

## A Framework for the Development of Management Skills for Co-Operative Development in an Agri-Business Value Chain in South Africa

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**Abstract**--This research investigates the management functions and skills required for co-operative development within the agri-business value chain in South Africa. The study was conducted in Mpumalanga province within South Africa. The province spent close to ZAR50 million through the Comprehensive Rural Development Programme (CRDP) in an endeavour to use the Co-operative model as a vehicle to create viable agri-business enterprises capable of alleviating poverty through creation of employment. The purpose of this research is to determine the challenges faced by emerging farmers in co-operatives from advancing within the agri-business value chain in order to perform and sustainably participate in the main stream economy. A survey methodology was sent to a stratified sample of farmers in two regions (Highveld and Lowveld) of Mpumalanga, measuring how people felt based on their past farming experiences. In the 131 participants surveyed, it was found that there was little difference observed between the two regions with regards to the main challenges being management capabilities and access to markets. However, the following management skills are required to survive in this market, i.e. market research and marketing, financial management as well as processing of products which will allow them to expand along the value chain. This means that the Government can employ these outcomes to strengthen the Agri-business value chain thereby possibly decreasing the high unemployment rate in Mpumalanga. Agriculture, a sector that can play a very significant role in improving the socio economic standards of South Africa, therefore investing in this sector strengthens the future of the society.

### I. INTRODUCTION

The South African National Department of Agriculture, Forestry and Fisheries have the mandate to develop small farming communities through the provincial departments. The National Agricultural Co-operative Indaba [1, p. 2], in discussing history of co-operatives by states: *"The South African history indicates that white co-operatives played a significant role in the South African economy. In 1993 there were about 250 of these co-operatives with total assets of R12.7 billion and a total turnover of R22.5 billion. These were achieved as a result of some government interventions at the time. However, black farmers received the same form of support though this has led to them not being able to meaningfully participate in the mainstream economy"*. Various programmes have been undertaken through the Department of Agriculture, Land Affairs and Rural Development, Land Bank as well as other organisations in an attempt to empower developing farmers. These interventions were meant to induce transition from developing farming states to self-sufficiently managed businesses, such that

farmers can approach financial institutions to acquire capital on the strength of their financial status. "The importance of agricultural co-operatives is job creation, mobilizing resources, generating investments and their contribution to the economy. In their various forms agricultural co-operatives promote the fullest participation in the economy and social development of all people" (Guideline for Establishing Agricultural Co-operatives [2, p. 4]). This means that co-operatives should have positive contributions to the socio-economic condition of the country.

According to the National Agricultural Co-operative Indaba [1, p. 1], "... the revenue of the world's top 300 co-operatives exceeds US\$1 trillion; equalling to the world's 10<sup>th</sup> largest economy, international Co-operative movements represents 800 million members, more than the total population of the entire European continent. Co-operatives in Germany and France create 440,000 and 700,000 jobs respectively. Kenyan co-operatives account for 45% of the GDP and 31% of the gross national savings". While in South Africa, the report further states, "With the gradual abolition of subsidies and state protection over the past decades, white agricultural co-operatives faced the challenges of globalisation, which has led co-operatives to, among others, secure external finance for expansion and diversification through conversion into private companies; external shareholding and taking over companies or establishing new companies as subsidiaries of co-operatives". This may have contributed towards slow development of co-operatives in South Africa to the extent that they may not compare to international standards.

Co-operative development is faced with problems when trying to improve the farming standards of the small scale farmers in order to get them to participate and benefit from the agri-business value chain. Various programmes have been undertaken through the Department of Agriculture, Land Affairs and Rural Development, Land Bank, as well as other organisations to attempt to empower developing farmers. The expected outcome of these interventions was to create viable enterprises out of agriculture and to capacitate co-operatives to be able to participate in the main stream economy. This raises the question on how co-operative development can improve the level of farmers' participation in the agribusiness value chain. The purpose of this research is to determine the challenges that co-operative development face in trying to reach the intended goal of commercializing the emerging farmers. This will be undertaken through research within the participating farmer level, co-operative management as well

as professionals in the Department of Agriculture in the Mpumalanga Province in South Africa.

On the transformation of the farming standards of the small producers through the co-operative model, the efforts from all parties involved (i.e. co-operative members and government) were reported. Access to finance from commercial institutions, as well as management capabilities, were identified as constraints emanating from the organizational operating model as well as both micro and macro-economic conditions that still cannot unlock these opportunities.

According to DTI RSA [3, p.19], “A total of 92,523 million disbursed to 488 co-operatives from the year 2005 to 2011 across seven industries, 47% of it was spent in Agriculture. In 2004, the National Co-operative Development Policy was developed and adopted by the Minister of Trade and Industry, which laid the basis for the development of the co-operative legislation, strategy and other support intervention”. This shows how Agriculture was prioritised in South Africa from the National level which then empowered provinces to follow suit. Again DTI RSA [3, p. 3-4] states that, “Provincial government have been encouraged to develop their own Co-operative strategies that will guide the promotion and development of co-operatives at this level. In 2005, the Co-operative Act, No 14 of 2005, the act was promulgated by Cabinet and subsequently proclaimed into law by the president of South Africa in 2007”. As a result, Mpumalanga established various programmes intended at advancing agricultural enterprises. The Department of Agriculture and Land Administration developed the Comprehensive Agricultural Support Programme (CASP). This programme has been adopted to deal with the challenges of the provisioning of agricultural infrastructure in both on and off farm as a strategy to intensify support to farmers. Its aim is to develop infrastructure to support farming and agribusiness activities. During the financial year 2004/05 CASP assisted many emerging commercial farmers who are beneficiaries of land and agrarian reform, CRDP framework [4, p. 26]. The above is in line with the problem statement and confirms the effort government have put in order to try and commercialize the smaller farming operations through the co-operative model.

The Co-operative strategy is a widely and extensively adopted approach in uplifting the small farmers, not only in South Africa, and also covering other countries. In China, a co-operative model was used to improve the medical system in rural areas. “The Central Government brought forward the system of rural co-operative medical services in the middle of 1990s”. RCMS China [5, p.74]. In relating this case relative to South Africa with ample financial support from government, it is still a battle to quantify the amount of progress made.

The goal of this research therefore, is to investigate the challenges hindering development of co-operatives as well as raising recommendations that may help in enhancing their management. This will result in maximising revenue derived

from agriculture by increasing the economies of scale within the agri-business operation, creating sustainable employment as well as increasing the overall contribution of the agricultural industry to the South African GDP.

