



Model of Empowerment Members of Farmers Group Based on Beef Cattle Business in Indonesia

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Abstract

This study aims to investigate the profile of members of the livestock farmers group, supporting factors, obstacles, needs and determine the empowerment model through beef cattle breeding business. This research was conducted in Karanganyar Regency, Central Java Province, Indonesia. Sampling was done by convenience sampling of 62 respondents. The data collection through observation, interviews and Focus Group Discussion. The research data obtained were analyzed descriptively and needs analysis. The results showed that most of the respondents had low levels of education, the average occupation of the respondents were farmers and had side jobs as breeders. Supporting factors in this study are ownership status, involvement in social organization activities, availability and ease of access to educational facilities, transportation facilities, social networking, communication facilities, and health level. The inhibiting factors in this study are the level of formal education and the availability of production facilities. The important factors needed by group members are the level of formal education and the availability of production facilities. The empowerment model in this research is providing non-formal education facilities, providing training and assistance to the group member in the effort to develop beef cattle breeding business by utilizing existing agricultural resources. The conclusion that can be drawn from this research is the applied empowerment model is the integration of agricultural crops with livestock and collaboration with supporting institutions.

Keywords: empowerment model; livestock farmer groups; beef cattle business.

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1. Introduction

Indonesia is an agricultural country that has abundant natural resources, especially from the agricultural sector. One of the agricultural sub-sectors that has great potential to be developed is livestock, because various layers of Indonesian society are in need of nutrition in order to create a healthy and intelligent generation of the nation. Livestock development is intended to increase livestock production which simultaneously increases the income of farmers, creates jobs and increases the population and genetic quality of livestock. Based on the vision of animal husbandry development, the Mission of Animal Husbandry Development has been outlined namely, facilitating the supply of livestock origin food that is sufficient both in quantity and quality, empowering livestock human resources in order to produce highly competitive products, creating economic opportunities to increase livestock income, helping create fields work in the field of animal husbandry agribusiness and preserve and utilize natural resources supporting livestock. One of the agricultural sub-sectors that has great potential to be developed is beef cattle farming [1]. According to [2], the need for beef in Indonesia from year to year shows an increase along with the increasing population and public awareness of the importance of meeting the nutritional needs of families. The development of beef cattle in Indonesia is influenced by the existence of institutional farmer groups. An area that has a large beef cattle population, usually has a good group of livestock farmers. Farmers group has potential to be developed through empowerment in the beef cattle business [3]. Community empowerment is an effort to make people independent through the realization of the abilities they have [4]. Community empowerment can also be interpreted as the process of obtaining and providing power or ability to citizens to be able to recognize their potential, determine their needs and choose alternative solutions to the problems faced independently. Community empowerment always involves two interrelated groups, namely the community as the empowered party and those who care for the community as the empowering party [5]. The process of community empowerment is directed at developing human resources in the field of beef cattle farming [4]. This empowerment aims to provide knowledge, training, and skills to members of the livestock farmer groups so that they can become potential workers and can develop beef cattle breeding business well because at present the development of beef cattle breeding business maximally. Community empowerment efforts that are carried out intentionally and measurably means that there is a strategy, mechanism and stages that are arranged systematically to empower a group of people with low ability in a certain period of time [6]. Therefore, a good regional profile and community potential encourage researchers to conduct research on the empowerment model of livestock farmer group members in beef cattle breeding business.

2. Methodology

This research was located in Karanganyar Regency, Central Java Province, Indonesia. The study was conducted using a survey method for members of the farmer group. Determination of the location of the research carried out purposive sampling method that is based on certain considerations in accordance with the objectives of the study. The data collection technique in this study used the Participatory Rural Appraisal (PRA) technique. PRA use the steps in this research is the introduction of the problems / needs and potential of the research sites, formulation and prioritization problem, identification alternatives troubleshooting / development of ideas, and the selection of alternative solutions are most appropriate. Data from this study were collected through observation, interviews, and Focus Group Discussion with members of the farmer group, Agriculture Extension

Officers, Higher Education Institutions, and related work partners. The method of taking respondents in this study uses convenience sampling. Respondents in this study came from members of the farmer group which can be found at regular meetings members with 62 respondents.

