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Research Article

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Risks and Some Prevention Solution in the Chicken Raising: A Case Study in Kim Dong District, Hung Yen Province, Vietnam

Bui ThiNga[1], Philippe Lebailly[2]

[1]Department of Business Management, Faculty of Accounting and Business Management, Vietnam National University of Agriculture
[2]Department of Economics and Rural Development, Gembloux Agro Bio Tech, University of Liege

Abstract Chicken raising in Vietnam is still spontaneous, small scale, scattered, backward, low productivity, and especially faces many risks which would reduce the efficiency and profits of the farmers. This study aims to analyze risks and suggest some prevention solutions in the chicken raising in a case study of the Kim Dong district, Hung Yen province based on the questionnaire survey data of 40 representative chicken raising farmers. The results showed that, the most popular risks of input came from the high feed price (80%), and the easily engaged in diseases breed (72.5%). In the chicken raising period, they got the risks of diseases (90%), 35% had experienced with massive death. There were 80% farmers found difficulty or slow consumption, 70% was at risk of reducing or low output prices, and 65% responded that the market sometimes was distorted by the traders. The study suggests that, farmers need to have a strong cooperative to create a greater power in the negotiation with feed providing companies; select good prestige, ensured quality breed providers; reorganize their production process, regularly vaccinate, carefully monitored for early detection of epidemics, quarantine sick chickens from the flock, treat the diseases completely; update the market information to raise at the suitable production size. Government and local authorities should support them about market information so they can make the most appropriate and beneficial decision about production.

Keywords risk, chicken raising, farmer, disease

Introduction

Chicken raising is a traditional occupation and plays an important role in the economic development of Vietnam. It ranks the second important positions, just after pigs, in the whole livestock sector [1]. In 2014, the numbers of poultry in Vietnam reached 327.7 million heads [2], in which, the numbers of chicken accounts for around 95% and provides proportion of meat for the market of 14-15% [1]. It is considered as an important economic sector and a great value contribution to the agricultural production, significance in the process of restructuring the rural agricultural economy in Vietnam in general, and in Kim Dong District, Hung Yen province, in particular.

However, the chicken raising in Vietnam is still spontaneous, small scale, scattered, backward, low productivity, and especially faces many risks. For example, the bird flu outbreak in Vietnam from 2003 to 2007 had caused huge losses to the poultry industry in general and chicken in particular, both in economic, social and environmental aspects. In addition, H5N1 bird flu is dangerous to human living, even lead to the human death. Within 4 years from 2003 to 2007, Vietnam had 98 people infected with H5N1, of which 44 were dead [3]. It also affected many related industries, posed a great influence on the market, and led to the continuous increase in inflation in 3 years of that period.

In addition to the diseases, chicken farms also coped with the rising input prices, reducing or fluctuated output price. The Vietnamese government has launched a number of measures to limit risks to chicken farmers such as providing technical assistance, supporting seeds and markets, preventive vaccination. However, these solutions seemed have not overcome the obstacles [4].

This study aims to analyze risks in chicken raising in a case study of Kim Dong district, Hung Yen province and suggest some solution to prevention and reduce risks for farmers in the study sites in Kim Dong district in particular, in Vietnam in general.

Methodology

The in-depth interviews, expert method, and standard questionnaire were used to collect primary data from 40 representative chicken raising farmers in the study site.

Kim Dong was selected as a case study because of the following reasons:

-Kim Dong has large consumer markets in the commercial centers of Hanoi, Hung Yen and rounding areas.

-It has a convenient transportation network, a good conditions to expand exchanges and commodity consumption.

-It is located in the triangle economic growth zone in the North Vietnam, therefore, it has attracted many domestic and foreign enterprises to invest in, including the processing companies. It also attracts many labors who consume the chicken products.