## II. LITERATURE REVIEW

The literature reveals management requisites that farmers need in order to be successful. It also showcased how agriculture has changed over the years requiring critical business management skills in agriculture. Any entrepreneur that needs to run a successful business or to starts one, needs to understand the business environment very well. This will allow for an understanding of all external factors that, as a result, tell how business should be run and it is also important to understand the business trends which will give a fair view of the industry direction which ensures proper strategic planning. This is clearly posited by Amos, Hellriegel, Jackson, Klopper, Louw, Oosthuizen and Staude [6, p. 81] when they state that “South African business organisations clearly do not operate in isolation or within vacuum. They, in fact, operate within a particular context called the business environment which consists of all the factors and forces outside the company’s boundaries which influence the goals, objectives and strategies”. There are therefore business trends that bring development and changes which managers need to respond to by making sound business decisions.

### A. The evolution of agriculture in South Africa

According to Edwards, [7, p. 9], “At first, growing crops was left mainly to the women. Many men still went out hunting and fishing. In forestry areas, men cut down trees, clearing land on which to grow their crops; others stayed at home to make stone tools. Wild animal skins were used to make clothing. Much of the wheat and barley they grew was ground into flour to make bread. Any that was left over was stored in grain pits or stone pots”. In those days family labour was still common until the industrial revolution era when people who worked in the industries, had less farming time but had buying power which becomes “the market”. The above analysis shows that agriculture in the past is completely different from agriculture today, this also marks the significance that change has brought to the whole agriculture value chain. A mind set change is required for farmers to realise that they are in business and have to display understanding of such by applying business principles required by business for success.

### B. The importance of a marketing strategy

Strydom [8, p. 301] emphasises that, “Successful marketers are those who can best satisfy consumer needs in the context of changing environments where threats must be coped with and all opportunities grasped in order to survive”. For businesses to reach their objective, they need to have a marketing plan which gives their business an operational tactic. This also gives the management of an enterprise a

guide on what to do from production of produce to the marketing stage where the product is ready for placement in the market. This is what the agriculture value chain constitutes and even extends to processing. What is important in this regard in the context of co-operatives, is the positioning of their product offering within the value chain and to ascertain exactly how a product fits within a given the complementary product, as well as the competitors product available in the market. This will enable a farmer to formulate an appropriate competitive marketing strategy based on the knowledge of the market environment they operate in.

#### *C. Market research versus capacity planning*

According to Amos et al, [6, p. 81], “organizations can be sure that the environment in which they are doing business is in a constant state of change, whether it be the macro-environment or the micro-environment”. It is therefore a business imperative to refine a marketing plan to suit the ever changing business environment. Du Toit, Erasmus and Strydom [9, p. 106] also share the same sentiment from an economic environment point of view, citing technology, politics, social and international factors as influencing variables by emphasising that, “these cross influences causes changes in for example, the economic growth rate, levels of employment, consumer income, the rate of inflation, interest rates, and the exchange rates. Ultimately, these economic forces have implications for management”. This therefore, calls for proper capacity planning for business to respond appropriately in line with the market.

In business, management should know what is expected in the industry within which they operate in, be this market demand related or environmental condition related. This is necessary because any change in any of these variables will have an influence on the timing of product placement in the market and this will also allow for strategizing partners that are required in the market place.

#### *D. Customer relationship management*

From a customer relationship management methodology point of view, Heizer and Render [10, p. 137] emphasises that, “When capacity is inadequate, the resulting shortage can lead to loss of customers and market share”. This shows how complex it is to manage production process where seasonal influences are inevitable. These highlights the need for production planning in businesses, the survey to be carried out in this study is also intended to measure the degree to which farmers apply business skills. This focusses from planning stage (where a producer needs to know who they partner with as a supplier for input) and also to the marketing stage. For example, arranging product distribution strategy through agents or farmer self. Having this type of strategic partners in the market will assist in making sure that a product is well positioned in the market and will result in an edge in the market.

#### *E. Managing change, growth and associated risks*

Co-operatives management need to be equipped with management skills in order to can be able to improve the farming standards. To be successful they need to understand the business environment is always changing, the market as well as the risks involved. This will allow them to successfully steer business through growth. According to Pearce and Robinson [11, p. 437], “The point of innovation is growth”. This shows that change, growth and risk may not be separated and to manage this one needs to go beyond just existing knowledge. For small farmers to transform and participate throughout the value chain they need to align their production to that of the needs of the industry value chain. According to Du Toit et al. [9, p. 516], “if products and services are well-designed with a view to satisfying the needs of the customers/clients in the best possible way, if products and services are well designed, produced and provided, so that the expectations of customers / clients are realised or even exceeded, the competitive position will be re-enforced through increased sale of this products and services”. Co-operatives are required to help promote this in order for the farming standards to improve. For this to be successful there is a need to understand the market as well as the risks involved. Any business that is subject to risk, the success of the management thereof is dependent on how successful they are in analysing industry inherent risk as well as suitability of mitigating strategies they apply.

#### *F. Capitalising business for growth*

For any business to grow it needs to be capitalised, the main difference being the source of funding. If business is capitalised from the owner’s equity, then it is easy to acquire and employ the funds. If the funding is sourced from external credit providers, then there are sets of requirements that financiers need. Every business starts with a business plan, though the owner may have not documented the business case but in his or her mind there will be a business plan. According to Bezuidenhout, Mumba, Van Aardt and Van Aardt [12, p. 154], “business plans are used for various purposes such as determining the chances of success, to raise capital, and as a schedule for business start-up and growth. While a business plan would have been nice to have in the 1970s, it is of vital importance in today’s highly competitive world of business”. The ability to do a proper business plan in farming could be a factor that determines whether farmers get financial support from financial institution. The business plan will further serve as a guiding policy that gives management the direction to which business must be steered. It also assists management in realising when deviation occur and allow the application of corrective measures.

