

## 8. Towards achieving sustainable market access by South African smallholder deciduous fruit producers: the road ahead

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### Abstract

Markets with high purchasing power, like export markets, offer opportunities for African smallholder farmers to move out of poverty. Logically, production for such higher value markets requires a different set of farm resources than the basic factors of production like land and labour. Yet it is not clear which other resources smallholder producers require to participate in different markets including high value markets. Using case studies from the Western Cape Province of South Africa, the authors identify resources that smallholder producers in developing countries require to increase competitiveness and sustain participation in high value markets. An analysis of the cases suggests that smallholder producers who are either in strategic partnerships or mentorship programmes with private sector firms are able to sustain their participation in high value markets. For smallholder producers who have not been integrated with high value markets yet, development of factor markets could be the first step towards achieving sustainable market access.

**Keywords:** resources, innovation, quality, strategic partnerships, high value markets

### 8.1 Introduction

Smallholder producers constitute the majority of the poor in developing countries and rely on agriculture for a living (IFC, 2011). Market access plays an essential role in the welfare of smallholder producers; by participating in markets, smallholder producers are able to earn an income which they use to meet household needs (Ehui *et al.*, 2003). As a result, initiatives aimed at reducing poverty in developing countries have been consistent with the pro-poor agricultural growth strategy and the market-led paradigm (Boughton *et al.*, 2007). Market access policies are becoming more

important as new opportunities for increasing smallholder producers' incomes are increasingly being brought to the fore.

The changes in the global agricultural trade environment have created opportunities for the export of high value products by smallholder producers in developing countries (Delgado, 1999). Domestic and regional markets are now open and offer lucrative opportunities for smallholder producers to supply higher value produce and earn higher margins (Birtal *et al.*, 2007). When connected to high value markets, small and medium enterprises have more opportunities to upgrade and sustain income growth by moving into higher levels of value adding in the value chain (Humphrey and Schmitz, 2002). Connecting smallholder producers to high value markets thus serves as an indispensable pathway out of poverty and an important strategy to improve smallholder producers' livelihoods.

The extent to which smallholder farmers are integrated in markets has received attention from the literature on market integration. This literature approaches market integration of smallholder producers from the output side; it uses the quantity and/or value of output or product sold to measure the extent to which farmers are integrated in markets (Govereh *et al.*, 1999; Strasberg *et al.*, 1999). With food markets transforming from a market of commodities to a market of differentiated products heavily contested by powerful firms in consolidated food sectors, the literature is moving towards a perspective that appreciates farmers' ability to meet standards and preferences of customers. The institutional approach in which such institutions as contracts help farmers to add value to their products through compliance with standards has dominated the development literature on linking smallholder producers to high value markets.

With the opening of world markets to global trade where all producers, irrespective of their scale of operation and/or level of development compete for shelf space, adopting theories from developed countries regarding how firms deal with competition to maintain their market place positions in a changing market environment is a perspective worth exploring in studying smallholder market access challenges in developing countries. This chapter therefore builds on the Resource-Based View theory of the firm which distinguishes different categories of resources that contribute in different degrees to the long-run competitive advantage of companies (e.g. Eisenhardt and Martin, 2000; Hunt, 2000). It extends the literature on market integration by developing insights on how smallholder producers progress from generating low quality products to generating high quality products to meet customer demand in high value markets as they gain access to resources that have potential to increase their competitiveness and sustain their access to markets. We use qualitative research to develop a framework that conceptualises resources in smallholder producers' settings in developing countries. This framework is developed from the context of smallholder deciduous fruit producers in South Africa.

The South African context is insightful in that South African policy makers saw themselves confronted with a problem of persistent poverty and inequality skewed along racial lines while there were sufficient resources to develop policies that may help redress this imbalance. South Africa has now embarked on a process to review its policies and has, in its approach increasingly acknowledged a need for improving the access of smallholder farmers to land, water and institutional support systems as a means of combating poverty (Magingxa and Kamara, 2003).

The remainder of this chapter is structured as follows. A theoretical background which reviews literature on the participation of smallholder producers in high value markets and how the Resource Based View theory can contribute to addressing concerns of sustainability of market linkages between smallholder producers and buyers and of competitiveness of smallholder producers in high value markets follows. This is followed by an outline of the methods used to collect data. The chapter then describes the results which lead to the development of a model for integration of smallholder producers in high value markets that is potentially applicable to other contexts. The chapter draws conclusions which lead to implications for policy making in developing countries including South Africa. Directions for further research are also outlined at the end of this chapter.

### 8.2 Theoretical background

#### 8.2.1 Participation of smallholder producers in high value markets

Further to the institutional approach followed in studying smallholder market access challenges in developing countries, the development literature has specifically studied participation of smallholder producers in high value markets. While positive impacts on incomes were reported (see for example Maertens and Swinnen, 2009; Minten *et al.*, 2009), this literature raises two concerns which make the sustainability of participation of smallholder producers in high value markets doubtful.

The first concern relates to the competitiveness of smallholder producers in high value markets. Two strands of the development literature affirm to this. One strand emphasises the role of transaction costs in inhibiting small farmer participation in alternative marketing channels, including high-value markets (Jaffee, 1995; Key *et al.*, 2000; Pingali *et al.*, 2005; Staal *et al.*, 1997), suggesting that the stricter (and increasing) requirements of high-value markets place smallholder producers at a competitive disadvantage relative to larger farmers. Another strand of the development literature emphasises that smallholder farmers' limited access to key resources (including cultivable land, irrigation and financial resources) inhibits investment (required for participation in high value markets) and farm productivity (McCulloch and Ota, 2002; Simmons, *et al.*, 2005; Winter-Nelson and Temu, 2005). According to Henson *et al.* (2008), these assessments suggest that the lack of infrastructure, key production

assets, information and/or collective action act to constrain initial smallholder entry to high-value markets and threaten the sustainability of such participation over time.

