



UDC 332; DOI 10.18551/rjoas.2022-07.19

SUSTAINABILITY OF KAMPUNG UNGGUL BALITBANGTAN CHICKEN RAISING BUSINESS IN CENTRAL LOMBOK REGENCY OF INDONESIA: SOCIAL CAPITAL PERSPECTIVE

Mardiana*

Masters' Program of Animal Resources Management, University of Mataram & Assessment Institute for Agricultural Technology (Balai Pengkajian Teknologi Pertanian), West Nusa Tenggara Province, Indonesia

Taqiuddin M., Soekardono

Faculty of Animal Husbandry, University of Mataram, West Nusa Tenggara Province, Indonesia

*E-mail: mardiana.hakim@gmail.com

ABSTRACT

The increasing demand for free-range chicken in recent times has encouraged the growth of local chicken farming on the island of Lombok. *KUB* chicken is a type of free-range chicken that is preferred by farmers to cultivate because of its relatively fast growth. One of the important factors so that the *KUB* chicken farm business can continue in the long term is the existence of strong social capital. It is unfortunate that information regarding social capital in society is still very limited. This paper will describe how the condition of social capital in *KUB* chicken farmers and how this social capital affects the sustainability of *KUB* chicken business in terms of economic, ecological and social dimensions. This paper based on a study conducted in Central Lombok Regency as a center for *KUB* chicken development during July to September 2021. Data collection was carried out using the snowball sampling method involving 35 respondents. The independent variable observed was social capital consisting of networks, beliefs and norms, while the dependent variable was business sustainability including economic sustainability, ecological sustainability and social sustainability. Data were analyzed descriptively and statistically multiple linear regression. The results of the analysis show that the sustainability of the *KUB* chicken business is quite good in terms of economic, ecological and social dimensions. On the other hand, it can be seen that the condition of *KUB* chicken farmers' social capital is still quite limited. This shows that the opportunity to increase the *KUB* chicken business is still wide open. With the increase in social capital available to *KUB* chicken farmers, the *KUB* chicken business will be able to increase much more than the current condition so that it is hoped that the sustainability of the *KUB* chicken business will be able to take place in the longer term.

KEY WORDS

Business, public service, social capital, Indonesia.

The increasing consumption of free-range chicken meat as stated by the Indonesian Ministry of Agriculture (2018) is partly due to changes in people's preferences for local or organic food which tend to increase (Budiarsana and Hidayat, 2012). Although the price of free-range chicken is relatively more expensive than broilers chicken, free-range chicken is preferred by the upper middle class because it is considered to have a much lower chemical residue (Zulkarnain, 2007 in Wibowo, 2016). Consumers perceive that the taste of free-range chicken is much tastier with less fat content (Amelia, et al, 2018).

In West Nusa Tenggara (NTB) Province, especially Lombok Island, the rapid growth of culinary as one of the supports for the tourism sector has caused the need for free-range chicken to increase. Lombok's special culinary which is a tourist attraction is "Taliwang Chicken" which has the main raw material of free-range chicken. The results of research by



Priyanti et al (2016) reported that to meet the demand for free-range chicken in the Mataram City area, 15 to 16 thousand free-range chickens were needed every day.

The native chicken used as raw material for Taliwang chicken is native chicken with a weight ranging from 0.4 to 0.6 kg. The types are quite varied, including ordinary free-range chicken, Arabic chicken, Joper chicken (*Jowo Super*), and what is increasingly in demand by the public today is the *Kampung Unggul Balitbangtan (KUB)* chicken. The *KUB* chicken released by the Indonesian Ministry of Agriculture based on the result of selection from the village chicken family for six generations with various advantages, both as laying hens and broilers. With its high growth power, to meet the needs of Taliwang chickens, *KUB* chickens can be harvested at a fairly fast age of 35-45 days (Priyanti et al, 2016).

The relatively short business turnover accompanied by increasing demand has caused the *KUB* chicken rearing business in the NTB region, especially on the island of Lombok, to develop quite rapidly. This can be seen from the *KUB* chicken population which is increasing every year. According to BPTP NTB records (2020), in 2016 the number of *KUB* chickens in NTB was only 109,168 heads, but in 2019 there were 1,103,000 *KUB* chickens, an increase of more than ten times. The largest population of *KUB* chickens is in Central Lombok Regency, so it is not surprising that Central Lombok is the center of *KUB* chicken business in NTB Province. This is supported by the BEKERJA Program (*Welfare Improvement Program*) launched by the Indonesian Ministry of Agriculture in 2018 and 2019 which reaches no less than 12,000 Poor Households, so that people begin to know *KUB* chicken widely. *KUB* chicken breeders began to appear both small and large scale who are interested in the promising prospects of *KUB* chicken business.

Every business requires good management so that the business can be sustainable in the long term, including livestock business. As stated by Wood (1987) in Sumarno (2018) that agricultural business is related to the dimensions of economic enterprise, the socio-economic dimension of society, the long-term dimension of time, the dimensions of biodiversity conservation and genetic diversity of plant species, the dimensions of environmental and air health, the dimensions of quality, agricultural resources and dimensions of sustainability of agricultural resource capacity and the environment. In line with that, a study conducted by Suryanti et al., (2019) on broiler farming business refers to three important aspects, namely sustainability in the economic dimension, the ecological dimension and the social dimension. The results of this study indicate that economically, ecologically and socially, the sustainability of broiler farming business can be said to be low. One important factor is that the partnership between plasma farmers and the company as the core is seen as not providing significant benefits, and even tends to harm plasma farmers. On the other hand, environmental pollution caused by chicken manure as well as social relations between plasma farmers and the surrounding community that are less harmonious have caused the business to be vulnerable not to last long. This shows that the social capital owned by broiler farms tends to be low.

