

ASSESSMENT OF CONTRACT BROILER FARMING: THE CASE OF POLOMOLOK FARMERS

Abstract

Poultry contracting farming is one of the options that are available for Filipino farmers. It simply refers to a partnership or agreement between a poultry company with Filipino Farmers who fulfill certain grower conditions. Conducted to assess contract broiler farming in Polomolok, South Cotabato in terms of physical and human resource inputs, extension advisory service (EAS), technical and economic performance of contract broiler farming and determined farmers' satisfaction on inputs-outputs, extension advisory service (EAS), technical advises adoption, strengths, weaknesses, opportunities and threats (SWOT) and profitability of contract broiler farming. A quantitative descriptive research design was used in the study. Information concerning the contract broiler farming of Polomolok farmers was determined through a triangulation method, the purpose of which was to check and establish validity of analysis and interpretation of data. Data from in depth interviews and survey were compared for analysis. Contract broiler farming in Polomolok, South Cotabato was concluded as profitable enterprise. Contract growers were matured, responsible and equipped with technical know-how in broiler farming. They have higher educational attainment and were receptive to new ideas and techniques of broiler production. Though most of them hired labors in the farm, they are physically fit to handle farm activities and open-minded to new technologies and farm management practices offered by the integrator. They also abide with the contractual obligations. The integrator on the other hand provided marketing assurance which attracted participation of more farmers in the enterprise.

Key words: contract broiler farming, profitable, broilers, integrator, farmers

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Introduction

Contract farming involves agricultural production being carried out on the basis of an agreement between the buyer and farm producers. Sometimes it involves the buyer specifying the quality required and the price, with the farmer agreeing to deliver at a future date. More commonly, however, contracts outline conditions for the production of farm products and for their delivery to the buyers' premises. The farmer undertakes to supply agreed quantities of a crop or livestock product, based on the quality standards and delivery requirements of the purchaser. In return, the buyer, usually a company, agrees to buy the product often at a price that is established in advance. The company often also agrees to support the farmer through, e.g., supplying inputs, assisting with land preparation, providing production advice and transporting produce to its premises. The term "out grower scheme" is sometimes used synonymously with contract farming, most commonly in Eastern and Southern Africa. Contract farming can be used for many agricultural products, although in developing countries it is less common for staple crops such as rice and maize (Wikipedia)

Contract farming has been practiced in the broiler industry since the 1980's where large companies or integrators obtained their supply of full- grown broilers from contract farmers who operated on small to medium scale (Tan, 1989). Contract farmers were reported to have supplied about 55% of broiler output in 2001 while remaining 45% were supplied by independent farmers (Sulaiman, 2001). In 2002, the chicken produced by contract growers accounted for 80% of total broiler supply while only 20% came from the independent growers (PBEC, 2002).

Poultry contracting farming is one of the options that are available for Filipino farmers. Contract growing is one of the most efficient broiler production methods in the industry as all resources are maximized in order to cut down on the cost and increase the production levels.

Farmers have long used formal contracts for procuring inputs and selling their output. From farmer's point of view, there are three main motivations to use contracts in the literature. First of all, risk management is one of the most important motivations for farmers to use contracts. The use of marketing contracts and production contracts help farmers to reduce price and/or production risks (Knoeber and Thurman, 1995; Macdonald et al. 2004; Zheng, Vukina and Shin, 2008). Second, other studies show that reducing transaction cost, such as search, measurement and monitoring costs, is also an important incentive for farmers to use contracts (Allen and Luke, 1993; Hobb, 1997; Fukunaga and Huffman, 2009). Third, the other studies focus on the effect on contract farming on the production efficiencies or the technology progress. Some positive relationship is found between contract farming and production efficiencies/technology improvement (Knoeber, 1989; Ahearn, Yee and Korb, 2005).

In the literature, there are only a few studies discussing the effect of contract farming on the production efficiencies or profitability. Key and McBride (2003) showed the used of production contracts in the hog industry help the diffusion of the new technologies and lead to the improvement of productivity. Morrison et. A (2004) found some small impact of contract farming on the productivity improvement of the broiler industry. However, those studies focused only on the livestock sector. There are much less studies examining the effects of contract farming on the framers returns and profitability. The significance of assessing contract broiler farming in Polomolok, South Cotabato is to determine if this kind of investment increase income of farmers and how it affects their financial stability.

The general objective of the study was to assess contract broiler farming of Polomolok, South Cotabato. Specifically, the study aimed to describe the contract broiler farming, to assess physical and human resource inputs and extension advisory service (EAS), to assess technical and economic performance of contract broiler farming, to determine farmers' perceptions on inputs-outputs, extension advisory service (EAS) and strengths, weaknesses, opportunities and threats (SWOT), and to determine profitability of contract broiler farming.