The second concern relates to the sustainability of market linkages between smallholder producers and buyers sourcing for high value markets. The view is that market leaders will only commit to sourcing from a particular base of smallholder producers while it is profitable to do so, yet will quickly 'jump ship' to new suppliers if problems arise and/or the opportunity arises to reduce their procurement costs (Goss *et al.*, 2000; Kolk and Van Tulder, 2006). Downstream buyers in high-value markets will choose to procure from sources that meet their requirements at lowest cost and at manageable levels of risk. They may prefer to source from larger-scale producers (where they exist) unless there are offsetting reasons to continue procuring from smallholder producers. Based on these possibilities, market arrangements made between smallholder producers and downstream buyers to access high value markets may not present a viable long-term approach to poverty alleviation (Henson *et al.*, 2008).

To address these concerns, this chapter applies a Resource Based View theory. The Resource Based View builds on theoretical insights from the debate on competitive advantage from strategic marketing and management literature. It maintains that possession of certain key resources developed over time is what assists firms to increase and maintain competitiveness in changing market environments. The Resource Based View theory thus offers insights on how resources developed over time (may) enable smallholder producers to increase their competitiveness and ability to participate in high value markets on a sustainable basis. An overview of the Resource Based View theory is presented below.

### **8.2.2 The resource based view theory of the firm**

The Resource Based View explains how firms achieve and sustain a competitive advantage over time (Eisenhardt and Martin, 2000) and contends that sustained competitive advantage lies in the possession of certain key resources. Hunt (2000) defines resources as the tangible and intangible entities available to the firm that enable it to produce efficiently and/or effectively a market offering that has value for some market segments. For resources to be able to sustain competitive advantage: (1) they must be valuable in the sense that they exploit opportunities and/or neutralise threats in a firm's environment; (2) they must be rare among a firm's current and potential competition; (3) they must be imperfectly imitable; and (4) for the resources that are valuable but neither rare nor imperfectly imitable, there cannot be strategically equivalent substitutes (Barney, 1991).

According to Fahy (2000), a sustained competitive advantage can be obtained if the firm effectively deploys those resources in its product markets. Firms thus attempt to exploit valuable, rare, non-substitutable and inimitable resources in order to develop and sustain competitive advantages through their capabilities (Capron and Hullan, 1999). In rapidly changing environments, there is obviously value in the ability to

sense the need to reconfigure the firm's asset structure and to accomplish the necessary internal and external transformation (Amit and Schoemaker, 1993; Langlois, 1994). The Resource Based View suggests firms can develop dynamic capabilities allowing them to build and reconfigure internal and external resources to address rapidly changing environments (Eisenhardt and Martin, 2000, Teece *et al*, 1997).

### 8.3 Methodology

#### 8.3.1 Purpose

This study followed an exploratory case study research design. The purpose is to use theory to develop a conceptualisation of resources that smallholder producers in developing countries require to participate in different markets.

#### 8.3.2 Research context

For reasons such as the strategic nature (e.g. export orientation and high labour requirements) of the subsector in terms of potential in realising the state's objectives of increased economic growth and job creation, we focused on the deciduous fruit subsector (NGP, 2011) in the Western Cape Province of South Africa. The Western Cape Province is the largest and traditional producer of deciduous fruit accounting for approximately 90% of the total production and exported apples (USDA, 2014). The industry creates approximately 110,000 job opportunities supporting 437,757 dependents (Hortgro Key Deciduous Fruit Statistics, 2014).

#### 8.3.3 Case selection

We selected a farm as a unit of analysis because firms or farms in the case of farmers are considered in themselves as a bundle of resources (e.g. Penrose, 1959). Because firms build up and accumulate resources over time (e.g. Eisenhardt and Martin, 2000), we considered farms that have been established/acquired in earlier years as well as farms that have been established/acquired in recent years. As firms' resource base results to differentials in performances (e.g. Foss, 1998), we included various cases to capture differences in the resource base and the resulting performance differences.

We selected farms in which either unemployed adult individuals, regardless of whether they have farming experience or not, self-selected themselves to pool enough grants from the state to buy a farm with the hope to drive away poverty; or individuals working on a farm who were encouraged and supported by the commercial farmer they work for to apply for state grants to buy a separate farm. We refer to these farms as farms solely owned by smallholder producers. The study also included farms in which individuals who have been working on farms for most of their life time were given an opportunity to buy a share in the business of the commercial entity in which they work (i.e. joint ventures). We also studied farms in which competent individuals

who have been longing to run farms of/on their own were given an opportunity to farm on state land on a rental basis (i.e. state farms) as well as farms acquired through other means (privately-owned farms).

These cases were selected from the historical and major fruit producing regions in the province. The study will show why some farms outperform others in terms of generating superior customer value hence ability to access high value markets.

#### **8.3.4 Study questions**

The general research question is why are some farms able to access high value markets while others are confined in low value markets? The more specific questions are:

1. To which markets do farms sell their produce?
2. Which resources enable farms to sell to these markets?
3. Which resources constrain farms from selling to other markets?

#### **8.3.5 Data collection and analysis**

Secondary data were collected from industry reports, commissioned studies, discussion papers, project reports and policy documents using desk research. We developed a draft case study protocol as recommended by Yin (2003) which was discussed with the team of investigators and experts who have a mandate to develop and transform the agricultural sector in South Africa. Primary data were collected through interviews with key informants. These respondents included researchers, public and private sector employees, buyers of fresh produce and technical and marketing specialists rendering advice to smallholder producers on a consultative basis. Buyers included an exporter, two fresh produce market agents and two retailers. The interviews with buyers took place in the packing firms, fresh produce markets and retail stores respectively which allowed the researchers some time to make observations. On a more informal and *ad hoc* basis, conversations were, in no particular order, held with the aforementioned informants. We also held a focus group discussion with five smallholder deciduous fruit producers. The discussion took approximately one and a half hours to conclude. The interviews with smallholder producers took place in the farms. This gave the researchers an opportunity to make site observations. Each interview lasted approximately one hour. The researchers recorded all interviews and then made full transcripts. The observations on the farms were made over time. The same cases that were studied were also visited by two investigators to study the same phenomenon. The focus group discussions and the visits by the different investigators enhanced external validity and added to reliability of the findings. Tables 8.1 and 8.2 offer an overview of respondents.

