

SWAZILAND COMPETITION COMMISSION



BROILER CHICKENS MARKET INQUIRY

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ACRONYMS

AA	Aber Acres
CPR	Competition Policy and Research Department
CR	Concentration Ratio
DOC	Day Old Chicks
EC	Economics of Competition Law
EU	European Union
E-views	Economic Views statistical software
FMCG	Fast Moving Consumer Goods
HHI	Herfindahl-Hirschman Index
KFC	Kentucky Fried Chicken
MoA	Ministry of Agriculture
NAMBOARD	National Agricultural Marketing Board
UFC	Umbuluzi Farm Chickens
RDA	Regional Development Administrator
SACU	Southern African Customs Union
SCC	Swaziland Competition Commission
SPP	Swaziland Poultry Processors
SPSS	Statistical Package for Social Sciences
SNL	Swazi National Land
TDL	Title Deed Land

EXECUTIVE SUMMARY

This report presents the Broiler Chicken Market Inquiry conducted in accordance with Section 11 (2)(f) of the Competition Act, No. 8 of 2007. The objective of the enquiry is to examine the market structure of the market and the state of competition in the market. This market inquiry is a result of a study that was submitted by the Ministry of Agriculture to the Swaziland Competition Commission in 2012 regarding the performance of the poultry industry and perceived unfair competition. The study also stated that the conduct of some players resulted in firms exiting the different levels of the broiler chicken market. Additionally, the smaller players in the market approached the Commission to complain that they were being forced out of the market by anti-competitive conduct by some of the players in the market.

The broiler chicken market has players at different levels integrated to one another; this is especially the case with three of the largest players in the market. Before examining each level we provide a summary of relevant legislation.

Regulation of the broiler chicken market		
Conclusions	Competition/general concerns	Recommendations
1. The inquiry found that there is a 27% levy imposed on broiler chicken meat and some broiler chicken meat products imported from outside the SACU countries. Furthermore, there is 15% value added tax imposed to all poultry ¹ imports including processed meat.	Competition concern The Commission is concerned about the levies imposed on imported broiler chicken meat and products. These levies tend to limit import competition and competition in general.	The Commission recommends that import competition should be encouraged through lowering import levies for the processed broiler chicken meat products.

We defined the market and identified 4 sub-markets, namely: (i) the market for the supply of day old chicks; (ii) broiler growing market; (iii) the slaughtering and processing market; and (iv) the distribution market. These markets are discussed below:

¹ Except for day old chicks.

(i)The Market for the supply of day old chicks (DOCs)

Broiler chicks are a domesticated fowl, bred and raised specifically for meat production. In the country, the most common broiler breeds are the Ross 308 and the Abor Acres. There are three firms in the supply of day old chicks (DOCs) in the country, these are; National Chicks, Africa Chicks and Farm Services. Farm Services import and hatch day old chicks, while National Chicks, and Africa Chicks imports DOCs as well as hatch them. There are two (2) groups of broiler growers that are supplied with DOCs; contracted growers and independent growers.

Conclusions	Competition/general concerns	Recommendations
1. The inquiry established that the market for the supply of day old chicks comprise of three players, namely; Africa Chicks, National Chicks and Farm Services. Thus, it is concluded that this market is oligopolistic. The market inquiry analysis has taken into account the size of the country and the population which is slightly above million. Therefore, the Commission is of the view that as a result of nature of demand and supply processes in the broiler chicken market, it may be cumbersome for a new entrant to enter and be sustainable in this market.	None	None
2. The Commission found that customers of Africa Chicks and National Chicks (independent broiler chicken growers) are discontent about the quality of chicks and feed. They are of the view that suppliers of day old	General concern The Commission is concerned that the farmers may not be well trained in the methods and procedures that should be followed when growing the day old chicks.	Farmers should ensure that they are well trained before they venture into the business of broiler growing chicken. These farmers may benefit from the capacity building programs offered by the Ministry of Agriculture.

<p>chicks and animal feed have at times supplied poor quality products which has resulted in business failure and exit of some farmers from the market. Contrary to these allegations, the Commission found that the suppliers of day old chicks and feed always supply the same quality to their customers².</p> <p>The Commission noted that albeit having different types of feed³ there are no differing grades of feed as long as the farmer knows the type of feed he/she wants. Furthermore, during an interview with National Chicks, the Commission found that before the hatching process can even begin only high graded eggs are used to ensure that the chicks are of high quality. Due to the nature and the volumes at which the chicks are produced, the Commission is of the view that it does not make good business sense for the hatcheries to include eggs of poor grade only.</p>		
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(ii) Broiler Growing Market

The broiler growing market is the second level in the broiler chicken market in the country. The market comprises of two sub-markets (segments) namely: contract growers and independent growers, supplying the slaughtering and processing firms as well as the informal/live market, respectively.

² 11 November 2017 – Arrowfeeds and FeedMaster, 04 October 2016 – National Chicks Swaziland and Africa Chicks

³ Feed types according to FeedMaster and Arrowfeeds – Classic, Performa and Pinacle feed

Sub-market 1 – Contract growers

There are three major players in the broiler growing market (contract growers), namely: SPP/Kikilikigi, Umbuluzi Farm Chicken and Trencor Investment. The Commission noted that even though contract growers mainly supply processors they also supply the live market. Overall however, the inquiry found that the market for contract growers is oligopolistic in nature. The market inquiry analysis has taken into account issues of the size of the country and the population which is slightly above million. Therefore, the Commission is of the view that as a result of nature of demand and supply processes in the broiler chicken market, it may not be feasible for a new entrant to be sustainable in this market.

The Commission found that there are some arrangements aimed at promoting efficiency and convenience in this market. These include contracts between processing firms and contract growers as well as a tripartite arrangement between the slaughtering and processing firms, contract growers and feed millers/hatcheries.

Sub-market 2 – Independent growers

Independent growers comprise of small scale growers that produce broiler chickens independently. These farmers are not consistent and they mainly supply the informal market. The Commission noted that independent growers who grow small quantities are not in the same level as with contract growers despite the fact that contract growers also supply in the live market. The inquiry found that sub-market 1 and sub-market 2 (segments) compete in the live market. It is the view of the Commission that this promotes competition.

Conclusions	Competition/general concerns	Recommendations
1. The inquiry found that the growing market is divided into sub-markets, namely: contract growers; and independent growers. There are three major players in the broiler growing market (contract growers), namely: Kikilikigi, 5 Shareholders of Umbuluzi Farm Chicken and Trencor Investment. The Commission concludes that there are no significant barriers to entry except that new	None	None

prospective entrants will have to face inherent costs of start-up and doing business in this market.		
<p><u>Sub-market 1 – Contract growers</u></p> <p>2. The Commission found that in this sub-market, members / shareholders of Kikilikigi are not allowed to sell shares to non-members / non-shareholders. The Commission found that both existing members and ex-farmers are discontent with the procedures followed when the shares are sold as they claim there is no transparency.</p>	<p>Competition concern –</p> <p>The Commission is concerned that this conduct may be anti-competitive as the shares are not openly sold to the public. This forecloses new entrants into the business.</p>	<p>Kikilikigi should cease and desist from compelling existing shareholders to sell their shares to existing shareholders only. It is the view of the Commission that shares should be openly sold to the public; only if this fails can they be sold to existing shareholders.</p>
<p>3. The Commission established that contract growers are mostly shareholders of the processing firms. They mainly produce and supply processing firms according to set quotas which are mainly proportional to their shares. They however compete with players in sub-market two as they also supply the live market with chickens. The Commission further notes that the practice of contract growing is not unique to the country as it is used in other countries such as Brazil, Zimbabwe, Zambia and South Africa.</p>	None	None
<p><u>Sub-market 2 – Independent growers</u></p> <p>4. The Commission found that firms in sub-market 2 compete with</p>	None	None

<p>firms in sub-market 1. The Commission established that firms/individuals in sub-market two only supply the live market. These firms/individuals are not consistent in growing their chickens. They mostly grow chicken during peak periods such as during Easters and during the festive season.</p> <p>Furthermore, the Commission noted that players under sub-market 2 are not enjoying similar benefits enjoyed by players under sub-market 1 since they do not buy in bulk. These benefits include discounts and even the opportunity to be supplied with inputs on credit. There are no competition issues in this sub-market. It is the view of the Commission that the presence of sub-market 1 in the live market stimulates competition.</p>		
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(iii) The Slaughtering and Processing Market

The slaughtering and processing firms are involved in the slaughtering and processing of broiler chicken meat. The processing of broiler chicken meat involves the production of chicken portions, chicken breast, thigh fillets, chicken strips, amongst others. There are two segments of the slaughtering and processing firms. Segment 1 consists of large scale processors, which comprise of Swaziland Poultry Processor; Umbuluzi Farm Chickens; and Trencor Investments. Segment 2 consists of small scale processors, and there are nine (9) players in this segment.

For segment 1, the inquiry found that there are few players who own firms in the slaughtering and processing. The inquiry also established that the big customers such as, supermarkets and food outlets, negotiate prices with the slaughtering and processing firms through rebates.

For segment 2, the inquiry found that it is comprised of small firms which operate in some of the regions, often with inconsistent supply and as such it is not at the same level as segment 1.

Conclusions	Competition/general concerns	Recommendations
1. The Commission found that the slaughtering and processing market is oligopolistic as it has only three players that have the capacity to supply the whole nation with broiler chicken meat and products. These are SPP, Umbuluzi and Trecor Investments. There are other small abattoirs which supply small restaurants, schools and individual customers in small communities. The Commission found that there are no significant barriers to entry.	None	None
2. The inquiry found that tariffs imposed on broiler chicken meat and products (27% levy imposed on broiler chicken meat and some broiler chicken meat products imported from outside the SACU countries and the 15% value added tax imposed to all poultry ⁴ imports including processed meat)	General concern The Commission is concerned about the levy imposed on imported broiler chicken meat and products. These levies restrict import competition and competition in general. The effect of the levy come to play when the secondary processors are not able to get	Similar to the recommendation under the regulation section, the Commission recommends that import competition should be encouraged by lowering import levies for the processed broiler chicken meat products.

⁴ Except for day old chicks.

<p>is significantly high. According to the submissions of the regulator⁵, the levy coupled with the value added tax is meant to protect local farmers as well as to support their development and growth.</p> <p>However, in terms of the levies the effect is twofold. The first round knock-off effect is manifested when the secondary processors are unable to source broiler chicken meat and products from the local suppliers, due to shortages in the domestic market. The second round knock-off effect is realized when domestic prices increase due to excessive mark-ups, especially for broiler chicken meat and products.</p>	<p>adequate supply of broiler chicken meat from the local processors and they are not able to import because the levy is too high.</p>	
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(iv) The distribution market

This market entails the distribution of broiler chicken products from the processing firms to retail outlets. There are two distribution models used in this market: (i) model 1 - the distributors purchase the products from the producer for on-selling to the retail market; and (ii) model 2 - the distributors are intermediaries between the producers and the retailers.

Due to the vertical structure of the broiler chicken market concerns raised under the regulation, slaughtering and processing markets are also permeable in the distribution market. For instance, the 27% levy imposed on broiler chicken meat and products that are imported from outside the SACU countries and the 15% value added tax imposed to all poultry⁶ imports including processed meat) was cited as a major import restriction for secondary distributors.

⁵ Ministry of Agriculture and NAMBOARD

⁶ Except for day old chicks.

Conclusions	Competition/general concerns	Recommendations
<p>1. The Commission found that there are two distribution models in this market.</p> <p><u>Model 1</u></p> <p>2. One model involves the processors distributing directly to their end-users, whilst the other model involves the processors selling broiler chicken meat carcasses to secondary processors for further processing. Most importantly the Commission noted that with regards to the first model; processors normally use their internal distribution systems. It was also found that these distributors hold shares with the processors; this is the case with SPP, AD Enterprises and Logico. There is no competition concern identified with regards to the first distribution model.</p> <p><u>Model 2</u></p> <p>3. This model involves the distribution of broiler chicken meat carcasses to secondary processors for further processing.</p> <p>The Commission also noted that processors enter into supply agreements with their</p>	None	None

customers. This is done in order to facilitate business.		
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1. INTRODUCTION

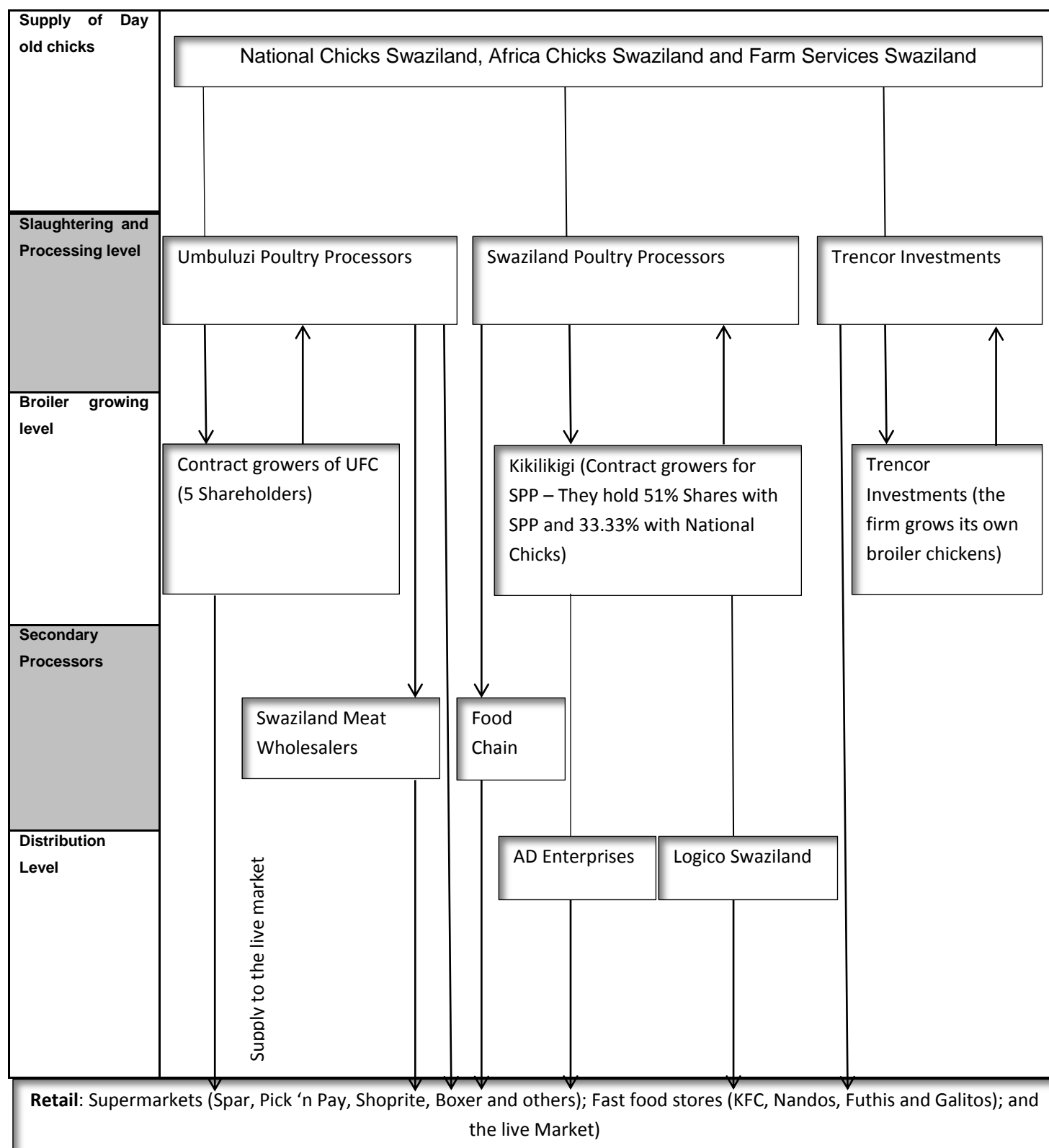
2. This market inquiry is a result of a study that was submitted by the Ministry of Agriculture to the Swaziland Competition Commission in 2012 regarding the performance of the poultry industry and perceived unfair competition. It was stated that the conduct of some players resulted in firms exiting the different levels of the broiler chicken market. Also, the Commission was approached by some smaller players in the market to complain that they were being forced out of the market by anti-competitive conduct by some of the players in the market.

2.1. The Broiler Chicken Market Inquiry has its legal basis in Section 11 (2)(f) of the Competition Act, No. 8 of 2007 and its objective is to examine the market structure of the market and the state of competition in the market. The inquiry focuses on the market for the commercial white chickens reared and sold in Eswatini. It identified 4 sub-markets, namely: the Market for the supply of day old chicks, Broiler growing market, Distribution market, and the Slaughtering and Processing market.

2.2. The inquiry utilizes a qualitative and quantitative research approach. Primary data was collected in the four regions of Eswatini namely; Hhohho, Manzini, Lubombo and Shiselweni. Structured questionnaires were used to conduct interviews. The target population was the entire broiler growing market. A sample of 300 participants was used for the survey and these entail: suppliers of day old chicks, growers, slaughtering and processing firms, distributors and individuals. The data collection exercise was conducted in collaboration with the Ministry of Agriculture (Animal Department; Poultry Section). The Statistical Package for Social Sciences (SPSS) version 20 and Economic Views (Eviews) version 9.5 was used to analyse the data.

3. OVERVIEW OF THE BROILER PRODUCTION

- 3.1. Broiler production is one of the animal production industries in Eswatini. It serves as a primary source of income for smallholder farmers. There are two types of broiler chickens reared in Eswatini, namely, the indigenous chickens and white bird commercial broiler chickens. This market inquiry focuses solely on the white bird commercial broiler chickens.
- 3.2. Similar with other developing countries, information on ownership of the broiler chicken market in Eswatini is scarce to obtain from its custodians. This may be associated with the anti-competitive practices in this market or improper of record keeping.
- 3.3. Figure 2.1 below shows how the broiler chicken market is structured in Eswatini. There are 4 sub-markets within this market, namely: (i) the market for the supply of day old chicks; (ii) broiler growing market; (iii) the slaughtering and processing market; and (iv) the distribution market.