3. Results and Discussion

3.1. Characteristics of Respondents

Based on Table 1 shows that respondents in this study were mostly aged 15 -64 years which is as much as 96.77%, at that age is the productive age for breeders [7]. Breeding experience is a factor that can determine the progress of a business activity [8]. Most of the group members have quite a long experience of raising livestock, this is due to the age of the breeders and the average occupation of farmers as farmers so that the experience of raising respondents is included in the good category. The average number of family members of farmers is 4-5 people (56.45%). The large number of productive family members will have an effect on agricultural and livestock business activities [9]. The education level of respondents most them are graduates of elementary and junior high school so still relatively low and needs to be improved by providing non-formal education. So that members of farmer group can continue to thrive in business and not be left behind in terms of technology, particularly in an effort to beef cattle breeding [10]. The average occupation of respondents is as a farmer with a percentage of 79.03%, while the other respondents work as civil servants, private, private, entrepreneurial and laborers.

Table 1: Profile of Respondents of Farmers Group Members

Profile of respondents	Interval	Amount (people)	Percentage (%)
Age (years)	<15	0	0
	15-64	60	96.77
	> 64	2	3.23
Breeding experience (years)	1-10	5	8.06
	11-20	26	41.94
	> 20	31	50.00
Number of family members	1-3	21	33.87
	4-5	35	56.45
	> 5	6	9.68
Education	No school	1	1.61
	Elementary school	27	43.55
	Middle School	24	38.71
	High school	8	12.90
	College	2	3.23
Profession	Farmers	49	79.03
	Civil servants	1	1.61
	Private	8	12.91
	entrepreneur	1	1.61
	Broker	2	3.23
	Labor	1	1.61

Source: Primary data processed, 2018.

3.2. Supporting and Inhibiting Factors for Farmers group members

Based on Table 2 shows that the supporting actors in this research are involvement in social organization activities, availability and ease of access to educational facilities, ownership status, transportation facilities, work / social networks, communication facilities and health level. The involvement of farmer group members in social organization activities was moderate, namely 35 respondents out of 62 respondents (56.45%). This is because some of the members of group farmers are elderly, so they are no longer active in participating in social organization activities. The availability of access and educational facilities which include the existence of elementary, junior and high school buildings is included in the medium category at 82.26%. Access to the place of education relatively easy, especially at the elementary level because there are still many primary schools around location.

Table 2: Supporting Factors for Farmer Group Members

Supporting factors	Number of people	Category	Percentage (%)
Involvement in social organization activities			
Total score 1-2			
Total score 3-4	0	Not good	0
Total score of 5-6	35	Middle	56.45
	27	Good	43.55
Availability and ease of access to educational facilities			
The total score is 4-6	5	Not good	8.06
The total score is 7-9	51	Middle	82.26
The total score is 10-12	6	Good	9.68
Ownership status			
Total score 1	0	Not good	0
Total score 2	10	Middle	16,13
Total score 3	52	Good	83.87
Means of transportation			
Total score 3-4	2	Not good	3.22
The total score is 6-7	54	Middle	87.10
The total score is 7-9	6	Good	9.68
Work / social network			
Total score 2-4	0	Not good	0
The total score is 5-7	38	Middle	61.29
The total score is 8-10	24	Good	39.71
Means of communication			
The total score is 4-5	2	Not good	3.23
The total score is 6-7	49	Middle	79.03
The total score is 8-10	11	Good	17.74
Health level			
The total score is 0-1	8	Not good	12,90
Total score 2-3	54	Middle	87.10
The total score is 4-5	0	Good	0

Source: Primary data processed, 2018

Based on Table 2 shows the status of livestock ownership includes self-owned cattle, rowdy cattle, and livestock belonging to the group. Livestock ownership status is included in both categories, namely 52 respondents from 62 respondents (83.87%). Most of the animals owned by the members of the farmer group are their own, but there are also some members of the farmer group who keep rowdy cattle. The availability of transportation facilities for beef cattle farmers is classified as moderate, namely 87.10%. Most breeders generally have two-

wheeled vehicles to meet their transportation facilities. The network of members of the farmer group is included in the medium category at 61.29%. This is because people still have a high desire to collaborate between communities. Most farmers already have medium communication facilities, which is 79.03%. This is because most farmers only have telephones and television, while radio ownership among farmers is still rare. The health level of breeders is included in the medium category that is 87.10%. This is because breeders rarely get sick and members of the farmer group are included in the category of active workers. The level of health of farmers who are not good is only 12.90% of all respondents, this is because the age of farmers who are no longer productive. This is in accordance with the opinion of [11] which states that the level of productivity of one's work will increase according to age, then it will decrease again towards old age.

Table 3: Factors that inhibit Members of Farmer Groups

Obstacle factor	Number of people	Category	Percentage (%)
Formal education level			
The total score is 0-1	28	Not good	45.16
Total score 2-3	38	Middle	51.61
The total score is 4-5	2	Good	3.23
Availability of production facilities			
The total score is 7-11	23	Not good	37.10
The total score is 12-16	39	Middle	62.90
The total score is 17-21	0	Good	0

Source: Primary data processed, 2018.

