Dynamics of trade between the formal sector and informal traders: The case of fruit and vegetable sellers at Natalspruit market, Ekurhuleni

CN Ngiba, D Dickinson, L Whittaker and C Beswick
Wits Business School, University of Witwatersrand

Abstract

The informal sector in South Africa is a significant, but not well understood phenomenon. One important question relates to the nature of the relationship between the formal and informal sector. This article uses Porter's five forces model to interrogate the linkages between informal fruit and vegetable traders in the Natalspruit Market (Ekurhuleni) and their formal suppliers, primarily the Johannesburg Fresh Produce Market. While the threat of new products is low, the street traders' position is weakened by the threat of new entrants, consumer bargaining power and lack of cooperation among street traders. In relation to supplier power, we conclude that while this varies according to a number of factors, the formal sector is dominant over informal fruit and vegetable sellers in this market. This finding rests primarily on the observation that, because of their fragmentation, the informal traders' collective buying power is not being used in the same way as large formal retailers of fruit and vegetables to obtain better terms of trade with the formal economy supplier.

JEL P42

1 Introduction

Although the informal sector in South Africa plays an important role in the overall economy, it is not well understood. One important question relates to the nature of the relationship between the formal and informal sector (or the informal and formal economy). In 2003 (1), President Mbeki argued that these two economies – the first and third world economies in his terminology – existed "side by side" and were separated by a "structural disjuncture".

This article explores the relationships between the formal and informal sectors through the experiences of fruit and vegetable hawkers in the Natalspruit Market, which straddles Thokoza and Katlehong, two townships in Ekurhuleni, Gauteng. The purpose of the research was to understand the linkages and dynamics of trade between the informal street traders dealing in fruit and vegetables and their formal, wholesale, suppliers. A preliminary survey of the market was conducted in the Natalspruit trading area in June and July 2006, This article draws on the results of this survey, along with additional research conducted by one of the authors, (Ngiba, 2007).

Porter's (1980) five forces are used to analyse the underlying factors and dynamics of the power relationships between the informal and formal parties. Although Porter's framework is typically applied to derive business strategy through industry competitive analysis within the context of the formal economy, we use the theory to explain and understand the relationship between street traders and their formal sector supplier.

Although the structuralist understanding of the relationship between the formal and informal sector makes an all-inclusive statement about power relationships, Porter's five forces are industry specific. The research illustrates the linkages between the first and second economies

in this Natalspruit Market and suggests ways in which the informal traders in the market could improve the "terms of trade" between themselves and formal, wholesale suppliers. These include raising their powers and voices, to alter the power relationships between the two parties.

2 Literature review

Literature on the informal economy identifies three approaches to the sector: dualist, structuralist and legalist. The dualist school was popularised by the works of Hart (1973) and the ILO (1972). The essential starting point for dualists is the division of the urban economy into two separate components – the formal and informal sector. The school ascribes a number of characteristics, such as ease of entry or use of skills derived from outside the formal training system, to describe sets of informal sector enterprises or occupations, including street trading. This school subscribes to the view that the informal sector is composed of marginal activities that are distinct from and not related to the formal sector, yet provide an income for the poor and a safety net during times of crisis (Chen, 2004). According to the dualists, "the persistence of informal activities is due largely to the fact that not enough modern job opportunities have been created to absorb surplus labour, due to a slow rate of economic growth and/or a fast rate of population growth" (Chen, 2004: 6).

The legalist school is most strongly allied to the thinking and writings of the Peruvian economist Hernando De Soto (1989). It holds "that the informal sector is comprised of 'plucky' micro-entrepreneurs who choose to operate informally in order to avoid the costs, time and effort of formal registration and who need enforceable property rights to convert their assets into legally recognised assets". According to De Soto and his followers, "micro-entrepreneurs will continue to produce informally as long as government procedures are cumbersome and costly" (Chen, 2004: 6).

The structuralist or petty commodity production school of analysis (Moser, 1978, 1984, Forbes, 1981 and Portes et al., 1989) is highly critical of the theoretical approach of dualism and instead favours a more nuanced form of analysis rooted in a Marxist theoretical base (Moser, 1978; Forbes, 1981). The core focus is that of moving beyond a neglected area in dualism: the relationships between formal and informal sectors. Their work directed attention to the analysis of the articulation or relationships between different production and distribution systems (Moser, 1978, 1984). At its heart, the analysis is anchored in the relationships between the dominant capitalist mode of production and subordinate petty commodity forms of production, including street traders. As a result of the relationships of dominance–subordination, the development prospects of subordinated economic units were viewed pessimistically (Moser, 1978, 1984). This school maintains that the informal sector should be considered as a set of subordinated enterprises and workers that reduce input and labour costs (and correspondingly increase the competitiveness and profits) for large capitalist enterprises. Accordingly, from the perspective of the structuralist or petty commodity approach, it is the nature of capitalist development (as opposed to the lack of growth) which provides the foundation for explaining the persistence (conservation) and growth of informal production relationships (Moser, 1978; Portes et al., 1989).