Methods

The study made use of both qualitative and quantitative research designs for data collection and analysis. Triangulation of methods is carefully made because it boost the overall strength of a study (Crestwell & Clark, 2007), and thus eliminates any limitation or intrinsic biases and the challenge that comes with the used of single method. The primary source of data used in this research was obtained from a field survey conducted by the researcher. Questionnaire survey was used for collecting qualitative data, whilst in-depth interviews were used to collect qualitative data. To address the research objective, fifty (50) Contract Broiler Growers in thirteen barangays of Polomolok, South Cotabato were selected and interviewed using interview guide questionnaire. The study was conducted in thirteen barangays of Polomolok, South Cotabato.



Results

Demographic Characteristics of Contract Broiler Farmers

Age, Marital Status and Gender

Fifty-six percent (56%) of the farmers belong to the middle age of 41-64 years old, 34% at a young age of 20-40 years old while 10% belong to the old age of 65 years old and up which implies respondents are matured enough to cope-up with the management activities in broiler farming. Majority of the respondents were married (98%) while only 2% were single. About 64% were male while 36% were female. The dominance of the male farmers was attributed to the nature of work which is farming and mainly a man's task.

Education, Poultry Occupation and Experience

On their educational attainment, majority of the farmers (96%) has a bachelor's degree but not relevant to poultry farming, 2% with master's degree and another 2% with a doctorate degree. This finding concurred with the findings of Pahardo (1991) that educated persons were generally more responsible and productive. Farmers with higher educational attainment were more receptive to new ideas and techniques of production. About 56% did broiler farming full-time while 44% were part-time which indicates that broiler farming was their primary occupation. Approximately, 42% of the respondents were relatively new to the agricultural sector of broiler farming with 1-5 years of experience, 34% with 6-10 years of experience, 10% with 11-15 years while 2% with 25 years' experience in broiler farming. The finding implies that farmers interested and engage in contract broiler farming are increasing in numbers because of its efficiency in production.

Criteria to Qualify in Contract Broiler Farming

Land, Labor and Capital

Under contract broiler farming a farmer should have a land area within an agricultural zone and 1 kilometer away from the nearest residential area. Adequate and dependable labor, either hired or family labor, is crucial in the production efficiency of contract broiler farming which the farmer should provide during the growing period. Other counterpart of the farmer is the poultry house, computed at least 110 pesos per bird. This implies that in contract broiler farming, the farmer is required to provide huge investment before the start of operation.

Broiler House

The chickens need a clean environment with adequate ventilation. The ideal dimensions of the chicken house are as follows: First, the poultry house must be constructed in an East-West orientation for better ventilation and heat regulation. Second, the poultry house must have a minimum capacity of 5,000 birds. Third, the design specifications should be as follows: width of 30 feet regardless of length, height from ground to slats is not lower than 6 feet, height from slats to eaves not lower than 8 feet, width of slats .75 inches, and distance between slats .5 inches. This implies that aside from the desire to raise chickens, a farmer should have a financial capability to build housing of poultry.

Counterpart of a Company in Broiler Contract Farming

Day old Chicks

Quality chicks look active and have dry and fluffy feathers, bright eyes and well-healed navels and weighed 35 grams or heavier. They have undergone quality control measure to ensure that the day old chicks delivered are of good quality and delivery is done during night time or early in the morning to reduce stress of the birds during travel. The company will supply a minimum of 4 to a maximum of 8 batches per year.

Vaccination

As a preventive measure, chicks are vaccinated against New Castles Disease and Infectious Bronchitis subcutaneously in the hatchery and a follow-up vaccination done in the farmers' farm on the 15th day via drinking water. This implies that the farmers are assured that their broilers have protection against viral diseases.

Feeds and Medication

Feeds and medication are delivered to the respective farms prior to placement. A total of 430 bags per 10,000 day old chicks is allocated for feed consumption in one cycle. These comprise 50% booster mash and 50% starter crumble and given *ad libitum*. Medicines comprise d of vitamins, electrolytes, probiotics and a little antibiotic. This implies that inputs are fully made available and farmers readily used them for their flocks advantage at all times.



Technical Services

Technical services are made available 24 hours, especially when there is need for technicians to check, assist and supervise management practices during growing period to achieve targeted production parameters. This implies that farmers have access to the best management practices and training techniques offered by the integrator, particularly to new information regarding broiler production.

Marketing of Broilers

Upon harvest, broilers are brought to the company's dressing plant in Barangay Sulit, Polomolok, South Cotabato for processing. The company is responsible of the marketing of the dressed chickens and its by-products to contractors. This implies that farmers get assurance of their finished product marketing which lessens responsibility.

