

Asian Journal of Agricultural Sciences 3(6): 492-499, 2011

ISSN:2041-3890

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Submitted: August 26, 2011

Accepted: October 15, 2011

Published: November 15, 2011

An Analysis of the Broiler Supply Chain in Swaziland: A Case Study of the Manzini Region

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Abstract: This study analyses survey data gathered in 2009 from contract and non-contract broiler farmers in the Manzini region of Swaziland. A descriptive research design was used in the study and data were collected using personal interviews. The results show that the same type of inputs were used in both production systems with the only difference being the quantity of inputs used in each system. The results also revealed that productivity is higher for contract farmers as they produce birds with an average weight of 1.8 kg in 5 weeks and also produce an average of 34,500 birds per batch. The results further indicated that consumers buy live birds mostly from non-contract farmers and buy processed birds from contracted farmers. Consumers pay more for a bird produced through the contract system than a bird produced through the non-contract system. On average birds produced under non-contract system cost consumers E28.00 whilst birds produced under the contract system are sold on weight basis and costs the consumers E20.99 per kg. Thus on average consumers pay E32.50 for a whole bird produced under the contract system. The cost of producing one bird is high with non-contract farmers than is for contract farmers. With increasing competition and changes occurring in markets, producers need to understand and improve the effectiveness and efficiency of the broiler supply chain. This will often require a combination of firm-level actions as well as improvements in the entire value-chain. There is also a need for political will by government to protect farmers by promoting competition through enacting competition legislations and allow transparency within the value chain.

Key words: Broiler chickens analysis, poultry contracts, supply chain

INTRODUCTION

Approximately 80% of the population of Swaziland is found on the Swazi Nation Land (SNL), where agricultural practices are prominent. Agriculture contributed 11.9% to the gross domestic product in 2008, while the agricultural activities conducted on the SNL contribute about 5% of the gross domestic product of the country and about 70% of the Swazi people depend on agriculture as a source of income and employment (Thompson, 2010).

Commercial poultry in Swaziland started in the late 1960s with most poultry farmers engaged in egg production and it was mostly concentrated in few selected rural development areas (RDAs) (Dube, 1991). The importance of poultry was over the years emphasized on egg production. This was made possible by the United Nations International Children Emergency Fund (UNICEF), which was providing egg producers with battery-cages. In the seventies the country faced an evolution from egg production to broiler production. Broilers refer to a group of birds reared for meat as a source of food. Some of the birds that are common in the domestic exercise are chickens, turkeys, ducks, geese and pigeons. They are only referred to as poultry when they are domesticated. The most common type of poultry kept

in a number of homesteads is chicken (*Callus domesticus*) species. Many farmers keep chickens for meat consumption purposes. This has been more advantageous because it has been easy to manage them in terms of feeding and treatment. Chickens were exposed to scavenging systems for feed and received little supplementary feed. There was no provision for housing, thus they were characterised by low input and low output. According to Masimula (2004), surveys indicated that 91% of families in rural areas of Swaziland mostly raise chickens.

Poultry activities in Swaziland are carried out by most farming communities. These poultry farmers are found in both Swazi Nation Land (SNL) and Title Deed Land (TDL). They include smallholders to medium and large producers. In the past years medium and large scale producers were found only on TDL, but with the establishment of the Swazi Poultry Processors (SPP) in Matsapha industrial area, these categories are also found on Swazi Nation Land (Masimula, 2004). In the early 1990s, local farmers started to become aware of the viability and sustainability of utilizing agricultural land for poultry production specifically on land unsuitable for crop farming. This resulted in the creation of a forum where both large and small producers of eggs, live chickens and slaughtered birds could meet. These

producers realized the need for an official body to represent their interests hence the Swaziland Poultry Producers Association (SPPA) was formed (Masimula, 2004; Mabila, 2006).

Local poultry farmers face unfair competition from imported and often dumped poultry products from other countries, such as South Africa. Swaziland is unfortunately quite vulnerable in this respect because of the big gap that exists between levels of local production and that of the retail trade. The consumer market is dominated by an organized supply sector, closely linked to a developed economy in South Africa and equipped with all the latest marketing, advertising and promotional skills. The poultry sector in Swaziland is ready and capable of supplying a major part of the demand for eggs and meat. However the development of this potential depends heavily on correction of the present market distortion, which need to be addressed (Freeman, 1997; Robinson, 1998).