#### **8.3.6 Case analysis**

The team prepared four extensive case descriptions and, following Eisenhardt's (1989) suggestion, analysed within-case data independently as a stand-alone entity.

Table 8.1. List of buyers interviewed.

Buyer	Variety of produce sourced	Respondent's designation	Gender	Age	Education
1	deciduous fruit	exporter/accountant	male	33	degree in accounting
2	fruit, vegetables and other products	retail store manager 1	male	45	diploma in marketing
3	fruit, vegetables and other products	retail store manager 2	male	48	diploma in business management
4	fresh fruit and vegetables	market agent 1	male	30	master's degree in business administration
5	fresh fruit and vegetables	market agent 2	male	55	grade 12

Subsequently, three researchers conducted a cross-case comparison independently from each other, in order to find cross-case patterns. The research team then compared and discussed the patterns each individual researcher observed. The key components and relationships were discussed before systematically comparing these relationships with the original case data in order to re-examine the evidence from a new perspective, as an iterative process (Eisenhardt, 1989; Yin, 2003). The team distinguished two dimensions on which resources differ: (1) the level of tangibility of the resource which basically refers to its material nature, i.e. the physical existence of the resource which competitors can observe; and (2) the level of substitutability, i.e. how easy or difficult it is for competitors to obtain or acquire the said resource (Barney, 1991). From these two dimensions, we inductively developed a typology of four different bundles of resources as case descriptions presented below.

### 8.3.7 Typology of resources

'Factors of production' refer to such resources as land, labour, capital and water (Krugman, 2012). These resources are characterised by high levels of tangibility and can be easily bought in the market. This means, factors of production are highly substitutable and as such do not have the ability to sustain participation of smallholder producers in high value markets (Mathews, 2003).

'Personal intangible resources' on the other hand refer to more tacit and intangible resources such as skills and knowledge. For skills to be acquired, more practice is required. Employees who have acquired certain skills and knowledge can be hired (Nelson and Winter, 1982) which gives skills and knowledge moderate levels of tangibility and substitutability. As a result, personal intangible resources do not have the potential to sustain participation of smallholder producers in high value markets.

'Process capabilities' refer to key processes, such as production planning, quality control including execution of integrated pest management practices, logistics and marketing of produce that make use of factors of production and personal intangible resources of other chain actors to support farm activities. Due to complexity and interconnectedness of these processes and activities (Hunt, 2000), process capabilities have low levels of both tangibility and substitutability and thus have the potential

Table 8.2. List of farmers interviewed.

Farm	Year of establishment/ occupation	Farm size (ha)	Enterprises	Area under fruit (ha)	Labour <sup>a</sup>	Respondent's designation	Gender	Age	Education
1	2008	302	apples, pears, nectarines	144	34	production manager	male	57	grade 12 plus courses in fruit production
2	1999	200	apples, pears, wine grapes	36	14	farm manager	male	48	diploma in agriculture
3	2004	514	apples, pears, nectarines, peaches	274	932 <sup>b</sup>	general manager	male	63	degree in agriculture
4	2005	669	apples, pears, peaches	106	34	farm manager	male	41	grade 12
5	2008	162	apples, pears	53	20	farm manager	male	70	diploma in agriculture
6	1999	26	peaches	4	2	farm manager	male	60	grade 10
7	2003	60	peaches, pears	12	4	farm manager	male	47	grade 12
8	2010	25	apples, lucer, livestock	7	3	farm manager	male	55	diploma in agriculture
9	2008	873	apples, pears, sheep	22	12	farm manager	male	50	diploma in agriculture
10	Early 1950s	40	apples, vegetables, livestock	4	3	farm manager	male	54	grade 12
11	Early 1950s	33	apples, vegetables, livestock	2	2	farm manager	male	55	grade 7
12	2010	1,049	apples, pears, peaches, plums, onions, potatoes, butternut, lucerne, sheep, cattle	8	12	farm manager	male	70	grade 8
13	Mid 1800s	3,200	apples, pears, peaches, onions, dry beans, oats, wild clover, sheep	27	15	farm manager	male	52	grade 12
14	1991	94	apples, pears, peaches, plums, apricots, nectarines, cabbage	37	40	farm manager	male	30	diploma in agriculture

<sup>a</sup> Figure covers only permanent workers.

<sup>b</sup> Number inclusive of pack house workers.

to enable smallholder producers to maintain their competitive positions in high value markets.

'Dynamic capabilities' refer to the ability of the farmer to make strategic changes in the resource base in order to keep up with the changing market environment (Teece, 2007; Teece *et al*, 1997). Examples include learning by doing, experimenting and risk taking (Eisenhardt and Martin, 2000; March, 1991; Kogut and Zander, 1992; Zollo and Winter, 2002). These are characterised by very low levels of tangibility and substitutability and thus have the potential to enable farmers to maintain their competitive positions in existing markets and to gain access to new markets in changing market environments.

## 8.4 Results

This section presents results from a case analysis of fourteen farms in the Western Cape Province of South Africa. The analysis also incorporates insights from the five buyers of deciduous fruit.

### 8.4.1 Markets for deciduous fruit in South Africa

Two forms of markets for deciduous fruit exist in South Africa; a formal and an informal market. The formal market mainly caters for overseas clients and is dominated by large export firms sourcing mainly from commercial farmers. The remaining fruit is sold locally to large retailers such as supermarkets. The informal market, on the other hand, serves the local market and is dominated by informal traders supplying a wide range of customers. The main suppliers of the informal market are smallholder farmers. The formal and informal markets also differ with regard to the level of value adding and quality requirements. Table 8.3 presents an overview of the formal and informal markets and their corresponding quality requirements.