#### *G. Seasonality of Agricultural production*

This is more critical to agricultural products because they are seasonal in nature and their prices tend to be more volatile. It is therefore expected that co-operatives should also be able to do a thorough market analysis and planning,

firstly for own success in attempt to maximise profit. It is therefore important to merge the seasonal nature of production with price fluctuation in order to avail their products at highest possible price. In order to achieve this they need to understand their market thoroughly as well as the environment in which they operate. Armstrong and Kotler [13, p. 90] state that, "A company's marketing environment consists of the actors and forces outside marketing that affect management's ability to build and maintain successful customer relationship with target customers". This calls for management to do continuous environmental assessment in order to be able to perform at their peak. Armstrong et al. [13, p. 90] further emphasise that, "by carefully studying the environment, marketers can adapt their strategies to meet the new market place challenges and opportunities". From the point of view of access to finance, this information is of utmost importance for credit providers in order to grant credit. If management can demonstrate thorough understanding of their business and the environment in which they operate, it will be easy to convince for buy in to the business case and possibly get credit granted. It is therefore important for co-operative management to understand their business and to be able to prepare a sound business case.

### *H. Vertical integration as a strategy*

It is also of great importance strategizing for supplier relationship that co-operatives need to strengthen in order to stay competitive. This even calls for needs to partner with suppliers including acquiring or integrating along the value chain which will also improve participation by co-operatives within the agri-business value chain. This can be done by way of applying integration strategies which can assist in mitigating supplier related risks within the operation and also provide growth within an organization. According to Farrington and Lysons [14, p. 38], "vertical integration strategies reflect the extent to which an organization expands upstream into industries that provide inputs (backward integration)". This will also help co-operatives in cushioning the impact of inflation as prices will be negotiated at preferential rate. This is in line with the analysis by Abel, Bernanke and Croushore [15, p. 7], who maintains that, "High inflation also means that the purchasing power of money erodes quickly". An organisation that is well integrated within the industry value chain can therefore be in a better position to leverage from the partnership and manage such inflation related risks better.

From a farming point of view, pesticides and fertilizers form a major component in production costs. A supplier relationship will help in sourcing inputs in good price as well as solving scarcity problem. This type of relationship can also be extended to marketing level where agreement with possible off takers could be arranged which will solve the challenge of price volatility as well as perishability of products,

## III. METHODOLOGY

The research is conducted in the agricultural co-operatives due to the financial support provided by Government on co-operatives across the seven segments in Mpumalanga. Indeed, agriculture alone received 47% of the total ZAR92.523.000 spent across these sectors. The Mpumalanga Provincial Department of Agriculture became the vehicle through which the disbursements were made. Therefore, a two-phased approach was followed to allow engagement of both the department and co-operatives.

At the topic stage, a discussion was conducted with directors within the Provincial Department of Agriculture to verify the feasibility of the research instrument and its compatibility with the topic. After approval of the request by the Department, the questionnaires were tested by seven members of the six co-operatives, six chairpersons and one secretary. A discussion was also held with the sectional head of crop production, Emalahleni Department of Agriculture, the agricultural advisor in the Bushbuckridge Department of Agriculture, a further discussion was conducted with the director of Agri-business in the Department of Agriculture. The view of all respondents was that there is still a lot to be done to get farmers to play a meaningful role in the agriculture value chain. There is a need for a paradigm shift within the farmers group in terms of how they view farming business. They cited the following challenges: (1) heavy dependence on government grants by farmers which becomes a barrier to transforming the farming standards as they still cannot see they are in business, (2) a co-operative bank idea might render an appropriate solution that may lead towards tailor-made offering suitable to the members due to the inability to meet funding requirements by commercial banks, (3) even the farmer's group that seems to be doing well in terms of production cannot go beyond delivery at the farm gate, and (4) an example of the sugar cane growers and the processors relationship where the farmers only produce and deliver raw cane was cited.

As a result of the pilot study during the topic stage changes were made to the research instrument to accommodate any comments or recommendation the respondents may have. This was brought about by the willingness of respondents to give their views at the end of the questionnaire. The survey measured how people felt based on their past farming experiences, based on Lewis, Saunders and Thornhill [16, p. 144] stating that "data collected using a survey strategy can be used to suggest possible reasons for relationships between particular variables and to produce models of these relationships". Delpont, De Vos, Fouche and Strydom [17, p. 137] also support this, describing quantitative descriptive survey as a design that is "classified together because, logically, they belong together. Johnson and Clark, in Lewis et al. [16, p. 108], emphasise that, "As business and management researchers we need to be aware of the philosophical commitments we make through our choice or research strategy since this has significant

impact not only on what we do but what it is that we are investigating”. This statement leads towards understanding the significance that processes have on people and therefore requires an appropriate behaviour. The survey was administered to 16 co-operatives with a total of 452 members in Mpumalanga and divided into two sub-populations (the Highveld and the Lowveld). The main agricultural distinction between the Highveld and the Lowveld is, the two are divided by an escarpment resulting in difference in the arability of land, rainfall level which as well determines different types of agricultural activities. Each sub-population consisted of eight strata with a 30% sample drawn across totalling 137 members including management committee members, etc (Table 1 below reflects the stratification).

Firstly, respondents were surveyed with regards to length of service. This has to do with the learning curve experience that people acquire either through formal or informal training engagement and this is what co-operatives expose their members to. The data revealed that 11% of the members have been with the co-operative for only one year or less while 53% of the respondents had been members within their co-operatives for a period of 2 to 5 years. Twenty percent of the respondents’ length of service ranged from 6 to 10 years while 7% ranges from 11 to 15 years. 9% of the respondents showed that they have served for period of 16 to 20 years. With regards to 11% of the respondents’ membership ranged from 0 to 1 year only, it is noted that the one year length of service may not be sufficient for members within the co-operative to have conclusive knowledge of whether co-operatives yield progress or not since some may still be at the very initial stage after registration and accessing government support. 53% of respondents’ membership ranges between two to five years with 36% ranging from 6 to 20 years which

out-weighs the category with short service. This information is critical in order to assess whether the respondents are active members of the co-operative and with the spread of over 50% of respondents having membership length of 2 to 5 years does give comfort.

The ages of participants ranged from 30 years to over 65 years, with 35% of respondents over 60 years, 49% ranged between 40 and 59 years while the entry level of 30 to 39 years constituted only 16%. The biggest percent of respondents is over 35 years. This may hinder the ability to learn and adapt to new farming technology and may have a negative impact on the members who might be willing to be innovative within the group. Bang and Wahlgren [18, p. 3] also emphasize age as a barrier of learning stating that, “a study of barriers and levers of participation shows that older people do not feel the need for further education”. This may therefore have a negative effect in the ability to learn and the desire to acquire innovation. This also might hinder the development of small farmers within the agriculture value chain.