Importance of poultry farming: Poultry farming is an important way of improving income and employment for the rural poor population in developing countries. Poultry production is also a strategic way of addressing animal protein intake shortage in human nutrition because of its high productiveness, fast growth rate, short generation interval and unparalleled competence in nutrient transformation to high quality animal protein. Most countries have government departments responsible for the development of poultry. The effectiveness of such departments varies, but the main hindrance is usually limited and lack of trained administrators, researchers and extension workers (Stewart and Abbott, 1981).

According to Abbott (1965) developing countries have a growing trade deficit in products, and now Africa accounts for thirty percent of the world's annual poultry imports which makes adequate research a necessity for development. He also argues that small-scale farmers make up the bulk of all producers and that makes them major contributors in poultry development in Africa. Poultry for both small and large-scale producers should be encouraged for several reasons in developing countries. According to Vilakati (2000), poultry production has to be encouraged because of nutritional, social and economic reasons. Eggs and poultry are an excellent source of proteins and energy. Poultry production can be a way of improving a lot of low income groups in rural areas, thus improving the living standards of the individuals.

Production of broilers has shown to be an important venture, thus new technology has been and is still introduced in developed and developing countries. Mountney *et al.* (1988) commented that technological advances in broiler production developed in the United States and other countries in the last 40 years have been rapidly applied worldwide and have made it possible to

handle birds in large flocks. Broilers are being produced worldwide and trials have been implemented to produce the best quality meat at a very short space of time. It is predicted that the consumption of poultry meat will continue to increase in the future in form of new processed poultry products. Genetic improvement in poultry has played a major role in the quality of meat produced. This also led to the production of a meat type chicken that weighed over 2 kg at seven weeks of age having been fed on only 4 kg of a balanced diet. The main principle that is used when rearing broilers states that a producer should keep birds of the same age on the same site so that they are ready for sale at the same time. They are ready to be slaughtered at eight weeks of age. In a year, 5 batches of broilers can be raised because an allowance of two weeks has to be allowed between any two batches through out the year. This study examines the broiler supply chain with a view of conducting the economic analysis of the supply chain.

Vertical poultry production contracts: Contract in broiler production may vary from country to country and the nature of the contractor. Contracts in broiler production mean agreements between farmers and integrators that specify conditions of producing and marketing broilers. There are mainly two types of contracts and these are production and marketing contracts (Scott, 1984; Little and Watts, 1994). With production contracts the quality and quantity of production inputs are determined and supplied by the contracting firm. The compensation that the grower receives for services is also decided by the contractor. Marketing contract refers to an agreement between a contractor and a grower that sets a price and the market outlet before the broilers are ready to be marketed. Most management decisions remain the responsibility of the grower. In marketing contracts, only the price risk is shared whereas in production contracts, both production and price risks are shared by the grower and contractor. The contractor may have more control over production decisions depending on the type of production contract (Little and Watts, 1994).

According to Cunningham (2005) vertical production means that all or most production aspects are owned and controlled by an individual company called an integrator. The integrator provides the contractee with chicks, feed, medication and technical advisors to supervise farm production. A contract broiler farmer has to prepare his houses and equipment to meet the specifications recommended by the broiler integrator with which he is planning to contract (Laura, 1994). It is important that the prospective farmer gets a signed contract before buying, constructing, or renovating a poultry farm. Otherwise, he may spend a large amount of money and end up with no company interested in placing chicks in his facilities.

Companies do not place chickens in houses just because they are available. Companies try to screen prospective producers closely to determine whether they will be good business partners. Each company wants an honest, dependable, hard working person or family who is well respected within the community. Companies invest large amounts of money in the chickens, feed and field service workers.

Under the contract system, the company retains ownership of the birds and expects producers to grow their flocks under very specific management programmes. Company field representatives normally visit farms weekly to assist with management, but they may do so more often if necessary. Vertical integration reduces production costs through coordinating and professionally managing each production stage. This approach not only improves cost efficiency, but also permits the production of more uniform birds in large volumes necessary to successfully compete in the market. In this system, the integrator is responsible for all processing facilities, processing labour and salaries, and marketing activities crucial to the success of the poultry business. Processing and marketing are very specialized and require considerable expertise and experience for success. For this system to work effectively, integrators and producers make significant contributions to the processed depend on each other (Cunningham, 2005).