Mangkuprawira (2010) stated that at the world level, social capital is an important issue because it is a strategic concept of poverty alleviation. In the context of society in Indonesia, there are various examples of existing social capital such as kinship systems between individuals and groups, mutual help, social empathy, mutual cooperation, collection of disaster funds, mutual trust between individuals, togetherness and social cohesion. This is in line with the results of a study by Santoso and Harsono (2014) which state that providing mutually beneficial information, sharing expertise in running a business, including strengthening each other in capital, are forms of realization of social capital that are very helpful in developing the business of group members.

The description above shows that social capital occupies an important position in efforts to maintain sustainability and business development, including the *KUB* chicken farm business. However, it is realized that information on how the condition of social capital and how social capital contributes to the sustainability of the *KUB* chicken business in the context of the socio-economic conditions of the people in Central Lombok Regency is still very limited. This information is important because it can be used as a reference for the preparation of a sustainable *KUB* chicken business development plan. This study was



conducted to determine the condition of social capital in the *KUB* chicken business in Central Lombok Regency and how the influence of social capital on the sustainability of the *KUB* chicken business in Central Lombok Regency.

MATERIALS AND METHODS OF RESEARCH

The research was conducted from July to September 2021. The selection of research locations was carried out purposively, namely Central Lombok Regency as a center for producing local chickens with a population of free-range chickens of 3,074,683 or 37.21% of the total 8,262,646 free-range chickens produced in NTB Province, where 25% of the population of free-range chickens in Central Lombok Regency are *KUB* chickens (Animal Husbandry Department, 2020).

This study was designed as a survey of farmers who run a *KUB* chicken business. Given that there is no definite data on the number of *KUB* chicken farmers in Central Lombok Regency, the sampling was carried out using the snowball sampling method. Sampling in snowball sampling is a multistage technique, starting with one or several people then spreading based on links to the beginning of the case (Newman, 2014). In the snowball sampling technique, initial identification starts with someone who meets the research criteria. Then based on direct or indirect linkages in a network, the next respondent or the next sample unit can be found. This sampling process continues until sufficient information is obtained and an adequate and accurate number of samples can be analyzed in order to draw research conclusions (Nurdiani, 2014).

The data collection during the survey is all information related to social capital and business sustainability. The observed variable is social capital which consists of network (X1), trust (X2) and norms (X3). The dependent variable observed was business sustainability (Y) including economic sustainability, ecological sustainability and social sustainability. The data collected using a Likert scale is modified into five levels which are answers to statements of attitudes and responses to phenomena. Respondents' answers in the form of ordinal data were transformed into five levels of answers, namely very high, high, medium, low and very low.

The formula (Sriati *et al.*, 2004) used to determine the class interval is:

$$\begin{aligned} NR &= NST - NSR \\ PI &= NR : JIK \end{aligned}$$

Where: NR = Nilai Range Value Range; NST = Highest Score (NST = number of questions for each item multiplied by five); NSR = Lowest Score (NSR = number of questions for each item multiplied by one); JIK = Class Interval Distance (JIK = 5); PI = Class Interval Length.

Descriptive analysis was used to determine the level of business sustainability and the capacity of farmers in running a village farm business. Inferential analysis uses multiple linear regression to describe the influence of social capital factors on business sustainability. The model built is based on the hypothesis that the sustainability of the free-range chicken farming business (Y) is influenced by the network (X1), trust (X2) and norms (X3).

The multiple regression model applied to measure the effect of social capital on business sustainability is as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + \epsilon \quad (1)$$

Where: Y - business sustainability; X1 - Network; X2 - Trust; X3 - Norm; b1, b2 - regression coefficient; ϵ - error.

RESULTS AND DISCUSSION

Based on the data in Table 1, the sustainability of the *KUB* chicken business both economically, ecologically and socially shows a fairly high value. This indicates that for



farmers, raising *KUB* chickens is a prospective business to do. Breeders consider this business relatively easy to do, fast business turnover and market needs are still high. Financially, the *KUB* chicken business provides a much more definite and faster profit than other livestock, such as cattle. This is in line with what was conveyed by Sejati and Saptana (2014), that rural communities tend to choose to raise local chickens because they can be cultivated both intensively and semi-intensively, adjusted to the capacity of the breeders themselves, both in terms of capital ownership and the technology they use. As written by Saptana and Sartika (2014) and Noferdiman et al, (2014) that the free-range chicken business remains an attractive option for farmers to develop because the economic value of local chicken is high compared to other livestock, including even broilers. Besides being easy to maintain with fairly simple technology, free-range chicken is easy to sell at any time when there is an urgent household need. The following describes the sustainability of the *KUB* chicken business from the economic, ecological and social dimensions.

Table 1 – *KUB* Chicken Business Sustainability Based on Economic, Ecological and Social Dimensions

Class	Economic Dimension		Ecological Dimension		Social Dimension	
	Number of Respondent	Percentage	Number of Respondent	Percentage	Number of Respondent	Percentage
Very low	0	0	0	0	0	0
Low	2	5.71	0	0	0	0
Moderate	26	74.3	3	8.57	2	5.71
High	7	20	31	88.6	23	65.7
Very high	0	0	1	2.86	10	28.6
	35.0	100	35.0	100	35.0	100

Source: Primary data analysed (2022).