Results and Discussion

Characteristics of chicken raising farmers in the study site

Characteristics of farmers

The average age of surveyed household's head was quite high at 42 years old, in which the eldest was 56 and the youngest was 26 years old. The mode age range was from 38 to 45 years old. At this age, the farmers had experienced in life, could make good decisions, but a bit old to absorb, learn, and apply new scientific knowledge in animal husbandry. Numbers of family members were commonly at 4 people, and the common laborers were from 2 to 3 people. Farmers used family labor for chicken raising, almost no external hired labor, but sometimes, they exchanged labor or support each other in raising chicken.

Regarding to educational level, 67.5% of the farmers had just finished the secondary school level. This can be explained by the fact that the majority of people with higher qualifications have done other work such as government officials, workers in companies or migrate to other major cities for work.

In terms of land area, the common households land area was around 1200 to 1800 m^2. The average area per household is 1615 m^2, of which 29.8% of the area for their living.

Table 1: Characteristics of farmers

No	Criteria	Unit	Number	Ratio (%)
1	Average ages of the head of the households	Years	42	
2	Average family members	People	3.8	
3	Numbers of average labors	Labor/farm	2.4	
4	Experience time of chicken raising	Years	5	
5	Educational level of the head of the household	People	40	100
	Secondary school	People	27	67.5
	High school	People	11	27.5
	Graduates and college	People	2	5
6	Land area			
	Average land area	m^2	1615.3	100
	Living area	m^2	481.57	29.8
	Agricultural land	m^2	1133.7	70.2

Source: Survey results, 2016

Table 2: Characteristics of chicken raising

Characteristics	Unit	Mean
1. Numbers of litter per annum	Litter/annum	4.3
2. Farm size	Head/litter/farm	2340
3. Density	Chicken/m2	9.6
4. Average adult weight	Kg/head	2.2
5. Feed consumption	Kg/head	4.02
6. Survival rate	%	81.3
7. Breed	Hybrid Dong Tao	
8. Raising method	Entire captive with playground	

Source: Survey results, 2016

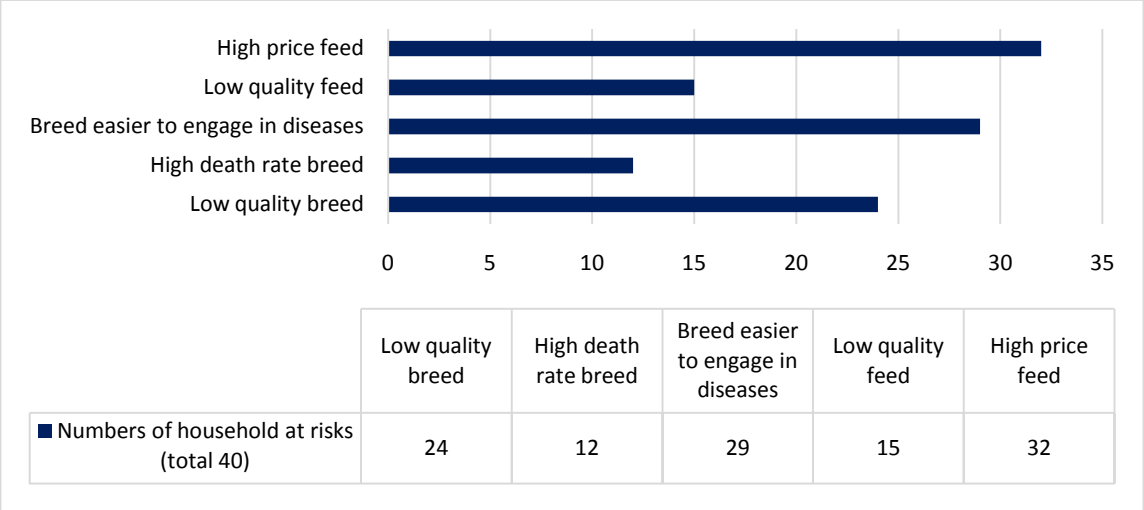
Characteristics of chicken raising

Most of the farmers raised hydric Dong Tao breed chicken. Raising period ranged from 110 to 130 days. On the average, farmers raised 4 litters per annum. However, some farmers could raise 6 litters by overlapping between two consecutive litters. The survival rate was 81.3% and common adult weight from 1.9 to 2.5 kg per head. The chicken was entirely captive with a playground, but a quite high density of average 9.6 chicken heads per m2. They used entirely mixed bought feed. Some families added some additives such as wine by-products, vegetables to the diet. On average, each chicken consumed 4 kg mixed bought feed.