Contractors (Swaziland Poultry Processors (SPP)):

The Swaziland Poultry Processors (SPP) is a processing company that deals with the processing of birds into various packs. This company was formed by Insika Yemaswati after the loss of market for live birds in 1999. SPP is now the largest chicken abattoir in Swaziland, it is situated in Matsapha Industrial site. On average it slaughters 20,000 chickens a day. It started as a small company with a staff of about 70 people who were slaughtering 5000-8000 chickens a day. Lately its production has greatly increased to 300 workers and 20,000 chickens slaughtered a day. They produce various products which give a wide range of choice to customers (Ndlandla, 2009).

Ndlandla further stated that, the company is working hand in hand with contract growers and Feed Master (a feed mill company based in Matsapha. The chickens are grown up to 35 days, after that they are ready for slaughtering. Feed Master sells to contract growers feed and vaccines to control diseases on credit.

The SPP is divided into three departments, the dirty side, the clean side and the maintenance department. The dirty side is where the live birds are received as they come from the farmers, slaughtered and dressed. The way each department is built is meant to serve its purpose, which is different from the other departments. The separation of heads and feet from the chicken is done at the dirty side.

The clean side includes the evisceration, packing, dispatch and stores department. The Maintenance department is where they fix and maintain damaged machineries needed for processing.

SPP issues contracts to broiler farmers under the following conditions:

- The farmer must prepare the poultry house that can accommodate at least 5000 chickens
- A farmer has to write a formal letter to SPP indicating his/her interest in working with the company;
- The farmer must be within a radius of 30 km from the company to minimize costs of transport and the area must be accessible for ease of transportation
- The house plan must provide suitable environmental conditions for the chickens, for example the floor must be cemented, there must be curtains to prevent rain and also allow ventilation, there must be enough equipment for feeding
- After the completion of the structure, an inspector must be called to inspect the structure if it is ideal for rearing chickens

If the poultry house is found to be in the right condition then the farmer is allowed to join the contract growers and SPP provides the following: day old chicks. These chicks are from the National Chicks, which is the company's sister company; feed and medication for the chicks through Feed Master, Crane Feeds and or Arrow Feeds. Feed and vaccines are provided until the chickens become 35 days old; and a supervisor who does regular visits to the broiler growers.

When the chickens are ready for slaughter at 35 days they are collected from the farm, and the farmer is paid according to the weight of the chickens, but the company deducts the costs of chicks supplied, cost of feed and medication. The farmer has to provide security against thieves and predators. The farmer should also practice good management practices. However if the chickens die because of a disease outbreak the expenses are shared between the farmer and the company. The company provides the farmer with an allowable mortality rate of 5%, but if the mortality rate is higher than this, the farmer has to justify the cause.

Swaziland Poultry Processors (SPP) uses contract prices with her contract growers, while the contractor advances the cost of growing stock, feeds and veterinary supplies and services, these are later charged in full to the contract grower at the time of harvest and sale of output. In essence, growing stock and feeds are provided by the SPP on credit. The stock used and feed consumed are, in fact, evaluated at prevailing market prices, with a mark-up imposed for relevant charges (for example, costs of

transport to the farm, cost of stock or feeds supplied on credit). Contract prices are more suitable when close supervision is not possible, as it reduces the incentives to divert integrator's inputs to other uses.

Advantages of contract farming: According to Kunkel *et al.* (2005) there are several potential advantages for producers who consider production contracts. The contracts may provide a more income for the producer by reducing traditional marketing risks. The contracts may allow a producer to benefit from technical advice, managerial expertise and access to technological advances provided by the contractor. An agricultural production contract may provide the producer with a guaranteed market provided that the commodities are produced in accordance with the contract. Finally, such contracts may allow a producer to increase the volume of his or her business with limited capital, since the contractor supplies the necessary production inputs. However, by entering into production contract that establishes a formula for compensation, the producer may lose the potential for increased profits due to market conditions. Ruthenberg and Jahnke (1985) argue that there is a rapid production increase by mobilizing smallholder production opportunities, mobilization of entrepreneurial talent on everyone, including smallholders farmers.