Figure 2.1: Broiler Growing Market in Eswatini**Source:** Survey Data

- 3.4. Even though Eswatini is classified as a traditionally beef eating country, per capita consumption of chicken has been gradually increasing as consumers switch from beef in response to significant price increases and other factors⁷. This change in the source of protein is mainly attributable to changes in food requirements which emanates from changes in dietary needs driven by health reasons. Additionally, the price of beef has been increasing over the past years forcing people to consume more chicken which is comparatively cheaper.

Value Chain

- 3.5. The life cycle of a broiler chicken market begins with the breeders. When selecting broiler breeders, farmers look for evidence of a healthy and productive bird. The criteria include general health, body weight, conformation, and performance data. A healthy bird has bright eyes, bright red comb and wattles a smooth, sturdy, and waxy texture. The feathers around the vent are clean and dry as the rest of the body plumage is close-fitting and clean. Conformation is the type, form, and shape of the broiler. It includes feathering, fleshing, fat, and freedom from defects. Performance data is used to determine the genetic superiority of the breeding flock.
- 3.6. The production in the broiler market is integrated. The DOCs are supplied to broiler farmers, who grow chicks to produce broiler chickens ready for sale. Mature broiler chickens are sold using two channels namely; the informal channel - where live chickens are sold direct to the public, and the formal channel - where live chickens are sold to slaughtering and processing firms. At the slaughtering and processing plant, broilers are slaughtered and cleaned. The carcass is packaged and made ready for distribution. Mixed offal are also cleaned and prepared for distribution. In addition to that, chicken meat is further processed into various items such as polony, viennas, burgers and other products.
- 3.7. All the markets are important and interdependent. If one market is sub-optimal, the overall broiler market performance will suffer. The market for day old chicks and broiler growing markets demand essential production management principles. Distribution is the final market in broiler production. It involves the distribution of chicken meat and processed broiler chicken products to wholesalers and retailers.

⁷ Country Broiler Industry, Southern African Poultry Association, downloaded from www.sapoultry.co.za/pdf%20avi/.../Swaziland%20country%20report.pdf on 11 December 2013 at 11:35.

3. RELEVANT LEGISLATIONS FOR THE BROILER CHICKEN MARKET

National Food Security Policy for Swaziland

3.1. Existing related policies for the poultry industry are in sync with the National Food Security Policy of Swaziland. The National Food Security Policy of Swaziland came into effect on the 29 October 2005 and it is an integral part of the Comprehensive Agriculture Sector Policy and National Development Strategy. It is aimed at addressing the threats and opportunities relating to food security in Eswatini. The policy introduces the status and framework of food security in line with the internationally accepted definition of food security. "Food security is achieved when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs, and food preferences for an active and healthy life". The policy provides four key pillars of food security: Pillar 1: Food Availability; Pillar 2: Food Access; Pillar 3: Food Utilisation and Nutritional Requirements; and Pillar 4: Stability in Equitable Food Provision.

3.2. The production of broiler chickens falls under all above mentioned pillars, as it allows for food availability, food access, food utilisation and nutritional requirements, as well as stability in equitable food provision. As such broiler production plays a very important part in ensuring food security in the country.

Swaziland Customs and Excise Act

3.3. Imports in Eswatini are governed by the Swaziland Customs and Excise Act of 1971. This Act is enforced by the Swaziland Revenue Authority through its Customs Department. The Act provides that goods entering the South African Custom Union (SACU) area are charged customs duty at the port of entry. The Ministry of Agriculture, through National Agricultural Marketing Board (NAMBOARD), is responsible for the clearance and levy duty for imports of broiler chicken and products into Eswatini.

Scheduled Products Policy

3.4. The Scheduled Products Policy is implemented by the NAMBOARD through Legal Notice No. 82 of 2002⁸. NAMBOARD was established by an Act of parliament (Act

⁸ National Agricultural Marketing Board. <http://namboard.co.sz/index.php/inspectorate/levies> accessed on 3rd September 2014 at 11H25.

No.13 of 1985) to issue permits and collect levies on scheduled agricultural products, as well as to promote the agricultural production and marketing in Eswatini. The Scheduled Products Policy became effective on 1 June 2013⁹.

3.5. It was established that there are some requirements that are imposed on imported poultry products to protect and develop the local market. Also, a trader who is importing in large quantities should have a trading permit. The permit is obtained once a fee is paid to NAMBOARD and it is valid for 30 days. The Ministry of Agriculture, through veterinary services, also grants import permits to individuals. However, individuals are given an import quota of 10 kilograms per entry.

3.6. The Commission found that there is a 27% levy imposed on broiler chicken meat and products imported from outside the SACU countries and a 15% value added tax imposed to all poultry¹⁰ imports including processed meat. The Ministry of Agriculture and NAMBOARD argued that, these levies are meant to protect local farmers as well as to support their development and growth. However, the Commission is concerned about these levies because they tend to restrict import competition and competition in general. The effect of the levy is realised when the secondary processors are not able to get adequate supply of broiler chicken meat from the local processors and they cannot import because it would be expensive to do so.

3.7. Table 3.1 provides details on poultry products that are levied.

Table 3.1: Levy on poultry products

HS CODE	Description	Current tariff rates	Bound rate
0207.12.20	Carcasses	27%	82%
0207.14.11	Breast	12%	82%
0207.11.13	Thighs	12%	82%

Source: ERA online information

3.8. There is no import levy imposed on day old chicks. Importers are required to pay an importation fee of about E225.00.

⁹ Tele-conversation with Sipho Nxumalo, Chief Inspector at NAMBOARD held on 21st October 2014 at 11H40.

¹⁰ Except for day old chicks.

Trading Licence – Ministry of Commerce, Industry and Trade

3.9. All firms in Eswatini are required to apply for a trading licence which is obtainable within three working days. The Trading Licence Department within the Ministry of Commerce, Industry and Trade is responsible for this.

3.10. The inquiry established that The Trading Licences (Amendment of Schedule Regulations Notice, 2006) provides under Schedule B, Item 80, 'Dealer in wholesale', that:

- a) The holder of this licence shall be entitled to carry on business by selling, exchanging, offering or exposing for sale or exchanging goods, wares, petrol or petroleum products, foodstuffs, produce (or live animals) only in build to shops and other trade/business to be retailed by such shops and other businesses.
- b) A holder of this licence shall, subject to right to use other premises for storage only, be restricted to the fixed premises specified in the licence.
- c) The holder of this licence shall only sell to retail such goods as he is entitled to sell under his licence and such goods as the retailer is entitled to purchase for his retail business/trade under the retail's licence.
- d) The term "retailer" for the purposes of this regulation shall mean a license trader in those goods or persons exempted under (e). It shall in no event be construed to mean any member of the public, national or foreign, who is not a holder of any such licence.
- e) A holder of this licence shall not be a holder of any licence to trade in retail.

3.11. Therefore, players within the market for the supply of DOCs market for day old chicks are expected to adhere to all the above stated requirements. In accordance with (e) above, suppliers of DOC are not allowed to operate a retail outlet; rather they are expected to maintain their wholesale status. However, hatcheries hold retail licences, which is in contradiction of (e) above.

Table 3.2: Conclusions, competition/general concerns and recommendations

Regulation of the broiler chicken market		
Conclusions	Competition/general concerns	Recommendations
<p>1. The inquiry found that there is a 27% levy imposed on broiler chicken meat and some broiler chicken meat products imported from outside the SACU countries. Furthermore, there is 15% value added tax imposed to all poultry¹¹ imports including processed meat.</p>	<p>Competition concern</p> <p>The Commission is concerned about the levies imposed on imported broiler chicken meat and products. These levies tend to limit import competition and competition in general.</p>	<p>The Commission recommends that import competition should be encouraged through lowering import levies for the processed broiler chicken meat products.</p>

¹¹ Except for day old chicks.

4. THE MARKET FOR THE SUPPLY OF DAY OLD CHICKS

Market Definition

Introduction

4.1 Market definition is used to identify the products/ services that are close substitutes for each other and to define the boundaries of competition between firms which compete for such products/ services with a view of identifying the actual competitors that are capable of constraining the behaviour and preventing the firms concerned from behaving independently.

4.2. In Eswatini, the production of broiler chickens begins with the laying of fertile eggs. The fertile eggs are hatched into day old chicks upstream. In some countries such as South Africa, there are two additional levels on the upstream market. They are the rearing of the great grandparent stock, grandparent stock and lastly the parent stock¹².

Product Description

4.3 Broiler chicks are a domesticated fowl, bred and raised specifically for meat production. They are a hybrid of the egg-laying chicken, both being a subspecies of the red jungle fowl. Typical broilers have white feathers and yellowish skin. Most commercial broilers reach slaughtering weight between five (5) and seven (7) weeks of age. As a result of artificial selection for rapid early growth and the husbandry used to sustain the rapid growth, broiler chicks are susceptible to several welfare concerns, particularly skeletal malformation and dysfunction, skin and eye lesions and congestive heart conditions. The broiler chickens are usually grown as mixed-sex flocks in large sheds under intensive conditions, but some breeds can be grown as free range flocks.

Business Process

4.4. The chickens that lay the fertile eggs for the production of day old chicks are known as parent stock. Approximately 66.7% of parent stock is imported from South Africa by

¹² Department of Agriculture, Forestry and Fisheries: Republic of South Africa. A profile of the South African Broiler Market Value Chain, 2012.

National Chicks and Africa Chicks, and the remaining 33.3% is reared in Eswatini.¹³ The parent stock is raised for a period of about 34 weeks before they begin laying fertile eggs for the production of DOCs. For purposes of controlling the likely spread of diseases, the imported parent stock is brought into Eswatini 3 months before the laying of fertile eggs begins. Quality monitoring is crucial as it is one of the essential determinants for the success of this market and the broiler market at large.

4.5. Once the parent stock has laid the eggs, the eggs are then collected and stored inside an egg room at a temperature ranging between 18°C and 20°C. This temperature range is essential to prevent embryo development. Eggs are then graded according to size. The size of an egg is proportionate to the size of a chick, that is to say a small egg will hatch into a small chick¹⁴. For example, a 56 gram egg gives a chick that weighs about 34 gram¹⁵. A small size egg will hatch into a small size chick thus producing small sized matured chickens¹⁶. The opposite is true, as a large size egg will hatch into a big size chick and produce large matured chickens. Graded eggs are placed on an incubation program for a period of 21 days. The incubation program is organised in two phases. The first phase is keeping eggs in setters for 17 days. During this period the temperature is kept at 37.6°C. Temperature control is important in order to facilitate embryo development and the formulation of air space. The second phase commences from day 18 when eggs are transferred to hatchers. Temperature within hatchers is set at 35.4°C. Eggs are stored in hatchers for about 72 hours, which equates to 3 days. They hatch into chicks at day number 21. This day also counts as day 1 in the growth process hence the hatched chicks are called day old chicks. High quality chicks must¹⁷

- (i) be clean, dry, free from dirt and contamination;
- (ii) have clear and bright eyes;
- (iii) be free from deformities;
- (iv) have completely sealed and clean navel;
- (v) have firm body with no signs of respiratory distress;
- (vi) be alert, interested in its environment and respond to sounds;
- (vii) have normal legs which are neither swelling nor have hock or skin lesions;
- (viii) have well-formed beak, firm and straight toes; and

¹³ Interview with National Chicks held on 4th August 2014.

¹⁴ Interview with Africa Chicks held on 23rd May 2014.

¹⁵ Interview with National Chicks held on 27th February 2015.

¹⁶ Interview with Africa Chicks held on 23rd May 2014.

¹⁷ Lourens A., Joseph N.S. & Moran Jr. E.T. (2006). The effects of suboptimal eggshell temperature during incubation on broiler chick quality, live performance, and further processing yield. Oxford Journals, Science & Mathematics, Poultry Science, Volume 85, Issue 5, pp 932-938 Source of article <http://ps.oxfordjournals.org/content/85/5/932.short> accessed on 22 May 2014 at 12H00.

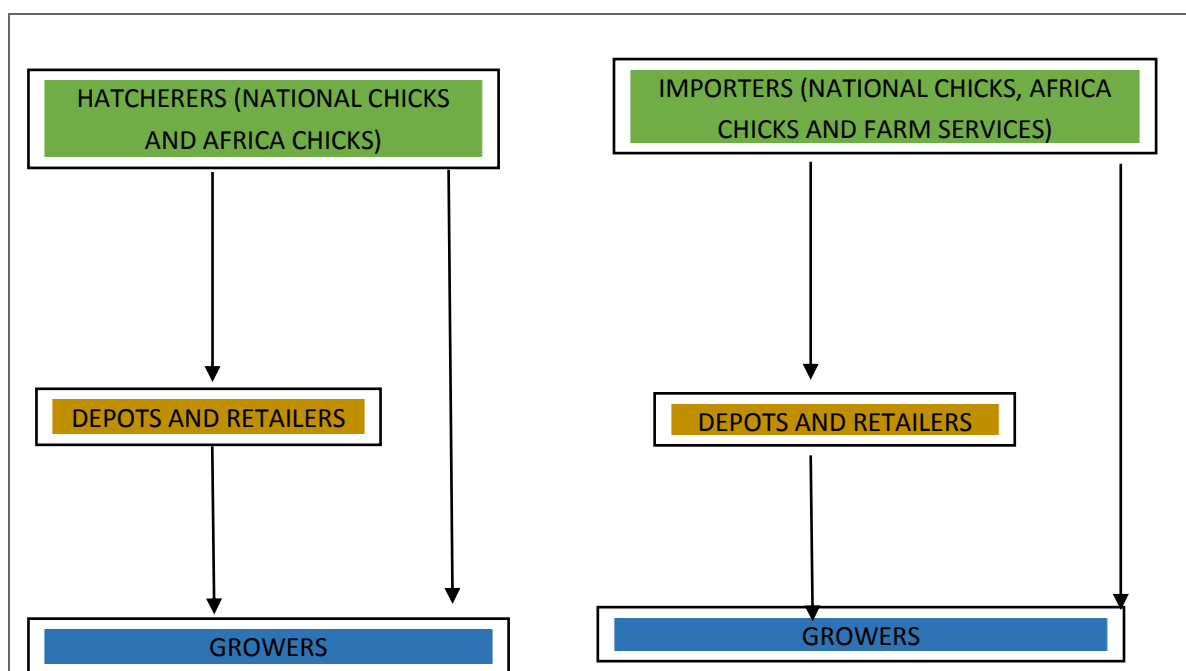
(ix) be without a protruding yolk sac from the navel area.

4.6. The suppliers of DOCs do not feed them, but only vaccinate them against infectious Bronchitis and Newcastle diseases. However, when instructed by the broiler grower, the supplier can further vaccinate day old chicks against Gumboro disease. After vaccination, the day old chicks are graded, packed in crates and subsequently distributed to broiler growing farmers, the customer for this market.

4.7. Farmers order their day old chicks from suppliers of DOCs in the country and they are delivered to their farms, although some farmers go to the suppliers of DOCs to directly purchase the chicks. Some of the suppliers have decentralised their systems of distribution by introducing depots and/or collection-points country wide.

4.8. Figure 4.1 below shows the supply chain of day old chicks in Eswatini.

Figure 4.1: Supply of Day of Chicks



Source: Survey Data

Substitutability

4.9. In determining the degree of substitutability we considered whether customers would readily switch to available breeds supplied by other players in response to a hypothetical small but significant non-transitory increase in price ("SSNIP") in the products considered in this market.

Demand substitutability

4.10. The inquiry established that even though there are two types of breeds of broiler chickens available in the broiler market in Eswatini. Their physical similarities, same price and end use make them perfect substitutes. If there is a price increase at Farm Services and National chicks, growers could easily switch to Africa Chicks which supplies a different breed. The inquiry, further, found that there are other chickens, such as traditional chickens and layers but these are not of the same taste as the broilers. Therefore, the Commission concludes that there is no demand substitutability for the two breeds of broiler chicks supplied in Eswatini

Supply substitutability

4.11. The Commission established that a new entrant has to either import or hatch the day old chicks, which could be costly for them. It was also established that the start-up costs could be approximately E20 million¹⁸; whilst financial institutions could only offer E1 million. Therefore, there is no firm that can enter the market and be able to supply DOCs in a timely manner in response to a SNNIP. The Commission, therefore, concludes that there is no supply substitutability.

Geographic Market

4.12. The supply of broiler chicks is done nationwide by National Chicks, African Chicks and Farm Services.

Relevant Market

4.13. The relevant market is the supply of broiler chicks in Eswatini.

Market Structure

Number of firms

4.14. There are three firms that supply day old chicks in Eswatini, namely: National Chicks, Africa Chicks and Farm Services.

Description of the firms

- (i) *National Chicks*: entered the market in 1996 and is located in the Manzini region. It is part of Astral Group, which produces consumer brands such as Gold Chick, Country Fair, Festive brands and the Ross 308-a breed supplied in Eswatini. There are two

¹⁸ Interview with Africa Chicks, 20 May 2014

shareholders of National Chicks, Astral and Kikilikigi. **[Information Removed – Confidential]**

- (ii) *Africa Chicks*: is involved in the supply of day old chicks. Africa Chicks started operating in 2014 and it is located in the Hhohho region¹⁹. **[Information Removed – Confidential]** Africa Chicks supplies the Abor Acres breed and also exports approximately **[Information Removed – Confidential]**
- (iii) *Farm Services*: was established in 2011 and imports 100% of its stock. It is owned by the **[Information Removed – Confidential]**. Farm Services supplies the Ross 308 breed.

Market shares

4.15. The estimated market shares held by each of the firms were calculated based on the volume of output. Table 4.1 below shows the market shares held by each supplying firm for the period 2009 to 2016.