In terms of educational qualifications, the study revealed that 74% of respondents were below matric (grade 10) level, with 6% matriculated and 3% certificates. It was noted that 15% of the respondents with diploma and only 2% were of undergraduate academically. The highest percentage of respondents’ qualification is below matric which might have a huge impact on the ability to acquire technical knowledge which is critical towards ensuring that they cope with the pace of evolution in agricultural development. Junge, Severgnini and Sorenson [19, p. 4], is in agreement with this view by stating that, “different types of education increases the probability of adopting innovation”.

TABLE 1: STRATIFICATION USED

Co-operative	Strata	Population (N)	Sample (n) at 30% of N
<b>Sub population (Highveld)</b>	Hlalanikahle Agric Co-op	N <sub>1</sub> = 61	n <sub>1</sub> = 18
	Qedindlala Agric Co-op	N <sub>2</sub> = 7	n <sub>2</sub> = 2
	Sizanani Agric Co-op	N <sub>3</sub> = 7	n <sub>3</sub> = 2
	Khethile Agric Co-op	N <sub>4</sub> = 6	n <sub>4</sub> = 2
	Masenska Co-operative	N <sub>5</sub> = 6	n <sub>5</sub> = 2
	Boigantsho Agric Co-op	N <sub>6</sub> = 5	n <sub>6</sub> = 2
	Emalahleni Co-operative	N <sub>7</sub> = 5	n <sub>7</sub> = 2
	Tom Theo Agric Co-op	N <sub>8</sub> = 5	n <sub>8</sub> = 2
<b>Sub population (Lowveld)</b>	Dingledale Co-operative	N <sub>9</sub> = 104	n <sub>9</sub> = 31
	New Forest Agric Co-op	N <sub>10</sub> = 84	n <sub>10</sub> = 25
	Gottenburg Farmers	N <sub>11</sub> = 50	n <sub>11</sub> = 15
	Pfukani Hoxani Farmers	N <sub>12</sub> = 43	n <sub>12</sub> = 13
	Seville Livestock Project	N <sub>13</sub> = 29	n <sub>13</sub> = 9
	Nhlanganani Farmers	N <sub>14</sub> = 16	n <sub>14</sub> = 5
	Utha Livestock Co-op	N <sub>15</sub> = 13	n <sub>15</sub> = 4
	Ronald C Nguni Project	N <sub>16</sub> = 11	n <sub>16</sub> = 3
<b>Total</b>		N <sub>1</sub> + N <sub>2</sub> + .. = 452	n <sub>1</sub> + n <sub>2</sub> + .. = 137

Of the total respondents, the gender distribution was 56% female and 44% male. With the highest percentage of respondents being female, this is in line with the history of small scale farming in South Africa where there is more female farmers than males and this also corroborates the findings from a study conducted in Nigeria. According to Ofuoku [20, p.34], “women are more involved in food production than men”. *Salzburg Global Seminar and United Nations International Fund for Agricultural Development* [21, p. 20] also confirm this by stating that, “across Africa, women are heavily involved in agricultural production”. This factor, in combination with the educational qualification, forms a basis for strength that can help in the development of the small scale farmers.

As co-operatives management is made of people from different origins, it is hard to perform all together as their expectations might not be exactly the same. Sometimes, this may have a positive impact as the members will differ in areas of strength and weakness. A co-operative model should allow members to complement each other. According to Weihe [22, p. 3], “co-operatives offer immediate benefit even at modest levels of organization through bringing coherence out of largely chaotic, disorganized individual producers.

*A. Membership satisfaction*

Membership participation was measured in terms of whether there is any perceived benefit from the co-operatives, as well as whether people’s expectations were met through this model. This was further sub-categorized to see what type of benefits members enjoy. Results are shown below for both the strata respectively. The figure below provides an overview of the dimensions of member satisfaction (farmer

benefits, individual expectation, advancement, economic benefit and considering leaving) for both areas under study (Highveld and Lowveld). The relatively small standard deviations indicate the level of agreement of the respondents with the mean responses provided.

Notice the uniformity in the pattern of little fluctuations of means amongst variable which shows that level of satisfaction is based on more common features.

*B. Strategies required for advancement within the industry value chain*

There are strategies that co-operatives can employ in order to grow within the industry. This requires co-operative members to assess the categories of benefits in the market in order to position themselves relevantly. The literature review revealed some business strategies that can be considered to position for growth which included, for example, vertical integration along the value chain as well as partnering with big players in the markets. This will help build good working relationship, reduce production costs as well as ensuring sustainability in the market. Badenhorst-Weiss and Hugo [23, p. 86] support this view by stating that, “more and more buyers and suppliers realise the potential benefits of being partners than rivals”. For co-operatives to advance in the economy they have to understand the market appropriately in order to can be able to produce a product that is relevant to the needs of their clients. This enables businesses to manage growth as well as the risk associated with it. Co-operatives also need to understand the category of benefits which can be unlocked through this model since that forms the basis on which they can leverage and this is further discussed below.