According to Vogeler (1996), from the contractor's perspective, production contracts may provide an orderly flow of uniform commodities in order to allow the contractor to control production costs and such contracts to better respond to changing market conditions. Contracts give agribusinesses the advantage of treating farmers as employees without paying them as employees. Furthermore the pseudo independence status of farmers motivates them to work even harder than hired employees.

Disadvantages of contract farming: According to Vogeler (1996) the independent management of farms is critical to the concept of family farms. To protect themselves against widely fluctuating incomes and the inability to get credit from banks, many farmers engage in contract farming. When farmers sign contracts with processing companies, they can retain the illusion of independence because they are self employed but they effectively become employees of the companies. Kunkel *et al.* (2005) also adds that since such contracts are often very specific in their requirements and limiting the producer's interest in the commodities produced, the producer may become a mere provider of production services for a fee.

Contracted farmers provide land and labour and make low-order decisions, while the companies provide everything else (seeds, fertilizer and usually the

harvesting equipment, and feed in the case of broiler production) and make major decisions about production systems, spraying and harvesting schedule. Contract farming is the most obvious example of how family farmers are industrial field workers, stripped their managerial decision making powers and left with only their nominal independence (Vogeler, 1996).

Supply chain analysis: A supply chain is the series of interlinking steps that determine the nature, character and value of a product at the time of receipt by the end consumer (Peterson *et al.*, 2005).

Supply chain management (SCM) comprises the management of five flows between departments and or organizations: materials (the raw materials and components to produce a product), products (finished goods), services (either to support the product or stand alone services), information (to recognize and satisfy demand), and cash (the supply chain impacts the speed and efficiency of cash flow). There are four overriding concepts that are applied in the efficient execution of supply chain management: linkage (the tying together of processes, practices, and information), velocity (increasing asset utilization), reliability (meeting commitments), and flexibility (responding to changes in customer needs). These flows and concepts combine in a variety of ways to produce of multitude of supply chains that support different product characteristics, market demands, product life cycles, and geographic markets.

METHODOLOGY

Research design: The study utilized a descriptive research design applying a quantitative and qualitative approach. The research used primary data which were gathered in 2009 through a structured questionnaire using interviews.

Subject selection and sample size: The target population for the study was contracted and non-contracted broiler farmers in the Manzini region of Swaziland. Non-contract farmers are independent farmers who are rearing broiler birds and sell them in the open market. Contracted farmers are those who have formal agreements with the Swaziland Poultry Processors (SPP), where the later supply day old chicks and inputs on credit to the farmers, who later supply broilers to SPP. A purposive sample of fourteen (14) farmers under contract broiler farming and twenty eight (28) farmers under non-contract broiler farming in the Manzini region was used in the study.

Data collection and analysis: Data were analysed using descriptive statistics. The Statistical Package for Social Sciences (SPSS) version 10 was used to analyse the data.

Table 1: Demographic characteristics of the farmers

Characteristics	Frequency	Percentage
Males	24	57.1
Females	18	42.9
Number of farmers who have reached primary school	1	2.4
Number of farmers who have reached secondary school	6	14.3
Number of farmers who have reached high school	4	9.5
Number of farmers with Technical education	25	59.5
Number of farmers with tertiary education	6	14.3
Proportion of farmers who are on Swazi nation land	30	71.4
Proportion of farmers who are on Title deed land	12	28.6
Proportion of farmers who are part time poultry producers	29	69.0
Proportion of farmers who are in livestock or crop production	29	69.0

RESULTS AND DISCUSSION

Demographics of poultry farmers: The results in Table 1 show the demographics of broiler farmers. The results indicate that broiler farmers in the Manzini region have on average an experience of six years in the broiler industry. This implies that the farmers are experienced in the field although a large number of them had the least experience and the most experienced farmers had one year and eighteen years respectively. The results further show that broiler farmers in the Manzini region were 52 years of age on average with a majority of them aged between 50 and 59 years. This indicates that most of the farmers that the farmers ventured into broiler production just before retirement or at retirement as most of them indicated that they had been employed before entering into broiler farming. The broiler industry is mostly dominated by men as the results show that 57.1% of the farmers were men and 42.9% were women and most (69%) were part-time farmers.