According to the structuralist school of thinking, regardless of the sector, the formal economy would enjoy a dominant power relationship over the informal economy. So that suppliers, regardless of what they sell, would always enjoy a dominant relationship over street traders. This article looks at the case of the relationship between the informal fruit and vegetable sellers in the Natalspruit Market and their formal sector supplier from a structuralist perspective.

2.1 The structural challenges of the informal economy

Becker (2004: 16) identified several problems that are linked to broader structural issues in the informal sector. These include unavailability of credit, which is primarily due to the lack of legal status within traders in the informal economy.

Becker (2004) further added that transport and government regulations are some additional challenges that are encountered by informal enterprises. The informal economy's structural problems affect the way that street traders do business. The lack of legal status prohibits formation of a formal trading relationship between a street trader and a supplier. For example, suppliers often do not extend credit to a street trader.

Structural problems negatively affect street trading profitability that would be derived from transactions with suppliers. Street traders cannot take advantage of volume discounts, creditor finance (and early settlement discounts to increase profits) or cash discounts. Buying in bulk requires large funds to purchase, transport, and storage space, all of which an ordinary street trader would not have. Creditor finance is not possible because it generally requires that a buyer is a legal entity. In addition, there is no opportunity for early settlement discounts because suppliers would not sell to street traders on credit. Cash is almost the only form of payment available to street traders, which implies that there would be no incentive for suppliers to offer cash discounts to reward street traders for cash payments.

2.2 Porter's five forces

Porter (1980) applied microeconomic principles to business strategy and analysed the strategic requirements of industrial sectors and not just specific companies. He identified five competitive factors (five forces) which determine industry competition: threat of new entrants; bargaining power of suppliers; bargaining power of buyers; rivalry among competitors within an industry; and threat of substitute products.

According to Porter, "the strength of the five forces varies from industry to industry." (Porter, 1980: 3). In this way, the structure of an industry and its underlying economic and technical characteristics determines the strength of each of the five forces. Although the strength of each force varies from industry to industry, the forces, when considered together, determine the potential for long-term profitability within the specific industrial sector. Collectively, the five forces affect prices and identify the investment required for competitiveness, market share, potential profits, profit margins, and industry volume. The key to the success of an industry, and thus the key to the model, is derived through analysing the changing dynamics and continuous flux between and within the five forces. Porter's model depends on the concept of power within the relationships of the five forces. We look briefly at each of these five forces.

1. Threat of new entrants. A threat of new entrants into an industry depends largely on barriers to entry. Porter identifies six major barriers to entry: economies of scale, or decline in unit costs of the product which force the newcomer to enter on a large scale and risk a strong reaction from firms already in the industry, or to accept a disadvantage of costs if entering on a small scale; product differentiation, or brand identification and customer loyalty; capital requirements for entry; switching costs or the cost the buyer has to absorb to switch from one supplier to another; access to distribution channels for new entrants to be able to secure a space for their product; and cost disadvantages which are independent of scale, such as established companies already having product technology, access to raw materials, favourable sites, advantages in the form of government subsidies, and experience.

2. Bargaining power of suppliers. Suppliers exert a great deal of influence over an industry as they affect price increases and product quality. A supplier group exerts even more power over an industry under the following conditions: if the industry is dominated by a few companies; if there are no substitute products; if the industry is not an important consumer for the suppliers; if their product is not essential to the industry. Suppliers have more power if there are differences in supplier costs and if forward integration potential of the supplier group exists. A key aspect determining supplier power is the possibility for suppliers to integrate downstream. Specifically this includes opportunities for suppliers to sell directly to consumers by establishing their own distribution channels. There are various options that suppliers can exercise to facilitate forward integration. These

include: a) setting up formal retail outlets within the vicinity of street traders' market; b) hiring existing street traders to sell on their behalf; or c) establishing new stalls to sell on their behalf. Thus, the relative ease with which suppliers can integrate downstream, according to Porter (1980), makes suppliers more powerful.

3. Bargaining power of buyers. The buyers' power is significant in that buyers are able to force prices down, demand higher quality products or services, and, in essence, play off competitors against one another. Buyers exercise more power when they are large-volume buyers and the product assumes a significant proportion of the buyer's costs or purchases. In addition, when products are fairly standard within an industry and there are few changing or switching costs, the buyers earn low profits and there is potential for backward integration of the buyer group.

4. Threat of substitute products. Substitute products are the natural result of industry competition, but they place a limit on profitability within the industry. A substitute product involves the search for a product that can fulfil the same function as the product the industry already produces. Substitute products take on added importance as their availability increases.

5. Intensity of rivalry among competitors. Rivalries naturally emerge between companies competing in the same market. And the intensity of this rivalry is the result of factors such as slow growth within an industry, high fixed costs, lack of product differentiation, overcapacity and price-cutting, diverse competitors, high-stakes investment, and the high risk of industry exit. According to Porter the intensity of rivalry acts in a similar manner as the threat of new entrants. "It determines the extent to which firms already in an industry will compete away the value they create for buyers among themselves, passing it on to buyers in lower prices or dissipating it in higher costs of competing" (Porter, 1980: 4). "All of the previous factors converge on rivalry, which according to Porter (1980) is a cross between active warfare and peaceful diplomacy" (Mintzberg, 1998: 102). In the context of street trading, this element of the Porter (1980) framework would refer to rivalry among street traders in the same sector.