Table 4.1: Estimated Market Shares

	National Chicks	Africa Chicks	Farm-Services
2009	100%	-	-
2010	100%	-	-
2011	92.329%	-	7.671%
2012	93.021%	-	6.979%
2013	88.594%	-	11.406%
2014	72.868%	19.391%	7.740%
2015	66.134%	29.373%	4.493%
2016	63.673%	32.374%	3.953%

Source: Survey Data (2016/2017)

4.16. As reflected in Table 4.1, above, National Chicks has the highest market share in the supply of day old chicks. Before 2011, National Chicks had 100% market share. In 2011, National Chicks' market share decreased to 92.33%, and in 2012 it decreased further to 93.02%. Farm Services had 7.671% in 2011 and 6.979% in 2012. In 2014, Africa Chicks entered the market for the supply of day chicks, which resulted in further decreases in the market share of National Chicks. These players are competing for the

¹⁹ Interviews with Africa chicks and National chicks (2014)

same customers. As at December 2016, National Chicks had 63.673% of the market with Africa Chicks having 32.374% of the market and Farm Service at 3.953%.

Level of Concentration

4.17 The Herfindahl-Hirschman index (HHI) is used to measure the level of market concentration. The HHI is used by many jurisdictions, including the USA, and EU, as a measure of market concentration. It is calculated by squaring the market share of each firm, and then summing the resulting numbers. The HHI can range from close to zero to 10,000. High values of the HHI are an indication of highly concentrated markets as opposed to low HHI values.

4.18 The higher the market concentration the closer the market is to being a monopoly, and the lower the market concentration the more competitive is the market. For example, in a market where there is one player, the HHI for that market would be 10,000. If there were hundreds of firms competing, each would have nearly 0% market share, and the HHI would be close to zero, indicating a nearly perfect competition.

4.19. Different jurisdictions use different levels of HHI as a basis for concluding on the level of concentration on the market. In the U.S, an HHI of less than 1,500 is considered to be an indicator of a less concentrated market, while an HHI of 1,500 to 2,499 is viewed as moderate and an HHI of 2,500 or greater is considered to be highly concentrated. Whilst the HHI is considered as a credible approach to calculate the level of concentration, the Commission considered a number of factors when analysing the results of the HHI for Eswatini²⁰ since the country has not yet developed its thresholds for assessing / analysing concentration levels.

4.20. The HHI results shows that between 2009 and 2010, the day old chicks supply market in Eswatini had an HHI of 10,000, because there was only one firm controlling the market. In 2011, when Farm Services entered the market the level of concentration was reduced from being monopolistic (10,000) to an index of 8,583.48, which-according to international standards is still concentrated. As Farm Services' market shares increased the HHI decreased, dropping to 7,979.99 in 2013. In 2014, when

²⁰ Swaziland is a small and developing economy which has not developed its own threshold of HHI, such as the size of the economy and the level of development.

Africa Chicks entered the market, the concentration ratio in the market further decreased, dropping to 5,745.66. In 2016, the market concentration level had decreased to 5,117.95, as shown in Table 4.2, below. Despite that the results depict that the market is concentrated in Eswatini when analysing the demand and supply of day old chicks, given the size of the country, the Commission observed that it would not be viable for a firm to enter this market and be sustainable. A new business is not likely to be sustainable in this market because of the size of the country and the annual fluctuations in the demand of day old chicks. The fluctuations in demand in the view of the Commission are not an indicator that there is shortage of day old chicks in the country. Therefore, the results of the HHI on the levels of concentration should be viewed with caution in the case of Eswatini.

Table 4.2: Level of concentration

Year	National chicks	Farm Services	Africa chicks	HHI
2009	100%		0	10,000
2010	100%		0	10,000
2011	92.33%	7.67%	0	8,583.48
2012	93.02%	6.98%	0	8,101.61
2013	88.59%	11.41%	0	7,978.99
2014	72.87%	7.74%	19.39%	5,745.66
2015	66.13%	4.49%	29.37%	5,256.67
2016	63.67%	3.95%	32.37%	5,117.95

Source: Survey Data (2016/2017)

Cost Structure

4.21. The market for the supply of day old chicks has a high cost structure, therefore to break-even economies of scale are crucial. The Commission established that for firms which hatch their own chicks, the production costs are high as opposed to when the chicks are imported. The start-up costs for the supply of day old chicks include: the cost of land, water, the cost of purchasing the eggs, marketing of day old chicks' equipment, salaries and electricity.

4.22. A new entrant has to either import or hatch the day old chicks, which could be costly for them. It was established that the start-up costs could be approximately E20

million²¹; whilst financial institutions could only offer E1 million. Also, operating costs for this business are high, since the key inputs, namely: the parent stock and fertile eggs (about 70%) are imported. It is the view of the players in the market that importing day old chicks is administratively tiresome²², costly and risk prone. The mortality rate of the chicks is likely to increase while the chicks are in transit. Additionally, since there are no readily available vehicles designed to transport day old chicks, firms have to convert cars and make them suitable for distributing day old chicks.

4.23. Also, due to the cost structure of this market, it is of paramount importance for firms to operate above minimum efficient levels and attain economies of scale.

Entry and Exit Barriers

Entry Barriers

4.24. Under entry barriers, the Commission considered the cost structure, ability to find new customers, and regulatory requirements.

- (i) ***Cost structure:*** There is evidence that the cost of entering and maintaining a business for the supply of day old chicks can be high. From interviews with the existing market players the Research Team found that the start-up costs for a hatching firm can be as high as E20 Million. However even though this is the case the Commission cannot conclude that this amounts to an entry barrier as there have been new entrants in the market proving that indeed determined businesses can enter.
- (ii) ***Ability to find new customers:*** Existing broiler chicken growers have established good relationships with incumbent suppliers of DOCs, such that even though possible, it would be difficult for new entrants to attract existing customers. From the survey that was conducted broiler chicken growers revealed that they trust the quality of DOCs supplied by one of the suppliers in the market, as such it would not be easily for them to switch to other suppliers.

²¹ Interview with Africa Chicks, 20 May 2014

²² This involves declaring the chicks at points of entry, the costs import permits and the costs of veterinary clearance, amongst others.

- (iii) **Regulatory Requirements:** There are no regulatory barriers to entry into the market.

Exit Barriers

- 4.25. Investments in specialized equipment that cannot readily be used in other industries create a barrier to exit the market.

Price Determination and Transmission

- 4.26. The selling price for a day old chick is determined by the sum of all costs incurred in the hatching/importation of DOCs plus mark up. The main cost drivers are the price of the parent stock or eggs, vaccine and labour as well as electricity, feed for the parent stock and water.

- 4.27. This inquiry found that National Chicks and Africa Chicks have two planned price increases per year. This is usually in March and October when the costs of inputs used in the production of day old chicks and demand is said to be high. From a survey conducted at the end of the year 2016, the Commission found that the planned price increases always range between 5% and 10%. The price increases in the same range suggest that there may be conscious parallelism²³ that exist in the market despite that the underlying reason for the price increases is the demand that exists during these months. Other information gathered from South African Feed Millers and NAMBoard confirm that indeed the demand for day old chicks is high during these months. It is the view of the Commission that there is no competition concern with regards to the two planned price increases. In addition, the Commission will monitor this trend in order to detect early any anti-competitive practice that may arise in the long-run.

²³ OECD Definition: Under conditions of oligopoly, the pricing and output actions of one firm have a significant impact upon that of its rivals. Firms may after some period of repeated actions become conscious or aware of this fact and without an explicit agreement coordinate their behaviour as they were engaged in collusive behaviour or a cartel to fix prices and restrict output. The fear that departure from such behaviour may lead to costly price cutting, lower profits and market share instability may further create incentives for firms to maintain such an implicit arrangement amongst themselves.

Countervailing Buyer Power

4.28. The inquiry established that large scale contracted growers and large scale independent growers have countervailing buyer power because they buy in bulk. This is not the case with small scale independent growers as they purchase small quantities of day old chicks and often have irregular orders. We, therefore, conclude that there is countervailing power only for large scale growers²⁴.

Import Competition

4.29. During the period 1996 to 2010, National Chicks was the only supplier of and importer of day old chicks. This was the case until Farm Services entered the market importing and supplying day old chicks in 2011. In 2014, Africa Chicks also entered the market of the supply of day old chicks. At inception stage Africa Chicks imported and supplied day old chicks before beginning to hatch in 2015. It is therefore concluded that there is import competition in the market for the supply of day old chicks.

Exiting independent growers in the broiler growing market

4.30. During the survey some independent growers²⁵ asserted that sometimes they supplied with poor quality chicks and feed. During the Commission's visits at the different sites for the production of day old chicks and feed it was found that the suppliers of day old chicks and feed always supply the same quality to their customers²⁶. The Commission noted that albeit having different types of feed²⁷ there are no differing grades of feed as long as the farmer knows the type of feed he/she wants. Therefore, this market inquiry concludes that the claims were false, since there was no evidence that this is indeed the case. Furthermore, during an interview with National Chicks, the Commission found that the suppliers of day old chicks always use high graded eggs to ensure that the chicks are of a high quality. Due to the nature and the volumes at which the chicks are produced, the Commission is of the view that it would not be worthwhile for the hatcheries to include eggs of poor grade only to sift poor grade chicks afterwards. It would be a daunting process.

²⁴ Large scale contracted growers and large scale independent growers

²⁵ Refer to appendix 9.2

²⁶ 11 November 2017 – Arrowfeeds and FeedMaster, 04 October 2016 – National Chicks Swaziland and Africa Chicks

²⁷ Feed types according to FeedMaster and Arrowfeeds – Classic, Performa and Pinacle feed

Conclusions, competition/general concerns and recommendations

4.31. Table 4.3 below provides the conclusions, competition/general concerns and recommendations.

Table 4.3: Conclusions, competition/general concerns and recommendations

Conclusions	Competition/general concerns	Recommendations
<p>1. The inquiry established that the market for the supply of day old chicks comprise three players, namely; Africa Chicks, National Chicks and Farm Services. Thus, it is concluded that this market is oligopolistic. The market inquiry analysis has taken into account the size of the country and the population which is slightly above million. Therefore, the Commission is of the view that as a result of nature of demand and supply processes in the broiler chicken market, it may be cumbersome for a new entrant to enter and to be sustainable in this market.</p>	None	None
<p>2. The Commission found that customers of Africa Chicks and National Chicks (independent broiler chicken growers) are discontent about the quality of chicks and feed. They are of the view that suppliers of day old chicks and animal feed have at times supplied poor quality products which has resulted in business failure and exit of some</p>	<p>General concern</p> <p>The Commission is concerned that the farmers may not be well trained in the methods and procedures that should be followed when growing the day old chicks.</p>	<p>Farmers should ensure that they are well trained before they venture into the business of broiler growing chicken. These farmers may benefit from the capacity building programs offered by the Ministry of Agriculture.</p>

<p>farmers from the market. Contrary to these allegations, the Commission found that the suppliers of day old chicks and feed always supply the same quality to their customers²⁸.</p> <p>The Commission noted that albeit having different types of feed²⁹ there are no differing grades of feed as long as the farmer knows the type of feed he/she wants. Furthermore, during an interview with National Chicks, the Commission found that before the hatching process can even begin only high graded eggs are used to ensure that the chicks are of high quality. Due to the nature and the volumes at which the chicks are produced, the Commission is of the view that it does not make good business sense for the hatcheries to include eggs of poor grade only.</p>		
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²⁸ 11 November 2017 – Arrowfeeds and FeedMaster, 04 October 2016 – National Chicks Swaziland and Africa Chicks

²⁹ Feed types according to FeedMaster and Arrowfeeds – Classic, Performa and Pinacle feed

5. BROILER CHICKEN GROWING MARKET

Market Definition

Introduction

5.1. Market definition is used to identify the products/ services that are close substitutes for each other and to define the boundaries of competition between firms which compete for such products/ services with a view of identifying the actual competitors that are capable of constraining the behaviour and preventing the firms concerned from behaving independently.

Product description

5.2. In Eswatini broiler chickens are grown from two (2) kinds of breeds namely Abor Acres and the Ross 308. It takes approximately 35 days for broiler chicks to mature into broiler chickens at a live weight of approximately 1.7 kilograms (KG).

Business process

5.3. The broiler growing market is the second level in the broiler chicken market in Eswatini. In this market, broiler growing farmers purchase DOCs from their suppliers (National Chicks, Africa Chicks and Farm Services) and raise them up to maturity, specifically for meat production. The success of the broiler growing business is dependent on adequate provision of good quality feed as a prime source of all nutrients necessary for the entire growth process, clean water and the provision of an appropriate thermal environment throughout the entire broiler growing process. Record keeping is important in this market hence each flock must have records separate from each other.

5.4. Contract broiler chicken growers in Eswatini supply the formal market which comprises of chicken slaughters and processors, while independent growers supply the informal market.

5.5 The Ross 308 and Abor Acres are the two breeds reared in this market due to the fact that they are the only breeds supplied in Eswatini. This is by way of a combination of imports and chicks hatched in the country. The broiler growing process is organised in

3 essential stages. The stages are³⁰: Stage 1 (1 to 10 days); Stage 2: (11 to 25 days); and Stage 3: (26 to 32 days).

5.6. In stage 1, day old chicks are received from the suppliers. At this stage, it is important for the grower to ensure that the DOCs are of the same size and breed for growth monitoring purposes. The poultry shed must be readily installed with brooders-which are used to create heat for the chicks, waterers and feeders put at strategic positions inside the shed, electricity. Furthermore, clean water supply must be available, and labourers must be on sight to monitor the chicks. Chicks are allowed to rest and provided with starter feed. The internal poultry shed temperature must be set at 32°C³¹ and the shed be sealed off in order not to allow air from outside to circulate inside the shed. Temperature control is important throughout all the stages. Each passing day, temperature is reduced, such that it must be 27°C by day 10. This is also dependent on prevailing weather conditions and external temperature. Chicks are provided with starter feed and water mixed with nutrient supplements to enhance growth and improve metabolism. Starter feed is in mash form for ease of digestion. As chicks grow, feeders are lifted to their neck height. This is done to monitor their growth as it assists to identify chicks that are not growing well and to minimise feed wasted through poking during feeding. There is a general principle in chicken rearing that culls should at most be 10% of the entire flock³². Chick culls are chicks that generally have defects and cannot reach their growth potential. It is normal for a flock to have cull chicks due to some errors that may have occurred at the market for day old chicks level. Cull chicks are removed from the entire flock and killed because it is a waste to continue feeding them. In as much as the hatcheries submit that they vaccinate day old chicks before distributing them, as a control measure broiler growing farmers also vaccinate chicks against Infectious Bronchitis at day 10³³.

5.7. Stage 2 is from day 11 to 25. At this stage, chicks are fed with grower feed which is in pellet form. The chicks begin to develop feathers and because of that their bodies start to generate heat. On a hot day, the feed is reduced because it generates heat which increases body temperature thus they may die due to the heat. The temperature on such days is controlled by partially opening poultry sheds in order to allow air from outside to circulate. The feed is increased when the temperature declines. Large scale

³⁰ Interview held with Umbuluzi Farm Chicken on 1 June 2014.

³¹ Interview held with Phineas Nkambule in 3 June 2014. Also interview held with Umbuluzi Farm Chicken on 1 June 2014.

³² Interview with farmers in the broiler chicken's industry: JM, Nkambule, May 2014.

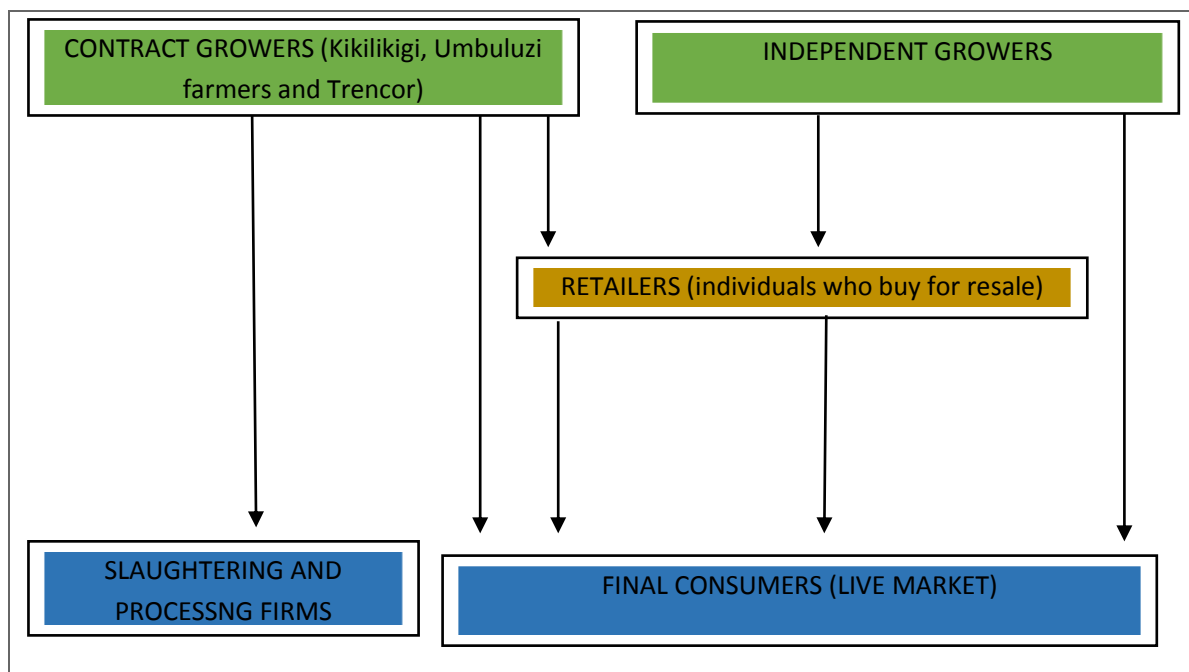
broiler growing farmers use wind fans to blow off hot air from poultry sheds. When it is cold, farmers use brooders to generate heat and avoid deaths that may be associated with under heating. On day 14, chicks are further vaccinated against Newcastle disease. This vaccination serves as a control measure in addition to that which was administered by the hatchery. They are then allowed to develop throughout this stage.