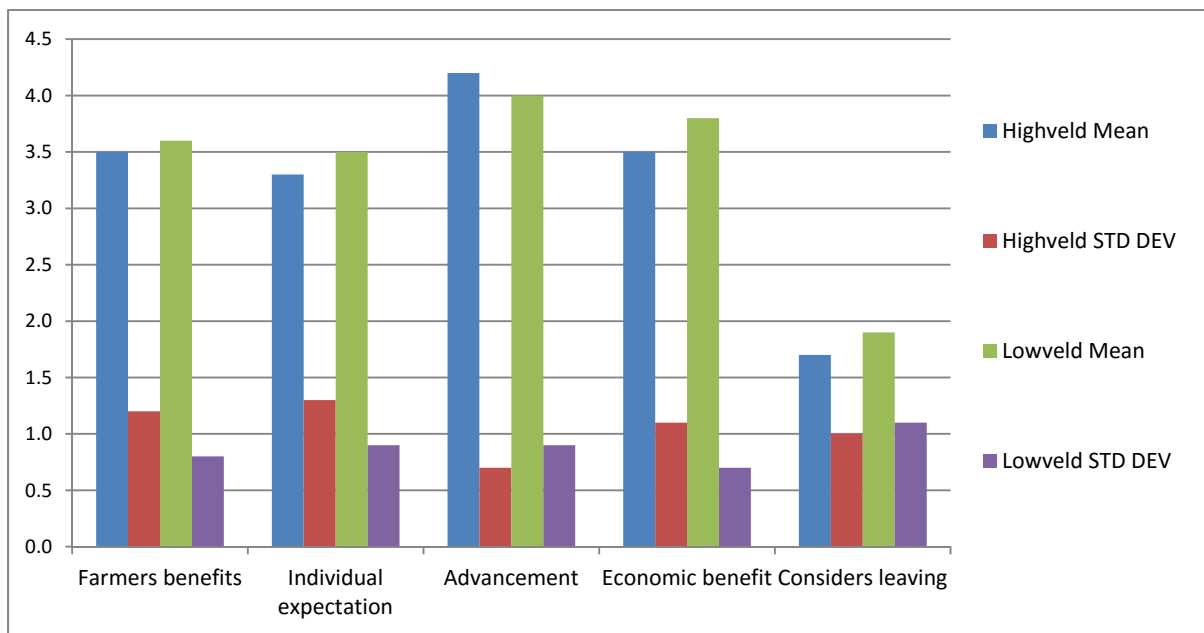


Figure 1: Membership satisfaction benefits for Highveld and Lowveld

C. Category of benefits

In trying to transform the farming standards of small producers, it is important to note the key categories that are critical in bringing about change as well as the perceived value within business. Infrastructural support and technical knowledge are regarded the key elements that will be able to unlock the market as well as access to the mainstream economy. This is supported by Neely in Doelman, Have and Kees [24, p. 592], who mention the impact of knowledge gap being, “in-accessibility of the information required as well as negative experience in terms of management dialogue”. This confirms that there are certain categories of benefits that contribute largely towards growing businesses and there is a need for business developers and facilitators to understand these. The literature review also revealed how agriculture evolved due to dynamics like the market buying power emerging as well as human capital that were migrated to industrial sector. This calls for business forms to be aligned accordingly in order to remain relevant in the market. This is in line with the view by Scott in Phanish, Oliver and Reitzig [25, p. 164] who states that, “Existence of boundary does not, of course imply that organizations are closed systems: they may be quite amenable to the influence of the environmental outside their boundary, and vice versa”. Some of the benefit received by co-operatives from government was also revealed in the agri-business review such as funding for infrastructure and access to technical advises. These are the types of benefits that were regarded as the promoters of transformation of the farming standards.

In the research, sourcing feedback on the category of benefits assisted in identifying the perceived gap as well as positioning for recommending the appropriate solution. We therefore measured the benefits that co-operatives unlocked based on the categories which include; information, technical knowledge, resources or infrastructural benefit as well as

social benefit. This is driven by what individual farmers observe in relation to their purpose for joining the co-operative and findings are discussed below.

The figure below provides an overview of the dimensions of the benefits categories (information, technical knowledge, resources, access to market and social) for both Highveld and Lowveld which farmers have accessed through the Co-operative model. Relative small standard deviations indicate the level of agreement of the respondents with the mean responses provided.

This category also continues to show benefit in terms of information, technical knowledge and social benefit showing the highest mean in both the Highveld and Lowveld. Resource and access to infrastructure shows the lowest means with a standard deviation ranging from 1.0 to 1.1 which highlights areas for improvement.

The main distinction between the two populations is that the Highveld show more benefit in terms of access to market than the Highveld which might be as a result of access to formal market which the Lowveld have less formal markets.

D. Resource or infrastructural benefit

It was revealed that in Mpumalanga alone, 15 million was allocated for the project “Masibuyele emasimini”. This is in line with the co-operative incentive scheme according to which by emphasizing its objectives of improving the viability and competitiveness of co-operative by lowering the costs of doing business through the incentive that support Broad-Based Black Economic Empowerment” (DTI RSA [3]. These findings show that through the co-operative farmers do benefit access to resources, although this is mainly limited to government support through the like of both “Masibuyele emasimini” and “Masibuyele esibayeni” projects where they benefited tractors and livestock. Access to market showed higher weighting in the Highveld compared to the Lowveld,

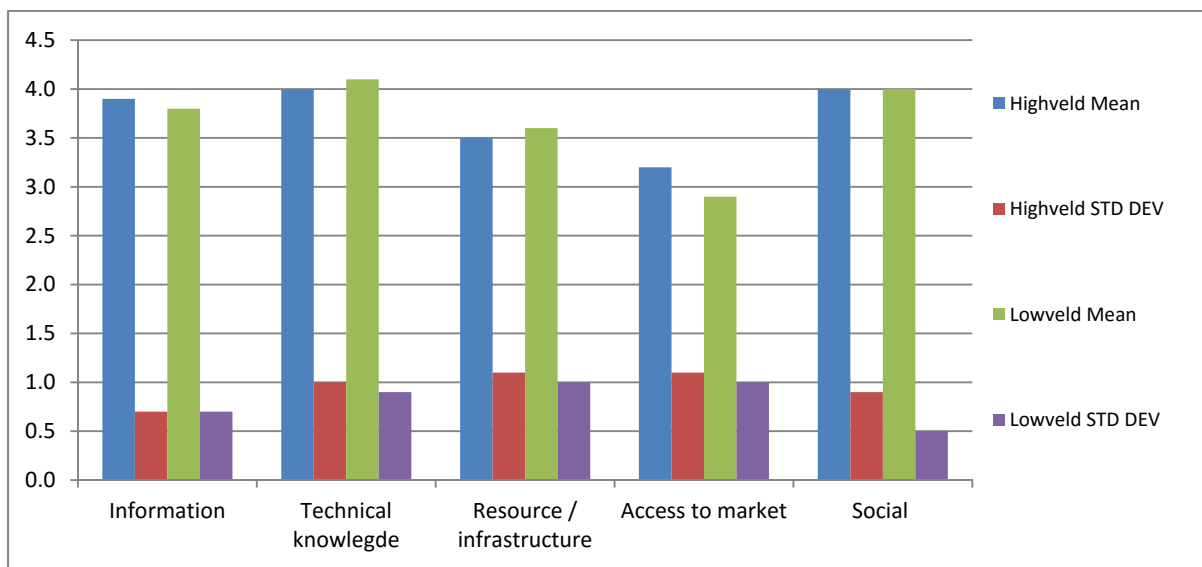


Figure 2: Dimensions of the benefits categories for Highveld and Lowveld

this may be attributable to variables like livestock auctioneers are accessible as well as the various produce off-takers. In the Lowveld, auctions are available on arrangements, the challenge being that farmers become price takers due to lack of competition on the buyers' side. With cash crops, farmers supply direct to consumers, feeding scheme projects as well as retailers which is a very volatile market in terms of pricing.