Physical and Human Resource Inputs

Labor

A great majority (98%) of the contract broiler farmers hire laborers to ensure good efficiency of both operation and production efficiency while 2% does farming with their family members. The decision as to who will be the labor worker in the farm is prerogative of the farmers. Labor workers stay in the farm during the growing period to closely monitor the flock and for security purposes. This implies that a dependable labor worker is of great consideration in hiring labor worker in the farm.

Average Cycle of Broiler Production

The average cycle of production a year is six (6). Majority (58%) does farming in 4-5 cycles a year, 26% for 2-3 cycles while 16% for 6 cycles a year. This result shows contract broiler farmers may refuse to receive the batch of chicks due to shortage of day old chicks, repair of broiler houses and most commonly a farmer is looking for other integrators who will offer high rearing charges.

Building Capacity to Raise Broilers and Number of Broiler House

About 24% of the farmers have building with capacity to house 31,000- 40,000 day old chicks, 22% with 21,000- 30,000, 16% with 41,000- 50,000, and 14% with 10,000 and below while 2% can house 50,000 and more. The broiler house requires a width of 60 feet regardless of height. Majority (56%) of the farmers has 1-2 broiler house, 16% with 3- broiler houses, 4% with 5-6 broiler houses and 2% with 7-8 broiler houses. The result however does not imply that farmers with more number of houses have also more number of broiler house built big in size to accommodate great number of birds.

Technical and Economic Performance

Harvest Rate and Feed Conversion Efficiency

Sixty percent of the contract broiler farmer has high harvest rate of 95-96%, followed by 24% which is 97-98%, 8% with 93-94%, and 6% with 91-92%, and 2% with 90% below. The harvest rate performance of the farmers was very promising as indicated by the result. In terms of feed conversion ratio, 1.6 is subject for performance incentive. A higher FCR of 1.6-1.699 was gained by the majority of the farmer (42%), 22% gained 1.7-1.799, 14% gained 1.5-1.599 and 1.8-1.899, 6% gained 1.9-1.999 while 2% gained 2.0. This implies that the lower the feed conversion ratio, the better the performance of the farmer and 42% of the farmer received performance incentive in this parameter.

Average Live weight and Broiler Performance Index

About 80% of the farmer have produced broiler with high live weight of 1.3-1.4kg. , 18% with 1.1-1.2kg. and 2% with 1.5kg. Broiler performance index revealed a higher or 10% performance level of farmers, which is very productive, 48% achieve 251-300 which of average range, 32% achieve 201-250 and 10% achieve 200 or lower. This indicates that the return of investment is 100% for 2 years. Further, it manifest that the farmers are well equipped with technical know- how leading to a proper management operation.

Farmers Motivation to do Contract Farming

Among the 10 factors of motivation, no market risk was the first factor that motivates the farmers to do contract farming. The contract stipulates that the integrator is in-charge of the harvesting, dressing and marketing operations. Second in rank is "good market demand" because poultry meat is acceptable to all people regardless of age and religion. Regular and quick returns, employment for self and family and easy to operate, manure for crops, chicken for home consumption, alternative to less profitable agriculture, less land required and low working capital follow in descending orders. The result indicates that farmers' have the desire to raise chickens and willingness to meet contractual obligations but want to be assured their outputs will turn into profits and not losses due to problems of marketing.



Farmers Satisfaction and Technology Adoption

The farmers were satisfied in the intension of Extension Advisory Service in the provision of information, knowledge, skill and attitude change, inputs of chicks, feed, medicines and output f broiler birds, manure and payment received. Items included in the technology adoption were chicks brooding management practices, housing design and equipment, feeding frequency and timing and medication dosage and administration. These were adopted by farmers except for medication dosage and administration which is fully adopted by farmers.

Strengths and Weaknesses

No marketing risk is the primary advantage strength of contract broiler farming. And the return of investment is fixed. Second advantage is quick return of investment as broiler farming is done for n average of 29.6 days. Other advantages/ strengths are efficiency of production, inputs and extension advisory service doorstep delivery, technical advises, all-in all-out system, easy to change input providers and low production cost. Further, the integrators offer low rearing charges, market and fixed returns are guaranteed.

High investment cost is the major weakness in contract broiler farming. Contract broiler farming includes housing requirement for farmers which entails huge capital. High mortality rate of chicks is the second weakness. Disease outbreaks comes third in rank followed by low rearing charges, shortage of skilled labor, seasonal inputs availability, and demand fluctuations. High marketing risk comes last in rank as this is shouldered by the company.

Opportunities and Threats

Assured marketing ranks number 1 in the opportunities of contract broiler farming. The farmers produce good quality broilers and the integrator takes charge of the marketing. High demand and acceptability of poultry meat ranks second. Poultry meat is easy to prepare and acceptable to all regardless of age, race and religion. Scope for further expansion ranks third because of high demand in poultry meat and the efficiency in broiler production, contract broiler farmers are motivated to further expand their broiler farming by having housing expansion or additional building construction to increase number of birds to be reared, which means additional income to them. The result implies that farmers view contract broiler farming as a good business enterprise.