5.8. Stage 3 is maturity and withdrawal. This stage takes place from day 26 up to day 35, a period in which chicks mature to chickens. The chickens in stage 3 are supplied with finisher feed. At day 35, chickens are expected have reached maturity. Matured chickens weigh about 1.7kg (live weight) and this weight is preferred by processors and consumers³⁴. The last 2 days, that is day 34 and 35, are called the withdrawal phase. During this phase, chickens are neither vaccinated nor fed. They are ready for the market, thus feeding can make them overweight and unattractive to processors as well as unnecessarily increase farmers feed costs. Matured chickens are sold as live chickens, either to the informal/live market where the business process ends or to the formal market for slaughtering and processing before they are distributed to retailers. Once all chickens have been sold, the sheds are cleaned, disinfected and prepared for the next flock. A new flock can be received at least after the 10th day³⁵.

5.9. There are two types of customers for this market; the formal market and the informal market. The formal market is made up of slaughtering and processing firms, who process chickens into chicken meat and on sell to retailers. The formal market is supplied by large scale broiler growing farmers. They usually enter into a supply agreement with processors. A significant amount of their produce is supplied to processors and only small quantities to the informal market. On the other hand, the informal market is made up of farmers that sell matured chickens in the live market direct or indirectly to consumers. This is shown in Figure 5.1, below.

³⁴ Ibid

³⁵ Interview held with Umbuluzi Farm Chicken on 1 June 2014.

Figure 5.1: Broiler Growing Market

Source: Survey Data

5.10. The growing market is divided into two segments, namely: contract growers and independent growers. Table 5.1 illustrates the different characteristics for the two segments.

Table 5.1: Contract and Independent growers

Contract growers	Independent growers
Produce at least 200 000 chickens per cycle	Produce less than 200 000 chickens per cycle
Supply slaughtering and processing market (formal market) based on a supply contract	Supply the informal or live market (consumers), no supply contract
Have shares in the processors they supply	Do not have shares in the processors
Selling price for chickens agreed by way of meeting with processors	Selling price for chickens determined by market forces

Source: Survey Data (2016/2017)

Substitutability

5.11. In determining the degree substitutability, we considered whether customers would readily switch to available meat supplied by other players in response to a hypothetical small (5-10%) but significant non-transitory increase in price ("SSNIP") in the products considered in this market.

Demand Substitutability

5.12. The inquiry established that other meat types that can serve as substitutes for broiler chicken meat are turkey, traditional broiler chickens, beef, pork, goat meat and mutton. However, since the other types of meat are expensive, the white broiler chicken meat is price inelastic. Also, the broiler chicken processors cannot substitute broiler chickens for anything else. Therefore, it is concluded that there is no substitute for the broiler chicken, as such there is no demand substitutability. This also holds in the case of the live market, there is no demand substitutability.

Supply Substitutability

5.13. There is no supply substitutability mainly because the broiler chicken growers are shareholders of the broiler chicken processing firms. However, in the live market there is supply substitutability as there is a large number of broiler chicken growers.

Geographical market

5.14. Matured broiler chickens are sold to slaughtering and processing firms and to the informal market. Therefore, the supply of broiler chickens is nationwide.

Relevant Market

5.15. The relevant market is the supply of matured broiler chickens in Eswatini.

Market Structure




Number of Firms

5.16. As stated under the market definition the growing market is divided into two segments namely: contract growers and independent growers.

- (i). Segment 1: There are three players in the broiler growing market (contract growers), namely: Kikilikigi, 5 Shareholders of Umbuluzi Farm Chicken and Trencor Investment. As shown in Table 5.2 below, Swaziland Poultry Processors is supplied by Kikilikigi. Umbuluzi Farm Chickens is supplied by 5 broiler chicken growers who are also shareholders³⁶. Trencor Investment is also involved in the broiler growing market. As a result of the small number of players in the formal broiler growing, the Commission therefore concludes that the broiler chicken growing market is oligopolistic in nature. Table 5.2 below shows how the contract broiler growers in the formal market are organized.

³⁶ Interview held with Umbuluzi Farm Chicken on 1 June 2014.

Table 5.2: Contract broiler growing farmers in the formal market

Processor: Swaziland Poultry Processors	Processor: Umbuluzi Farm Chicken	Processor: Trenchor Investment
		
Kikilikigi	Shareholder Firms	Trenchor Investment
1. Aaron Dlamini	1. SK Trading (Pty) Ltd (Craig Garrell)	Trenchor Investment
2. Buhle	2. Scotts Ranch (John Morris)	
3. Emerald Hill	3. Mafutseni Ranch (Rowen Howe)	
4. Infinity	4. Panata Ranch (Nico Coetzee)	
5. LA Hulley	5. Black Duke Farm (Nick Van Rensburg)	
6. Mandla Sibandze	6. Mgunyana Poultry (Sipho Mamba)	
7. Ngwane Poultry	7. Bheki Dlamini	
8. Nhleko		
9. Prosperity Poultry		
10. Tinkhukhu Farms		
11. Musa Simelane		
12. Phineas Nkambule		
13. Victor Shongwe		
14. White City		

Source: Ministry of Agriculture³⁷, and various interviews with broiler growing farmers (2016)

Notes: As at December 2016, broiler growing firms that are highlighted had already exited the market.

- (ii). Segment 2: This group comprises of all independent growers, small scale and large scale that produce broilers chickens independently and irregularly.

Market Shares

5.17. The market shares for segment 1 of the broiler growing market were computed based on output volumes, as shown in table 5.3, below. The calculated shares below reflect information obtained from contract growers.

³⁷ Letter received from Ministry of Agriculture, Animal Department, Poultry Section on 9 June 2016.

Table 5.3: Estimated market shares for the contract growing segment in the market

	2012	2013	2014	2015	2016
Umbuluzi Farm Chickens	30.13%	32%	30.39%	28.73%	26.76%
Kikilikiki	54.23%	62.47%	59.31%	58.83%	61.,66%
Trencor Investment	15.65%	5.54%	10.31%	12.447%	11.58%
Total	100,000%	100,000%	100,000%	100,000%	100,000%

Source: Survey Data (2016/2017)

5.18. Market shares for Kikilikiki increased between 2012 and 2016. The shares for the 5 Shareholders of Umbuluzi Farm Chicken, Trencor had been volatile for the period 2012 to 2016.

5.19. Despite that there are a number of players in segment 2, the Commission was not able to source data from the growers, reason being that players do not keep records³⁸. Therefore, the market shares for segment 2 could not be calculated.

Level of Concentration

5.20. Herfindahl-Hirschman Index (HHI) was used to determine the level of concentration in this market. Whilst the HHI is considered as a credible approach to calculate the level of concentration, the Commission is cognisant of the fact that Eswatini is a small economy; such that the HHI was used together with the centration ratio to measure the level of competition.

5.21. For segment 1 of the market, between 2012 and 2016, the HHI for the broiler growing market increased from 4,092.86 to 4,652.16, in 2013 it reached a high of 4,956.6. This is an indication that the formal market of the broiler chicken growing is concentrated. This is further confirmed by the concentration ratio (CR) of the same market. The average CR during the period under investigation was 88.9% for the 3 leading firms. Based on the results of the HHI and the CR, we conclude that the contract broiler growing market is concentrated, as depicted by Table 5.4, below. Similar to the market for the supply of day old chicks, the Commission is of the view that these concentration levels should be viewed with caution for Eswatini since the country has not yet developed its own thresholds for assessing / analysing concentration. It is the view of

³⁸ There are, however, some notable big players such as Van Kirk, Bouwer, Mashasha Dlamini, and Mr Nkambule, who are independent growers supplying the informal/live market.

the Commission that given the size of the country and the nature of the market a new business would not be sustainable in this market.

Table 5.4: Concentration Levels

Years	Umbuluzi Farm Chickens	Kikilikiki	HHI	CR2
2012	30,125%	54,228%	4092,985	84.35%
2013	31,991%	62,470%	4956,603	94.46%
2014	30,386%	59,306%	4546,785	89.69%
2015	28,732%	58,831%	4441,289	87.56%
2016	26,757%	61,661%	4652,163	88.42%

Source: Survey data (2016/2017)

Cost Structure

5.22. Starting a broiler growing firm requires start-up capital and a budget for the operations. The inquiry established that farmers acquire loans from banks or other lenders for start-up costs. The start-up cost of a broiler chicken firm varies with the size, and the facilities required for the firm. The cost varies depending on the design, location, equipment required, and the cost of land.

5.23. A firm whose production capacity is about 20 000 chickens per cycle requires approximately E2 million capital outlay for procuring equipment and infrastructure development³⁹. Also broiler growers should also have an isolated area to dispose the waste material without causing any health or environmental risks. This is critical for the formal broiler growers.

5.24. In addition, producers incur both variable and fixed costs. Variable costs include the cost of electricity, water, equipment, house cleanout, building repairs and telephones. Fixed costs include the cost of salaries, insurance, taxes, and land charges.

Entry and Exit Barriers

Entry Barriers

(i) **Cost Structure:** The inquiry found that entry into the broiler growing market requires the entrant to have land, setup infrastructure, clean water, electricity, labourers and security. The high initial capital investment (approximately E2

³⁹ Interview held with Umbuluzi Farm Chicken on 1 June 2014.

million) for 20 000 chicken production may become a barrier to entry for small players who do not qualify to get financing up to that amount. Financial institutions are always ready to finance players in this market; however, the main setback for potential entrants could be lack of collateral for the amount of capital required and the ability to meet the requirements set by the financial institutions, such as a sound business plan.

(ii) Regulatory barriers to entry: there are no regulatory standards that must be satisfied by a potential entrant before entering the market.

Exit Barriers

5.25. Due to the high sunk costs that are put in towards infrastructure development, there are exit barriers.

Price Determination and Transmission

5.26. The difference in terms of output between contract and independent growers has an effect on the selling price and the functioning of the entire broiler chicken market. The selling price for a broiler chicken (average price per kilogram) is determined as a sum of all costs incurred during growing and processing and a markup added. As stated above, the farming cost structure comprises of DOCs, chicken feed, water, electricity, vaccination, labour, and other inputs. The market inquiry established that about 75% of fluctuation in price is driven by the costs of day old chicks and the other 25% accounts for variable costs such as electricity, labour, and security, amongst others. Changes in DOCs costs (upstream) are transmitted asymmetrically, triggering an upsurge of prices downstream. It is worth noting that the cost structure is almost identical for both contract and independent growers; however, the markup determined between the two is significantly different.

5.27. There is a tripartite arrangement between broiler growers, slaughtering and processing firms and feed millers. Contract growers agree on the selling price per kilogram for their chickens with processors, whereas independent growers set their own prices depending on the prevailing demand and supply forces in the market. The pricing formula is made up of the net cost price including mark-up. Contract broiler growers are usually paid according to the weight of their broiler chickens. The mark up margin is usually about 10%. Farmers are concerned about the small margin in this

market⁴⁰. Although they would desire more, they are price takers and the slaughtering and processing firms are price setters. Attaining economies of scale is essential for the broiler growing as “they are more successful in reducing the unit cost of production when they increase production capacity⁴¹.”

5.28. Prices in the informal market usually tend to be higher as compared to prices agreed with processors in the formal market. This is mainly attributed to the fact that contract growers have a guaranteed market as they have legal binding contracts with the processors. Also, the formal market tends to absorb large capacities of chickens which allow the farmers to have a constant and reliable market. Consumers in the informal market are usually price takers. For the year 2016, independent farmers charged an average selling price of E45 per live chicken in the informal market. Contrary, the price of contract growers hovered between E28 and E35.

5.29. Kikilikigi convenes meetings with the farmers to discuss and agree on price. Kikilikigi's shareholders set price which prevails for the entire duration of a cycle until all farmers exhaust their supply for the cycle. A similar arrangement exists with Umbuluzi Farm Chicken growers.

Existing Contractual Arrangements

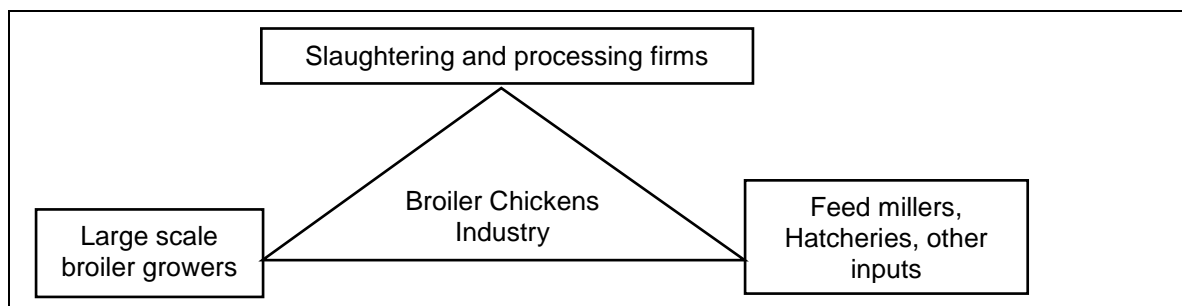
5.30. The key elements of the existing arrangement in the broiler growing market are discussed below.

Tripartite Arrangement

5.31. There is a tripartite arrangement that exists between contract growers, slaughtering and processing firms and feed millers. Both National Chicks and Africa Chicks provide chicks and animal feed. Figure 5.2 illustrates a prototype of the tripartite arrangement.

⁴⁰ Ibid

⁴¹ Interview held with Umbuluzi Farm Chicken on 1 June 2014.

Figure 5.2: The Tripartite Arrangement in the Broiler Chicken Market

Source: Survey data (2016/2017)

Contracts between contract growers and processors

5.32. Broiler chicken growers under Umbuluzi Farm Chicken and Swaziland Poultry Processors have supply contracts. Details on the contracts were not availed by players under Umbuluzi Farm Chicken.

5.33. With regards to Swaziland Poultry Processors, the inquiry uncovered that the firm issues contracts to broiler farmers. Existing farmers were initially required to adhere to the following conditions before they were afforded contract-

- (i) the farmer must be situated at an area accessible to Swaziland Poultry Processors and National Chicks (not more than 30 km) to minimize costs of transport.
- (ii) the farmer must prepare the poultry house that can accommodate at least 5,000 chickens per cycle.
- (iii) farmers are expected to formally apply to Swaziland Poultry Processors indicating interest in working with the company;
- (iv) the floor must be cemented, there must be curtains to prevent rain and also allow ventilation, there must be enough equipment for feeding;
- (v) once the structure is completed, it is inspected before the farmer can sign a contract with Swaziland Poultry Processors.

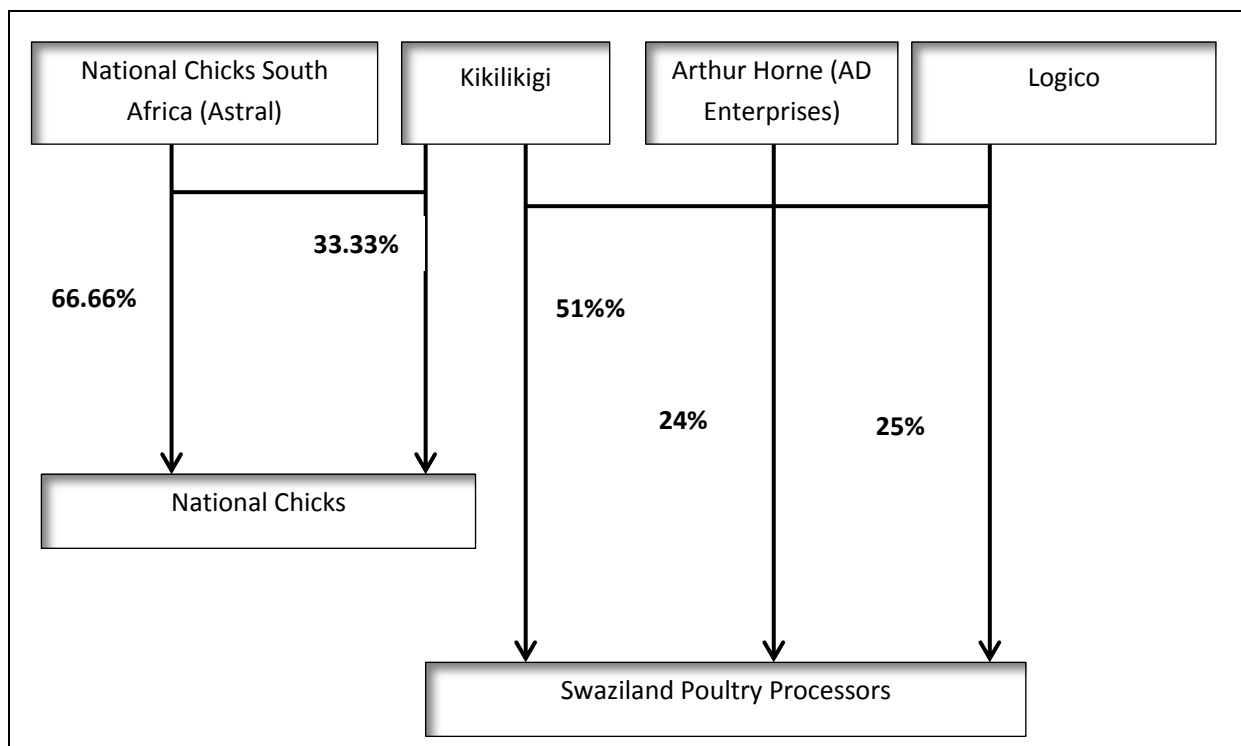
5.34. Farmers who are in contracts are eligible to acquire at National Chicks day old chicks, feed and medication for the chicks. Feed and vaccines are provided until the chickens become 32 days old. There is an expert from National Chick who does regular visits to large broiler growers. Information gathered depicts that, when the chickens are ready for slaughter at 35 days they are collected from the growers. Despite that such an arrangement provides a sustainable market for the players under Swaziland Poultry

Processors it remains a cause for concern because it forms an artificial barrier to access processing firms for non-shareholders.

- 5.35. The contracts assist processors to know the number of chickens that they will receive in any given cycle. Processors are further able to plan their slaughtering and processing schedules. Farmers are assured that their chickens will receive market access as the contracts are binding for the processors to buy the chickens.