Table 8.3. Markets used by smallholder producers and corresponding quality levels.

Markets	Value Adding	Quality
Informal markets (traders buy from the tree) for sale to various buyers	none as there are no grades, no standards; no assortments in terms of varieties	Low
Informal markets (traders collect) for sale to various buyers via a pack house	limited as there is some grading done but no standardisation; limited assortments in variety; traders do bulking and packaging for various buyers	Average
Local supermarkets	moderate and includes various assortments, size, consistency; reliability, some good agricultural practices based on growing programmes, packaging requirements	Good
Export markets (existing and new)	high and there are various assortments with specifications for size, consistency, reliability, good agricultural practices, good manufacturing practices, certification, labelling, traceability, ethical and environmental considerations, etc.	High

### **8.4.2 Contextualisation of resources and markets among smallholder deciduous fruit producers in South Africa**

Smallholder farmers possess certain resources that enable them to sell to different markets. They also experience some resource constraints which limit them from selling to other markets. Below we discuss each resource typology and how it relates to quality of produce and consequently market access of smallholder deciduous fruit producers.

#### *8.4.2.1 Factors of production, quality and market access*

Local markets set basic minimum requirements with which their suppliers must comply prior to any exchange/transaction and, farmers whose fruit falls below minimum quality requirements have to seek alternative markets. Smallholder fruit producers in possession of factors of production, such as water, labour, spraying equipment and other machinery that are insufficient or inadequate, were, although skilled, only able to generate low quality fruit which was sold directly to informal traders (Cases 8, 11 and 12). Due to their tangibility, such factors of production as machinery and equipment are susceptible to ageing, theft and vandalism. Some farmers own machinery and equipment that is generally old and in some cases poorly maintained which exposes it to frequent breakdowns. In cases where such machinery breakdowns were experienced, fruit quality was affected and the fruit was eventually sold to informal traders.

Similarly, another farmer who has a link with a community pack house and originally sells fruit from his other farm via this pack house had his irrigation system in the state rental farm vandalised which consequently interfered with the restoration and flow of water. This farmer reported a record of poor yield and quality. 'In this seven hectare fruit farm, water was sufficient for only four hectares; this situation stressed the trees and resulted to few small apples being produced' (Case 8). The farmer viewed the fruit as not suitable for sale through the community pack house. As a result, the fruit was sold directly to informal traders. Lack of other factors of production and the influence it has on the quality of the produce has been experienced by one of the farmers and this is how he reflected: 'I delayed harvesting as I did not have a proper place to pack and store the fruit upon harvesting; the fruit dropped off from the trees on its own and resulted to low volumes and poor quality fruit' (Case 12).

The limited or insufficient factors of production among deciduous fruit producers not only resulted in low quality fruit but also affected the yields, thus resulting in low quantities of fruit being harvested. Interestingly, the data showed that farmers whose produce falls below minimum quality requirements could still sell their produce through initiatives by other chain members. In such cases, informal traders catering for a wide variety of consumers with diverse preferences seem to be the most suitable channel to which smallholder farmers could sell their fruit. For instance, informal traders would drive to the farms during harvesting season to buy fruit. They would

bring along own transport, fruit picking and packing equipment and the labour to do the harvesting and packing of fruit. This initiative by informal traders enabled farmers to sell their fruit.

With regard to availability of factors of production, the state has reallocated these resources among smallholder producers as an attempt to redistribute wealth and reduce the poverty levels in the country. Through various land reform programmes, individuals and groups of smallholder producers were given grants to purchase land in which they are the sole owners, some used the grants to buy shares in operating farms and/or processing plants, while others lease farms from the government for production purposes. The aim of this programme was to redistribute land equally among society.

To facilitate rights to use of water resources, smallholder producers were granted user rights by being given a temporary water licence. These licenses entitle farmers to withdraw a given amount of water with a given quality from a river or canal. For farmers to be able to draw water from its source to the field, they need equipment. The state offers a subsidy scheme which finances a percentage of the off-farm water infrastructure development and distribution costs to smallholder farmers. The water pricing strategy also makes allowance for lower tariffs for smallholder farmers, with these increasing over a period of five years from issuing of a license or registration of water use to cover operational and management costs (Schreiner and Naidoo, 2000).

To make labour available to sectors, the labour market was also reregulated. This reform also provided for a sectoral determination of minimum wages for farm workers (Du Toit, 2003). Commercial farmers now compete with other farmers and with other rural and urban non-farm activities to attract and retain labour (Vaca, 2003). With regard to the provision of capital resources, a state-owned scheme aimed at providing micro and retail agricultural financial services on a large, accessible, cost effective and sustainable basis to communal land areas as well as smallholder producers was also introduced. This credit facility offers two products, viz. production loans as a means of bridging finance to cover production, processing, and marketing costs and equipment loans to finance the purchase of loose tools, small-scale plant and machinery, irrigation, and other farming equipment (NDA, 2007).

### 8.4.2.2 *Personal intangible resources, quality and market access*

Local community pack houses have basic minimum quality requirements which suppliers must fulfil prior to any exchange/transaction. Smallholder farmers whose fruit meets basic minimum requirements of community/private pack houses were able to sell their fruit to this channel. These farmers were endowed with both factors of production and personal intangible resources (Cases 6, 7 and 13). Yet, personal intangible resources may become obsolete. With the introduction of new and the continuous upgrading of existing technologies, production techniques improve and so should the technical skills and knowledge of farmers. For instance, during thinning,

some farmers would leave more fruit on the trees than is required and sometimes too many fruits were left on young trees, which resulted in the bearing of unevenly-sized fruit. The importance of thinning in influencing fruit size and therefore quality was further stressed by the exporter: 'Fruit size can be controlled through hand thinning and is important in assessing the quality of fruit'.