In summary, Porter's five-forces model concentrates on five structural industry features that comprise the competitive environment, and hence profitability, of an industry. These will be considered in relation to the realities in which fruit and vegetable sellers do business.

2.3 Porter's five forces applied to the informal economy

The structuralist school of thinking maintains, that "the formal economy exerts a dominant power relationship over the informal economy in its own interests" (Carr & Chen, 2001:7). This implies that regardless of the sector, the formal economy would in general enjoy a dominant power relationship over the informal economy. The literature highlights that, in general, formal suppliers enjoy a dominant relationship over street traders and that there is room to leverage this dominance in their favour (Castells & Portes, 1989 in Becker, 2004; Chen, 2004). Using Porter's (1980) five forces to interrogate this relationship will help to understand how suppliers derive this dominance: that is, the dynamics in the link between the formal sector supplier and the informal trader that would cause this dominance.

Within the retail goods market, power relationships are likely to manifest in the trade relationships between suppliers (formal economy) and street traders (informal economy). This is because the two sets of traders form the link between the formal and the informal economies in the goods market. Although the structuralist school of thinking tends to view power relationships across all industries, Porter's five forces approach suggests that power relationships are industry specific and are therefore influenced by the structure of each industry. With respect to the informal economy Carr & Chen (2001:7) recognised the relevance of Porter's theory noting that there is a case for a "comprehensive framework that recognizes that the linkages and power relationships between the informal economy, formal sector, and the public sector differ according to which segment of the informal economy one is talking about."

Porter's framework also indicates the power that consumers have over street traders. Consumer power determines profitability along the value chain. That is, if consumers were more powerful than street traders, significant value would pass on to the consumer thereby reducing value appropriated to street traders and, possibly, to suppliers.

3
Natalspruit market and suppliers

We now give some background on the Natalspruit market and its fruit and vegetable suppliers in order to lay the foundation for understanding some of the dynamics at this market that might impact the relationship between its informal traders and their suppliers.

From the data collected in the preliminary survey, it is estimated that there were approximately 1 000 people working in the Natalspruit trading area, who supported up to 4 500 dependants. On average traders had been operating at Natalspruit for 6.5 years. This indicates a considerable degree of stability (Dickinson, Whittaker & Rogerson, 2007).

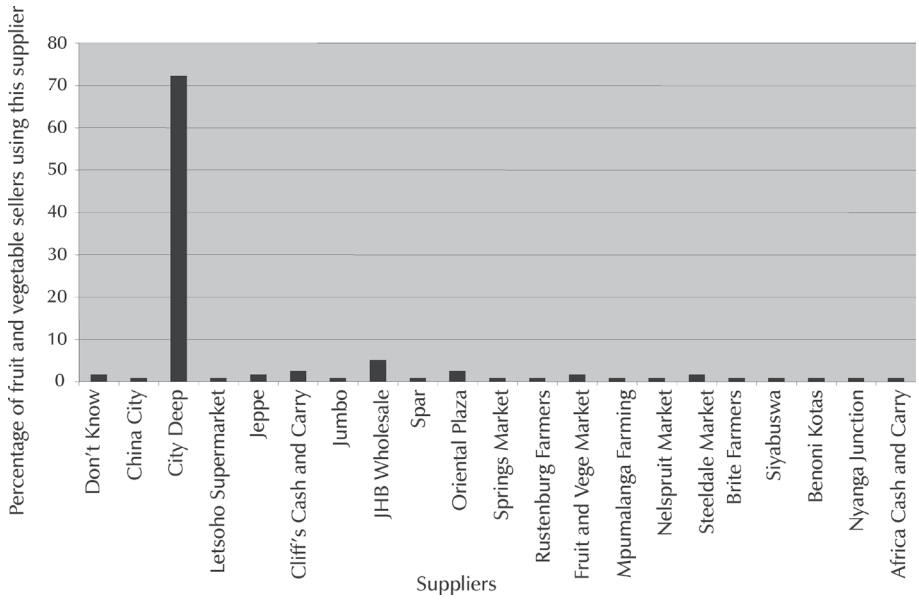
The Natalspruit trading area is made up of lines of stalls that follow the pavement areas around the Natalspruit Hospital, taxi ranks and Letsoho shopping complex. Particularly during peak commuting hours, the market is crowded with traders and customers. Utilisation of the area is dense, people encroach onto the road from the market, and piles of rubbish frequently litter the area. At the same time, "there is an extensive and generally stable ordering of traders who look out for each other and for their customers" (Dickinson, Whittaker, Bick et al., 2009: 13).

The fruit and vegetable sector is the largest sector, comprising 18.1 per cent of the primary business activities conducted by traders, followed by new clothing (15.1 per cent); second hand clothing (13 per cent); Hairdressing (7.3 per cent); Uncooked snacks (7 per cent); cooked food (4.7 per cent); and toiletries (4 per cent).

3.1 Suppliers

Most fruit and vegetable traders (more than 70 per cent) buy stock from the Johannesburg Fresh Produce Market in City Deep (JFPM) and, to a lesser extent, directly from farms. This is demonstrated in the figure 1.