Economic Sustainability. When assessed from the economic dimension, the sustainability of the *KUB* chicken business is in the medium category (74.3%). This shows that economically the business of *KUB* chicken rearing still needs serious attention from various related parties. The main thing that causes the sustainability of this business to remain in the moderate category is the fluctuation in feed prices which cannot be matched by the increase in chicken prices. When the price of feed soars, while the cost structure of the *KUB* chicken rearing business is 70-80% for feed, this business is vulnerable to changes in feed price factors. The increase in feed prices will greatly reduce the level of profit received by farmers. Breeders with small capital find it difficult to compete with farmers with large capital, so it is feared that small-scale farmers will easily go out of business.

Ilham (2015) reported that in fact the government has been trying to develop the local chicken industry since 1997/1998 by launching the Rural Rearing Multiplication Center (RRMC) and Intensification of local chicken (INTAB) projects. The hope is that it will create jobs and increase the productivity of local chickens which will ultimately increase the income of farmers, although it is acknowledged that this program has been less successful. In 2006 after the end of the avian flu epidemic, efforts were made to revive local chicken businesses as an economic driver for rural communities, such as launching the VPF (Village Poultry Farming) program in several regions in Indonesia. However, at present, farmers need not only the provision of programs of a limited scale, but also on regulations that have a wider impact, especially those that are directly related to the general trading situation. Currently, the development of both purebred and local chicken businesses is highly dependent on the availability of feed in the market, which is highly volatile in nature depending on the supply of raw materials, especially corn and additional ingredients, which are mostly imported through imports. When these materials are not available adequately, automatically the price of feed will increase but it is not necessarily offset by the increase in the price of the chicken itself. This is as stated by Aedah et al, (2016) that local chicken entrepreneurs are still very dependent on large feed companies such as PT Charoen Phokpan, PT Jafpa, and PT Gold Coin. This is why regulations from the government are urgently needed to protect farmers from the uncertainty of feed prices in the market.

On the other hand, local chicken farmers also need to understand that the feed needs of local chickens are different from those of purebred chickens so that the level of nutritional



needs of local chickens is lower than that of purebred chickens. The use of feed on local chickens which is equated with purebred chickens will cause business inefficiency. In this case, only a small number of farmers have modified feed in order to save costs. Efforts are being made, among others, by mixing concentrate feed with various ingredients such as bran and vegetables which are finely chopped and doused with hot water until soft. One of the advantages conveyed by farmers who modify feed is that *KUB* chickens are relatively not picky about certain types of feed compared to other types such as *Joper*. By mixing the feed, farmers say they can save up to 30% on feed costs. This is as cited by Hidayat (2012) that Nataamijaya et al, (1992) stated that if local chicken farmers have not been able to develop their own feed formula, a feeding pattern can be applied with a 100% commercial chicken ration composition given until the chickens are 7 days old, then feed can be mixed with fine bran in a ratio of 1: 1, with the addition of Ca (2%) and P (1%). This pattern is known to reduce costs by up to 25% and increase profits by up to 30%.

In general, the management pattern of *KUB* chicken rearing business carried out by farmers in Central Lombok Regency is quite diverse, in terms of business scale and length of maintenance cycle. This will give the amount of income that also varies. The larger the scale and business cycle of *KUB* chicken rearing, the greater the profits obtained. The scale of the breeder's business ranges from 300 to 2,000 heads.

Regarding the scale of business, Budiarasana and Hidayat (2012) stated that based on various studies, to bring profit for local chicken farmers, a minimum of 50 chickens are kept. A study conducted by Rusdianto et al, (2016) showed that the greater the number of chickens kept, the greater the income obtained because the level of efficiency was higher. In line with the study conducted by Rohaeni et al., (2004), it is said that different business scales will provide different inputs to household income. Domestic chicken rearing on a scale of 10 – 100 heads/household contributes 8.65%. Meanwhile, intensive maintenance with an ownership scale of 200 – 2,000 heads/household contributes to family income up to 100%.

There are farmers who raise *KUB* chickens four times a year, there are farmers who are able to turn their business up to six times, assuming a harvest age of 45 days, emptying the cage for 2 weeks for cleaning and sterilizing the cage. Farmers say that they prefer to sell chickens at aged 45 days compared to 60 days old, because even though the price they can get is cheaper, if it is converted to the cost of feed spent to raise chickens until they are 60 days old or more, the level of profit they get will be higher. Farmers are forced to sell chickens at aged over 50 days because there is no price match with the buyer in this case called collectors. You and Hsieh (2018) mention that to reduce feed costs, farmers should sell adult chickens to the market on time. Because market demand and the selling price of chickens usually fluctuate from time to time, the selling price when chicken is sold to the market is usually different from the price when chicken production begins. This causes proper planning regarding the maintenance and harvesting of chickens in different cages will be able to maximize the profits obtained. This is in accordance with the findings of Rusdianto et al (2016) which states that the longer the maintenance time, the lower the income earned.

One of the weak points in the development of the *KUB* chicken rearing business is that the DOC price is still quite high. The price of *KUB* chicken DOC ranges from IDR 7,000-8,000/head. When compared to other types of free-range chicken, the price of *KUB* chicken DOC is higher, for example, *Joper* chicken DOC price is around IDR 6,300/head while Arabic chicken is around IDR 2,400/head. Although it is recognized that the resistance of *KUB* chickens to high disease causes the mortality rate and feed requirements to be lower, in the end the benefits obtained are relatively the same compared to maintaining other types of free-range chickens. According to farmers, the high price of DOC is due to relatively limited stock. It is common for farmers to bring in DOC from outside the island of Lombok. The problem of scarcity of DOC is still a classic problem, as stated by Nataamijaya (2010) and Budiarasana and Hidayat (2012), that the obstacles to developing local chickens include the problem of the lack of continuous availability of quality DOC. Aedah et al, (2016) stated that a special policy is needed in terms of providing this free-range chicken breeding. The government regulation contained in Presidential Decree No. 39/2014 explains that nursery businesses can only be carried out by cooperatives and SMEs, which is enough to limit the



availability of DOC considering that cooperatives and SMEs have not been able to provide high quality DOC in large quantities. This causes the need for special policies for nurseries, for example by State-Owned Enterprises (BUMN). Hidayat (2012) explained that to overcome the problem of scarcity of DOC, the first task was carried out by livestock research agencies, then developed by government-owned breeding agencies both at the central and regional levels to then be distributed to local chicken farmer groups. Another alternative is to increase the role of local chicken breeder associations as a substitute for breeding agencies in developing and distributing superior local chicken breeds produced by research institutions.