Based on Table 3 above shows that factor obstacle in the development of breeding beef cattle is the level of formal education and the availability of production facilities. The level of education of farmers who are still low and do not have extensive experience causes the lack of certain skills needed in their lives. Apart from the formal education level, the availability of production facilities is also lacking. The availability of production facilities in the form of traditional livestock pens is still traditional, namely bamboo walled, grounded and many are still attached to the farmer's house. Spacious stables owned by breeder average is less than 12 m² with an average of animals kept is 1-3 head of cattle. Based on Table 4 shows that the level of knowledge of farmers such as the ability to recognize needs, access the factors of production, the ability of elements of leadership management and the ability to make decisions owned by members of the farmer group included in the medium category, this is because the level of education of respondents very low. The skills that farmers have, such as identifying local needs and potentials, as well as exploring new information and business opportunities,

are included in the medium category.

3.3. Empowerment of Farmer Farmers Group Members

Table 4: Analysis of Community Empowerment

Empowerment of livestock farmer group members	Number of people	Category	Percentage (%)
Knowledge (<i>cognitive</i>)			
The total score is 5-8	8	Not good	12.90
The total score is 9-12	53	Middle	85.48
The total score is 13-15	1	Good	1.62
Attitude (<i>affective</i>)			
The total score is 7-11	0	Not good	0
The total score is 12-16	34	Middle	54.84
The total score is 17-21	28	Good	45.15
Skills (<i>psychomotor</i>)			
The total score is 5-8	4	Not good	6.45
The total score is 9-12	52	Middle	83.87
The total score is 13-15	6	Good	9.68

Source: Primary data processed, 2018.

The skills of the breeders still need to be improved so that the breeders can develop more in running the beef cattle business. The attitudes of the members of the Farmer group such as having the desire to succeed, being selective towards the phenomena encountered, being honest, being responsible in speaking and acting, having the willingness to cooperate with each other and being independent in making decisions belong to the moderate category, this is because some respondents have experience is classified as medium.

3.4. The Needs Factors of Farmer Group Members

Table 5: Needs Factors for Farmer Group Members

Factor	Category	Needs
Supporters		
Availability, easy access to educational facilities	Middle	Urgent
Involvement of social organization activities		
Health level	Middle	Urgent
Means of Transportation	Middle	Urgent
Work / social network	Middle	Urgent
Means of communication	Middle	Urgent
Inhibitors		
Availability of production facilities	Not good	Very important
Formal Education Level	Not good	Very important
Empowerment of Farmer group members		
Knowledge (<i>cognitive</i>)	Middle	Urgent
Attitude (<i>affective</i>)	Middle	Urgent
Skills (<i>psychomotor</i>)	Middle	Urgent

Source: Primary data processed, 2016.

Based on Table 5 shows that the actors need to empower members of the Farmer group included in the category of very important to be improved are the level of formal education and the availability of production facilities. Other factors that are included in the important category and still need to be improved include the availability and ease of access to educational facilities, involvement of social organization activities, health levels, transportation facilities, work / social networks, and communication facilities.

The problem faced by beef cattle breeders in the study area at this time is their lack of knowledge about the management of beef cattle breeding business, this is due to the lack of training and counseling by related institutions such as the government and the Institute of Higher Education. The development of beef cattle breeding business can be done with training and counseling in groups to improve the beef cattle breeding system so that the beef cattle breeding business can develop properly.