Integrated ownership and its effects

- 5.36. Integrated ownership in its natural existence does not raise anti-competitive concerns. Integrated ownership can either be in the same market or not in the same market. However, integrated ownership arrangements have the potential to be a vehicle for anti-competitive practice. Mark (2001) and Ogishima and Kobayashi (2002) asserts that integrated ownership can create a relationship of conspiracy thus making business inefficient. This is especially in the broiler chicken market, where there are three integrated firms, which is creates a conducive environment for anti-competitive behavior.
- 5.37. Figure 5.3, below, indicates that Kikilikigi has 51% shares in Swaziland Poultry Processors and another 33% at National Chicks. Both Swaziland Poultry Processors and National Chicks have zero shares in Kikilikigi. Figure 5.3 illustrates the integrated ownership that exists in the market.

Figure 5.3: Share ownership at Swaziland Poultry Processors and National Chicks

Source: Survey data (2016/2017)

5.38. SPP and Umbuluzi farm chickens have an intermediary role to design and coordinate placing schedules with contract growers. Through this arrangement, the contract growers have control of the functioning of the broiler chicken growing market. The control is implemented and monitored through appointing a person that represents Kikilikigi at the board of directors for both National Chicks and Swaziland Poultry Processors.

5.39. Our findings are that Kikilikigi is an association registered and incorporated in terms of the Swaziland Companies Act⁴². Kikilikigi is made up of 10 large scale broiler growing farmers that have supply contracts with Swaziland Poultry Processors (SPP). Worth noting is that the Commission found that shareholders of Kikilikigi are not allowed to sell shares to non-members or non-shareholders. This practice is anti-competitive. The rationale for the formation of Kikilikigi includes⁴³-

- (i) accessing capital (loans), which is used to finance the broiler growing and slaughtering and processing businesses;

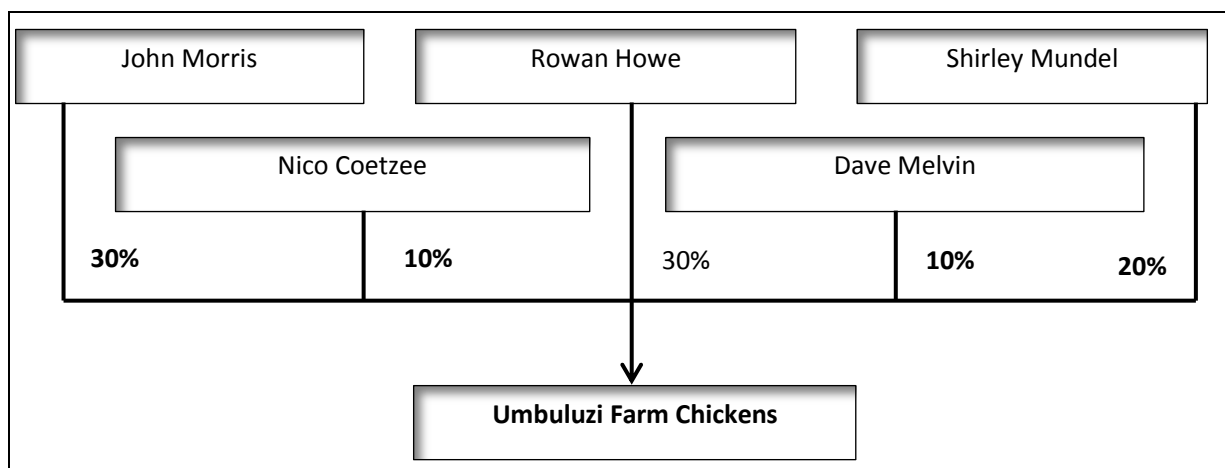
⁴² Kikilikigi (Pty) Ltd Form J lodged on 9 June 2014.

⁴³ Interview held with Richard Hulley on 28 August 2014.

- (ii) facilitating acquisition of inputs such as feed and vaccinations through favourable terms of trade, in particular, credit facilities; and
- (iii) facilitating acquisition of issued shares in slaughtering and processing companies through joint financing and risk sharing.
- (iv) The shares held by the 10 farmers at Kikilikigi (see Appendix 2) are a proxy of the farmers' production capacity

5.40. Umbuluzi Farm Chickens has five shareholders, namely John Morris (30% shares), Rowan Howe (30% shares), Shirley Mundel (20% shares), Nico Coetzee (10% shares). The contract growers of Umbuluzi Farm Chickens are also shareholders of the same company refer to Figure 5.4, below.

Figure 5.4: Share ownership at Umbuluzi Farm Chickens



Source: Survey Results

5.41. There were no anti-competitive concerns identified in the informal market. The only challenge for independent growers is that contract broiler growers (such as Umbuluzi Farm Chickens) also supply the live market with chickens at a price lower than what the independent growers charge. This promotes competition in the market and increases consumer welfare, however, it affects the independent growers because their costs of production are higher since they are not able to benefit from economies of scale, as they cannot buy in bulk.

5.42. The Commission further notes that the practice of contract growing is not unique to Eswatini as it is followed in other countries such as Brazil, Zimbabwe, Zambia and South Africa. In addition, the inquiry found that contracts are necessary in the broiler

growing market because the business cannot be guaranteed by sporadic supply of broiler chickens since time is of the essence.

5.43. It is the view of independent broiler growers that the selling price for chickens in the live market is good but the presence of contracted growers tends to affect them. Information gathered suggests that independent growers are unable to compete on price with the contracted growers. Contracted growers are able to price their chickens lower than independent growers, mainly because of benefits derived from economies of scale. The conduct of selling in the live market by the contracted growers could result in a high number of independent growers exiting the broiler growing market.

Countervailing Buyer Power

5.44. There are two types of customers in this market, namely: the formal market which is made up of slaughtering and processing firms, and the informal market – live market made up of individual consumers. The formal market is supplied by contract broiler growing farmers, who usually enter into supply agreements with slaughtering and processing firms.

5.45. The processors have countervailing buyer power as they are big, and they can negotiate prices with the contract broiler growers. However, the processors are integrated with the growers; as such, prices between processors and growers are discussed prior. On the other hand, consumers in the live market can always negotiate prices, especially when it is hot and the farmers are concerned about the high rate of mortality caused by the heat.

Import Competition

5.46. There is no import competition in this market since slaughtering and processing firms do not import live broiler chickens. This is the case even with the live market.

Conclusions, competition/general concerns and recommendations

5.47. Table 5.5 below provides the conclusions, competition/general concerns and recommendations.

Table 5.5: Conclusions, competition/general concerns and recommendations

Conclusions	Competition/general concerns	Recommendations
<p>1. The inquiry found that the growing market is divided into sub-markets, namely: contract growers; and independent growers. There are three major players in the broiler growing market (contract growers), namely: Kikilikigi, 5 Shareholders of Umbuluzi Farm Chicken and Trencor Investment. The Commission concludes that there are no significant barriers to entry except that new prospective entrants will have to face inherent costs of start-up and doing business in this market.</p>	None	None
<p><u>Sub-market 1 – Contract growers</u></p> <p>2. The Commission found that in this sub-market members / shareholders of Kikilikigi are not allowed to sell shares to non-members / non-shareholders. The Commission found that both existing members and ex-farmers are discontent with the procedures followed when the shares are sold as they claim there is no transparency.</p>	<p>The Commission is concerned that this conduct may be anti-competitive as the shares are not openly sold to the public. This forecloses new entrants into the business.</p>	<p>Kikilikigi should cease and desist from compelling existing shareholders to sell their shares to existing shareholders only. It is the view of the Commission that shares should be openly sold to the public; only if this fails can they be sold to existing shareholders.</p>
<p>3. The Commission established that contract growers are mostly shareholders of the processing firms. They mainly produce and supply processing firms according to set quotas which are mainly proportional to their</p>	None	None

<p>shares. They however compete with players in sub-market two as they also supply the live market with chickens. The Commission further notes that the practice of contract growing is not unique to the country as it is used in other countries such as Brazil, Zimbabwe, Zambia and South Africa.</p>		
<p><u>Sub-market 2 – Independent growers</u></p> <p>4. The Commission found that firms in sub-market 2 compete with firms in sub-market 1. The Commission established that firms/individuals in sub-market two only supply the live market. These firms/individuals are not consistent in growing their chickens. They mostly grow chicken during peak periods such as during Easters and during the festive season.</p> <p>Furthermore, the Commission noted that players under sub-market 2 are not enjoying similar benefits enjoyed by players under sub-market 1 since they do not buy in bulk. These benefits include discounts and even the opportunity to be supplied with inputs on credit. There are no competition issues in this sub-market. It is the view of the Commission that the presence of sub-market 1 in the</p>	None	None

live market stimulates competition.		
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6. SLAUGHTERING AND PROCESSING MARKET

Market Definition

Introduction

6.1. Market definition is used to identify the products/ services that are close substitutes for each other and to define the boundaries of competition between firms which compete for such products/ services with a view of identifying the actual competitors that are capable of constraining the behaviour and preventing the firms concerned from behaving independently.

Product description

6.2. In Eswatini the slaughtering and processing firms are involved in the slaughtering and processing of broiler chicken meat. The processing of broiler chicken meat involves, processing of portions, breast, thigh fillets, strips, burgers, viennas and polony. The most common products of the slaughtering and processing firms are the chicken portions, which are normally packaged in 5 kilograms (kg), 2 kg, and 1.8 kg packages.

Business Process

6.3. Players in this market are in a business of slaughtering and processing broiler chickens into meat. Firms active in this market receive live matured broiler chickens that are 35 days old and weigh about 1.7 kilograms from broiler growing farmers⁴⁴.

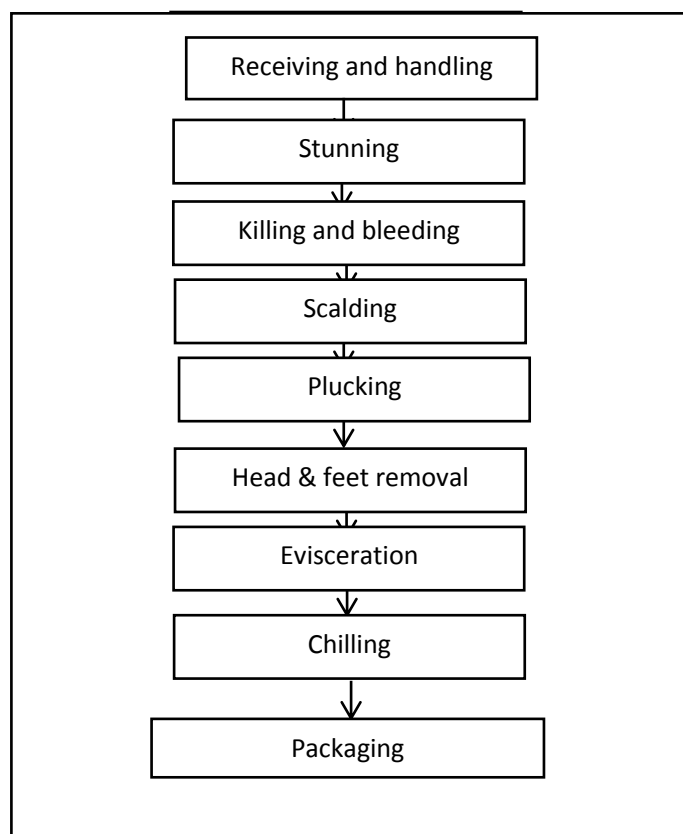
6.4. Prior to slaughtering and processing, several steps are taken to prepare the live birds. The most important part before these steps are undertaken is to remove feed 8 hours before slaughter. Feed withdrawal is important to reduce gastrointestinal contents within the bird, which reduces the chance of ingesta or fecal contamination during processing.

6.5. There are 9 steps in the slaughtering and processing of broiler chickens and these are illustrated in Figure 6.1 below. All the steps are important for producing high quality

⁴⁴ Interview with Umbuluzi Farm Chickens on 10th June 2014.

chicken meat and preventing the spread of infections which may have been contracted when receiving chickens from broiler growing farmers.

Figure 6.1: Steps in the Slaughtering and Processing of broiler chickens



Source: *Handbook of poultry science and technology*⁴⁵

6.6. As illustrated in Figure 6.1, the first step is receiving and handling live chickens. Chickens are sensitive to noise pollution hence noise control is essential during receiving and handling. Noise that is too loud raises the blood temperature for broiler chickens thus negatively affecting the meat by making it darker. The chickens are manually inspected on their physical appearance for signs of infections, a process called ante-mortem inspection. During ante-mortem inspection, chickens must be handled with care in order to minimise stress and avoid possible injury. After inspection, chickens are stunned and subsequently killed. Stunning is a process that renders an animal immobile or unconscious, without killing it.⁴⁶ This process makes the

⁴⁵ Guerrero-Legarreta. (2010:80). *Handbook of poultry science and technology: primary processing*. Volume 1. New Jersey: John Wiley & Sons.
<https://www.google.com/#q=+Handbook+of+poultry+science+and+technology:+primary+processing.+Volume+1.+New+Jersey:+John+Wiley+%26+Sons>. Accessed on 10 October 2014 at 10H45.

⁴⁶ Guerrero-Legarreta. (2010:80). *Handbook of poultry science and technology: primary processing*. Volume 1. New Jersey: John Wiley & Sons.

chickens unconscious thereby preparing them for killing. Manual or automated poultry scissors are used to sever the neck instantly killing chickens by cutting the throat, trachea and gullet. It is recommended that chickens are killed within 30 seconds after stunning so to preserve meat quality.⁴⁷ Immediately after killing, the carcass is allowed to bleed. Bleeding removes deoxygenated blood from the carcass. Per carcass, bleeding must take place within 200 seconds after killing. This also preserves meat quality. When bleeding takes more than 200 seconds, carcass becomes harder and subsequently meat darker thus deteriorating its quality.

- 6.7. The next step is scalding. Scalding is submerging carcass in hot water and preparing it for plucking.⁴⁸ Broiler chickens are semi-scald, meaning that they are submerged in water with temperature ranging between 51°C to 53°C for duration of at least 60 seconds to a maximum of 210 seconds. Temperature above 53°C removes the yellow pigment from the skin thus damaging the outer layer making meat unattractive to consumers. On the contrary, temperature below 51°C will not enable complete removal of feathers thus meat becoming unattractive to consumers.
- 6.8. After scalding, follows plucking. Plucking is the removal of feathers using a plucking machine. It takes between 60 to 90 seconds to pluck each carcass. Plucked carcasses are thereafter washed twice, first with warm water and lastly cold water. Warm water is used to remove fat from carcass that could be contracted from plucking fingers as well as removing minor feather coatings that may not have been completely removed during plucking. Thereafter, cold water is used to lower carcass temperature thus preparing it for hanging. The carcass is then hanged onto an evisceration line where the head, neck and feet are removed, thereafter evisceration takes place.
- 6.9. Evisceration is the process of opening the body cavity and withdrawing the viscera. Viscera include intestines, gizzard, gallbladder, heart and crop. It is drawn out of the body cavity either by hands or automated evisceration forks. The viscera, head, neck and feet are cleaned, packaged and prepared for distribution. Eviscerated carcass is then cleaned with cold water preparing it for chilling.

<https://www.google.com/#q=+Handbook+of+poultry+science+and+technology:+primary+processing+Volume+1+New+Jersey:+John+Wiley+%26+Sons>. Accessed on 10 October 2014 at 10H45.

⁴⁷ Guerrero-Legarreta. (2010:80). Handbook of poultry science and technology: primary processing. Volume 1. New Jersey: John Wiley & Sons.

<https://www.google.com/#q=+Handbook+of+poultry+science+and+technology:+primary+processing+Volume+1+New+Jersey:+John+Wiley+%26+Sons>. Accessed on 10 October 2014 at 10H45.

⁴⁸ Interview with National Chicks held on 4 August 2014.

6.10. Chilling entails storing the carcass in blast freezers so that it becomes harder enabling easy cutting of chickens portions and prolonged meat quality.

6.11. Packaging is the last step under slaughtering and processing and it is where broiler chicken meat is made ready for distribution. It is packaged either as whole birds or chicken portions. Chicken portions can further be processed to produce chicken breast, thighs fillets, chicken strips, chicken burgers, chicken viennas and chicken polony.

Substitutability

6.12. In determining the degree of substitutability we considered whether customers would readily switch to available meat supplied by other players in response to a hypothetical small (5-10%) but significant non-transitory increase in price ("SSNIP") in the products considered in this market.

Demand substitutability

6.13. The inquiry established that other meat types that can serve as substitutes for broiler chicken meat are turkey, traditional broiler chickens, beef, pork, goat meat and mutton. However, the other types of meat are expensive on comparison to the white broiler chicken meat. Further, the white broiler chicken meat is price inelastic. Also, supermarkets, KFC, Nandos, Galittos, Futis, and other food outlets-which specialise in broiler chicken meat-are major customers of the slaughtering and processing firms. These customers would not be able to switch from broiler chicken meat to other types of meat. Therefore, it is concluded that the processed broiler chicken meat is an imperfect substitute for other meats, as such there is no demand substitutability.

Supply substitutability

6.14. There is no firm that can readily supply broiler chicken meat at the scale that the existing customers need in a case of the SNNIP. The small scale processors do not have the capacity to meet the demand from emanating from the large chicken outlets. As such, there is no supply substitutability.

Geographic Market

6.15. The geographic market is the supply of processed broiler chicken meat products to different retail outlets in Eswatini.

Relevant Market

6.16. The relevant market is the supply of processed chicken meat products in Eswatini.

Market Structure

Number of firms

6.17. As at December 2016, there were twelve (12) slaughtering and processing firms which supply different customers ranging from wholesalers, large retail stores to small local butcheries. The firms are located in 3 regions namely: Manzini, Hhohho and Shiselweni regions. The slaughtering and processing market is made up of few firms with high market shares, thus oligopolistic. Table 6.1 below shows the players in the slaughtering and processing market.

6.18. There are two segments of the slaughtering and processing firms. Segment 1 are large scale processors and segment 2 are small scale processors.

(i) Segment 1: There are three players in the slaughter and processing of broiler meat, these are: Swaziland Poultry Processor; Umbuluzi Farm Chickens; and Trencor Investments.