Figure 1
Supplier concentration – Fruit and vegetables



N: 676

Source: Dickinson, Whittaker and Rogerson 2007

The JFPM is located five kilometres from the Johannesburg city centre in an area called City Deep and is about 20 kilometres from Natalspruit.

The market agents have a customer base which ranges from individual consumers who buy loose stock, to big customers such as retail chain, Pick 'n Pay, who buy large volumes of stock. Because of the range of customers, the market agents sell produce in different ways. For example, produce is sold to wholesalers and supermarket chains in pallets. Loose stock is sold to individual consumers and street traders. Within JFPM, "loose stock" refers to the minimum size for each type of produce that a customer may purchase, e.g. a box of bananas, a packet of potatoes, a packet of cabbages.

There are 50 independent wholesalers or "internal wholesalers" within the JFPM. They typically buy stock from the market agents in units of pallets and sell loose stock to the walk-in customers. Another group of "internal informal traders", operating from 70 stalls, trade within the JFPM premises in an area called the Mandela People's Market. According to the JFPM marketing manager, the Mandela People's Market was formed by JFPM to enable informal traders to sell direct to the public from within the JFPM premises. Some businesses within the Mandela People's Market have grown to such an extent that they buy stock in pallets from the market agents and sell loose stock at wholesale prices.

Other suppliers Apart from buying stock from JFPM, some Natalspruit street traders buy stock directly from farms. Farms are generally far away and not reachable by taxis, with the exception of one urban farm. This farm is located in the Kathorus Townships and is accessible by taxis. Other farm locations mentioned by street traders include Brits, Nigel, Denside, and Pretoria. Those street traders who buy produce directly from farms do so in collaboration. Typically they hire vans that will take them there and back.

3.2 Transportation, storage and stalls

Core to an understanding of how the market works in relation to the suppliers and the fruit and vegetable traders, are the operational issues of transportation, storage and stalls.

Within the JFPM premises, there is a taxi rank, which accommodates minibus taxis travelling to and from Natalspruit. A van provides a delivery service to street traders. An agreement between taxi owners and van operators is in place to prevent conflict among transport service providers. Both service providers charge the same fares for goods and passengers. The van service may be used only if the trader is transporting a volume of goods that is too large for a minibus taxi.

Street traders generally use the minibus taxi service to travel to and from JFPM. When they have finished buying the stock, taxis from the JFPM taxi rank take them directly to the Natalspruit trading area and drop them off at or near their stalls. When using the van service, a street trader buys stock and then books it into a van, which would leave JFPM either when full or when there are no more street traders that wish to book stock onto the van. Once street traders have booked stock onto a van, they take a taxi to their stalls leaving the stock to arrive later.

The minibus taxi service provides convenience to the street traders, who travel on board the taxis with their stock. This gives them a sense of security against theft of the stock while in transit. Another convenience provided by the minibus taxi service to traders in the Natalspruit market is that taxis pick them up from the JFPM taxi rank and drop them off near or at their stalls.

Costs of transportation. Regarding transportation costs, the estimate given in the 2006 survey was that on average it costs R23,69 per trip (all prices 2006) to acquire stock. As a percentage of sales, this was estimated at 5.5 per cent. A taxi from Natalspruit to JFPM costs R6,50 one-way per passenger. There are standard fares for stock as well. For example, a box of bananas costs R1,50 to transport, a packet of cabbages costs R4,00. Street traders would therefore pay their fare (R6,50) as a passenger plus the fare for the stock that they are carrying. By comparison, it costs a street trader about R40 for a round trip including transporting stock to go to farmers through a van lift club. Typically a trader would collaborate with 10 other street traders. The van would take them to a given destination farm and then return with stock. Such collaboration

results in limited space for stock in the van. In addition, street traders said that when they buy stock from farmers, it is usually to purchase low value stock, typically greens.

Because the street traders in the Natalspruit trading area use the minibus taxi service as the primary means of transport, they are limited by the coverage of the minibus taxi service. A street trader does not have the flexibility of mixing sources of stock from different suppliers.

Overnight storage. Neighbouring households provide overnight storage on a rental basis, with typical amounts ranging from R30 to R40 per month. Street traders use the service because they live too far away from the stalls to provide their own storage. In addition, none of the traders has permits to trade or to own permanent structures. Given that they have to take taxis home it is impractical to take stock home in the evening and bring it back in the morning. When stalls close in the evenings, street traders move stock from the stalls to the various storage houses using shopping trolleys. Stock is kept in the trolleys overnight in yards, that is, not inside the houses. This type of storage is not suitable for storing fruit and vegetables, because fruit and vegetables tend to attract rats and must be disposed of if damaged. The second problem relating to storage is the lack of security and consequent theft of stock.

The challenges of storage problems introduce two major costs: a shrinkage cost because of theft and obsolescence costs due to rats damaging stock. The street traders use the storage service despite the problems because they have no other alternatives. The majority of them said that they would prefer stalls that incorporate storage very similar to a normal retail store. This however, would require a legal status, since the stall would have to remain overnight, something that is currently impossible to obtain within the Ekurhuleni metro as no mechanism for obtaining street trading permits exists.