With deployment of a combination of factors of production and personal intangible resources, smallholder farmers are only able to produce fruit of average quality which they sell to pack houses. However, farmers who received advice on new techniques for pruning and thinning observed an improvement in the quality of their fruit. These farmers were able to deliver more of the fruit to be sold as fresh as opposed to be sold for juicing and canning in the following season (Cases 6 and 7). The fruit is mostly sold to pack houses and arrangements are made to collect and deliver fruit to the pack house which then decides to which markets fruit will be sold depending on quality. While improvements in fruit quality have been witnessed by farmers who received technical advice, some believed that even if quality can improve, they still will not be able to supply export and domestic supermarkets as they cannot generate the quantities required in those markets due to the small size of the land (e.g. Case 8).

With regard to the development of personal intangible resources, the majority of farmers in the deciduous fruit industry were farm workers or have farming backgrounds and as such have acquired the necessary technical skills and knowledge required in farming. For those farmers who do not have such farming background, an acknowledgement of such a gap has been made and as a response, the government has introduced various mentorship programmes, which include a skills development component. The aim is to build capacity within the agricultural sector and to transfer technical and business skills to farmers (DAFF, 2009).

#### *8.4.2.3 Process capabilities, quality and market access*

Export markets and domestic supermarkets require producers to supply a differentiated quality level in which production techniques, spraying programmes, quantities to be produced and quality requirements as stipulated by buyers have been followed and fulfilled. Compliance with the different processes to be followed in order to produce and supply the right quantities and quality at the right time, as specified by the respective buyers, puts farmers in a better position to access high value markets (e.g. Cases 2, 4, 5, 10 and 14). Knowledge of preference for fruit varieties in the different markets, a personal intangible resource becomes crucial in this regard.

As the exporter alluded, 'Green, yellow, red and/or bicoloured apple varieties, for example, are preferred over other varieties in certain markets and knowledge of this diversity and preference in varieties is important for widening market scope'. This point received further emphasis from the exporter as well as from a market agent; 'Our suppliers need to always bear in mind that they are producing for the export and not the processing market' is how the exporter reflected, and the market agent

commented, 'Urban and rural consumers have different preferences regarding the size and packaging of the fruit they buy'. As a result, farmers who are able to produce and supply the right quantities and quality as specified by the respective buyers gain access to these high value markets.

One farmer who has developed a relationship with a neighbouring commercial farmer explained, 'I have a seasonal verbal arrangement with a neighbouring commercial farmer who brings along his machinery and equipment, chemicals and labour to administer integrated pest management programme in our farm, during harvesting, the commercial farmer brings along his labour, fruit picking ladders and bins to pick-up first grade fruit which he packs in his cold store for sale to the export market' (Case 10). The exporter who is in a partnership with some of the farms surveyed cited their involvement pre-harvest as one of the factors that adds value to the quality of the fruit produced, 'To ensure good quality, we dispatch our technical team among our suppliers to observe activities and assist where necessary; and, as a result, we have grown in terms of productivity per unit area' the exporter commented. Visits by the technical team to ensure production of good quality fruit were also confirmed by another farmer who is also in a partnership: 'The technical advisors visit once a week to guide us in spraying and other related activities' (Case 9). The fruit is mainly exported with the remainder being sold to domestic supermarkets.

Commercial farmers who serve as mentors in state rental farms (e.g. Case 9) and in smallholder owned farms (e.g. Cases 4 and 5) as well as strategic partners in joint ventures (e.g. Cases 1 and 2) have been in the industry and on the export game for some time now and as a result have bought enough time to build and accumulate the necessary capabilities that are required to participate in export markets. Smallholder farmers who are in strategic partnerships and/or mentorship arrangements with commercial farmers and/or export firms are able to complement their capability base by tapping into these capabilities. Through these innovative arrangements, smallholder farmers are able to access the needed resources to ensure production of good quality fruit thus securing access to high value markets (Bitzer and Bijman, 2014).

While deployment of factors of production and personal intangible resources allows farmers to produce average quality, deployment of process capabilities in combination with factors of production and personal intangible resources enable farmers to upgrade quality to meet high value market standards. Strategic partnerships and/or mentorship arrangements have gained popularity and are increasingly being recognised as a model to facilitate inclusion of smallholder producers in high value markets. Government and the private sector (e.g. commodity organisations) across the agricultural sector have implemented various mentorship programmes over time. Ideally, mentors and/or strategic partners should transfer these skills and build these capabilities into participating smallholder farmers by involving them in farming activities and decision making processes. Being in these partnerships not only enables smallholder farmers to benefit from these process capabilities; they also get technical

support and operational capital to buy inputs thus enabling them to access high value markets.

8.4.2.4 Dynamic capabilities, quality and market access

New markets, requiring a differentiated quality level that exceeds that of current buyers and has more potential for added value than what can be obtained from existing supply chains, could only be supplied if smallholder farmers have dynamic capabilities in addition to factors of production, personal intangible resources and process capabilities. In the production of deciduous fruit for new markets, smallholder farmers need to be flexible enough to respond effectively to changing consumer tastes and preferences. For example, to be able to keep up with these changes, smallholder farmers must be able to supply new varieties, adopt new food safety and quality standards, etc. as required by these new buyers. Meeting these requirements requires planting of new varieties, which must have been tested in advance (experimentation) before the actual large scale planting; adoption of new food safety and quality standards which requires some changes in the way things are done. Depending on the change needed, these alterations could be done at factors of production level, e.g. erection of structures for waste disposal; at personal intangible resource levels, e.g. training of labourers on the safe use of chemicals or at process capabilities levels, e.g. quality control through reduced chemical use during production (Figure 8.1). Some smallholder farmers, who were keen to make and learn from mistakes, willing to try

