do you employ to select suppliers?

----

15. Where do you currently source the following products?

Product	No. of varieties	Sources	Why buy from these sources? (e.g. quality)
Apples			
Oranges			
Bananas			
Potatoes			
Tomatoes			
Onions			

16. How long do you take to pay suppliers after delivery of fresh produce? *(Tick ✓)*

Cash on delivery ☐   30 days ☐   60 days ☐   Other (specify) ☐

----

17. What pricing arrangements do you make with your supplies? *(Tick ✓)*

   Predetermined ☐   Contractual ☐   Auction ☐   Other (specify) ☐

----

18. Do you enter into contracts with suppliers? *(Tick ✓)* Yes ☐　　　　No ☐
    a. If yes, what types of contracts are they? *(Tick ✓)*
    Formal (Written) ☐　　　Informal (Verbal) ☐　　　Other (specify) ☐

    ----
    b. How often are contracts reviewed? --
      ----
    c. Is price set in the contract? *(Tick ✓)*　　Yes ☐　　　　No ☐
    d. How? --
19. What procurement problems do you face? --
----
20. How do you resolve these? --
----
21. Do you perform any processing activities? *(Tick ✓)* Yes ☐　　　No ☐ (why)
22. If so have you measured the effect of the processing activities on sales? Yes ☐　　　No ☐ (why)

23. If so, by what percent does this processing change sales?

Product	Packaging	Washing	Cutting	Freezing	Other (list) ▶	
Apples Sales Change						
Oranges Sales Change						
Bananas Sales Change						
Potatoes Sales Change						
Tomatoes Sales Change						
Onions Sales Change						

F. Promotion & Advertising

24. What do you do to get people to buy and/or buy more fresh produce from you? ------------
----

----
25. How much do you your budget for the promotion of fresh produce? --------------------------
--- ---
----
26. How do you calculate your fresh produce promotion budget? ----------------------------------
----

G. Problems, Risks and Coping

27. What are the problems and risks you face in your business? ----------------------------------
----

----
28. How do you currently cope with these problems and risks? ------------------------------------
----
----

29. What do you think could be done to solve the stated problems? ------------------------------- -- ----------------------------

30. Do you receive assistance from (e.g. from suppliers, financers, government, NGOs in conducting your business? If so what kind of assistance? --- -- -- --

31. Do you *give* assistance to any of you chain members? If so what kind of assistance? ------- -- -- --

32. What trends/changes have noticed in your business in the last 5 years in your business? --- -- -- --

33. What trends/changes do you expect in the next 1or 2 years? ------------------------------------ -- -- --

H. SWOT Analysis

34. How do you rate your performance in the following marketing mix elements?

Strategic Issues	Importance *(Weight out of 10)*	Your Performance *(Out of Ten)*	Score *(Multiply)*
Place			
Price			
Product			
Promotion			
Sourcing			
Other (Name) ▼			
Total			

35. Finally, what are you top five strengths, weaknesses, opportunities and threats in the fresh produce industry (SWOT analysis)?

Strengths	Weaknesses
1)_____	1) _____
2)_____	2) _____
3)_____	3) _____
4)_____	4) _____
5)_____	5) _____
Threats	**Opportunities**
1)_____	1) _____
2)_____	2) _____
3)_____	3) _____
4)_____	4) _____
5)_____	5) _____

Thank you for your time!!

9.7 Appendix 7: Hawkers' Organisation questionnaire-checklist

A. Background

Organisation name ------------------------------ Date---

Name of interviewee ---------------------------- Position ---
--- ---
Address/Location-------------------------------- Tel. --
--- ---

1. Year established

2. No. of members

3. Total member's turnover

4. Ave member's turnover

5. Geographic areas covered? --
----

6. What is the purpose/aim of this organisation? ---

B. Fees

7. What subscription fees if any do you charge? ---

----

8. Other sources of funding for the organisation? --

----

9. Do you receive any private assistance in conducting your business (e.g. from suppliers/
financers)? If so what kind of assistance? --
----

10. Do you receive assistance from government, local authorities or NGOs in conducting
your business? If so what kind of assistance? --

C. Competition

11. Who are your competitors in fresh produce sales? --

Please rank the following players (1 = main competitor; 2 =serious competitor; 3 =minor
competitor; 4 =not competitor)

Greengrocers ☐   Supermarkets ☐   Hawkers ☐   Other ☐
(name)

12. If other please specify and rank---
----

13. Do you assist in the operations of Hawker's businesses? (e.g. procurement, transport etc)

D. Problems, Risks & Coping

14. What are the main problems and risks you faced by your members? -------------------------------
----
----

15. How do you currently cope with these problems and risks? ------------------------------------
----
----

16. What do you think could be done to solve the stated problems? -------------------------------
----

17. What changes have noticed in your business in the last 5 years in your business? E.g. in terms of income, race, demographics, crime, etc.---
------------------------ --
----

18. What do you expect in the next 1or 2 years? --

E.   SWOT Analysis

19. How do you rate hawker's performance in the following marketing mix elements?

Strategic Issues	Importance *(Weight out of 10)*	Your Performance *(Out of Ten)*	Score *(Multiply)*
Place			
Price			
Product			
Promotion			
Sourcing			
Other (Name)			
Total			

20. Finally, what are hawker's top five strengths, weaknesses, opportunities and threats in the fresh produce industry (SWOT analysis)?

Strengths	Weaknesses
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____
Threats	**Opportunities**
1) _____	1) _____
2) _____	2) _____
3) _____	3) _____
4) _____	4) _____
5) _____	5) _____

Thank you for your time!