Description of the poultry industry supply chain:

The inputs side: The broiler industry supply chain begins with the supply of production inputs. The production inputs used in the broiler industry differ in terms of their use in the farm in terms of their costs, in terms of their significance in the production of broilers and in terms of their frequency of being used in the production of broilers. The inputs needed in broiler production include chicks, medication, and building material, feeding and drinking utensils, lights, heating and cooling machines. These inputs are accessed from the local and international retailers such as Kharafa trading company for the drinkers and feeders. The prices for these equipment range from E40.00 to E60.00 depending on the size of the feeder or drinker as they come in different sizes.

The prices also differ from one trader to the other as the equipment is accessed from different retailers which include Kharafa, TUMS general suppliers and some other hardware shops. The large-scale producers mainly use automated equipment such as automatic feeders and drinkers which cost from a range of E50, 000 to E150, 000 per feeder and drinker system. The automatic

machines are accessed from hardware shops in South Africa. Automatic machines include feeder tanks, feeding lines, water tanks and drinking lines. The automatic machines are common with large scale producers and this is because large scale broiler farmers keep an average of 64,000 birds per batch. Therefore, the automatic machines are used to increase the efficiency of the farms and to enhance productivity.

Broiler farmers access feed inputs from feed processing firms within the country. These firms include Feed Master, Arrow feeds and Crane feeds. Feed is produced in three forms, which is starter mash, grower mash, and finisher mash. Farmers purchase the feed from the firm sites or from the firms' depots found in almost all over the country. Large scale producers buy feed in large quantities and the feed producing firms transport the feed to the farm sites for these farmers. Upon arrival on the farm the feed is offloaded into storage tanks where it is stored for the duration of the feeding period. Farmers who use automatic feeders connect the feed storage tanks to the feeding lines which have automatic feeding system.

Supply of day old chicks: The National Chicks is a firm involved in the breeding and selling of one day old chicks. The firm sells chicks to all broiler farmers country wide. Among the shareholders of National Chicks are farmers with contracts to supply SPP. National Chicks has been for many years the only supplier of chicks in the country. She has been without competition until Kharafa trading company in Manzini ventured into the industry. Currently there are many other suppliers of imported one day old chicks. National Chicks is selling her chicks at E4.10 a chick to the general public, but they are sold at E3.80 to contract farmers.

Kharafa is currently importing breeding eggs from South Africa and produce day old chicks. She then sells the day old chicks at E4.05 to all broiler farmers. Kharafa has depots country wide to enable all broiler farmers to access her products. Currently National Chicks and Kharafa are the only companies providing farmers with chicks in the Manzini region. These two suppliers of chicks also sell medication for the broilers.

Table 2: Production of broilers under contract

No of birds Kept per	Frequency	Percentage
4000-8000	5	38.5
8001-12000	1	7.7
16001-20000	1	7.7
32001-36000	1	7.7
48001-52000	1	7.7
56001-60000	1	7.7
60001-64000	2	15.4
> 64001	1	7.7
Total	13	100.0

The production side: The production sector is divided into contract and non-contract producers. Contract producers are broiler farmers who are contracted by an integrator or contractor, the Swaziland Poultry Processors (SPP). Contract farmers are those who produce for the contractor and it is the duty of the contractor to market the chickens produced. Non-contract farmers are those who produce and sell their birds on their own and they operate freely in the market. They do not have a permanent market and their production is controlled by the available demand of poultry in the surrounding markets. The major markets for non-contract farmers are restaurants, the National Agricultural Marketing Board (Namboard), and butcheries. Non-contract farmers differ from contract farmers in that contract farmers produce for SPP, while those contracted by Namboard are on quasi contract arrangement. SPP supply her contract farmers with production inputs and the farmers manage the birds to maturity. After maturity the SPP collects all the chickens from the farms and process them for further marketing. Farmers only realize profits after the contractor has deducted the cost of inputs and transport. On the contrary, non-contract farmers produce the birds at their own expense and buy all the production inputs and further have to find markets by themselves.

Contract production process: For contract farmers the birds stay for a period of five to six weeks on the farm before they proceed for processing. At this age the birds are matured enough to be consumed. To produce one bird, it cost contract farmers E13.50 on average. The range for raising one broiler chicken by contract farmers is from E13.22 to E13.69. The range depends on the size of the batch. Farmers keeping more birds per batch have less cost per bird than farmers who keep fewer birds per batch because of economies of scale.