*E. Capitalizing business for growth*

The level of business skills applied has to show good entrepreneurship to ensure viability of any business concept. This is always difficult because planning for growth takes place under uncertainty which is forecasting. This is the reason Heizer et al. [10, p. 36] refer to this as, "the art and science of predicting future events". In the same node, creditors have to have that risk appetite to grant credit. The issue of access to finance raises other fundamental issues that co-operatives needs to manage properly in order to can be able to fulfil lending requirements by financial institutions. The literature emphasised the need for businesses to be capitalised as well as the requirements for funding. Developing a business plan seems to be one of the requirements.

*F. Bridging the knowledge gap*

Co-operative as a model is suitable in assisting group of farmers' access technical knowledge required in farming than individuals would. According to Konings and Vanormelingen [26, p. 2], "there is substantial evidence that general education increases wages and productivity of workers". From this point of view, co-operative does benefit

through training provided and these benefits should include financial management.

*G. Business skills*

Good business acumen is a key for any profit driven organization to be successful in their business trade. The literature highlighted certain attributes required for management to can be able to operate successfully. This included amongst others, the management functions, the emphasis is on quality of produce, knowledge management as well as the both the supplier and customer relationship management methodology. According to Hasanzadeh and Seyedeh [27, p. 839], "the ability to create knowledge and continuity of learning has competitive profit". In business, knowledge is critical for sustainable trade, it is therefore required of business leaders to encourage the acquisition and application of business knowledge by employees. This will also play a key role in unlocking access to resources, for example; financial institutions needs to know how well organized a business is before they could advance or grant credit facility. The business's marketing strategy will show how a business will be able to successfully place its product in the market, gain market share as well as maintaining its competitive advantage in the market.

The figure below provides an overview of the dimensions of business skills application (market, financial planning, business plan, organize market and keeping financial records) for both areas under Highveld and Lowveld. The relatively small standard deviations indicate the level of agreement of the respondents with the mean response provided.

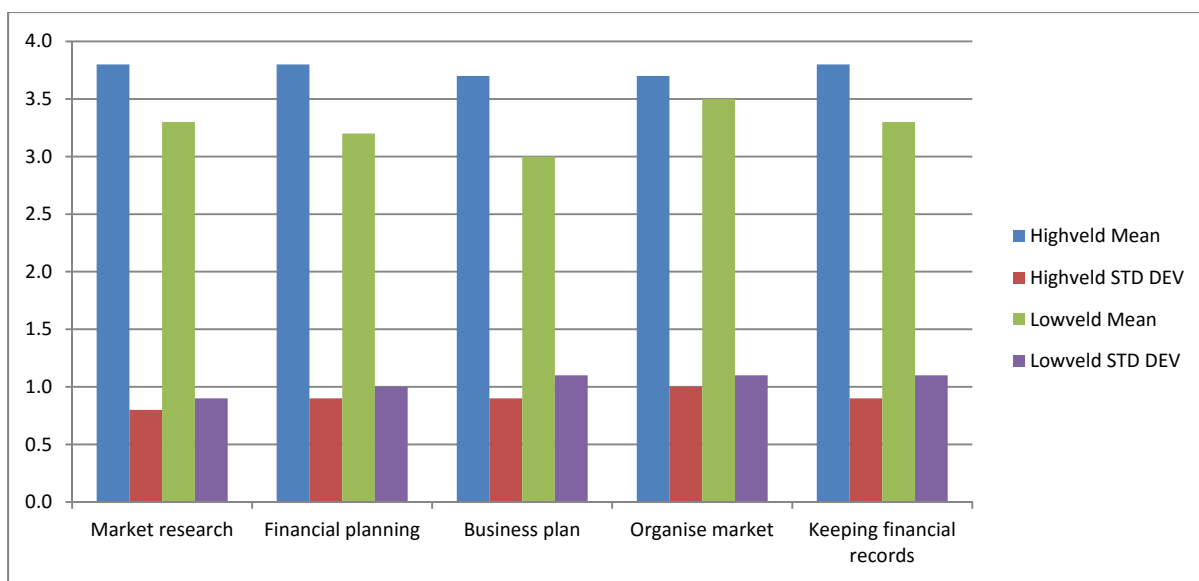


Figure 3: Dimensions of business skills for the Highveld and Lowveld



The means of all variables show a close relationship although with a reduced trend reflecting the highest mean of 3.8. In all cases, the Highveld reflects the higher means compared to the Lowveld. This is the stage where a decision is made on how the businesses should be capitalized. This also allows a farmer to be effective in their farming venture as all information about the funding is revealed here. The literature review also revealed that, for businesses to identify risks related to production gives an opportunity for coming up with mitigation strategies. A relatively lower mean of farmers doing business plans is observed in the Lowveld. This may be attributable to the higher number of elderly women in farming with low educational qualification. Although the high mean of respondents indicated that they do organize the market themselves, what determines the success thereof will be the categorization of the market as well as the positioning of product. In the Lowveld, it is noted that the lower average featured on keeping financial records (which renders any financial planning null and void) since planning is based on previous records kept. This could also be due to a significant number of respondents being of advanced age which might hinder the ability of doing good financial planning.

Keeping records is the area that needs to be entrenched as well as knowing how to use these records. According to Ferrazzi [28, p. 24], “nothing happens without readiness to change”. The more farmers understand the importance of keeping financial records as well as using them will automatically induce the desire to do planning for the next season. The records will form part of the historic information required by financial institutions to assess requests for credit facilities. This will also become the driver to maximize profit in their farming business.

Notice in the Lowveld, a widening gap on the standard deviation, simultaneous to the decrease in the mean in all variables. This might be attributable again to the level of education of respondents in the Highveld evident on the highest mean and the lowest standard deviation. The type of markets the two populations are subject to may also contribute to the variance noted in the responses.

### *H. Sustainability within the agri-business value chain*

The farming business is subjected to various ever-changing environmental variables which require to be managed in order to ensure sustainability. This calls for managers to stay abreast with prevailing market conditions to ensure that they respond timeously in a quest to protect and gain new market share. This is supported by Giménez and Joshi [29, p. 65] who state that managers “must be scientists, because the future of their business may not look much like the past”.