3.5. Empowerment Model of Farmer groups

The model of empowering farmer groups in beef cattle farming is determined by FGD with members of the farmer group, Agriculture Extension Officers, Higher Education Institutions, and related work partners. The solution that can be used to develop beef cattle breeding business is the integration of agricultural crops with livestock and the existence of a supporting institution that can support the development of the business. The process of empowering the integration of agricultural crops with livestock was obtained because most of the members of the farmer group worked as farmers who already had their own farms. Most of the farmer group members try beef cattle as a side business, because with the side business of raising beef cattle, farmers will be able to use agricultural crops such as rice leaves and corn as animal feed. Livestock waste such as urine and feces can also be used as agricultural organic fertilizer, so farmers can reduce the expenditure used to buy agricultural fertilizer. Integration of agricultural crops with beef cattle is a model related to agricultural crops with livestock, it is expected that with the implementation of this kind of empowerment model, members of livestock farmer groups can further develop their businesses and of course can increase income in their businesses. The linkage of agricultural crops to beef cattle in this empowerment model can be seen directly or indirectly through products, namely: 1). Livestock can produce urine or feces which can be processed into organic fertilizer, 2). Agricultural land planted with agricultural crops and the rest can be planted with animal feed, 3). Agricultural waste can also be used as animal feed, 4). Some livestock manure can be processed into biogas [12]. The flow model of empowerment for members of livestock farmer groups in beef cattle business can be seen in Figure 1. The conclusion that can be drawn from the empowerment model of members of farmer groups through the integration of agricultural crops with beef cattle is that agricultural businesses can be more efficient because they can use the rest of the agricultural crops as animal feed so that expenditure on animal feed purchases can be reduced. Supporting institutions that can help develop beef cattle business include, among others, financial institutions, guarantees and other supporting institutions. This institution is expected to be able to assist the development and development of beef cattle business. Other supporting institutions such as the government and the Education Agency are expected to provide guidance to improve business insight. The formulation of a model for empowering members of livestock farmer groups is done by integrating agricultural

crops with livestock as well as providing a network of supporting institutions.