(ii) Segment 2: There are nine (9) players in this segment as presented in table 6.1, below.

Table 6.1: Firms in the Slaughtering and Processing market

Manzini Region		Hhohho Region		Shiselweni Region	
Firm/Farmer	Location	Firm/Farmer	Location	Firm/Farmer	Location
Swaziland Poultry Processors	Matsapha	Trencor Investment	Hawane	Mashesha Dlamini	Qinisweni
Umbuluzi	Mafutseni	Lima Farm	Hawane	Hill Investment	Ndubazi

Farm Chickens					
Temashinga Poultry	Ticantfwini	Philani Poultry	Lamgabhi	Fuyani Poultry Cooperative	Nhlangano
Ngwempisi RDA	Ngwempisi			Mr Bower	Nzongomane
Patricia Ngozo	Bhekinkhosi				

Source: Survey Data (2016/2017)

Market Shares

6.19. Table 6.2 shows that Swaziland Poultry Processors is the largest producer of chicken meat over period 2009 to 2015. The firm's market share ranged from 60.45% moderately increasing to 66%. Umbuluzi Farm Chickens is the second largest in terms of output volume and it had an average of 34.18% of the market share in the period between 2009 and 2015. In 2009 the firm's market share stood at 34%, rising to a peak of 35% in 2010 and 2011. A decline was experienced in 2013 as the firm's market share dwindled to 33% and later settled at 34.29%. However, in 2010 and 2011 the market shares for Umbuluzi Farm Chicken reached a peak of 35%. Trenchor Investment held 3% market share in 2009 and 2010. The firm's market share decreased to 2% in 2011 and later fluctuated but maintaining an upward trend reaching 5.27% in 2015, as indicated in Table 6.2, below.

(i) *Segment 1 (large scale processors)*: The estimated market shares for segment 1 (Swaziland Poultry Processors, Umbuluzi Farm Chickens and Trenchor Investment) are shown in Table 6.2 below. Market shares were calculated based on output volumes.

Table 6.2: Estimated Market Shares for the Slaughtering and Processing market

Name of firm	2009	2010	2011	2012	2013	2014	2015
Swaziland Poultry Processors	63%	62 %	62 %	66 %	63%	61 %	60.45%
Umbuluzi Farm	34 %	35 %	35 %	34 %	34 %	33 %	34.29%

Trencor investments	3 %	3 %	2 %	4 %	3 %	6 %	5.27%
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Source: Survey data (2016/2017)

- (ii) *Segment 2:* Market shares for this segment could not be computed due to various reasons, such as lack of data from the players⁴⁹ and irregularities in production.

The only data at our disposal is for Mercy of God farm and Idah Hill abattoirs, who slaughtered **[Information Removed – Confidential]**, respectively.

Level of concentration

6.20. The Herfindahl-Hirschman Index (HHI) was used to determine the level of concentration for segment 1 of this market. Whilst the HHI is considered as a credible approach to calculate the level of concentration, the Commission is cognisant as highlighted under the market for the supply of day old chicks and the broiler growing market, of the fact that Eswatini is a small economy and has not developed its own benchmarks for assessing / analysing concentration levels; therefore, the HHI results should be used with caution.

Table 6.3: Estimated Market Shares for the Slaughtering and Processing market

Name of firm	2009	2010	2011	2012	2013	2014	2015
Swaziland Poultry Processors	63.47%	62.42%	62.07%	62.26%	62.66%	61.39%	60.45%
Umbuluzi Farm	33.54%	35.01%	35.44%	33.09%	34.24%	32.87%	34.29%
Trencor investments	3.02%	2.57%	2.49%	3.65%	3.10%	5.74%	5.27%
HHI	5,160	5,129	5,115	5110	5,108	4,882	4,857
Concentration Ratio (CR 2)	96.98	97.43	97.51	96.35	96.90	94.26	94.73

Source: Survey results (2016)

6.21. Between 2009 and 2015, the HHI for the slaughtering and processing decreased from 5,160 in 2009 to 4,857 in 2015. As shown in Table 6.3, above, the HHI remained above 4,000, an indication that the slaughtering and processing market for segment 1 is concentrated. This is further confirmed by the concentration ratio (CR) of the same market. The CR during the period under investigation ranged between 97.51 and 94.26. However even though these results depict concentration, as already pointed out

⁴⁹ Failure to keep records for production volumes and financials.

the Commission is cautious about concluding as such because we do not believe that a new firm would enter this market successfully.

Cost Structure

6.22. A firm with a capacity to slaughter and process 13,000 chickens per day, requires approximately E25 million capital expenditure⁵⁰. The success of firms in this market is dependent on the reliability supply of equipment and expertise, consistent supply of broiler chickens and adherence to regulatory requirements.

Entry and Exit Barriers

Entry Barriers

6.23. Potential entrants are required to conduct an environmental impact assessment, register a company and comply with statutes and regulation of the market, as well as sanitary and phytosanitary requirements. Also, as already stated above, for a firm to be able to slaughter and process 13 000 chickens per day, approximately E25 million is required as capital⁵¹. It was also established that additional costs are incurred when importing slaughter and processing equipment. This increases operating costs, which in turn adds on the high cost structure of the market. Even though this market has a high cost structure, lenders make financial support available to firms in this market. The high cost structure, therefore, create a barrier to entry, as it would not be easy for business to get financing of that amount. In the case of small scale slaughtering and processing firms, collateral was cited to be the main challenge. Also, finding suppliers might prove to be a challenge, as most large scale growers are already contracted by existing slaughtering and processing firms.

6.24. The results also indicate that there has been no new entrant in this market for the period 2009 to 2016. Furthermore, it was noted from the survey results that there was little expansion for the small scale processors, even those who began their operations more than 10 years ago are not producing to their full capacity such that they are able to supply at national level. Survey respondents asserted that the major contributing factors that act as barriers are:

⁵⁰ Interview with a firm in the industry. UFC interview, 2015.

⁵¹ Interview with Umbuluzi Farm Chicken, 2015

- (i) Inconsistent supply of broiler chicken in the local market: growers are not able to supply chicken at a rate and quantity that is consistent;
- (ii) High costs of production: the costs of managing the operation, of buying matured chickens, labour, inflation and costs of importing equipment are high;
- (iii) Slow economic growth in Eswatini: the market is influenced by the forces of demand and supply but with slow economy, new entry into the market would not yield much returns; and
- (iv) Inadequate supply of matured chickens from the chicken growers: due to the recently experienced drought the costs of rearing chicken have increased such that most growers exited the market hence the supply of matured chickens is reduced.

Exit Barriers

6.25. Disposing off of the equipment might prove to be cumbersome, especially since the equipment costs approximately E25 million, when new. The chicken processors are usually located in farms, and that could require the selling of the entire farm as the processing houses are usually immovable structures. As such, finding a buyer that could have access to finance of that value could prove to be difficult. In addition, the equipment cannot be easily switched for the use of other activities/services. A firm would be forced to remain in the business even though it might not be interested in it.

Price Determination and Transmission

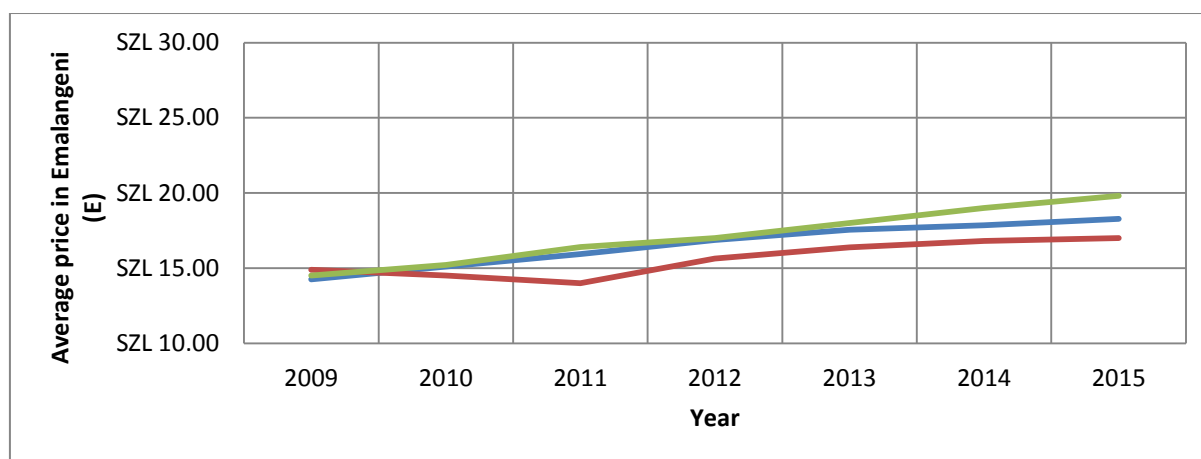
6.26. Due to the vertically integrated structure in the broiler market, there is no public cut-out pricing information. The first level where pricing information for broiler chickens is available is the wholesale level.

6.27. The selling price for chicken meat is determined as a sum of total cost incurred plus a mark-up. The difference between costs incurred and selling price for chicken meat is the processor's income. There is a positive relationship between output volume and processor income, *ceteris paribus*⁵². High output volume generates high processor margins. Contrary, if output volume is low the processor margins declines, thus negatively affecting the success of processors.

⁵² Holding other factors constant.

6.28. Figure 6.2, below, depicts an upward trend for prices of broiler chicken products in the slaughtering and processing market over the years under review. The price increase ranged between E1.00 to E10.00 per kilogram for all the processors, depicting asymmetric cost incurred during processing. Trencor Investment was the most expensive firm followed by Swaziland Poultry Processors, then Umbuluzi Farm Chickens.

Figure 6.2: Average Selling Price for Chicken Meat



Source: Survey data (2016/2017)

Contracts between processors, wholesalers and retailers

6.29. The inquiry established that slaughtering and processing firms enter into agreements with wholesalers and retailers. The large scale processors (Swaziland Poultry Processors, Umbuluzi Farm Services and Trencor Investment) sell their broiler chicken products to the formal market, including super markets such as Spar, Shoprite group, Pick'n Pay, Boxer super stores. They also supply franchises restaurants such as KFC, Nandos and Futis. These processors also supply schools, and butcheries around Eswatini. It was established that shops/purchasing officers demand rebates from the processors-a practise that tends to reduce price charged by the processing firms. This may restrict competition for the small slaughtering and processing firms that are not well established in the market, as they may be unable attract customers who have existing relationship with the big slaughtering and processing firms and unable to offer rebates. The benefits derived from the rebates allow for improved consumer welfare,

(price reduction). Table 6.3 below provides a summary of the contracts between processors and retailers.

Table 6.3: Contracts between Processor and Retailers

	Swaziland Poultry Processors	Umbuluzi Farm Chickens	Trencor Investments
Retailers	Shoprite Eswatini	Shoprite Eswatini	Shoprite Eswatini
	Spar Eswatini	Spar Eswatini	Spar Eswatini
	Pick n' Pay	Pick n' Pay	Pick n' Pay
	Boxer Superstores	Ruchi Wholesalers	Boxer Superstores
	Kentucky Fried Chicken	Woolworths	Futis Restaurant
	Nandos	Save More Spar Shops	Shamrock
	Debonairs	Eswatini Meat Industries	
	Southern Trading		

Source: Survey data (2016/2017)

Countervailing Buyer Power

6.30. It transpired from the survey that retailers sometimes convene a scheduled product review with the slaughtering and processing firms⁵³. It is through this review that retailers exert some countervailing buyer power to the processing firms. The carcass weight of chickens is the main factor for consideration during the scheduled product review.

6.31. The wholesalers and retailers are able to exercise countervailing buyer power during scheduled product review meeting held with slaughtering and processing firms.

Import Competition

6.32. NAMBOARD policy does not provide any incentive to importers of broiler chicken products. It is of the view that the broiler chicken market is unstable in Eswatini, as such classifying chicken meat as a scheduled product aims to protect the market from imported chicken meat. Scheduled products attract an import levy. In addition to cross border regulations and other costs associated with importing chicken meat, the net effect would be an increase in the selling price for chicken meat. The additional cost that would be incurred when importing chicken meat dispels the advantage of importing

⁵³ Interview with a firm in the broiler value chain

chicken meat. There is import competition in this market. Brands, such as Rainbow Chicken are imported from South Africa.

Conclusion, competition/general concerns and recommendations

6.33. Table 6.4 below provides the conclusions, competition/general concerns and recommendations.

Table 6.4: Conclusions, competition/general concerns and recommendations

Conclusions	Competition/general concerns	Recommendations
1. The Commission found that the slaughtering and processing market is oligopolistic as it has only three players that have the capacity to supply the whole nation with broiler chicken meat and products. These are SPP, Umbuluzi and Trencor Investments. There are other small abattoirs which supply small restaurants, schools and individual customers in small communities. The Commission found that there are no significant barriers to entry.	None	None
2. The inquiry found that tariffs imposed on broiler chicken meat and products (27% levy imposed on broiler chicken meat and some broiler chicken meat products imported from outside the SACU countries and the 15% value added tax imposed to all poultry ⁵⁴ imports including processed meat) is significantly high. According to the submissions of the regulator ⁵⁵ , the	General concern The Commission is concerned about the levy imposed on imported broiler chicken meat and products. These levies restrict import competition and competition in general. The effect of the levy come to play when the secondary processors are not able to get adequate supply of broiler chicken meat from the local	Similar to the recommendation under the regulation section, the Commission recommends that import competition should be encouraged by lowering import levies for the processed broiler chicken meat products.

⁵⁴ Except for day old chicks.

⁵⁵ Ministry of Agriculture and NAMBOARD

<p>levy coupled with the value added tax is meant to protect local farmers as well as to support their development and growth.</p> <p>However, in terms of the levies the effect is twofold. The first round knock-off effect is manifested when the secondary processors are unable to source broiler chicken meat and products from the local suppliers, due to shortages in the domestic market. The second round knock-off effect is realized when domestic prices increase due to excessive mark-ups, especially for broiler chicken meat and products.</p>	<p>processors and they are not able to import because the levy is too high.</p>	
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7. DISTRIBUTION MARKET

Market definition

Introduction

- 7.1. Market definition is used to identify the products/ services that are close substitutes for each other and to define the boundaries of competition between firms which compete for such products/ services with a view of identifying the actual competitors that are capable of constraining the behaviour and preventing the firms concerned from behaving independently.

Product description

- 7.2. In Eswatini the distribution firms are involved in the distribution of broiler chicken products from the processing firms to retail outlets. Distributors are involved in the distribution of packaged broiler chicken meat, such as portions, breast, thigh fillets, strips, burgers, viennas and polony. There are two distribution models for the distribution of broiler chicken meat and products. For the first model, the distributors are owned by shareholders of the processing firms. The distribute broiler chicken products straight to the retailers. The producer remains the owner of the product and is liable for any defects. The first distribution model is widely used in the broiler chicken market in the country. In addition to distributing the product, firms using the first distribution model also provide invoicing and merchandising services. The second distribution model allows the distributor to purchase the products from the producer for on-selling to the retail market. In this case the distributor owns the product and can even re-brand it.

- 7.3. The focus is not the large spectrum of the Distribution of Fast Moving Consumer Goods (FMCGs) but broiler chicken products.

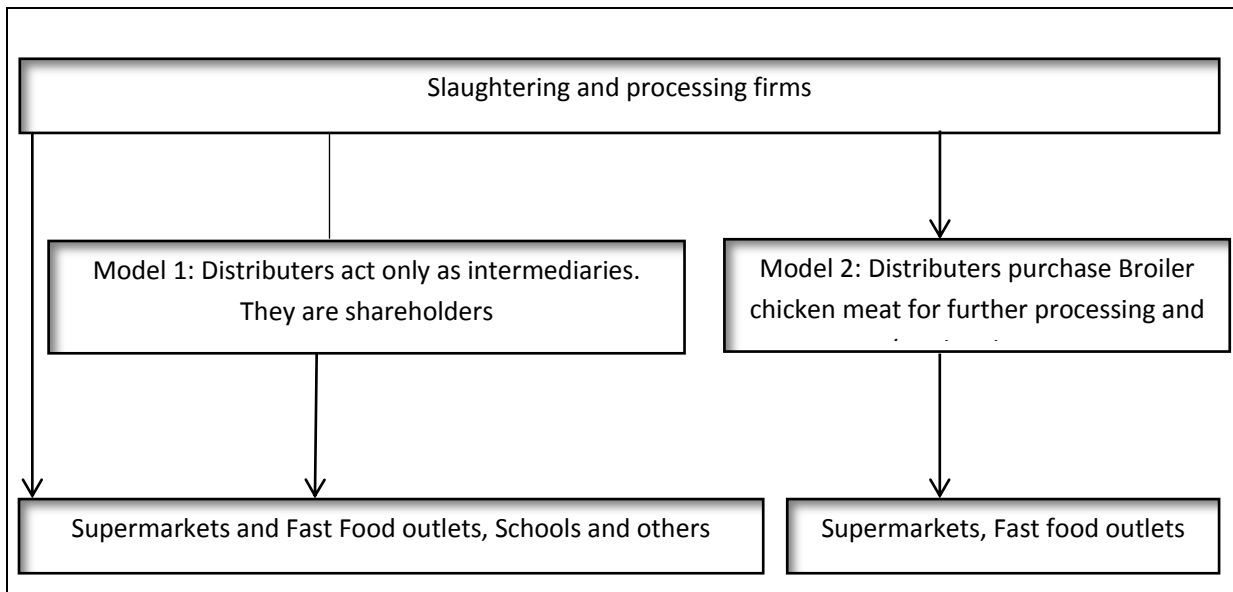
Business Process

- 7.4. The inquiry uncovered that the distribution market is characterised by long term distribution contracts between processing firms and distributors. Processors and

distributors enter into these kinds of contracts for certainty and efficiency as it makes the business process easier knowing who exactly distributes the goods to a particular destination.

7.5. The slaughtering and processing firms distribute directly to the market or they can distribute through the model 1 and model 2, as indicated in Figure 7.1 below.