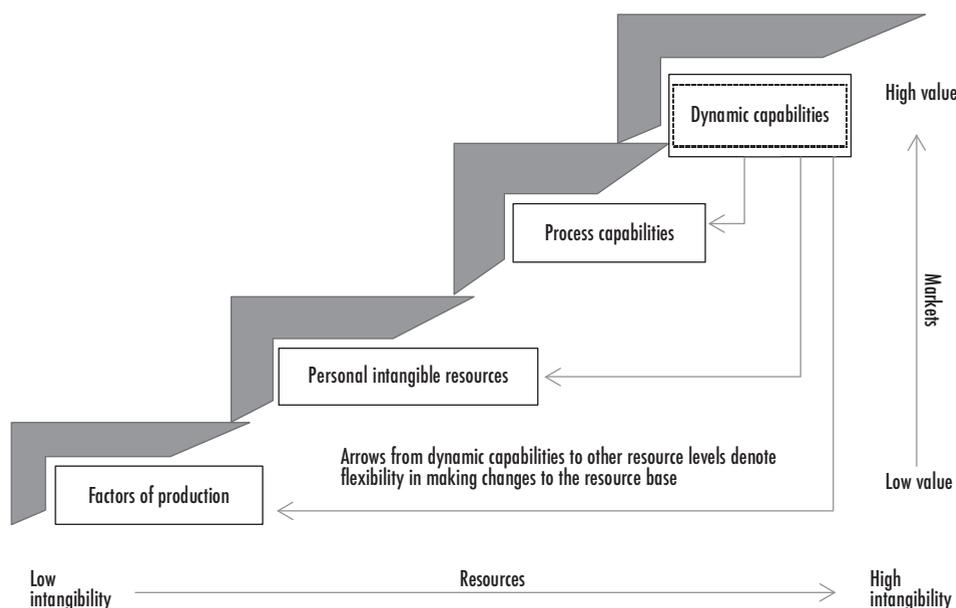


Figure 8.1. A model for integration of smallholder producers in high value markets.

out new things (risk taking), able to keep abreast of new developments and integrate these dynamic capabilities with factors of production, personal intangible resources and process capabilities, were able to remain in markets and to some extent, gain access to new markets (Cases 1, 3 and 9).

Some farmers believed learning is continuous and that there is, and will always be, room for improvement in whatever one is doing. As elaborated by one farmer, 'We had our yield heavily affected by sunburn in the previous season, we did things differently this season and have put a lot of attention on post-harvest activities such as pruning, orchard clearing, and fertilisation and have thus observed a lot of improvements in yield and quality' (Case 1). The changes in consumer preferences also require farmers to invest in new varieties. As one of the farmers who sits in fora where new varieties are discussed articulated his experience: 'I am testing new varieties in my farm and have been planting trial trees in the past few years which are growing well, this helps me see what works and what doesn't' (Case 9). According to this farmer, his access to markets has improved as a result of this larger variety in product. Some of these farmers attend trade fairs, export development workshops and other related programmes. As a result, they are well informed with what is happening in the industry and supply mainly export markets and domestic supermarkets. The importance of staying informed in the fruit industry was also remarked by the exporter: 'staying abreast with technology, such as rootstocks, add to improved fruit quality'.

Most of the farmers who shared these experiences are either in strategic partnerships or have mentorship arrangements with commercial farmers and/or export companies. Through these innovations with strategic partners, mentors or export companies, smallholder farmers are able to remain competitive in markets. This was confirmed by an exporter who also serves as a strategic partner to some of the farmers interviewed. According to the exporter, accessing markets is not a problem and sustaining competitive advantage is the goal for the farmers with whom they have forged partnerships: 'we have built our reputation in the industry through the production of good quality fruit; our only concern now is to seek growth opportunities through exploitation of new market outlets to increase our market scope'. Some smallholder farmers have also managed to get access to more market opportunities especially new markets in Africa, for example (Cases 3 and 9).

Further to the development of process capabilities through commercial farmers' long term involvement and participation in export markets, the withdrawal process of state support and the opening up of markets to global competition have enabled them (commercial farmers) to think strategically and find ways to survive in this dynamic market environment. Commercial farmers had to develop strategies to survive, one of which is the forging of strategic relationships with smallholder farmers, thus taking advantage of the opportunities presented through introduction of new policies in the agricultural sector. Smallholder farmers who are in strategic partnerships (e.g. Cases 1, 3) and/or mentorship arrangements with export firms (e.g. Case 9) are able

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to survive in this dynamic market environment by piggybacking on the dynamic capabilities of their strategic partners and/or mentors.

Building on the findings, the team developed a model for smallholder farmer integration in markets. A schematic overview of the resource levels at farm level which include factors of production, personal intangible resources, process capabilities and dynamic capabilities and the corresponding markets is presented in Figure 8.1.

**8.4.3 Analysis of individual farms at the different levels of the resource hierarchy**

Below we discuss other factors which may have, in some ways, further influenced the position that a farm holds in the hierarchy of resources.

*8.4.3.1 Farms at the first level of the hierarchy*

Cases 8, 11 and 12 could not move to higher levels of the resource hierarchy for various reasons. For Case 8, which is a state-owned farm, the lessee had potential to move to higher levels of the resource hierarchy, but could not do so due to water constraints. To keep the farm in running order, the farmer decided to incorporate a livestock enterprise. It is cases like this that prompted the state to introduce a programme that provides a fund to revive farms that are in a distressed state. As part of the norms and standards of this programme, the state makes it a prerequisite for such farms to have a strategic partner and/or a mentor before recapitalisation funds could be disbursed (DRDLR, 2011).

For Case 11, stepping up the hierarchy of resources might have not been a desirable option possibly due to difficult farming conditions prompted by numerous incidents in the previous decades (e.g. the oil crisis in the 1970s, the closure of the local railway station, politically motivated economic sanctions, etc.). These conditions led to the uprooting of trees and a subsequent diversification of farming activities by some smallholder producers in the community (Hart and Burgess, 2006) including Case 11. The farm currently runs a mixed farming system in which fruit is not the main enterprise.