Contract farmers are more productive as their stocking rate per batch is high. They produce from 4800 birds per batch to 100,000 birds per batch, but with more farmers producing within the range of 4000 to 8000 birds per batch (Table 2). The reason for this could be that the contractor requires that a farmer keeps a minimum of 5000 birds to qualify to be under contract production. Some of the contract farmers produce from 52,000 broilers to 100,000 birds per batch. The contractor limits

Table 3: Production of broilers under non-contract

No of birds per Batch	Frequency	Percentage
200-600	9	32.1
601-1000	8	28.6
1001-1400	1	3.6
1401-1800	3	10.7
1801-2200	4	14.3
>2201	3	10.7
Total	28	100.0

the number of birds each contracted farmer produce per batch for the farmers producing above 50, 000 chickens a batch. The contractor can at some point instruct the farmer to produce less than the capacity the farm can produce. It is on such cases that contracted farmers become less profitable than their potential.

Non-contract production process: Birds produced under the non-contract system of production mature from five to eight weeks. On average non-contract farmers pay an amount E15.40 to raise one bird to maturity. The range of raising a bird by non-contract farmers is from E13.50 to E18.20. The difference between the ranges is brought about by factors that include farmer's location, which tends to increase transaction costs. Some farmers live far from the sources of inputs, therefore bringing the inputs to their farms raises the costs of the inputs. Non-contract farmers grow varying numbers of birds per batch thus widening the range. After production the birds are sold as live birds to consumers and some birds are sold to retailers mostly restaurants.

Non-contract farmers have a stocking rate that ranges from 200 to 22000 birds per batch. They produce less than contracted farmers because they have poor access to the formal markets. The only non-contract farmers to produce five thousand birds upwards are the ones who have access to permanent markets or have access to the formal market structures. In the Manzini region it is Valley Farm, Njanja, and Mlondi Farm who have such privileges among the non-contract farmers. Valley Farm has accessed the country's retail markets equally with SPP except that she can not compete with SPP in terms of quantities being sold. Njanja and Mlondi have vertically integrated the supply chain for non-contract growers through a quasi-contract with the Umbutfo Swaziland Defense Force (USDF).

According to the results in Table 3, in the non-contract system 17 farmers produce birds within the range of 200 to 1,000 birds per batch. The only non-contract farmer who produces above ten thousand (10,000) birds is Valley Farm who produces 22,000 birds per batch. Valley farm is a well established abattoir at Sidvokodvo. She produces and sells directly to the well established markets in the country. She has also improved her products to be similar to those produced by the country's sole contractor (SPP).