### *I. Market penetration*

The ability of any business to acquire good market share, sustain and be able to run profitably depends on the extent to

which its products are successfully marketed. According to Dacko, McCabe and Stern [30, p. 215], “as buyer-supplier relationships develop through interaction, heavy buyers will have more intense relationship with their supplier than those who purchase less frequently”. Every business packages its offering to suit a specific target market whether it is consumer, retail or the manufacturing and export market. The research included the assessment on the extent to which the products penetrate the different markets, which determines its sustainability. Linnenbrink [31, p. 65] emphasizes that, “Marketers must be strategists, allocating scarce resources to support the company priorities and increasing return on investments”. Being strategic in the agricultural context, may include, amongst others, organizing markets, processing and adding value to produce which will curb flooding the market with produce as well as price volatility.

The literature revealed the importance of the marketing strategy, the product mix which entails product packaging, pricing, promotion and placement. It also revealed how critical agricultural products are in the marketing plan due to the fact that they are of seasonal in nature and highly perishable.

The figure 4 provides an overview of the dimensions of market penetration (consumers, retailers, processors, export market and processing) for both areas under Highveld and Lowveld. The relatively small standard deviations indicate the level of agreement of the respondents with the mean responses provided.

Both the Highveld and Lowveld show the highest mean on consumer markets with very small standard deviation, followed by retail market. Export market, processing market and processing for value adding ranges at a very low mean still with low standard deviation which confirms agreement. The mean of consumer market is higher, looking as the type of produce which are difficult to handle. This poses a challenge of handling process of produce as well as the market price and this might threatens producers’ profit margins.

The literature review reveals that businesses should adopt strategies that are going to help businesses to better place their product in the market. The retail market fetches a higher mean in the Lowveld, though this is coupled with price negotiation challenges as farmers are becoming price takers due to limited retailers. Though the literature revealed the importance of making prior market arrangements, the challenge is the agreement on price where there is nothing like put option in the agreement. Processing of products allow farmers to make benefits of the oversupplied produce in the market where this can be controlled through processing. In the agriculture value chain, processing is popular particularly in the juice, jam and archer producers.

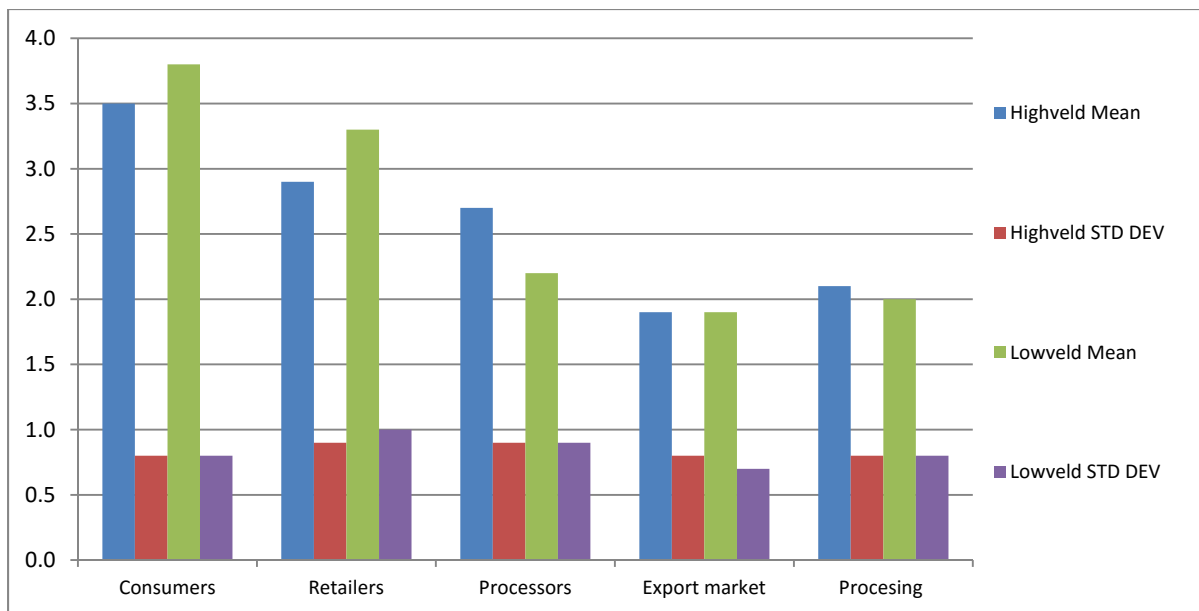


Figure 4: Dimensions of market penetration for Highveld and Lowveld

The export market is complicated and also highly regulated due to the need to maintain phyto-sanitary standard by government on the movement of agricultural products. This is due to the hazard on crop diseases transferred with the movements. For farmers to export their products they must produce a certain level of quantity in order to justify the costs to be incurred through the process. Processing of products allows the producer to add value on products the increases shelf life to products, like canned products. Like the manufacturing market, this helps farmers avoid flooding the market with perishable products which have a negative impact on the price

#### IV. DISCUSSIONS AND RECOMMENDATIONS

This section presents the review of the agri-business environment in Mpumalanga as well as the milestones reached in trying to create viable agri-business enterprises. This also revealed the existing gaps that may need to be covered through accelerating the development of value services out of agriculture.

*Membership satisfaction with the cooperative:* The satisfaction of the members measured their overall membership satisfaction and subsequent benefits categories, for example, individual benefits and expectations, advancement opportunities, economic benefits and considerations for resignation. The study shows that members are still satisfied with co-operative membership, though there are challenges and conflicts in some areas; they are still committed to make the model work. Members still believe there are advancement opportunities hence they categorically stated benefits that they received being, i.e. technical knowledge, infrastructure and to some extent access to

markets. There are several initiatives where government uses co-operatives to reach farmers. The research shows that there is low drive for striving towards good performance which is brought about by high expectation from government.

*The level of business skills acquired through the cooperative:* Business skills are measured by the ability to do market, financial planning, developing a business plan, organising markets and keeping financial records. The outcome shows lower levels of business acumen relative to the other variables. This shows that there is a need to focus future development initiatives towards business skills. There is still a gap in trying to enforce effective management practices by co-operative members. A considerable number of farmers do not do market research or plan for the season. Although a large number does keep financial records, this is more on a reactive basis and not useful due to lack of planning. Ineffective management practice also becomes a major contributor towards the problem of access to finance since financial institutions require this to be up to standard.