On the marketing side, the current *KUB* chicken marketing chain is Farmers – shooters – collectors/cutters – sellers in the market – mobile vegetable vendors – consumers, or Farmers – shooters – collectors/cutters – Taliwang restaurant – consumers. Farmers really hope that the market chain can be shortened, where they can sell directly to Taliwang restaurants. Through this mechanism, it is hoped that the level of profit they get will be higher. However, until now, farmers have acknowledged that they have not been able to penetrate the restaurant directly. The restaurant's level of confidence that farmers will be able to maintain stability in the supply of final stock/ready to slaughter chicken is still relatively low.

Another effort made by several farmers is that the chickens are not harvested simultaneously but in stages, then sold directly to the market as retailers, sold to vegetable vendors, or the farmers sell their own in semi-finished or ready-to-eat forms, namely smoked chicken and grilled chicken. Thus, farmers are relatively safe in terms of supply because the shelf life of processed chicken is relatively longer and farmers do not need to buy feed for chickens. However, breeders need a refrigeration machine to maintain the quality of the chicken that has been slaughtered. For farmers, this is still more profitable and less risky than keeping live chickens, due to having to provide feed which is sometimes volatile and the risk of illness or death of the chickens.

Ecological Sustainability. Ecologically, *KUB* chicken rearing business is in the high range. More than 90% of farmers stated that this business is environmentally friendly. Farmers can make the cage situation odorless, keep it clean and healthy. The smell caused by the chicken farm comes from the feces produced by the chicken. As mentioned by Kutu, et al (2019), chicken manure contains nitrogen which, when decomposed by microorganisms, will become ammonia. In terms of reducing the smell of ammonia, *KUB* chicken farmers use lime on the bottom layer of the cage. Farmers also use rice husks and clean the cages regularly. Every time the *KUB* chicken harvest is carried out, the farmer will clean the cage by emptying the cage of all tools and materials in it. Materials such as bottom layer and manure are removed and transported elsewhere to be used as fertilizer. After that the cage and cage equipment were cleaned using water, soap and disinfectant. The coop is then emptied for some time to ensure that any existing disease germs as remnants of the previous chicken stock cannot develop. The time for emptying the cage is relatively different from one farmer to another, depending on the intensity of their efforts. For those whose business turnover is relatively small, the cage emptying takes a long time, around 21 days to one month, while for those with high business turnover, the cage emptying is carried out for about 12-14 days. In addition to cleaning the cage, the use of additional herbs and vegetables in *KUB* chicken feed is also believed to reduce the smell of ammonia produced.

With relatively clean cage conditions, the smell of ammonia can be said to be non-existent so that it does not become a nuisance to the surrounding community. Although the location of the cage is very close to residential areas because it is located around the farmer's house / in the yard, but there are no neighbors / residents around the breeder who complain about environmental pollution with the existence of this livestock business. Even guests who come to visit can still sit in a location near the cage without feeling uncomfortable or disturbed. This condition is in line with what was conveyed by Rusdiana and Praharani (2019) that the *KUB* chicken development business is very feasible to be carried out ecologically because it is environmentally friendly.



Social Sustainability. The majority (95%) of respondents stated that the *KUB* chicken rearing business has a high social sustainability. The farmers have a very good relationship with the local people. Farmers usually contribute to support activities held by residents, both general community activities and religious events. The farmers share with local residents both money and in kind (*KUB* chicken) at village events. In addition, local residents are also enthusiastic about asking farmers (as a reference) so that this business is increasingly in demand and carried out by residents around farmers. This is in accordance with Salikin (2003), where the social dimension shows the extent to which the livestock business runs in accordance with the norms that exist in the community and provides social impacts for the surrounding community. This is much better than what was conveyed by Suryanti et al., (2019) regarding the broiler business which is more closed. In broiler farming business, although the community knows where the location of the broiler farm is, they do not have access to see firsthand how it is managed. This causes the community not to feel close to the farm and does not encourage the growth of new farmers around the location.

Given the high demand for local chicken, the *KUB* chicken business in Central Lombok district will increasingly have high sustainability if it is developed in groups and massively. Ramadoan and Mas'ud (2017) stated that the *KUB* chicken business carried out in groups in large enough numbers can absorb the workforce of the community around the farm so that it is more easily accepted.

KUB Chicken Farmer's Social Capital Condition. Based on the data in Table 2, it can be seen that the social capital of *KUB* chicken farmers in Central Lombok Regency is in the low to moderate range. The social capital contained in the *KUB* chicken rearing business is assessed through three factors, namely the network of cooperation, trust and prevailing norms.

Table 2 – *KUB* Chicken Business Social Capital

Class	Number of Respondent	Percentage
Very low	1	2.857
Low	28	80
Moderate	6	17.14
High	0	0
Very high	0	0
	35.0	100

Source: Primary data analysed (2022).