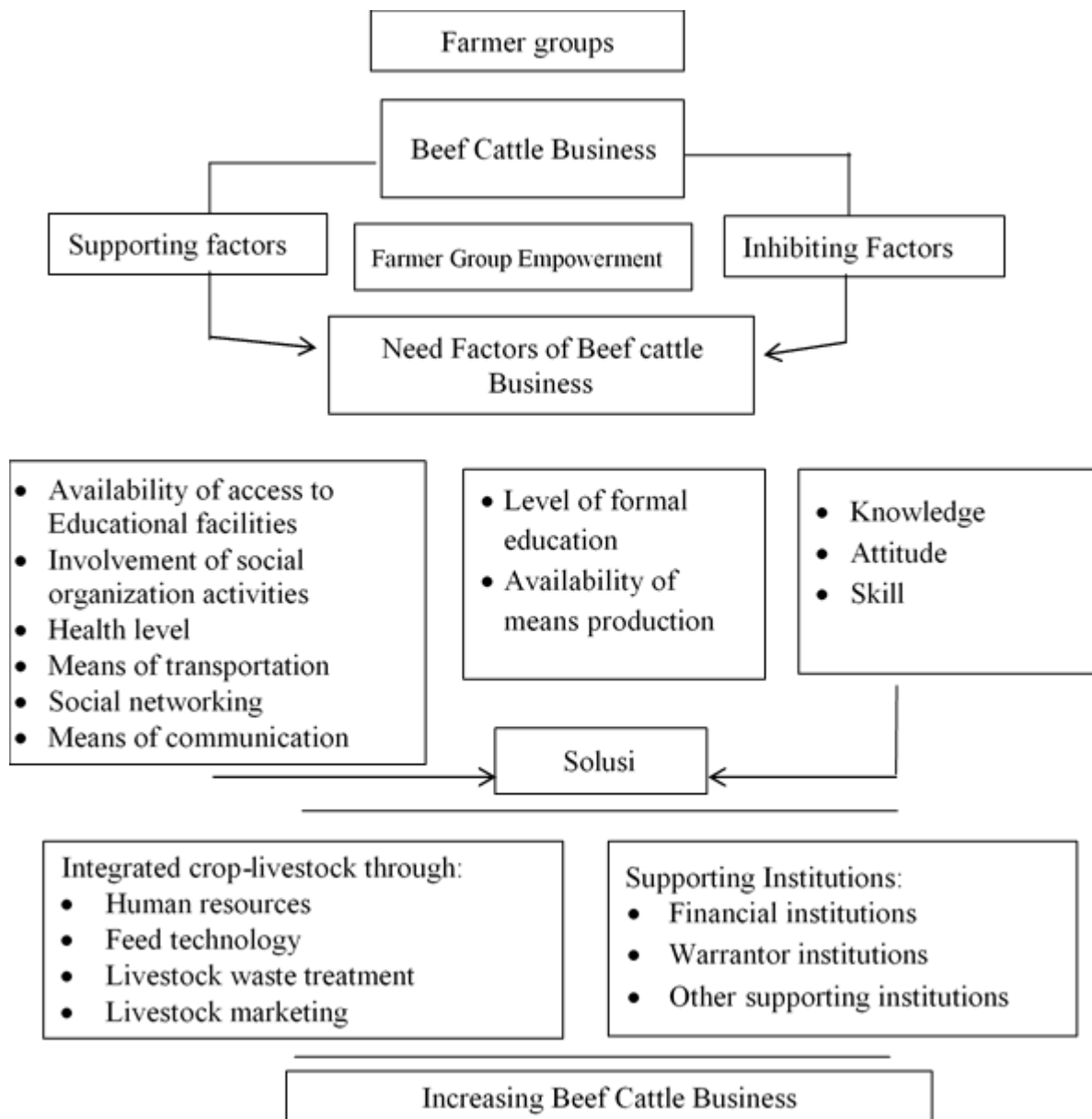


Figure 1: Flow Chart of Empowerment Models in beef cattle business

4. Conclusion

Based on the results of the study it can be concluded that the supporting actors in this study are involvement in the activities of social organizations, the availability and ease of access to educational facilities, ownership status, transportation facilities, work / social networks, communication facilities, and health level. The inhibiting factors in this study include, the level of formal education and the availability of production facilities. Factors in the needs of farmers in this study include the level of formal and non-formal education, and the availability of production facilities in the beef cattle business. The empowerment model obtained from the results of this study is the integration of agricultural crops with livestock in the people's farming business system and the

participation of supporting institutions to develop beef cattle breeding business.

5. Recommendations

Integration of agricultural crops with livestock and the existence of a supporting institution is an appropriate empowerment model to develop the potential of beef cattle breeding, with this empowerment model is expected to increase the potential utilization of livestock farmer group members and of course can develop beef cattle breeding business and can increase income of farmers who mostly work as farmers.

Reference

- [1]. Purnomo S.H., E.T. Rahayu dan S.B. Antoro. 2017. Strategi Pengembangan Peternakan Sapi Potong Rakyat Di Kecamatan Wuryantoro Kabupaten Wonogiri. Buletin Peternakan Vol. 41 (4): 1-11, November 2017.
- [2]. Saputro, P.D. 2013. Model Pemberdayaan Wanita Tani Ternak Dalam Usaha Penggemukan Sapi Perah Peranakan Friesian Holstein (PFH) Jantan Di Kecamatan Selo Kabupaten Boyolali. Skripsi. UNS. Surakarta Arsyad, 1999. Ekonomi Pembangunan. Sekolah Tinggi Ilmu Ekonomi YKPN. Yogyakarta.
- [3]. Sarma PK. 2014. An Agribusiness Development Approach of Beef Cattle In Selected Areas of Bangladesh. Journal of the Bangladesh Agricultural University. 12(2): 351-358. <http://doi.org/bm9k>.
- [4]. Scheer, Scott D; Graham R. Cochram; Amy H. dan Nick T.P. 2011. Competency Modeling in Extension Education: Integrating an Academic Extension Education Model with an Extension Human Resource Management Model. Journal of Agricultural Education, Volume 52, Nomor 3 Tahun 2011. Hal : 64 – 74.
- [5]. Irawati D.A., R. Karsidi, W. Muktiyo, S.H. Purnomo, 2018. The Collaboration Pattern and Strategy Integration in Community Empowerment in Husbandry Vocational Private College. International Journal of Sciences: Basic and Applied Research (IJSBAR) (2018) Volume 37, No 2, pp 288-297
- [6]. Wrihatnolo, R.R., dan R.N. Dwidjowijoto. 2007. Manajemen Pemberdayaan. Sebuah Pengantar dan Panduan Untuk Pemberdayaan Masyarakat. Gramedia. Jakarta.
- [7]. Arsyad, 1999. Ekonomi Pembangunan. Sekolah Tinggi Ilmu Ekonomi YKPN. Yogyakarta.
- [8]. Suharsih. 1998. Analisis Finansial Usaha Sapi Perah Kredit Bantuan Perusahaan Listrik Negara. Skripsi. Fakultas Peternakan Universitas Gajah Mada. Yogyakarta.
- [9]. Nurcahya. 2009. Perbedaan Peran Wanita Tani dalam Kegiatan Usaha Tani Padi Sawah di Kecamatan Ladongi Kabupaten Kolaka. Universitas Muhammadiyah Kendari Press. Kendari.
- [10]. Suminah. 2009. Studi Pemberdayaan Wanita Tani dalam Usaha Tani Ternak Sapi Melalui Program Sapta Usaha Peternakan di Kabupaten Grobogan. Caraka Tani XXIV No 2. Universitas Sebelas Maret. Surakarta.
- [11]. Swastha dan Sukotjo. 1999. Pengantar Bisnis Modern. Liberty. Yogyakarta.
- [12]. Matitaputy, P.R. 2006. Kebijakan Pengembangan Crop Livestock System (CLS). <http://www.budidaya-peternakan> (Diakses tanggal 21 November 2009).