Figure 7.1: Broiler Chicken Distribution Market



Source: Survey Data (2016/2017)

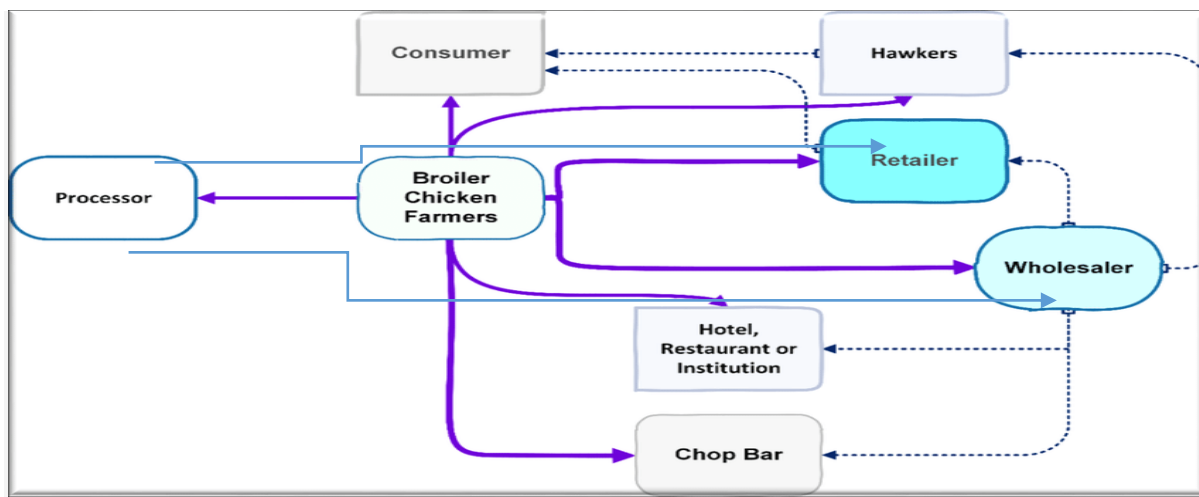
7.6. The extent of product distribution form part of the company strategy and choosing the right distribution strategy is a matter of balance between intention to maximise presence in the market and the cost of doing that. Therefore, the distribution strategy needs to be aligned with marketing and sales from commercial aspect and with finances from cost perspective. The product distribution can be limited by competition and saturation of the market.

7.7. The process of transportation involves the management of both internal fleets (owned by company) and external distributors. For an example, slaughtering and processing firms such as Umbuluzi Farm Chicken and Trencor have their own in-house distribution system. It was established that everyone involved in transportation planning, optimization, and execution is focused on two areas, namely; cost and service. Transportation optimization seeks to achieve the balance between cost and service. Transportation cannot be considered associated with one specific component of the

supply chain. Instead it is the connection between a number of components that can be used by slaughtering and processing firms to reach their customers.

7.8. Figure 7.2 below shows the distribution channel of the current distribution structure in the broiler market. This pertains to both formal and informal sector of the market.

Figure 7.2: The Distribution Channel of Chicken Products



Source: Survey Data (2016/2017)

Substitutability

7.9. In determining the degree of substitutability we considered whether customers would switch to readily available substitutes or suppliers in response to a hypothetical small (5-10%) but significant non-transitory increase in price ("SSNIP") in the products considered in this market.

Demand Substitutability

7.10. Model 1: There is no substitute for the distribution service, as such, it is concluded that there is no demand substitutability. In Eswatini, broiler chicken products cannot be distributed using airlines, railroads, and ships, because the costs associated with these modes of transportation are too high.

7.11. Model 2: Secondary processors can switch to other slaughtering and processing firms in the case of a SSNIP. However, in the case of a general price increase of broiler chicken meat from the major processors, secondary processing firms cannot substitute the broiler chicken meat for any other type of meat. The reason for that is that they

need to meet their market demand. Therefore, there is no demand substitutability for the distribution of broiler chicken meat.

Supply Substitutability

- a. Model 1: Slaughtering and processing firms have their own in-house distribution systems, as mentioned above. In the case where the external distributors were to increase their prices by the SSNIP, the slaughtering and processing firms could always use their own distribution systems. As such, it is concluded that there is supply substitutability.
- b. Model 2: In case of a SSNIP in broiler chicken meat, distributors would be able to switch to other slaughtering and processing firms. Additionally, broiler chicken meat distributors can import from South Africa. As such, we conclude that there is supply substitutability.

Geographical Market

7.12. Matured broiler chickens are sold to slaughtering and processing firms and to the informal market countrywide. Therefore, the geographic market is nationwide.

Relevant Market

7.13. The relevant market is the distribution of matured broiler chicken products in Eswatini.

Market structure

Number of Firms

7.14. Under model 1, there are three (3) firms that were identified; these are Ocean Fresh Eswatini, Food Chain Eswatini and Eswatini Meat Industries.

- (i) **Ocean Fresh Eswatini** – purchases broiler chicken products from processor who are also competitors in the distribution market. Their customers are schools and universities.

(ii) **Food Chain Eswatini** – purchases broiler chicken carcasses from Swaziland Poultry Processors for further processing before distributing the final products under the company brand – Food Chain. This company began its operations in 2007.

(iii) **Eswatini Meat Industries** – purchases broiler chicken meat and broiler chicken products from Umbuluzi Farm Chickens, repackage them and sell to the general public and retailers.

7.15. In 2016, under Model 2 there were 3 firms, namely, AD Enterprises, Logico Unlimited Eswatini and Umbuluzi Valley Sales.

(i) **Logico Unlimited Eswatini** – its primary focus is Fast Moving Consumer Goods sales including wholesale, top end retail, general trade, pharmacy, out of home and bottom end markets. Logico has 25% shareholding at Swaziland Poultry Processors. This is a second leading distributing company used by Swaziland Poultry Processors to distribute broiler chicken products.

(ii) **AD Enterprises** – is a distributor of perishable and non-perishable food products. These products include broiler chicken meat and broiler chicken meat products, amongst others. Author Horne, who holds 81% of the shares at AD Enterprises, also holds 24% with SPP creating a clear relationship between the two companies. It is therefore no surprise that AD Enterprises is one of two distributors of products from SPP.

(iii) **Umbuluzi Valley Sales** – information gathered suggest that this company “supplies a large range of fresh items including broiler chicken products countrywide. The company is owned by David Lourence.

Market Shares and Level of Concentration

7.16. Due to lack of data for all the players involved in the distribution of broiler chicken products, the market shares and the level of concentration were not calculated. However, it was established that Swaziland Poultry Processors, the largest slaughtering and processing firm use AD Enterprises and Logico Unlimited for distributing its products. Information gathered from Umbuluzi Farm Chicken and Tencor Investment is that these two firms prefer to use their own in-house distributing

system and only procuring the services of AD Enterprises on an ad hoc basis. Ocean Fresh Eswatini and Food Chain Eswatini only purchase from the Swazi Poultry Processors and, as such, are not major distributors.

Cost structure

7.17. The operation costs of a distributing firm include the following: cost of transport (from broiler chicken processing plant to the wholesalers and retailers or another plant for further processing); warehousing costs; salaries; electricity and water. Distributing firms are also expected to acquire refrigerated trucks to ensure that broiler chicken products are kept fresh until they reach retailers.

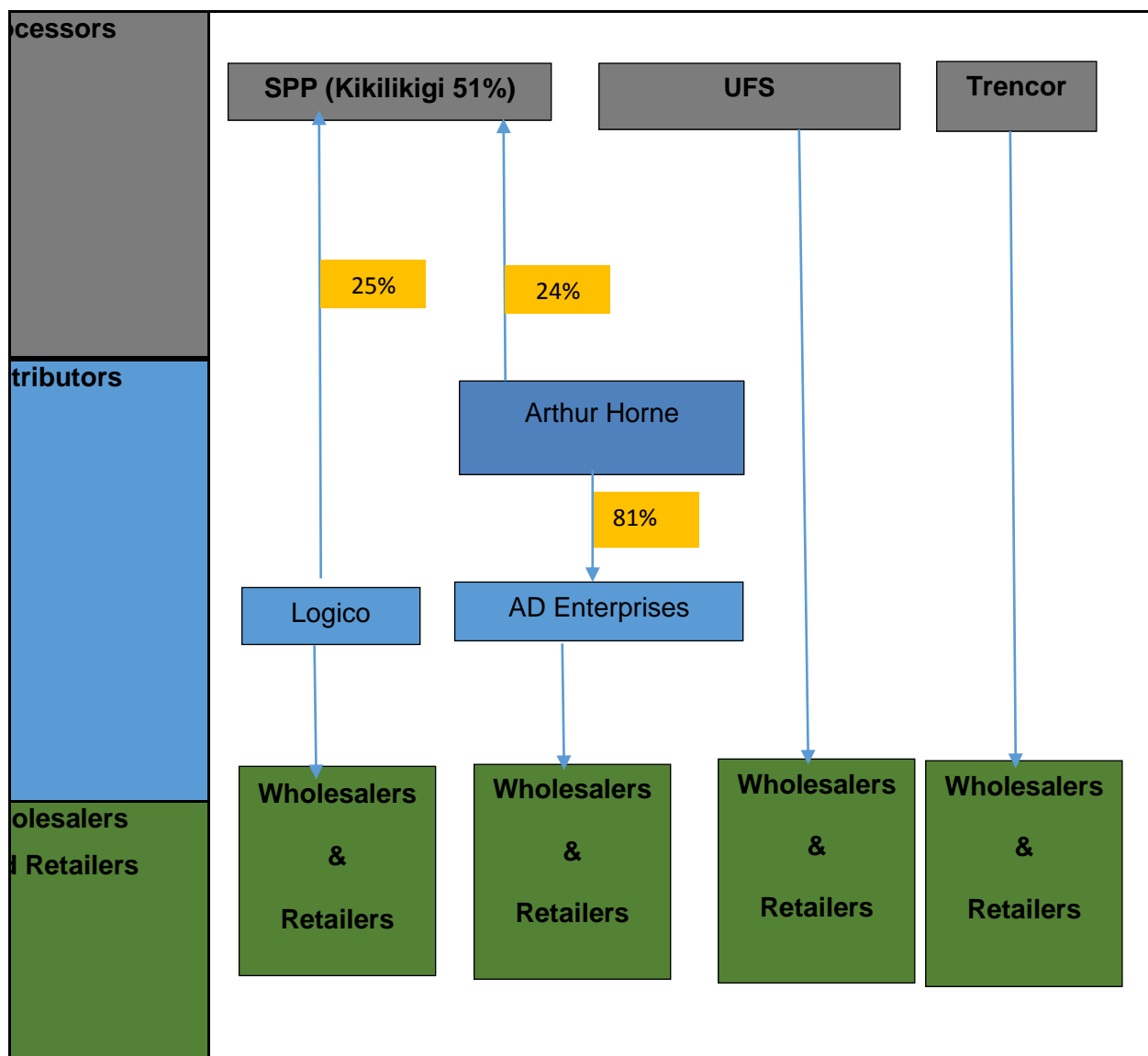
Price Determination and Transmission

7.18. For model 1, price is determined based on the cost of purchasing the product, salaries, cost of further processing and transport cost incurred when supplying wholesalers and retailers.

7.19. For model 2, the costs are transportation costs, warehousing costs, invoicing costs and merchandising costs, amongst others.

Integrated Ownership and its Effects

7.20. In terms of ownership, the inquiry revealed that Logico is vertically integrated with 25% shareholding at Swaziland Poultry Processors. Umbuluzi Farm Service and Trencor Investment utilize their own distributing transport. Figure 7.3 below presents a schematic overview of the current distribution structure in the broiler market.

Figure 7.3: Ownership of the Distribution Market

Source: Survey Data (2016/2017)

7.21. The ownership of shares at SPP by Arthur Horne's (the owner of the AD Enterprises), shows the true relationship between Logico and AD Enterprise. The Commission therefore concludes that both Logico and AD Enterprises are part of the Swaziland Poultry Processors even though AD Enterprises co-owns SPP through shares.

Contracts between slaughtering and processing firms and wholesaler/retailers

7.22. The inquiry also uncovered that there are supply agreements between processing firms and wholesalers/retailers. Table 7.1 provides a summary of existing wholesalers

and retailers who are part of the supply agreements in the country. Details of the supply agreements were not availed to the Commission at the time of compiling this report.

Table 7.1: Contracts with Wholesalers and Retailers

Wholesalers/Retailers	Suppliers			
	Swaziland Processors Unlimited)	Poultry (Logico	Umbuluzi Chickens	Farm Trencor Investments
Shoprite Eswatini	✓		✓	✓
Spar Eswatini	✓		✓	✓
Pick n' Pay	✓		✓	✓
Boxer Superstores	✓			✓
Kentucky Fried Chicken	✓			
Nandos	✓			
Debonairs	✓			
Southern Trading	✓			
Ruchi Wholesalers			✓	
Woolworths			✓	
Save More Spar Shops			✓	
Futis Restaurant				✓
Shamrock				✓
Eswatini Meat Industries			✓	

Source: Survey Data (2016/2017)

Entry and exit barriers

Entry barriers

7.23. Since, the slaughtering and processing firms have their in-house distribution system (Logico and AD Enterprise). Therefore, it would be difficult or impossible for a new entrant to enter the market absent its presence in the upstream market.

7.24. Other possible barriers to entry in this market include the high start-up costs, warehousing costs and distribution costs of the processed products. The vehicles used to transport broiler chicken products must be refrigerated. Distributors also must have

refrigerated warehouses for storage to ensure that their products reach the retailers fresh. Distributors alluded to the fact that transport maintenance and storage costs are on the higher side.

7.25. The 27% levy imposed on broiler chicken meat and products imported from outside the SACU countries and the 15% value added tax imposed to all poultry⁵⁶ imports including processed meat are viewed as a barrier to entry by distributors who do not own slaughtering and processing firms. Despite that the levy is meant to protect local farmers, it becomes a barrier for distribution firms. Also, the fact that the permit to import is valid only for 30 days is a barrier in the sense that the distributor must halt its operation while waiting for the approval of the permit and that has a negative effect on their business. Firms are allowed to apply for a new import permit once the old one has expired.

Exit barriers

7.26. High levels of dedicated fixed costs tend to be an impediment to exiting this market.

Countervailing buyer power

7.27. Distribution mode 1 (distributor purchases and further processes the chickens): The distribution firms are able to negotiate prices because they buy in bulk from the slaughtering and processing firms.

7.28. Distribution mode 2: The distribution firms are shareholders of the slaughtering and processing firms and prices are discussed and concluded during board meetings.

7.29. Therefore, we conclude that there is countervailing buyer power for both models.

Import competition

7.30 In model 1, it was gathered from an interview with one of the processors that for a company to be able to provide delivery services they need to be locally based⁵⁷. As

⁵⁶ Except for day old chicks.

⁵⁷ SPP CEO Jeremy Body, Interview, 30 June 2014.

such, there is no import competition for the distribution of broiler chicken meat product, in model 1. As a result of the vertical structure of the broiler chicken market concerns raised under the regulation, slaughtering and processing markets are also permeable in the distribution market. For instance, the 27% levy imposed on broiler chicken meat and products that are imported from outside the SACU countries and the 15% value added tax imposed to all poultry⁵⁸ imports including processed meat) was cited as a major import restriction for secondary distributors.

7.31. For model 2, since the distribution firms are buying to further process and sell their products, they can source the same from other countries. This is evidenced by the broiler chicken products that are imported from South Africa, including Rainbow Chicken, Pick-n-Pay's No Name Brand, and Shoprite's Supreme Chicken, amongst others. We, therefore, conclude that there is import competition for model 2.

Conclusions, competition/general concerns and recommendations

7.32. Table 7.2 below provides the conclusions, competition/general concerns and recommendations.

Table 7.2: Conclusions, competition/general concerns and recommendations

Conclusions	Competition/general concerns	Recommendations
<p>1. The Commission found that there are two distribution models in this market.</p> <p><u>Model 1</u></p> <p>2. One model involves the processors distributing directly to their end-users, whilst the other model involves the processors selling broiler chicken meat carcasses to secondary processors for further processing. Most</p>	None	None

⁵⁸ Except for day old chicks.

<p>importantly the Commission noted that with regards to the first model processors normally use their internal distribution systems. It was also found that these distributors hold shares with the processors; this is the case with SPP, AD Enterprises and Logico. There is no competition concern identified with regards to the first distribution model.</p> <p>The Commission found that there are two distribution models in this market.</p> <p><u>Model 2</u></p> <p>3. This model involves the distribution of broiler chicken meat carcasses to secondary processors for further processing.</p> <p>The Commission also noted that processors enter into supply agreements with their customers. This is done in order to facilitate business.</p>		
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8. CONCLUSIONS, COMPETITION/GENERAL CONCERNS AND RECOMMENDATIONS

8.1. This inquiry was initiated as a result of a study which was submitted by the Ministry of Agriculture to the Swaziland Competition Commission in 2012 regarding the performance of the poultry market and perceived unfair competition. In accordance with Section 11 (2)(f) of the Competition Act, No. 8 of 2007 the inquiry was conducted with the objective of examining the market structure of the market and the state of competition in the market.

8.2. The inquiry found that there are four levels sub-markets in this market, namely: (i) the market for the supply of day old chicks; (ii) broiler growing market; (iii) the slaughtering and processing market; and (iv) the distribution market. Over and above the Commission noted that this market is partially integrated as players often hold shares at different levels. This creates efficiencies in the market whilst it also affects competition as a result of artificial entry barriers.

8.3. The overall conclusions and recommendations for this inquiry are presented in the Table 8.1 below.

Table 8.1: Conclusions, competition/general concerns and recommendations

Regulation of the broiler chicken market		
Conclusions	Competition/general concerns	Recommendations
1. The inquiry found that there is a 27% levy imposed on broiler chicken meat and some broiler chicken meat products imported from outside the SACU countries. Furthermore, there is 15% value added tax imposed to all poultry ⁵⁹ imports including processed meat.	Competition concern The Commission is concerned about the levies imposed on imported broiler chicken meat and products. These levies tend to limit import competition and competition in general.	The Commission recommends that import competition should be encouraged through lowering import levies for the processed broiler chicken meat products.
Market for the supply of day old chicks		

⁵⁹ Except for day old chicks.