Risks of chicken raising

Risks of inputs

There were 80% of the surveyed farmers have experienced with the risk of rising feed prices. They responded that that feed prices had a tendency of increasing almost the time from the point they started raising chicken. The feed price rarely reduced and if it reduced, it was much lower than the previous increase. This imposed a large influence on the efficiency of the household as the feed price was high, their value added and profit was low, even they suffered from lost. There were 72.5% of farms got risks that their breed engaged in diseases after the purchase. There were 60% of farms suffered the risk of poor quality, and slow growth breed. A third of households were at risk of high death rate breed and the same ratio were engaged in poor feed quality.



	Low quality breed	High death rate breed	Breed easier to engage in diseases	Low quality feed	High price feed
Numbers of household at risks (total 40)	24	12	29	15	32

Figure1: Risk of input in chicken raising

Source: Survey results, 2016

Risks in the raising period

During the chicken raising period, the popular risk that farmers suffered was diseases (90% responded). There were 88% of farmers had been a risk that the chickens died, and 35% of farmers had at risk of massive deaths. Among the farm at risk of mass chicken deaths occurred, there were 42.85% of households losing capital, investment impossibilities, even engaged in bad debts. Besides, the farms were at risk because of longtime raising period chicken (40%) which would lead to the reduction of profits; and low-quality products (38%) such as small egg, orbroilers looked ragged, crests pale, bruised, limp, droopy wings, which led to the difficult consumption and low output price.

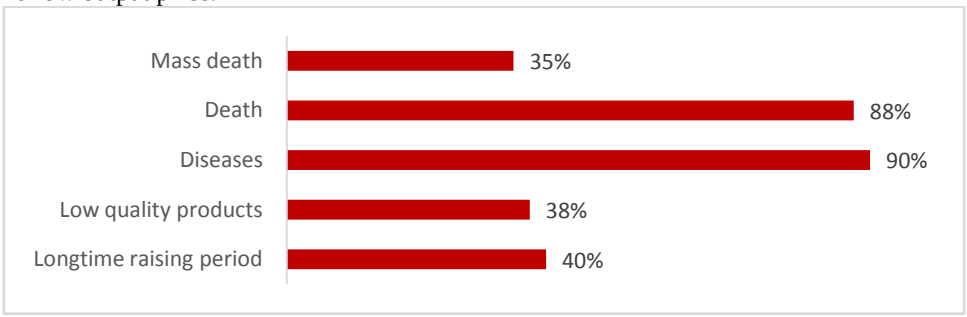


Figure2: Risk in the raising period

Source: Survey results, 2016

Risks of consumption

In the consumption process, there were 80% farmers faced the risk of difficulty or slow consumption. With this risk, farmers had to increase the raising period when their broilers achieve the optimal growing level and difficult to grow more. Sometimes they had to store their eggs for long which would reduce the eggs' quality. This in turn led to the increase in the chicken raising cost, especially feeding cost, and reduced farm efficiency, sometimes led to the lost. There were 70% of households was at risk of reducing or low output prices. When prices fell, or low, farmers would easily suffer from lost. There were 65% responded that the market sometimes was distorted by the traders. The traders could pose pressure to reduce the output price. This phenomenon often occurred when the market was in the disadvantage cases such as high supply level, market shock, or in case of the disease (bird flu, for example). Lack of information on market demand was also another risk for farmers. They normally raised their animals based on their capacity, almost did not recognize or base on the demand for their products in the market. This sometimes led to the surplus of output in the market and they would face difficulty in consuming their products.