KUB Chicken Raising Business Cooperation Network. In general, the cooperation network owned by *KUB* chicken farmers is still very limited. There are *KUB* chicken farmers who are members of the livestock group, but some others run their own business without being involved as members of the livestock group. Whether you are a member of the group or not, the *KUB* chicken rearing business that involves other parties in terms of cooperation is mostly done individually. The cooperation that is mostly carried out is with DOC providers, providers of feed and medicines, as well as with traders. As for other parties, such as with financial institutions such as banks, cooperatives and savings and loan groups (KSP), very few have done so, including field extension workers (PPL), successful farmers and community leaders. The level of cooperation carried out by *KUB* chicken farmers can be seen in Table 3.

Table 3 – *KUB* Chicken Raising Business Cooperation Network

Class	Number of Respondent	Percentage
Very low	18	51.43
Low	13	37.14
Moderate	4	11.43
High	0	0
Very high	0	0
	35.0	100

Source: Primary data analysed (2022).



In Central Lombok Regency, there are several groups as a gathering place for local chicken farmers, although they are still limited in number. One of the reasons for the formation of the group is as an effort to make it easier for members to get various facilities from the government, such as facilities and infrastructure assistance, technology assistance and ease of financing. This includes the anticipation of the MotoGP event which will be held in 2022 at the Mandalika circuit, Central Lombok Regency. With the MotoGP event, it is estimated that the demand for food, especially meat, will increase sharply. It is hoped that *KUB* chicken farmers will be able to contribute and get a very large market opportunity from the event. With the existence of groups, it is easier for farmers to coordinate with each other, both between farmers themselves and when dealing with other stakeholders such as the government and other parties involved in the implementation of the MotoGP.

However, in the course of the group, it is recognized that it is more of a formality and has not had a maximum contribution as an institution that houses and increases the capacity of members. Activities carried out in groups are only DOC orders, other than that production activities are carried out independently. In making cages, whether farmers are members of a group or not, they build their own cages without any help from any party. Likewise, product marketing is generally done individually without involving groups. Provision of feed and medicines, provision of capital and marketing of the results are carried out by respondents individually. This finding is in line with what was conveyed by Rusdianto and Muzani (2016) which stated that the role of groups in facilitating members in the production and marketing of free-range chicken was still relatively limited. The group provides more input of selling price information to members through the chairman, secretary or treasurer. As for the provision of DOC, production and marketing are mostly carried out by members individually.

Some farmers buy DOC from local entrepreneurs and some from outside the island of Lombok such as Bali and Bogor. DOC prices vary, between IDR. 7,000, - up to IDR. 8.000.-/head. Farmers who ordered from outside stated that DOC originating from outside Lombok was priced more expensively because it was claimed to have better quality, performance and faster growth power than DOC produced by local entrepreneurs. Ideally, local DOCs will be able to grow faster because they don't experience stress during shipping. This could be due to local DOC entrepreneurs not grading/sorting eggs when hatching so that the DOC produced are not of the maximum quality.

Farmers get feed and medicines from shops/kiosks around the Central Lombok district. Farmers usually have a subscription shop, but if the goods they need are not available, farmers can look elsewhere. The payment system is generally done by cash and carry, but sometimes feed kiosks also provide dispensation by providing a payment deadline after harvest (*yarnen*). In the midst of a fluctuating feed price situation, this is very helpful for farmers to be able to survive and ensure their business runs well because feed is the most crucial capital in this *KUB* chicken rearing business. This *yarnen* payment system is also applied to agricultural businesses and is very helpful for farmers. Zakaria et al (2017) stated that one of the opportunities in developing a coffee farming business in Lembang, West Java is a good relationship between farmers and collectors, which allows farmers to get raw materials as needed and farmers can return borrowed capital including paying for raw materials after the harvest is complete.

Farmers in general do not have a network of cooperation in terms of capital so that farmers develop *KUB* chicken business with their own capital. Farmers admit that they still have difficulty accessing capital from third parties, namely financial institutions. Cooperatives and other microfinance institutions do not yet have a financing scheme for livestock business, while banks are still relatively limited in providing financing credit through the *KUR* (People's Business Credit) scheme. Banking principles that emphasize 5C (character, capital, capacity, collateral and condition of economy) tend to be considered difficult for customers/debtors who need business financing, especially on the guarantee side. In a situation like this, strong social capital in the community can be a reliable "collateral" to make it easier for farmers to increase business capital so that production capacity can be enlarged. "Social collateral" in the form of a joint responsibility system can be an effective control for debtors to manage the financing of business capital obtained responsibly so that the returns



will be smooth. This is as stated by Syahra (2003) that in fact social capital can be used as alternative collateral for banks, where there is an agreement between citizens to assume shared responsibility in terms of financing repayments. If there is a deviation committed by one of the residents, it will not only become a problem in question, but become a problem with the community. Loss of trust in one person can eliminate trust as a whole so it becomes a shared responsibility to maintain that trust. Sanctions imposed by groups can be more effective in providing a deterrent effect for those who violate the agreement.

Regarding information, farmers stated that their price information was obtained from fellow farmers or traders. Although they can also access TV and other social media regarding the general trading situation, the channel that determines the price the most at that time is from fellow farmers and from the traders. This is as stated by Asgar (2020) that the problem of capital and access to information is still a problem for farmers so that it affects income and productivity. Similar to that conveyed by Coleman (1988) that one of the very important pillars in social capital is the smooth flow of information owned by a person. Accurate information will give a person strong confidence to make decisions quickly and accurately. Farmers will decide whether to immediately or delay the sale, to whom and at what price, depending on the depth and breadth of the information they have.