Unilateral contract favoring integrators is the major threat in contract broiler farming. There are many integrators engaged in contract broiler farming in Polomolok, South Cotabato. Each of these has different contract broiler farming schemes. Most of the privileges and rights are in the hands of the contract companies; requirements for poultry housing, specifications of outputs to be achieved by farmers such a s harvest rate, feed conversion ratio, broiler performance index, bodyweights and many more are fixed in favor of the contract companies. Among threats may happen due to respiratory disease owing to unpredictable weather condition, contaminated feeds and oftentimes due to vaccination failure. New residential housing is a threat to contract broiler farming. High production cost follows and lastly control of market by a few integrator. The results imply that biosecurity measures should be observed in order to avoid losses from morbidity and mortality of flock thus increase production even if scheme are revised by the integrators. Further, in constructing a poultry house, a farmer should consider future scenario of the neighborhood, like housing project expansion of the locality.

Profitability in Contract Broiler Farming

The cost and return analysis of contract broiler farming shows the enterprise is profitable. However, profitability may vary owing to the location of the farm, owners experience and facilities available.

Analysis

The result revealed that about 56% of the respondents belong to the middle age of 41-64 years old. Majority of the respondents were married (98%). About 64% were male. In terms of educational level, majority (96%) had a bachelor's degree but not relevant to poultry farming. About 56% does broiler farming full-time. Approximately, 42% of the respondents are relatively new to broiler farming with 1-5 years of experience.

All farmers (100%) met the land, labor, capital and housing counterpart requirements for contract broiler farming. Likewise, good quality day old- chicks, feeds, vaccination, medication, technical services and the marketing of broilers are 100% met by the company as counterparts in broiler contract farming.



Almost all contract broiler farmers (98%) hire skilled labor workers to ensure operation efficiency is met. Majority (58%) does broiler farming for 4-5 cycles a year. About 24% has a building capacity for 31,000-40,000 day old chicks and majority (56%) of the farmers has 1-2 broiler houses.

The technical and economic performance of farmers revealed that more than half (60%) have harvest rate of 95-96%. In terms of feed conversion ratio, 42% of the farmers have gained FCR of 1.6-1.699. Eighty percent (80%) of the respondents harvested birds with live weight gain of 1.3-1.54 kilogram. Broiler performance index revealed that 48% of the farmers achieved 251-300, which is of average range.

Among the 10 factors of motivation, no market risk is the first factor that motivates the farmers to do contract farming. Output in terms of broiler birds, manure, and payment received were all rated satisfied by the farmers. Technical advises are adopted by farmers.

No marketing risk, quick returns, efficiency in production, inputs and extension advisory service doorstep delivery and technical services are among the strengths of contract broiler farming. High investment cost is the major weakness in contract broiler farming, followed by high mortality rate, disease outbreak, low rearing charges and shortage of skilled labor workers.

Assured marketing ranks number one among opportunities in contract broiler farming while unilateral contract favoring integrators is the major threat.

The average performance of 50 contract growers revealed a promising profitability in the business. The return of investment is 96.49% and investment from poultry house and equipment will be realized in 1 to 2 years time after the start of operation. Minor benefits sales of by- products are additional source of income for the farmers. These by- products are chicken manure, used feed sacks and empty plastic bottles from medicines.

Discussion

Contract broiler farming in Polomolok, South Cotabato is a profitable enterprise. Although, land, labor, capital and housing as farmers counterpart in participating in the enterprise must take into consideration before engaging in this enterprise as huge investment is needed and return of investment will be achieved 1 to 2 years after the start of broiler farming operation, the assurance of the integrator on guaranteed markets, technical services and operations inputs lessens the load of the farmer in broiler farming. The strengths and weaknesses imply that farmers have a mind for business and the desire to raise chickens. Due to high investment in poultry housing (weakness) a farmer has the financial capability to build housing, purchasing of equipment's and payments of labor which means lot more to think of in the part of the farmer. Their assurance of guaranteed markets (strength) and fixed cost in contract broiler farming raises their confidence to invest.

It is recommended that: first, the contract for broiler farming should be jointly examined by the integrator (company) and the farmers so that both parties will be equally benefited by the enterprise, thus will assure sustainability of the venture in the future. Second, the farmers should organize themselves into an association in order to have strong voice in ventilating their concerns to the integrator. And third, farmers engaged in contract broiler farming should enhance more their production efficiency in order to increase income.

Ethical Declaration

All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants involved in the study.

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Declaration of Conflict Of Interest

No potential conflict of interest was reported by the author.



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