4
Methodology

The Porter's (1980) five forces framework is beneficial when sector specific characteristics are under consideration. It was therefore not advisable to apply it indiscriminately to all informal traders in the Natalspruit market. We therefore focused on the largest sector of the market – fruit and vegetable sellers, of which there are 122 in the market. In-depth interviews were conducted with a sample of 10. Additionally, two fruit and vegetable traders who were members of the market's hawkers association were interviewed. Since all interviewed fruit and vegetable street traders said that they buy stock primarily from JFPM, the market's marketing manager was also interviewed. This was because he would have a richer picture of what is happening in the market as a whole, than, for example, an individual supplier.

In addition to conducting in-depth interviews, the researcher collected other information from informal conversations with street traders, observations in the trading area and at JFPM, and through participatory observation of buying fresh produce from the market.

Although questions were prepared in English, during interviews the questions to the traders were asked in Zulu. Interview responses were noted down in English. Street trader interviews were conducted at the stalls. Although the conditions made in-depth interviews difficult, because of high noise levels in the area, the experience of being there strengthened the richness of observations. Each street trader interview setting was unique and therefore re-adjustments to interview questions were made. After the first few interviews, the questions set were enhanced based on the experience gained from the previous interviews.

5
Results and discussion

An analysis of the data using Porter's (1980) five forces suggest that opportunities for the fruit and vegetable sellers in this market to derive power are limited. The findings of the preliminary research and this study revealed however, that not all five forces in the Porter's framework are equally relevant as shown in Table 1 and then discussed in more detail.

Table 1
Summary of relative impact of Porter's five forces on fruit and vegetable trading in the Natalspruit market

Porter's five forces	Fruit and vegetable street trading
Threat of new entrants	High
Supplier power	Mixed
Bargaining power of consumers	High
Threat of substitute products	Low
Rivalry among street traders	High

5.1 Threat of new entrants

Much literature on the informal economy supports the notion that people generally resort to informal activity as a means to survive when the formal economy cannot absorb them in terms of formal employment. This is supported by findings of the Natalspruit preliminary survey in which 81 per cent of the respondents said they decided to start informal trade because of the scarcity of jobs in the mainstream economy (Dickinson, Whittaker, Bick et al., 2009). Trading in fruit and vegetables is an easily accessible economic activity which does not require any special skills. Initial capital outlay for stock is extremely low and barriers to entry are also low (Mayet, 2007). Thus as unemployment in the formal economy persists, there is inevitably an increase in the number of new entrants into the informal economy. This however, does not necessarily lead to increased market opportunities, but instead tends to lead to increased competition amongst street traders.

5.2 Supplier power

This section looks at a range of strategies that the Natalspruit fruit and vegetable sellers use, as well as the factors that determine the power their suppliers have in the relationship. These are: supplier concentration; the nature and structure of competition within the JFPM; and the impact that the JFPM has on the fruit and vegetable sellers, given that it is the major supplier. We additionally look at the threat of forward integration, control of transactions, and the profitability of transactions.

Supplier concentration Supplier concentration is an important consideration in determining a supplier's bargaining power. Results from the preliminary survey indicate supplier concentration within the fruit and vegetable sector of this market is high. More than 70 per cent of the Natalspruit fruit and vegetable sellers buy their stock from the JFPM market in City Deep (see Figure 1). However, as noted earlier, at JFPM many suppliers sell fruit and vegetables in close proximity and under one roof. When applying Porter's framework to the fruit and vegetables sector, it is seen that supplier concentration occurs at two different levels and affects supplier bargaining power in different ways. If JFPM is considered as a single major supplier, then supplier concentration is high. However, if one considers the range of suppliers within JFPM, then supplier concentration would be low. The interview responses suggest that the fruit and vegetable sellers' experiences are of having access to many individual stalls that are in competition with one another.

Structure of competition within JFPM Competition amongst market agents at the JFPM is particularly fierce. This is attributed to the fact that market agents earn a commission from farmers. The two major competitive variables are freshness of produce and price. High levels of competition would make suppliers less powerful.

At the same time, the JFPM is the dominant supplier overall and the Natalspruit fruit and vegetable sellers consider suppliers other than JFPM as playing a limited role in their businesses. In essence, street traders can survive

without other suppliers but not without JFPM. The two major reasons for JFPM being the preferred supplier for street traders' are that suppliers that are located elsewhere provide a limited range of stock, and they are not easily accessible by the minibus taxis. Conversely, the reasons given for the dependence on JFPM as almost the sole supplier include: availability of a wide range of fresh produce, access to many suppliers under one roof, good quality produce and ease of access to the market from the Kathorus townships due to the dedicated minibus taxi service. Therefore, although from the Natalspruit fruit and vegetable sellers' perspective supplier power is diluted within the market, due to low supplier concentration, JFPM as an entity enjoys superior power.

Control of major inputs Although there is low supplier concentration within JFPM, limited levers are available to the fruit and vegetable sellers to take advantage of the low supplier power. An example of how street traders leverage this power is that when dissatisfied with a supplier, they simply move on to other suppliers. With regard to the selection criteria traders use to choose among suppliers, there were a range of responses including: being treated with *ubuntu*, good price, freshness and attractiveness of produce on display, a wide range of stock. Most of these criteria are important to all Natalspruit fruit and vegetable sellers, but with varying significance to each one. The fact that the selection criteria vary from one street trader to the next is an indication that the fruit and vegetable sellers exercise control over the choice of suppliers. Interview results indicate that the wide choice of suppliers is the only lever enabling street traders to take advantage of low supplier power due to low supplier concentration.