Another major collaboration network is the traders. The traders usually know the areas where the *KUB* chicken rearing business is located and has a record of when the farmer will harvest. The traders go to the farmer and buys live *KUB* chickens based on the estimated weight. The traders then sell *KUB* chicken to collectors/cutters and sell it to restaurants or Taliwang restaurants. Thus, the *KUB* chicken marketing chain in general is farmers – traders – collectors/cutters – restaurants – consumers. So far, farmers have not been able to penetrate the restaurant market directly. One of the reasons for this is that the traders is also part or family of the restaurant so that the trader is only an extension of the restaurant. Another reason is the lack of capacity of farmers in supplying *KUB* chickens continuously. This certainly can increase the risk of Taliwang chicken production for restaurants, so the most rational choice is for the restaurant to take raw materials from the traders who can relatively provide *KUB* chicken according to the needs/orders from the restaurant. This causes the marketing chain to be quite long and the level of profit will decrease.

Marketing is still done conventionally, waiting for the traders to come looking for chickens that are ready to harvest. The role of the group is not yet fully optimal to support network marketing. The group has not been able to coordinate the sale of their products. So the mechanism is for members to sell individually. Between farmers only give each other advice and information about appropriate selling prices as a moral responsibility so that fellow farmers do not suffer losses.

Table 4 – Mutual Trust in *KUB* Chicken Raising Efforts

Class	Number of Respondent	Percentage
Very low	1	2.857
Low	15	42.86
Moderate	19	54.29
High	0	0
Very high	0	0
	35.0	100

Source: Primary data analysed (2022).

Social capital in the form of mutual trust owned by *KUB* chicken farmers is in the low to moderate range. This is allegedly related to economic conditions that are still uncertain, so that each party/business actor refrains from engaging in cooperation that contains risks. For example, buying transactions for DOC and feed and selling ready-to-slaughter chickens are mostly done by cash and carry, or before the goods are sent, the customer must pay a certain amount of down payment and the rest is paid after the goods arrive. Likewise, the procurement of relatively minimal capital is obtained from third parties (banks or cooperatives). High trust will provide more opportunities for the parties to carry out a wider



collaboration which is relatively risky. Wider cooperation opens up opportunities for greater profits so that incomes can be increased and welfare is more easily achieved. This is as stated by Fukuyama (1995), mutual trust is a very important aspect in achieving economic prosperity. The higher the level of trust, the higher the welfare condition.

Bulu (2011) explains that mutual trust is an element of social capital that can strengthen and maintain cooperation between members in farmer groups and between farmer groups and other institutions in the adoption of corn innovations. Mutual trust in collective cooperation can serve as social glue and strengthen solidarity between members of farmer groups so as to strengthen cooperation networks between farmer groups and other institutions.

Table 5 – Norms of Cooperation in *KUB* Chicken Raising Efforts

Class	Number of Respondent	Percentage
Very low	1	2.857
Low	15	42.86
Moderate	19	54.29
High	0	0
Very high	0	0
	35.0	100

Source: Primary data analysed (2022).

Norms are closely related to the existence of trust among business actors who carry out cooperation networks. It can be seen in Table 5, as with the level of confidence, the norms owned by *KUB* chicken farmers are in the low to moderate range. The rules that bind the parties involved in the cooperation are relatively limited, there is only an oral agreement which is then carried out by the parties to perpetuate the cooperation that they have done so far. There is no written and legally binding agreement for the parties that regulates in detail the type of cooperation, how the cooperation is carried out, including regulating the rights and obligations of the parties and the consequences if the agreement is violated. Putnam (1995) emphasizes the close relationship between existing norms and trust, that the stronger the relationship between people who have mutual trust, the stronger the implementation of norms to help each other. As explained by Bulu (2011) that the norm of cooperation is a rule that was born from the mutual agreement of the parties involved, as a representation of the expectations that should be adhered to and carried out together so that it will strengthen mutual cooperation and mutual trust. Strong cooperation norms will create resilience, productivity, and sustainability of cooperation in farming management and application of innovation. As qualitative rules established in corn farmer groups in dry land can strengthen cooperation supported by mutual trust. It can be said that strong norms will create deep mutual trust, and conversely mutual trust will foster a strong commitment to implementing mutually agreed rules or norms.

Table 6 – Regression Coefficient of the Effect of Social Capital on the Sustainability of the *KUB* Chicken Raising Business

Influential factor	Business sustainability		Economic sustainability		Ecological sustainability		Social sustainability	
	Coef	Sig	Coef	Sig	Coef	Sig	Coef	Sig
Network	0.392	0.049*	0.351	0.076	0.296	0.153	0.406	0.044*
Mutual trust	0.205	0.397	0.173	0.472	0.297	0.247	0.063	0.794
Norms	-0.399	0.693	-0.01	0.996	-0.381	0.159	-0.007	0.978

Source: Primary data analysed (2022).

Based on the data in Table 6, it can be seen that the social capital that has the most significant influence in the *KUB* chicken rearing business is the network. The network has a significant effect on the sustainability of the *KUB* chicken business in general and social dimensions.



It is interesting that although the cooperative network owned by farmers is generally in the low range, the sustainability of the *KUB* chicken rearing business is quite good. Thus it can be interpreted that *KUB* chicken rearing is a very prospective business. If in a limited network condition, the business can survive and even tend to develop well, especially if this cooperation network factor is improved both in terms of quantity and quality. The wider network allows farmers to expand their businesses more easily, because the required inputs are available in sufficient quantities and on time, as well as a clear market that will be able to accommodate production results so that it can be expected that the profits obtained are in line with expectations.