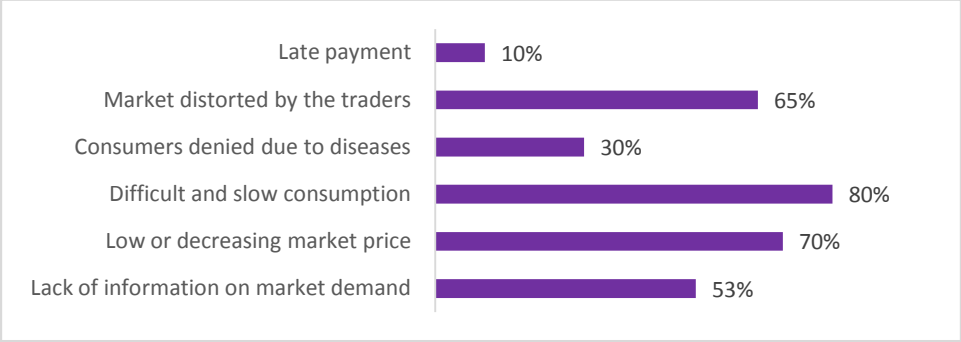


Figure 3: Risks of consumption

Source: Survey results, 2016

Conclusion and some solutions to prevent the risks of chicken raising

The surveyed results showed that, the chicken raising farmers in Kim Dong district, Hung Yen province faced many risks of input, raising period and consumption. The most popular risks of input came from the high feed price (80%), and the easily engaged in diseases breed (72.5%).In the chicken raising period, they got the risks of diseases (90%), 35% had experienced with massive death. The farmers also faced risks in the consuming period. There were 80% farmers found difficulty or slow consumption, 70% was at risk of reducing or low output prices, and 65% responded that the market sometimes was distorted by the traders.

In order to reduce and prevent the risks, improve the farm efficiency and sustainable chicken raising, it is necessary to implement some solutions:

- For the chicken feed, farmers need to have a strong cooperative with each other to create a greater strength, higher power in the market to be able to negotiate with feed providing companies better. This could help them to reduce or stabilize the feed prices, and increase the feed quality. Farmers should also participate in the chicken value chain to tighten the relationship among actors from production to consumption. Through the development of the chain, the market will have less manipulate and the price will be more stable.
- About the breed, farmers should select providers who offer the good prestige, ensured quality products to reduce the risks. Farmers had better to sign a contract with the supplier, so that when there are problems, they will have a stronger position and voice in handling these issues.
- About the disease, farmers should reorganize their production process to ensure the safety and prevent the disease. They should regularly vaccinate the chickens, carefully monitored for early detection of epidemics, quarantine sick chickens from the flock, and treat the diseases completely. They should also clean the coop regularly and scientifically to prevent the spread of germs. When a disease outbreak happens in the region, they should isolate of their chicken flock from the source of disease and strict adherence to the epidemic prevention mode.
- Farmers should also update the market information about the supply and demand situation to raise at the suitable production size. They should plan carefully, associate with other agents in a formal way to minimize the risk of market squeeze. Government and local authorities should also support them about market information so they can make the most appropriate and beneficial decision about production.

References

[1]. Nguyen Van Khoa (2014), Research the chicken value chain in Chi Linh district, Hai Duong province of Vietnam, Thesis, Hanoi Agriculture University, Vietnam

[2]. GSO (2015), Vietnam Annual statistically Year Book, Statistical Publishing House, Vietnam.

[3]. Nguyen Cong Xuan (2008), Sustainable development of poultry in the animal husbandry strategy to 2020, Vietnam Association of poultry raising http://www.vnua.edu.vn/khoa/cn/index.php?option=com_content&task=view&id=976&Itemid=226**,** download on 24/07/2016

[4]. Nguyen Thai Bac (2013), Research solution to prevent the risks in chicken raising farmers in Duc Trong district, Lam dong province (Vietnam). Master thesis in Agricultural economics, Hanoi University of Agriculture.