Switching costs Another factor determining supplier power is the ability of a business to switch costs and the ease with which a given business can choose to change between suppliers. The ability to switch costs by changing suppliers depends on the nature of supplier concentration and the location of suppliers. Since the JFPM is the major location of suppliers for the Natalspruit fruit and vegetable sellers, switching from JFPM would compromise the benefits that they derive from finding many suppliers under one roof. However, switching between suppliers within JFPM would not incur them any further costs. Switching costs are also affected by the mobility of the Natalspruit fruit and vegetable sellers. Typically, their mobility is limited because they use public transport to move stock. As a consequence, the Natalspruit fruit and vegetable sellers are exposed only to suppliers that operate within the area serviced by public transport. Therefore, switching to suppliers who are located outside the service area of public transport would incur additional costs. So in this instance, suppliers derive power from choosing locations within the areas serviced by public transport.

Switching from JFPM to other suppliers carries a range of costs, tangible and intangible. The Natalspruit fruit and vegetable sellers mentioned a number of reasons that would make switching difficult. One street trader stated that she has been buying stock from JFPM for the past 24 years. This indicates strong loyalty to the market and suggests that some of her switching costs are psychological. Another interview response suggested that switching from JFPM to buying directly from farmers would carry high transportation costs. Another street trader said that she buys stock such as cabbage and spinach from a fresh produce outlet in Ellis Park some 30 kilometres from Natalspruit, but that it has a limited range of stock, of which some is sourced from JFPM. The switching cost in this case is that of a limited range of produce, which could manifest in inconvenience, higher transportation costs and stock-outs.

All the factors that make switching costs high resonate with factors that were discussed earlier that make JFPM powerful as the single major supplier. However, low supplier concentration within JFPM almost nullifies the issue of switching costs for the street traders once they are in JFPM. That is, because street traders do not necessarily buy from specific suppliers, the issue of supplier switching costs is less important.

Threat of forward integration The threat of forward integration by suppliers is one of the

aspects of the Porter's five forces framework that is used to determine supplier power. In general the fruit and vegetables sellers consider the threat of forward integration to be a remote possibility. All interview responses suggest that suppliers do not sell fruit and vegetables directly to consumers in the Natalspruit trading area. A street trader representative said that suppliers are not allowed in the trading area and that if they were to come, street traders would chase them away. She said that some time ago there used to be suppliers selling directly to consumers but they (street traders) have since chased them away. This suggests that street traders are organised and resort to militant means to ward off what they perceive as unfair competition from suppliers in the form of forward integration.

Given the responses, it is unlikely that an informed supplier would consider operating openly in the Natalspruit trading area. Therefore, it can be concluded that suppliers cannot derive power from threatening to practise forward integration in the Natalspruit trading area. There are, however, opportunities for suppliers to set up formal retail outlets in the shopping mall or in areas nearby, which would compete with street traders. The threat to the street traders is not only due to forward integration by suppliers, but general competition from formal business.

Control of transactions A related issue in understanding the power relationships is that of control of transactions between trading partners. Responses from interviews confirmed that JFPM market agents have more control over transactions. Discounts are one of the elements which determine both the degree to which the party has advantage to control transactions, and the manner in which it exercises control. The JFPM marketing manager suggested that large buyers such as Pick 'n Pay and other supermarket chains, tend to get preferential treatment from market agents as they (the market agents) compete to secure large sales. Such buyers because of their buying power, would, as a result, enjoy some control over transactions. Conversely, small buyers such as fruit and vegetable sellers, who buy loose stock on an individual basis would have low buying power. The Natalspruit fruit and vegetable sellers view the difference in the pricing as an unfair practice, claiming that because they can't afford to buy pallets, they are compromised by market agents. The perception of the fruit and vegetable sellers is thus they have little or no influence over discounts due to their limited buying power.

Some market agents offer discounts on volumes purchased. For example, one fruit and vegetable seller said that if one purchases a number of packs or boxes of stock, sometimes a small discount is offered. Another said that sometimes market agents offer a free trolley service for goods from the stall to the taxi rank as a form of discount. He said that the trolley service is normally R10 per load. It is clear however, that market agents use their discretion in offering discounts, an indication that they are in control.

The manner in which discounts are applied depends primarily on market dynamics. Size of purchases, scarcity of produce due to seasonality, and the size and structure of the buyers' market are some of the most important factors influencing the control of transactions. The buyers' market at JFPM is large and fragmented which favours the market agents. Individual fruit and vegetable sellers are small buyers, which compromises their bargaining power on discounts. When fresh produce is in season, control would shift to the fruit and vegetable seller and vice versa.

The profitability of transactions Typically, strategies for deriving profitability are the use of credit purchases to take advantage of creditor finance, volume discounts and cash discounts. Interviews with the Natalspruit fruit and vegetable sellers confirm the following: a) there are no credit purchases. This implies that there is no opportunity to finance working capital using creditor finance. This in turn limits opportunities for growth in street trader businesses given that in general, they have low buying power. b) There are no cash discounts as there is no incentive for suppliers to offer the discounts. c) Because of relatively small purchases, volume discounts (if offered) are less significant to profitability and consequently the margins available are too small to make an impact.