To increase the social capital owned by farmers, it is necessary to make several breakthrough efforts by the government by empowering existing groups, such as:

1. Ensure the availability of chicken feed by establishing large-scale feed factories or by mobilizing livestock groups to prepare feed on a smaller scale so that farmers do not always depend on feed stalls, especially when the price of concentrate feed is unstable and its availability is uncertain.
2. Revitalize existing farmer groups through increasing the role of assistant extension workers, including improving communication between groups so that associations between groups will be stronger. A strong association will be able to generate the existence of small farmers who have not been well coordinated, are able to provide accurate information quickly, and can support the marketing system so that the profits obtained by farmers are as expected.
3. Encouraging various existing financial institutions, both banking and non-banking, to open up more opportunities for cooperation with *KUB* chicken farmers in terms of providing working capital.

CONCLUSION

The *KUB* chicken rearing business in Central Lombok Regency has a good level of sustainability in terms of economic, ecological and social dimensions, which means that the business is feasible to continue to be carried out by farmers. In general, social capital owned by farmers is still relatively low. This condition indicates that the opportunity for developing the *KUB* chicken rearing business will be wide open with efforts to increase the social capital of *KUB* chicken farmers, especially by opening and increasing the cooperative network of *KUB* chicken farmers with related stakeholders.

REFERENCES

1. Adnyana, M.O. 2001. Pengembangan Sistem Usaha Pertanian Berkelanjutan. Forum Agro Ekonomi, 19 (2): 38 – 49.
2. Aedah, S., Djoefrie, M.H.B., dan Suprayitno, B. 2016. Faktor-Faktor yang Mempengaruhi Daya Saing Industri Unggas Ayam Kampung (Studi Kasus PT Dwi dan Rachmat Farm, Bogor). Manajemen IKM, 11 (2): 173-182.
3. Amelia, D.P., Pusrnomo, S.H., dan Sudiyono. 2018. Faktor- Faktor yang Mempengaruhi Permintaan Daging Ayam Kampung di Pasar Tradisional Kota Surakarta. Sains Peternakan, 16 (1): 23-29.
4. Amam, Fanani, Z, Hartono, B, dan Nugroho, B.A. 2019. Usaha Ternak Ayam Pedaging Sistem Kemitraan Pola Dagang Umum: Pemetaan Sumber Daya dan Model Pengembangan. Sains Peternakan, 17 (2): 5-11.
5. Budiarsana, I.G.M dan Hidayat, C. 2012. Model Kemitraan dan Dukungan Teknologi Pada Agribisnis Peternakan Ayam Lokal. Workshop Nasional Unggas Lokal 2012.
6. Bulu, Y.G. 2011. Kajian Pengaruh Modal Sosial dan Keterdedahan Informasi Inovasi Terhadap Tingkat Adopsi Inovasi Jagung Di Lahan Sawah dan Lahan Kering di Kabupaten Lombok Timur. Disertasi. Sekolah Pasca Sarjana Universitas Gadjah Mada Yogyakarta.



7. Coleman, James S. (1988) 'Social capital in the Creation of Human Capital' American Journal of Sociology 94: S95-S120.
8. Dinas Peternakan dan Kesehatan Hewan Nusa Tenggara Barat. 2020. Populasi Ayam Buras di NTB Tahun 2019. <https://data.ntbprov.go.id/dataset/populasi-ayam-buras-di-ntb-menurut-kabupaten-kota>.
9. Hamblin, A. 1992. How do we Know When Agricultural Systems are Sustainable? In Environmental Indicators for Sustainable Agriculture. Report of a National workshop, 28-29 November 1991. Grains Research Corporation, Canberra, Australia.
10. Hansen, J.W. 1996. Is Agricultural Sustainability a Useful Concept? Agricultural Systems, 50 (1): 17- 143.
11. Hidayat, C. 2012. Pengembangan Produksi Ayam Lokal Berbasis Bahan Pakan Lokal. Wartazoa, 22 (2): 85 – 98.
12. Hidayati, N.I. 2015. Faktor-Faktor Yang Mempengaruhi Produktivitas Tenaga Kerja Pada Usaha Ternak Ayam Ras Pedaging Di Kabupaten Pasuruan. Jurnal Agromix, 6 (1).
13. Ilham, N. 2015. Kebijakan Pemerintah terhadap Usaha Unggas Skala Kecil dan Kesehatan Lingkungan di Indonesia. WARTAZOA, 25 (2): 095-105.
14. Kementerian Pertanian RI. 2018. Statistik Peternakan Dan Kesehatan Hewan 2018. Direktorat Jenderal Peternakan dan Kesehatan Hewan Kementerian Pertanian RI
15. Kimbal, R.W. 2015. Modal Sosial dan Ekonomi Industri Kecil Sebuah Studi Kualitatif. Penerbit Deppublish Yogyakarta.
16. Krista, B. dan Harianto, A. Jago Bisnis & Beternak Ayam Kampung.
17. Kutu, F. R., Mokase, T. J., Dada, O. A., Dan Rhode, O. H. J. 2019. Assessing Microbial Population Dynamics, Enzyme Activities And Phosphorus Availability Indices During Phospho-Compost Production. International Journal Of Recycling Of Organic Waste In Agriculture, 8 (1): 87–97.
18. Lestari, I.A. 2014. Analisis Rantai Nilai Pemasaran Ayam Kampung Di Kecamatan Cakranegara (Studi Kasus Pada Rumah Makan Dan Lesehan Ayam Taliwang). Program Studi Agribisnis Jurusan Sosial Ekonomi Pertanian UNRAM. <http://eprints.unram.ac.id/4156/1/JURNAL%20AYUQ.pdf>.
19. Mangkuprawira, S. 2010. Strategi Peningkatan Kapasitas Modal Sosial dan Kualitas Sumberdaya Manusia Pendamping Pembangunan Pertanian. Forum Penelitian Agroekonomi, 28 (1): 19 – 34.
20. Priyanti, A., Sartika, T., Priyono, Julianto, T.B., Soedjana, T.D., Bahri, S dan Tiesnamurti, B. 2016. Kajian Ekonomik dan Pengembangan Inovasi Ayam Kampung Unggul Balitbangtan (KUB). Pusat Penelitian dan Pengembangan Peternakan. Badan Penelitian dan Pengembangan Pertanian.
21. Ramadoan, S. dan Mas'ud. 2017. Analisis Faktor-Faktor Yang Mempengaruhi Produktivitas Kelompok Peternak Ayam Kampung Unggul Balitnak (KUB) (Studi Pada Kelompok Peternak Ns Makapori Di Kelurahan Jatiwangi Kota Bima). Jurnal Ilmiah Administrasi Negara, 14 (3): 104-118.
22. Rusdianto, S.W. dan Muzani, A. 2016. Peran Kelompok Peternak pada Sistem Produksi dan Pemasaran Ternak Ayam (Studi Kasus Kelompok Peternak Kampung Unggas Desa Teruai, Kabupaten Lombok Tengah). Prosiding Seminar Nasional Inovasi Teknologi Pertanian.
23. Rusdianto, S.W., Muzani, A., Agustini, N. dan Julianto, T.B. 2016. Kajian Sistem Manajemen Kelompok Pada Kampung Unggas Terhadap Pendapatan Peternak Ayam Buras. Prosiding Seminar Nasional Agroinovasi Spesifik Lokasi Untuk Ketahanan Pangan Pada Era Masyarakat Ekonomi ASEAN.
24. Santoso, S. dan Harsono, J. 2014. Pola Solidaritas Kelompok Pedagang Angkringan Di Kota Ponorogo. Jurnal Sosiohumaniora, 16 (1): 62-69.
25. Sejati, W. K dan Saptana. 2014. Analisis Manajemen Rantai Pasok Ayam Kampung Pedaging: Studi Kasus di Jawa Barat dan Jawa Timur. Prosiding Seminar Nasional Hari Pangan Sedunia ke 33. Pusat Sosial Ekonomi dan Kebijakan Pertanian.