Case 12, a privately owned farm could not move to higher levels of the resource hierarchy for two possible reasons. First, the farm's use of water that was not registered at the time of the interview may have influenced the farm's access to other tangible resources, such as credit. Second, the outright purchase instead of a lease from the state could mean that, the farmer's credentials in terms of managerial and farming experience were not convincing enough to warrant the state to lease him a farm.

*8.4.3.2 Farms at the second level of the hierarchy*

Cases 6, 7 and 13 were, for different reasons not able to move to higher levels of the resource hierarchy. For Cases 6 and 7, remaining on the farms and keeping the farms

in production irrespective of harsh farming conditions, while other members left to seek alternative livelihood strategies, symbolises commitment and the desire to make a better livelihood out of farming. For reasons, such as non-compliance with food safety and quality standards, as well as fruit varieties that were only suitable for sale in the local market, Cases 6 and 7 could not move to the next level of the resource hierarchy. These farmers continue to farm under difficult conditions and one of the farmers reckons it is good that he kept his off-farm job as the income earned helps to at least keep the farm in running order.

Case 13 is stuck at the level of personal intangible resources, and infrastructural constraints may have kept this farm at this level. The remote location of the farm, the absence of electricity in the farm and the bad condition of the road to the farm which regularly causes damage to the fruit during transportation to the market may have limited growth of the farm. To take advantage of abundant water supplies, the farmer has included other enterprises, such as vegetables, but fruit remains the main enterprise in the farm. The farmer is eager to move to the next level of the hierarchy, such that they have started to make some improvements in terms of on-farm infrastructure in preparation for compliance with food safety and quality standards.

### *8.4.3.3 Farms at the third level of the hierarchy*

Cases 2, 4, 5, 10 and 14 were not able to move to the top level of the hierarchy for reasons which vary from case to case. For Case 2, which is a joint venture, there are two possible reasons. First, the strategic partner's main focus is wine production and deciduous fruit was introduced as a new enterprise in the business. This could mean that the strategic partner had limited expertise in the production and marketing of deciduous fruit hence appointment of a farm manager and an exporting firm to attend to the production and marketing of deciduous fruit, respectively. Second, smallholder farmers are not shareholders in the company that packs and markets their fruit which may have implications regarding the extent to which the company invests in the farm.

With regard to Case 4, a smallholder owned farm which was initially a joint venture, various factors may have influenced the current position of the farm in the hierarchy of resources. The remote location of the farm and underdeveloped infrastructure in the area, the time and resources invested in the process of buying out the strategic partner from the business, the time between the termination of the relationship with the strategic partner and reinstatement of a mentor in the farm may have all in some way contributed to the delay of the farm in progressing to the top level of the hierarchy.

For Case 5, which is a smallholder owned farm, the old orchards including the time lag between their re-establishment and fruit bearing age of new trees may have contributed to keeping the farm in this position. Although in Case 10 the farmer has been getting support from the commercial farmer in the neighbourhood in the previous years, this farm remains at this level of the hierarchy. This is the case because it was never the objective of the commercial farmer to empower smallholder farmers

in this historical deciduous fruit producing area rather than a process to add value to a product that will eventually increase his supply base. With recent developments in policies regarding empowerment of smallholder farmers, the state is also calling upon such commercial farmers to come forward to formalise these relationships. These are also the kinds of relationships in which suspicions of exploitation have been raised (DRDLR, 2011).

Case 14 is a private farm in which the owner is also involved in informal trading. The farm has moved to this level of the resource hierarchy after the farmer bought a share in the business of a firm which exports some of his produce. The farmer's informal trading background could be what has made him attractive as a potential business partner as the exporter could make use of the farmer's local networks to sell fruit not suitable for exports. It is unlikely that this farmer would abandon his traditional markets built over the years and focus exclusively on exports.

#### *8.4.3.4 Farms at the fourth level of the hierarchy*

For Cases 1 and 3, having strategic partners who run vertically integrated businesses, i.e. grower-packer-exporter structures, may have helped smallholder producers to stay abreast of latest developments in technologies and consumer trends. The strategic partners have also supported smallholder producers to respond to these changes in order to remain suppliers in high value markets.

For Case 9, which is a state-owned farm, a completely different observation has been made. Membership of the farmer in the company that markets his fruit entitled him to technical advice, rebates on packing and marketing costs, as well as financial advance for seasonal production; his extensive farming experience has given him an opportunity to serve in both technical and managerial positions as well as build relationships with various stakeholders in the industry; and his membership and service in various committees of farmer organisations, including his current position as one of the four farmers who are part of a reference group representing smallholder farmers at both provincial and national levels, might have given him enough exposure to think differently and act proactively. A combination of these experiences might have also contributed to enabling the farmer to step up and land himself to the top level of the hierarchy of resources.

Forging strategic partnerships and/or mentorship arrangements holds some benefits for all parties involved. For strategic partners and/or mentors, being in this kind of relationship with smallholder producers means an expanded supply base at minimal costs. For smallholder farmers, buying shares in a commercial entity was an opportunity worth taking as this meant capacitation in terms of exposure in a business environment and economic empowerment through participating in the mainstream economy. For the state, these partnerships meant development of a fledging class of smallholder producers capable of running viable and profitable farms in the near future which will eventually contribute to reduced levels of poverty in the country (DRDLR, 2011).

### 8.4.4 Case comparisons

The four resource typologies were compared and inferences as to how smallholder producers move from supplying low value markets to supplying high value markets that offer a higher margin than the former markets were drawn. The main distinguishing factor is the nature of the resources at the smallholder producers' disposal which relates to their potential to add value to the product and thus their ability to enable smallholder producers to maintain access in existing markets and to gain access in new markets.