<p>2. The inquiry established that the market for the supply of day old chicks comprise three players, namely; Africa Chicks, National Chicks and Farm Services. Thus, it is concluded that this market is oligopolistic. The market inquiry analysis has taken into account the size of the country and the population which is slightly above million. Therefore, the Commission is of the view that as a result of nature of demand and supply processes in the broiler chicken market, it may be cumbersome for a new entrant to enter and to be sustainable in this market.</p>	None	None
<p>3. The Commission found that customers of Africa Chicks and National Chicks (independent broiler chicken growers) are discontent about the quality of chicks and feed. They are of the view that suppliers of day old chicks and animal feed have at times supplied poor quality products which has resulted in business failure and exit of some farmers from the market. Contrary to these allegations, the Commission found that the suppliers of day old chicks and feed always supply the same quality to their customers.</p> <p>The Commission noted that albeit having different types of feed there</p>	<p>General concern</p> <p>The Commission is concerned that the farmers may not be well trained in the methods and procedures that should be followed when growing the day old chicks.</p>	<p>Farmers should ensure that they are well trained before they venture into the business of broiler growing chicken. These farmers may benefit from the capacity building programs offered by the Ministry of Agriculture.</p>

are no differing grades of feed as long as the farmer knows the type of feed he/she wants. Furthermore, during an interview with National Chicks, the Commission found that before the hatching process can even begin only high graded eggs are used to ensure that the chicks are of high quality. Due to the nature and the volumes at which the chicks are produced, the Commission is of the view that it does not make good business sense for the hatcheries to include eggs of poor grade only.		
Broiler Growing Market		
4. The inquiry found that the growing market is divided into sub-markets, namely: contract growers; and independent growers. There are three major players in the broiler growing market (contract growers), namely: Kikilikigi, 5 Shareholders of Umbuluzi Farm Chicken and Trencor Investment. The Commission concludes that there are no significant barriers to entry except that new prospective entrants will have to face inherent costs of start-up and doing business in this market.	None	None
<u>Sub-market 1 – Contract growers</u>	Competition concern –	
5. The Commission found that in this sub-market, members / shareholders of Kikilikigi are not allowed to sell shares to non-members / non-shareholders. The Commission found that both existing members and ex-farmers	The Commission is concerned that this conduct may be anti-competitive as the shares are not openly sold to the public. This forecloses new entrants into the business.	Kikilikigi should cease and desist from compelling existing shareholders to sell their shares to existing shareholders only. It is the view of the Commission that shares should be openly sold to the public only if this fails can they be sold to existing

are discontent with the procedures followed when the shares are sold as they claim there is no transparency.		shareholders.
6. The Commission established that contract growers are mostly shareholders of the processing firms. They mainly produce and supply processing firms according to set quotas which are mainly proportional to their shares. They however compete with players in sub-market two as they also supply the live market with chickens. The Commission further notes that the practice of contract growing is not unique to the country as it is used in other countries such as Brazil, Zimbabwe, Zambia and South Africa.	None	None
<u>Sub-market 2 – Independent growers</u> 7. The Commission found that firms in sub-market 2 compete with firms in sub-market 1. The Commission established that firms/individuals in sub-market two only supply the live market. These firms/individuals are not consistent in growing their chickens. They mostly grow chicken during peak periods such as during Easters and during the festive season. Furthermore, the Commission noted that players under sub-market 2 are not enjoying similar	None	None

benefits enjoyed by players under sub-market 1 since they do not buy in bulk. These benefits include discounts and even the opportunity to be supplied with inputs on credit. There are no competition issues in this sub-market. It is the view of the Commission that the presence of sub-market 1 in the live market stimulates competition.		
Slaughtering and processing market		
9. The Commission found that the slaughtering and processing market is oligopolistic as it has only three players that have the capacity to supply the whole nation with broiler chicken meat and products. These are SPP, Umbuluzi and Trencor Investments. There are other small abattoirs which supply small restaurants, schools and individual customers in small communities. The Commission found that there are no significant barriers to entry.	None	None
10. The inquiry found that tariffs imposed on broiler chicken meat and products (27% levy imposed on broiler chicken meat and some broiler chicken meat products imported from outside the SACU countries and the 15% value added tax imposed to all poultry imports including processed meat) is significantly high. According to the submissions of the regulator, the levy coupled with the value	General concern The Commission is concerned about the levy imposed on imported broiler chicken meat and products. These levies tend to restrict import competition and competition in general. The effect of the levy is realised when the secondary processors are not able to get adequate supply of broiler chicken meat from the local processors and they cannot	Similar to the recommendation sited under the regulation section, the Commission recommends that import competition should be encouraged through lowering import levies for the processed broiler chicken meat products.

<p>added tax is meant to protect local farmers as well as to support their development and growth.</p> <p>However, in terms of the levies the effect is twofold. The first round knock-off effect is manifested when the secondary processors are unable to source broiler chicken meat and products from the local suppliers, due to shortages in the domestic market. The second round knock-off effect is realized when domestic prices increase due to excessive mark-ups, especially for broiler chicken meat and products.</p>	<p>import because it would be expensive to do so.</p>	
The distribution market		
<p>11. The Commission found that there are two distribution models in this market.</p> <p><u>Model 1</u></p> <p>12. One model involves the processors distributing directly to their end-users, whilst the other model involves the processors selling broiler chicken meat carcasses to secondary processors for further processing. Most importantly the Commission noted that with regards to the first model processors normally use their internal distribution systems. It was also found that these distributors hold shares with the processors; this is the case with SPP, AD Enterprises and Logico.</p>	<p>None</p>	<p>None</p>

<p>There is no competition concern identified with regards to the first distribution model.</p> <p><u>Model 2</u></p> <p>13. This model involves the distribution of broiler chicken meat carcasses to secondary processors for further processing. The Commission also noted that processors enter into supply agreements with their customers. This is done in order to facilitate business.</p>		
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9. APPENDICES

Appendix 9.1: Shares within Kikilikigi

[Information Removed – Confidential]

Appendix 9.2: Survey Transcripts

Interview 1: Farmer 1

[Information Removed – Confidential]

Interview 2: Farmer 2

[Information Removed – Confidential]

Interview 3: Farmer 3

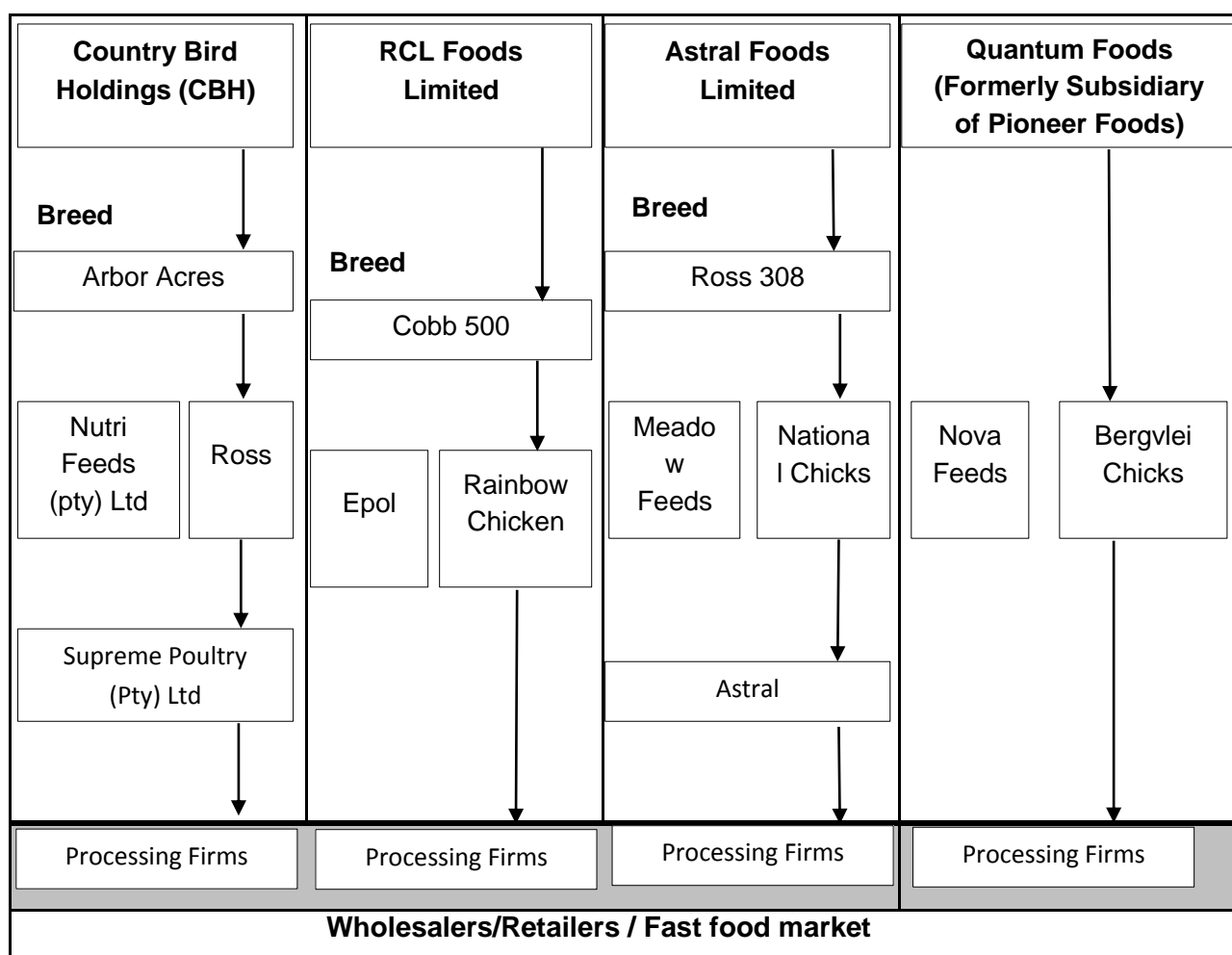
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Appendix 9.3: Market Structures in other countries

South Africa

The market comprises only four large producers, who are all vertically integrated from the level of breeding to slaughtering and processing. The main firms are: Rainbow Chicken, Astral Food Limited, Country Bird Holdings (CBH) Limited and Quantum Foods.

FIGURE 8.1: COMPANY STRUCTURE OF MAIN INTEGRATED POULTRY FIRMS IN SOUTH AFRICA



Source: Ncube and Zengeni (2016)⁶⁰

Brazil⁶¹ and Australia

The Broiler Chicken Market has an integrated production system. Large poultry producers own animal feed plants, hatcheries, broiler growing firms, slaughtering and processing firms and distribution systems. The integrators negotiate contracts with growers who raise

⁶⁰ Ncube, P., & Zengeni, T. (2016). Growth and Entry in a concentrated industry. Centre for Competition, Regulation & Economic Development, University of Johannesburg

⁶¹ Ibid

commercial poultry. Integrators provide growers with all the raw materials namely, day old chicks, feed, vaccine and veterinary services. The system also involves the participation of small scale growers who are independent.

Appendix 9.4: Questionnaire for Broiler Growing Farmers

Swaziland Competition Commission

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Lot No. 105 Mantsholo Road
Mbabane Golf Course, after traffic circle
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Tel: +268 24040111/0421
Fax: +268 24040342
Email: info@compco.co.sz

Broiler Chickens Market Inquiry Questionnaire

Swaziland Competition Commission is conducting a Broiler Chickens Market Inquiry. Section 11 of the Competition Act No. 8, 2007 provides the legal basis upon which to conduct the market inquiry. The general objective of the Market Inquiry is to assess the state of competition in the Broiler Chickens Market. Specific objectives are:

- 1.To examine the conduct of firms and its impact on the structure of the Broiler Chickens market; and
- 2.To recommend market corrective mechanism or make policy recommendations for the Broiler Chickens market.

Swaziland Competition Commission, through this questionnaire, requests that you provide information about the Broiler Chickens market in Eswatini. The information will be used for the Broiler Chickens market inquiry and shall be treated with strict confidentiality.

Name of Data Collector: _

Region : _

Name of Constituency : _____

Actual place: _

Date : _

Your rights as a research participant (Informed Consent)

Participation in this Market Inquiry is voluntary. You have the right to not participate at all or to leave the inquiry at any time. Deciding to not participate or choosing to leave the inquiry will not result in any penalty.

Participant Name Signature**Questionnaire Structure**

The questionnaire is organised in three sections as shown below:

Section A: Information about the broiler growing farmer or broiler growing company.

Section B: Description of the broiler growing business process and assessment of the Broiler Chickens market.

Section C: Competition and other information about the Broiler Chickens market.

Section A: Information about the broiler growing farmer or broiler growing company

1. Name of farmer or company: _____

2. Telephone number of farmer or company: _____

3. Email address of farmer or company: _____

4. Physical location of farmer or company: _____

5. Please state the shareholders and their respective shares held in the company.

Name of shareholder	Number of shares held

6. Are you active in other markets (Market for day old chicks, Slaughtering and Processing, and Distribution) of the Broiler Chickens market? _____

(a) Yes		(b) No	
State other market(s) active in:			

Section B: Description of the broiler growing business process and assessment of the Broiler Chickens market.

7. Who supplies you with day old chicks? _____

8. Please state the name of the breed supplied to you: _____

9. How long does it take for the breed to reach maturity? _____

10. How long have you been active in the rearing of broiler chickens?

11. How many crops do you produce per year? _____

12. Who supplies you with feed?

Starter feed: _____

Grower feed: _____

Finisher feed: _____

13. Which market do you supply with matured broiler chickens? Provide an explanation for your response.

(c) Formal market		(d) Informal market		(e) Other	
Explanation:					

14. Who are your top 5 customers (in descending order), where are they located and which year did you began supplying them with matured broiler chickens?

Name of customer	Location	Year

15. Who are your top 5 competitors (in descending order) and where are they located?

Name of competitor	Location of competitor

16. What is the total carrying capacity of your chicken sheds? _____

17. What is your current production capacity?

18. Are you currently producing at optimum capacity?

(a) Yes		(b) No		(c) Other	
Explanation:					

19. Please state the total number of chickens produced per year, average purchase price for day old chicks and average selling price for matured broiler chickens from 2009 to 2015.

Year	Total number of matured broiler chickens produced	Average purchase price for day old chicks	Average selling price per matured broiler chicken
2009			
2010			
2011			
2012			
2013			
2014			
2015			

20. Please state and explain factors that could prevent new farmers to enter into the broiler growing business.

21. Please state and explain factors that could prevent firms already in the broiler growing business to grow or expand.

22. What effect does buying in high volumes (day old chicks and feed) have on the operation of a broiler growing farmer?

Day old chicks: _____

Feed: _____

23. How do you determine the selling price for matured broiler chickens?

Section C: Competition and other information about the broiler chickens' market.

24. What instrument governs the supply of day old chicks between you and your supplier of day old chicks? _____

25. Please provide a copy of the instrument used to govern the supply of day old chicks.

(Please tick and explain for either b or c)

(a) Copy provided		(b) Copy not provided		(c) Other	
Explanation for either (b) or (c) other:					

26. What is the duration of the instrument used to supply day old chicks? _____

27. How often is the instrument used to supply day old chicks renewed?

28. Please state and explain factors considered for renewal of the instrument used to supply day old chicks.

29. Does the instrument used to supply day old chicks stipulate a minimum number or minimum percentage of day old chicks that must be purchased from your supplier of day old chicks? (Please tick and explain)

(a) Yes		(b) No		(c) Other	
Explanation:					

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30. Are you able to negotiate (terms and conditions of supply and purchase price) with your supplier of day old chicks? (Please tick and explain)

(a) Yes		(b) No		(c) Other	
Explanation:					

31. Can you use the current supplier of day old chicks with another supplier of day old chicks simultaneously? (Please tick and explain)

(a) Yes		(b) No		(c) Other	
Explanation:					

32. Is it possible to change your supplier of day old chicks? (Please tick and explain)

(a) Yes		(b) No		(c) Other	
Explanation:					

33. What preference(s) are associated with the instrument that governs the supply of day old chicks? Please explain.

34.What instrument governs the supply of feed between you and your suppliers of feed?

Starter feed: _____

Grower feed: _____

Finisher feed: _____

35.What was the average purchase price for feed from 2009 to 2016?

Year	Average purchase price for feed		
	Starter feed	Grower feed	Finisher feed
2009			
2010			
2011			
2012			
2013			
2014			
2015			
2016			

36.What instrument governs the supply of matured broiler chickens between you and your customers (customers in descending order as per no.15?

Name of customer	Name of instrument of supply

37.Over the period 2009 to 2015,

37.1 How often did the purchase price for day old chicks changed?

37.2 How often did the purchase price for feed changed?

37.3 In which months does the change usually happen?

37.4 What is the average margin (%) and nature of change (increase, decrease)?

		2009	2010	2011	2012	2013	2014	2015	2016
Purchase price for day old chicks (rate of change)									
Purchase price for feed (rate of change)									
Month in which change usually occurs	Chicks								
	Feed								
Margin and nature	Chicks								

of change	Feed								
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38.What justifications do the suppliers of day old chicks and feed attribute the changes in their selling price for day old chicks and feed?

Day old chicks: _____

Feed: _____

39.How do the changes in the purchase price for day old chicks and feed generally impact your operations?

40.Is cross shareholding a common practise in the Broiler Chickens market?

(a)Yes		(b)No		(c)Other	
Please explain:					

41.How are shares in a cross shareholding arrangement determined and or held?

_____What happens to the shares when a shareholder opts out of a cross shareholding arrangement?

42.How does cross shareholding benefit the Broiler Chickens market?

43.What could be the likely effects of cross shareholding to the Broiler Chickens market?

44.What could be reasons for the high number of exit of small scale broiler growing farmers?

45. Please provide any information that could be relevant to the Broiler Chickens market inquiry.

46. Please provide other information about the Broiler Chickens market in Eswatini.

Extra space to capture other experiences of broiler growing farmers in the Broiler Chickens market that could be relevant for the Broiler Chickens market inquiry and the market