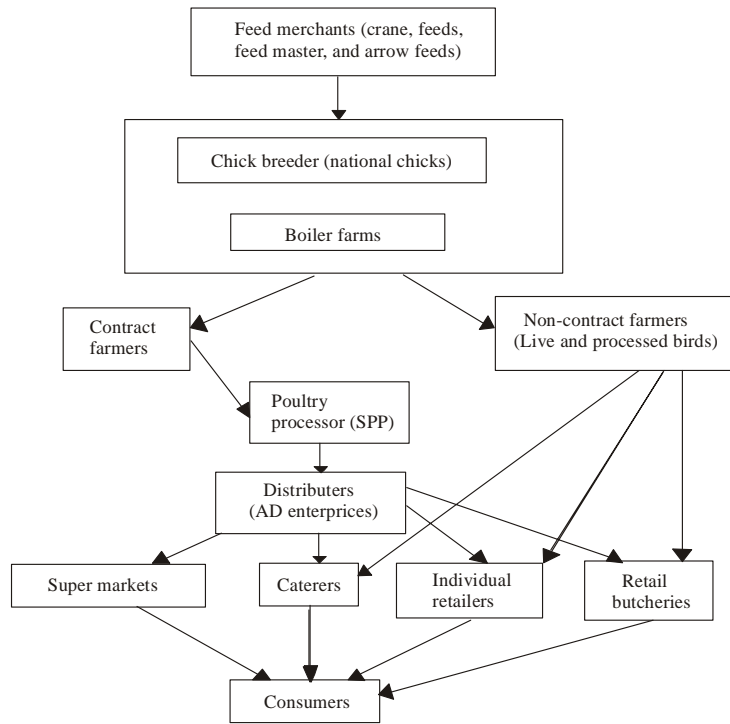


Fig. 1: Supply chain for broilers

Production efficiency of farmers: Non-contracted farmers are less efficient as compared to contracted farmers. This is because contract farmers produce larger birds in a short period of time than does non-contract farmers. Contract farmers produce birds of 1.8 kg live weight in five weeks whereas non-contract farmers produce 1.3 kg live weight birds in the same period of five weeks. This illustrates that contract farmers are more productive and efficient compared to non-contract farmers. About 92.3% of contracted farmers produce mature birds in five weeks. This means that contract farmers can produce more batches than non-contract farmers since their birds are ready for the market at an earlier age than is for non-contract farmers. Contract farmers save on feed because their birds reach maturity at an early age. This therefore, means that farmers are saving on production costs for the birds as they only provide feed for five weeks.

The processing side: Some non-contract broiler farmers sell their broilers as live birds to consumers as illustrated by Fig. 1 and other birds are sent to the processors for processing. Most non-contracted farmers skip this stage of the supply chain except for a few who have vertically integrated the supply chain for non-contract farmers. The few non-contract farmers who process their birds follow the supply chain illustrated by Fig. 1, but also sell others live. Within the processing stage the birds are slaughtered

and dressed in preparation for consumption. The birds are processed into various products then packed before they are sent to retailers for access by consumers.

The marketing side: Most non-contract farmers sell live birds direct to consumers. Birds sold on live weight basis to consumers are sold at an average price of E25.00 per bird. It is only in special cases that some non-contract farmers who are vertically integrated in the industry process their birds before reaching the final consumers. Processed birds are then sold on weight basis per kilogramme of a processed bird and is sold at E19.50 to retailers. However, non-contract farmers who process their birds, sell them at an average price of E27.00.

Contract farmers sell all their birds to their contractor who also serves as a processor. The birds are sold to the processor at E9.60 per kg of live weight. Upon arrival to the processor the birds are weighed in order to establish the payment to the farmer. The contractor then process the birds into various products as discussed in the processing side. At this stage the contractor is adding value to the chickens, after which the contractor supplies wholesalers and retailers with resultant products. Some retailers like SPAR, SCORE, KFC, and SHOPRITE buy the chicken products directly from the processor, while the other retailers access the products from the processor's distributors, such as AD Enterprises. Individual customers are not allowed to buy direct from SPP. They can only

access meat products either from the wholesaler or from the retailers. When purchasing from the wholesaler, consumers pay E20.99 for a kilogramme of a whole bird. Also the retailers who purchase from the wholesaler pay the same amount as the other consumers.

CONCLUSION

The study aim-ed at analysing the broiler supply chain in Swaziland. Based on the findings of the study, the following conclusions were derived.

The non-contract system though with a minor recognition in the broiler supply chain, it does have an impact on the supply chain as farmers on this system mostly supply their chickens to retailers as well as restaurants and butcheries. Thus, there is a certain percentage of the total consumption of broilers that is produced under the non-contract system. The study showed that the broiler supply chain, though not well coordinated meets the needs of consumers through contract and non-contract production systems.

Contract broiler farmers have a better financial performance than non-contract farmers. Although non-contract farmers get more returns from selling one bird, contract farmers achieve high revenue through economies of scale in production per batch. The study has shown that even though non-contract farmers realise higher income per production cycle, however, they have low net margin per farmer per year.

Policy implications: Due to among other things, globalisation and market competition at international levels, the arena of competition and competitive advantage is moving from individual firms operating on spot markets towards supply chains and networks using co-ordination mechanisms. This move towards vertically linked production means that the structure, conduct and performance of one firm, affect the other. With increasing competition and changes occurring in markets, producers need to understand their supply chain and find innovative ways to improve their effectiveness and efficiency. Exploiting the linkages within the value chain offers pathways to maintain competitive advantage. This will often require a combination of firm-level actions as well as improvements in the entire value-chain. There is also a need for political will by government to protect broiler farmers by promoting competition through enacting competition legislations and allow transparency within the value chain.

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