The main difference between farms producing low quality and those producing average quality products is that, farms producing low quality products do not add any value to the product for reasons related to insufficient labour resources on the farm while those producing average quality products do add some value to the product. In those farms where no value is added, buyers come to the farm and use their own resources to add value to the product. For those smallholder producers who produce average quality products, the farmers at least harvest the crop and communicate with the buyer regarding collection of the crop upon harvesting. This way, some value addition is done at farm level; the pack house also adds value to the product through grading of produce. We therefore propose:

*Proposition 1. Farms endowed with factors of production and personal intangible resources are only able to produce a low to average quality products that can be sold to low value markets.*

Strategic partnerships and/or mentorship arrangements seem to be instrumental in the upgrading of quality and facilitation of linkages between smallholder producers and high value markets. Smallholder producers who have access to factors of production and personal intangible resources and who have forged strategic relationships with commercial farmers and/or export firms through either shareholding in joint ventures or mentorship arrangements in state and smallholder producer owned farms were made aware of what the market requires and received assistance during production to ensure compliance with the market requirements. Smallholder producers were also assisted with post-harvest handling activities such as packing and storage, and with marketing and distribution of the crop. We therefore propose:

*Proposition 2. Farms endowed with factors of production, personal intangible resources and process capabilities are able to produce a good to high quality product that can be sold to high value markets, if strategic partners and/or mentors (1) share market information, and (2) render technical advice.*

The ability to keep up with changes in consumer tastes and preferences, new developments in technologies and in the industry at large and the ability to quickly make alterations and amendments in response to those changes enables smallholder producers to continue participating in high value markets. Smallholder producers

who are in strategic partnerships and/or mentorship arrangements with commercial farmers were able to get market information on current and future trends. The feedback from buyers also stimulated smallholder producers to be creative in terms of seeking and finding new ways to improve quality while long-term solutions are being sought.

*Proposition 3. Farms endowed with factors of production, personal intangible resources and process capabilities are able to sustain their participation in high value markets if they have dynamic capabilities to keep abreast of market trends and latest technologies and bring this information to the level of smallholder producers to proactively act upon through (1) experimentation and learning and (2) adoption of new varieties.*

## **8.5 Conclusions and policy implications**

This study has identified resources which smallholder producers in developing countries require to participate in different markets. While fruit of a certain quality will find a place in the market, high value markets, which present producers with opportunities to earn higher margins for products in which value has been added, could only be accessed if producers have sufficiently developed process capabilities. Being able to participate in high value markets may further contribute to reduced levels of poverty. As not all farmers who were able to access high value markets had dynamic capabilities, these findings suggest that dynamic capabilities may, for now, not be necessary for all farmers to participate in high value markets. The study has also indicated that development of resources requires involvement and participation of various stakeholders in which both the public and private sectors have a role to play.

### **8.5.1 Implications for smallholder market integration policies**

From this study, four implications for policy makers in developing countries emanate:

Firstly, as factors of production could be obtained in the open markets, development of regulatory systems to guide functioning of factor markets in developing countries may serve as a mechanism in the (re-)allocation of scarce resources. The development of factor markets will thus facilitate the allocation of such resources as land, labour, capital and water which tend to constrain smallholder producers from participating in markets.

Secondly, personal intangible resources such as skills and knowledge of individuals require more practice to develop. To facilitate the development of personal intangible resources, on-field training to enhance skills development as well as on-the-job training to build the knowledge base of smallholder producers, could be instrumental in the development of such resources.

Thirdly, process capabilities, such as production planning, quality control, logistics and marketing are a complex and interconnected process, the development of which requires processes to follow and involves a network of stakeholders to liaise and relate with. Development of process capabilities by smallholder producers could be facilitated through involvement in all activities and strategic decision making processes of the business starting from production planning, quality control and logistics until the product reaches the market.

Fourthly, the development of dynamic capabilities is a long term process that builds on farming and business experience accumulated over time and plays a crucial role in sustaining participation of smallholder producers in high value markets. Support to the development of dynamic capabilities may, in combination with consistent market research cover continuous awareness creation in trade regulations, exposure trips to explore new technologies and new ways of doing things, timely updates on (new) standards development, and creation of opportunities and platforms for networking, experimenting, experiential learning and experience sharing. An institutional environment that provides insights in market development will also be instrumental in the development of dynamic capabilities.

### **8.5.2 Implications for South African policies**

South Africa has made progress with regard to developing policies aimed at improving participation of smallholder producers in high value markets. The country seems to be also steering its policies towards the right direction as it has, in its policy development approach, already adopted the logic of a resource hierarchy.

South Africa has implemented various policy reforms to facilitate the functioning of its factor markets. The reforms were implemented in land, labour, capital and water markets. The land reform programme, labour market reform, development of micro-finance institutions and water reform programmes were implemented to redistribute and make these factors of production available to smallholder producers who were previously denied access to these resources.

For building and broadening the skills and knowledge base of smallholder producers, various strategic partnership and mentorship programmes specifically designed to bridge the skills and knowledge gap of smallholder farmers have been launched and implemented. Further to skills and knowledge development, these partnership and mentorship programmes are envisaged to capacitate farmers in terms of process capabilities over time. This is where South Africa currently stands in terms of policy development.

A policy recommendation for South Africa would be to strengthen and extend its monitoring systems at farm level to include an audit of skills and capabilities and where gaps are identified, develop action plans to fill the gaps. This will serve as a means to fast-track the development of process capabilities by smallholder producers.

More precisely, monitoring and evaluation systems at farm level could focus more on human resources and assess their level of skills development on a continuous basis as the mentorship programme progresses than focusing on tangible measures/indicators such as increases in incomes. This is not to say the latter measures/indicators are not important. This process is crucial as development of process capabilities will enable smallholder producers to move to the next level of resource development, which will sustain their participation in high value markets.

## **8.6 Directions for further research**

This study underscored that market access of smallholder deciduous fruit producers is explained by the type and level of resources in possession of farmers. Future research needs to develop measurement instruments to test the conceptual framework and hypotheses which were developed in this study. Future research may examine the influence of resources on the market access of smallholder deciduous fruit producers, by exploring possible moderating variables that strengthen or weaken the relationship between resources and market access of smallholder farmers. Finally, longitudinal studies could provide insight on whether dynamic capabilities lead to sustained competitive advantage in the long-term in this context.

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