26. Sugiarto, M dan Nur, S. 2013. Pengembangan Potensi Sumberdaya Peternak Sebagai Upaya Peningkatan Daya Saing Peternakan Kambing Skala Mikro Di Kabupaten Banyumas. Jpfeb Unsoed, 3 (1).
27. Sumarno. 2018. Pertanian Berkelanjutan: Persyaratan Pengembangan Pertanian Masa Depan. Mewujudkan Pertanian Berkelanjutan: Agenda Inovasi Teknologi dan Kebijakan. IAARD Press.
28. Suryanti, R., Sumardjo, Syahyuti, dan Tjiptropranoto, P. 2019. Keberlanjutan Usaha Peternakan Ayam Ras Pedaging Pada Pola Kemitraan. *Jurnal Pangan*, 28 (3): 213 - 226
29. Syahra, R. 2003. Modal Sosial: Konsep Dan Aplikasi. *Jurnal Masyarakat dan Budaya*, 5 (1): 1 – 21.
30. Wibowo, B. 2016. Dynamics Performance of Native Chicken Agribusiness in Indonesia. *Wartazoa*, 26 (4): 191-202
31. You, P.S. dan Hsieh, Y.C. 2018. A Study of Production and Harvesting Planning for The Chicken Industry. *Agric. Econ*, 64 (7): 316–327.
32. Sriati, Hakim, N. dan Masriyadi. 2004. Respon Petani Terhadap Kredit Usahatani dan Hubungannya Dengan Produktivitas Serta Pendapatan Usahatani Di Desa Banpres Kabupaten Musirawas. *Jurnal KPIA*, 1 (1): 24-29.
33. Iskandar, S. 2012. Optimalisasi Protein dan Energi Ransum Untuk Meningkatkan Produksi Daging Ayam Lokal. *Pengembangan Inovasi Pertanian*, 5 (2): 96 – 107.
34. Nurdiani, N. 2014. Teknik Sampling Snowball Dalam Penelitian Lapangan. *Comtech*, 5 (2): 1110-1118
35. Newman, W.L. 2014. Social Research Methods: Qualitative and Quantitative Approaches Seventh Edition
36. Salikin, K. 2003. Sistem Pertanian Berkelanjutan. Penerbit kanisius. Yogyakarta.
37. Sejati, W.K dan Saptana. 2014. Analisis Manajemen Rantai Pasok Ayam Kampung Pedaging: Studi Kasus di Jawa Barat dan Jawa Timur. Prosiding Seminar Nasional Hari Pangan Sedunia ke 33. Pusat Sosial Ekonomi dan Kebijakan Pertanian.
38. Rusdiana, S. dan Praharani, L. 2019. Peran TTP Cigombong pada Usaha Ternak Ayam Kampung KUB sebagai Upaya Meningkatkan Pendapatan Peternak, *Jurnal Sain Peternakan Indonesia*, 14 (2): 171-181.
39. Noferdiman, Fatati dan Handoko, H. 2014. Penerapan Teknologi Pakan Lokal Bermutu Dan Pembibitan Ayam Kampung Menuju Kawasan Village Poultry Farming (Vpf) Di Desa Kasang Lopak Alai Kabupaten Muaro Jambi. *Jurnal Pengabdian pada Masyarakat*, 29 (3): 60-70.