*The level of exploration of new market opportunities and outreach:* This is measured by the level of participation in consumer and retail markets and possible export initiatives using possible sources of funding. Market penetration feedback reflects good participation on consumer markets and retail, however export and processing market remains a development gap. Though farmers appear to be possessing good technical knowledge in the basic farming practices, the dependency syndrome proliferates towards the product handling and marketing which becomes a barrier towards profitability. It seems that ineffective management has significantly influenced the ability of farmers to acquire capital for financing growth as well as positioning their products in the market. This becomes a barrier in getting co-

operatives to create linkages with bigger market opportunities including both processing and export markets since their product basket becomes too insignificant in the market.

Based on the above outcomes, it can be deduced that, in Mpumalanga, the Co-operative model is a suitable vehicle to be used to bring about development. However, there are areas that need improvement which can be achieved through a paradigm shift by farmers. These are: instilling culture of ownership on resources benefited through government programmes, ownership of self-development in critical management areas like market research, financial planning and financial record keeping, and ownership in the use of market information available.

Before co-operatives could get benefits in the form of government support, there has to be screening in terms of organisational readiness. This will assist in reducing chances for conflict amongst members. There should also be neutral conflict resolution strategies that assist in mediating during times of internal problems, at least for the period for which support is granted. This will assist in making sure that, while the organisation is going through the hardening process; ensuing challenges that might lead towards a conflict stale mate situation in the organisation are resolved as well as making sure that the governments support granted yield maximum returns.

Training for financial management and administration should be provided for co-operatives management members. This will prepare management of these entities to operate at the right level which will create a platform for advance product position in the market place. Management will also be in a better position to do post production evaluation which will form a basis of strength for better planning going forward.

Co-operative management should have a management tool like season chart that could assist to adhere to certain standards that will conform to the requirements for project assessment. This will gradually introduce management to the culture of good governance which will assist in bridging the gap on operational inefficiencies that may exist.

All co-operatives that received government support has to be allocated after care service for certain period to allow concept hardening. This will enable the monitoring of unexpected deviations that might crop up with a potential of de-railing the project plan. This will also go a long way in instilling a culture of ownership amongst co-operative members.

There has to be a specific methodology adopted and used for evaluation of projects after implementation, to assess whether the intended objectives were met with the implementation of certain projects. This will offer a learning experience that will assist in better planning and implementation for future projects.

Training in terms of market information should be provided for farmers which will enable them to plan production better in line with the market expectations. Training should be provided with specific focus on financial management and administration.

A co-operative bank is an ideal solution that will create a funding resource that is tailor-made to suit the standards of the current farmers' level of financial presentation. This should target up to a specific threshold with the next band having to be dealt with at commercial banks' market.

At the commercial banking level, a risk sharing scheme may be provided with commercial banks where government pledges to pay 50% should the farmer be unable to repay. This arrangement should follow a strict pre-screening process where a farmer should have first exercised good conduct at co-operative bank level. This may minimise depletion of government funds such that at the end of a programme cycle new farmers may be accepted using the same source of funds as collateral.

Mentorship and farmer incubation programme may be considered where large players in the market adopt small producers where they offer production related advises. This will allow knowledge transfer and access to bigger formal market by small farmers which may be applicable to both export and processing markets, though viability of this need to be further researched. An incentive strategy may also be required for the mentoring producers to encourage participation like earning points on BEE scorecard in cases where a none-BEE compliant company provides the service. This will encourage experienced farmers to participate and thereby contributes in the endeavour to alleviate poverty.

Encouraging the involvement of youth in agriculture will address the challenge that age has in acquiring innovation in farming. This will also assist in creating viable enterprise out of farming, creating jobs for the youth as well as increasing the ability to learn and acquire innovation which will improve productivity within the farming sector.

There is a need to promote the establishment of local suppliers for agricultural services like fertilizers and chemicals to minimise the impact of input related cost like transport. This will breed specialist service providers within certain fields and ensure operational efficiencies while creating additional revenue streams which still contribute towards job creation.

The research therefore suggests the following framework as a strategy that will help in developing business skills for co-operatives to develop and be successful within the agri-business value chain. The framework focussed the development strategy on the areas that showed low scored which reflects development gaps, highlighted amber and red while the green one shows areas of strength.

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TABLE 2: BUSINESS SKILLS

H I G H V E L D	Business Skills		
		Score (1 – 5)	Strategy required for development
	Market Research	3.9	Introduction to the use of market information.
	Financial planning	3.9	Introduction to formal financial planning
	Business Plan	3.7	Introduction to banking requirements
	Organise market	3.7	Training on formal markets
	Financial records	3.8	Introduction to banking financial requirements
	<b>Total</b>	19	
L O W V E L D	Business Skills		
		Score (1 – 5)	Strategy required for development
	Market Research	3.3	Training on market research training and season chart
	Financial planning	3.2	Involvement of youth and training on financial planning
	Business Plan	3.0	Training planning for season
	Organise market	4.0	Training on formal markets and contracts
	Financial records	3.3	Record keeping training
	<b>Total</b>	16.0	

Table 2: Framework for development of business skills in an agri-business value chain in South Africa

TABLE 3: MARKET PENETRATION

H I G H V E L D	Market penetration		
		Score (1 – 5)	Strategy required for development
	Consumer market	3.5	
	Retailers	2.8	Training on negotiation of contracts
	Processors	2.6	Training on understanding the processing market
	Export market	1.9	Training on basics of export market
	Processing	2.1	Training on processing for adding value
	<b>Total</b>	12.9	
L O W V E L D	Market penetration		
		Score (1 – 5)	Strategy required for development
	Consumer market	3.8	
	Retailers	3.3	Training on negotiation of contracts
	Processors	2.2	Training on understanding the processing market
	Export market	1.9	Training on basics of export market
	Processing	2.0	Training on processing for adding value
	<b>Total</b>	13.2	

Table 3: Framework for development of market strategy in an agri-business value chain in South Africa

### V. CONCLUSION

The study assisted in identifying the underlying problems with the implementation of co-operative development in support of government's attempts to assist in transforming the farming standards of the smaller farmers. Considering the investment that the government has already made through the co-operatives as well as the various funding models implemented in attempts to commercialise farming, there should be some form of improvement towards reaching the shared goal by both government and the farmers group.

The findings from the research will assist in the implementation of activities designed to develop the rural farming community into active and viable business units. This will offer a learning curve which will contribute towards bridging any gap that may exist. The outcomes will also generate new ideas that may give competitive edge in trying to get farmers operating in the main stream economy in the agro business field. Steenkamp [32, p. 11] emphasises that, "quality is obviously one of the key elements in providing superior value". This means that while co-operatives are striving to improve their farming operations they should also keep up quality standards.

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