The JFPM marketing manager estimated that informal traders in general account for 50 per cent of the JFPM market by value. Wholesalers, chain supermarkets, retailers and consumers make up the balance. He considers the informal trade channel as significant and important to JFPM.

Informal traders generally buy stock at higher prices than large buyers do because of the pricing structure that offers larger trade discounts on pallets. Considering the fact that informal trade is the most lucrative distribution channel, it is noteworthy that JFPM and its market agents do not have special initiatives for catering for this channel. In terms of marketing terminology, it seems that the informal trade channel is JFPM's (market agents) cash cow. However, given the fact that JFPM has a large customer base and is almost a sole supplier to informal traders it is not under pressure to offer them more favourable terms.

5.3 Bargaining power of consumers

Since street trading in fruit and vegetables is characterised by low barriers to entry, it attracts many new entrants resulting in the "highly competitive and price-sensitive markets" that Chen (2005: 15) observed. According to data from the preliminary Natalspruit survey 40 per cent of the traders in the market, among a sample of 676, identified the lack of customers as one of their biggest problems. In this context, the multiple factors of limited market potential, price-sensitivity and strong competition, tends to shift power to the consumer so that in this context the bargaining power of customers is high. The limited value that is appropriated to street traders due to consumer power results in reduced profitability. This, in turn translates into limited buying power for the traders in the market and for its fruit and vegetable sellers in particular.

5.4 Threat of substitute products

An example of the threat of substitute products in the food and vegetable sector is in the competition between fresh fruit and vegetables and canned products. Recently there has been penetration of a branded canned product called *chakalaka*; a substitute for home-made chakalaka, which requires fresh vegetables. This alternative substitute would affect the value chain all the way back to the suppliers as informal fruit and vegetable sellers respond to consumer demand. The Natalspruit fruit and vegetable sellers would have to switch to substitute products thus indirectly compelling their suppliers to switch to the substitute products or lower prices of the existing products to make them more competitive. Overall, given the limited substitutes available to fresh fruit and vegetables, we conclude that the current threat of substitute products is low.

5.5 Intensity of rivalry among competitors

Without product differentiation, profitability is likely to be low due to strong competition. Since the majority of the Natalspruit fruit and vegetables street traders buy their produce from the same supplier (JFPM), there are limited opportunities for product differentiation, and competition is high. Competition is further intensified because fruit and vegetables are perishable goods and if the goods deteriorate, this introduces obsolescence costs. To avoid obsolescence, the fruit and vegetable sellers in the market have to lower prices. In addition, limited profitability constrains their buying power. This further contributes to their weak position in relation to their suppliers.

6 Discussion & conclusion

The application of the Porter's (1980) five forces framework has demonstrated supplier dominance over the Natalspruit fruit and vegetable traders in a variety of ways. Some key factors, which include low barriers to entry, the power of consumers and competition among street traders, limit the value accorded to these fruit and vegetable sellers in the value chain. Consequently, they operate with low individual buying power which constantly constrains them in the power relationship with the market agents at JFPM.

In addition to the challenges highlighted by the five forces analysis, these informal

traders also face the structural challenges of the informal economy. The lack of legal status is one of the major challenges, as they cannot buy on credit, nor borrow from formal entities, nor take advantage of early settlement or cash discounts. The structural challenges further compromise the Natalspruit fruit and vegetable sellers in their power relationship with JFPM market agents.

Furthermore, collectively, informal fruit and vegetable sellers are a major patron of the JFPM's market agents, but this fact is not reflected in the nature of the commercial relationships between them. The informal trade distribution channel, provided by the fruit and vegetables street traders is the largest channel of value in JFPM. In spite of this large supply outlet for the JFPM there are no provisions in place from the JFPM to reward the street traders in any way at all. If one compares the manner in which transactions are conducted with larger suppliers the relative exploitation of street traders becomes clear. With regard to a crucial issue, specifically, the application of discounts, buyers such as Pick 'n Pay, who receive discounts for volume, are serviced more favourably than the street traders who don't.

Thus, while the analysis of the supplier power aspect of the Porter's (1980) five forces framework could not determine supplier power conclusively, when combined with the other aspects documented, it is clear that JPFM market agents have the upper hand in their relationships with the Natalspruit fruit and vegetable sellers. Clearly these actors in the formal economy are more powerful than their customers in the informal Natalspruit market.

The issue of transporting stock is central to an understanding of the linkages. Ideally the mode of transport would benefit both suppliers and their customers. In this study, the JFPM market agents derive benefit from the fact that taxis transport the Natalspruit fruit and vegetable sellers to the market and the market agents do not have to provide transport for their stock to the market. In addition, the challenges introduced by poor overnight storage and poor stall conditions impact the linkage as far as the frequency with which the fruit and vegetable sellers buy stock. Replacing stock because it has been stolen or is obsolete benefits the market agents but it is detrimental to the fruit and vegetable sellers. In addition, the situation sustains the subordination of informal fruit and vegetable sellers in the Natalspruit market to their formal suppliers because it results in sustained low buying power, an attribute that diminishes their overall power.

It is recommended that fruit and vegetable sellers of the Natalspruit market organise themselves so that they can bring about a change in the terms of trade between themselves and the market agents at the JFPM.

One option would be the establishment of a local fruit and vegetable wholesale market close to their trading area. Fruit and vegetables street traders at the Natalspruit market on average spend a total of about R10 million per annum buying fresh produce and a further R600,000 on transportation. This implies that a local fresh produce warehouse would have a credible business case. There would be opportunities to reduce obsolescence and storage costs because there would be no need for informal fruit and vegetable sellers to purchase too much stock; the warehouse would be located nearby enabling them to replenish stock at the right time thus making it possible to buy stock in appropriate quantities. There would also be opportunities to eliminate direct transportation costs. Of course, such a solution may only replicate, on a more local scale, the existing relationship explored in this article. If so, the end result must largely be a transfer of revenue from the existing supplier, and the transport industry to a local warehouse business.

Alternatively, the fruit and vegetable traders could explore ways in which they could alter the terms of trade between themselves and their current formal suppliers. Essentially, they would need to find ways in which their collective buying power – which is extensive, but currently fragmented – could leverage the benefits that existing (unitary) large scale buyers currently enjoy. Such action needs the platform of legal security if it is to be effective – a problem currently outside the control of the traders. With this in place however, not only would they be able to raise profit margins as a result of lowering storage costs but they could

also combine to purchase and transport goods in volume – irrespective of from where they are sourced.

Endnotes

We would like to gratefully acknowledge the following individuals and organisations for their assistance in this research and in the writing of this article:

- The Ekhurhuleni Metropolitan Council which funded this research;
- The fruit and vegetable traders at the Natalspruit market and the Johannesburg Fresh Produce Market for giving us their time and input in conducting this research; and
- The two anonymous reviewers of this article and the editor of SAJEMS for their helpful comments about the article.

References

BECKER, K.F. 2004. *The informal economy, Department for Infrastructure and Economic Co-operation, Sida,* http://rru.worldbank.org_Documents_ PapersLinks_ Sida.pdf#search=%22measuring%20 th *e%20informal%20economy%22.pdf* [Accessed 17 December 2006].

CARR, M., CHEN, M.A. 2001. *Globalization and the informal economy: how global trade and investment impact the working,* WIEGO. http://www.wiego.org/papers/carrchenglobalization.pdf#search=%22informal%20economy%20power%20relationship%22 [Accessed 10 September 2006].

CHEN, M. 2004. Rethinking the informal economy: linkages with the formal economy and the formal regulatory environment. Paper presented at the *EGDI and UNU-WIDER Conference unlocking human potential: linking the informal and formal sectors*, 17–18 September, Helsinki.

DE SOTO, H. 1989. *The other path: the economic answer to terrorism*. New York: Harper Collins.

DICKINSON, D., WHITTAKER, L. & ROGERSON, C. 2007. *Natalspruit informal trading area, Kathorus Townships, Ekurhuleni Report 1:Literature review and market audit*. Wits Business School, University of the Witwatersrand.

DICKINSON, D., WHITTAKER, L., BICK G., BENJAMIN, D., BRUYNS, A., KOLBE, N., MAYET, R., NGIBA, N., SCHRAADER, D., & VAN STEENDEREN, M. 2009. The informal economy and its development: the case of the Natalspruit trading area, Ekuhuleni, Wits Business School Centre for Entrepreneurship. *Working Paper Series*, No 4.

FORBES, D. 1981. Beyond the geography of development. *Singapore Journal of Tropical Geography*, 2: 68–80.

HART, K. 1973. Informal income opportunities and urban employment in Ghana. *Journal of Modern African Studies*, 11: 61–89.

MAYET, R. 2007. *Challenges facing women street traders in the informal economy*. MBA Research Report. Wits Business School, University of the Witwatersrand.

MBEKI, T. 2003. Letter from the President, *ANC Today*, 3(33).

MCGEE, T.G. AND YEUNG, Y.M. 1977. *Hawkers in Southeast Asian cities: planning for the bazaar economy*. International Development research Centre, Ottawa.

MINTZBERG, H., AHLSTRAND, B. & LAMPEL, J. 1998. *Strategy safari*. Harlow: Pearson Education Limited.

MOSER, C.O.N. 1978. Informal sector or petty commodity production: dualism or dependence in urban development. *World Development*, 6: 1041–1064.

MOSER, C.O.N. 1984. The informal sector reworked: viability and vulnerability in urban development. *Regional Development Dialogue*, 5(2): 135–178.

NGIBA, C.N. 2007. *Backward linkages between the formal and informal economies in South Africa*. A research report submitted to the Faculty of Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Masters of Business Administration, Johannesburg

PORTER, M.E. 1980. *Competitive strategy: creating and sustaining superior performance*. N.Y: Free Press/Simon & Schuster, Inc.

PORTES, A., CASTELLS, M. & BENTON, L. (eds.) 1989. *The informal economy: studies in advanced and less developed countries*. Baltimore: John Hopkins University Press.