EFFECTIVENESS OF ENTREPRENEURIAL TRAINING MODEL ON BEEF CATTLE FATTENINGIN EFFORT STRENGTHENING COMPETITIVENESS AND THE REGIONAL INNOVATION SYSTEM IN INDONESIA

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Abstract: The purpose of this study was to determine the effectiveness of entrepreneurial training model fattening beef cattle in an attempt to strengthen the competitiveness and the regional innovation system. The research was conducted in District Boyolali, Central Java, Indonesia in August 2015. Methods of data collection techniques done with the literature study, observation, interviews and focus group discussions. The study design using the Pre-Experimental Design with one group pretest-posttest design to test the effectiveness of the training model. Analysis of data using business enterprising concept approach is the application of management functions in production, marketing, finance, organizational management and entrepreneurial qualifications of farmers and using the Wilcoxon test. The results based on the concept of business enterprising shows that the average score entrepreneurial spirit of farmers by 19 (79.17%), the average score organizational management of 12 (80%), the average score of the management of marketing activities by 11 (52.38%), the average score of 8.97 for production management (74.75%), the average score of 8 business financial management (88.89%). The results based on analysis using Wilcoxon test by comparing the results of the pre-test and post-test on aspects of knowledge showed a significant effect, with a value before the training gained an average value of 15 and after training before training 18. The standard deviation of 3.25 and after training 4,16. The minimum value before training 8 and a maximum value of 22. The minimum value after training 8 and a maximum value of 28. Price 3.82 Z count is greater than Z table = 1.96 with a standard error of 0.025 (p). This means there is a change or an increase in the ability of the participants after the training is given, so that it can be concluded that entrepreneurship training fattening beef cattle effectively empower farmers.

Keywords: *Effectiveness, Model, Training, Entrepreneurship, fattening beef cattle*

I. INTRODUCTION

The development needs of new entrepreneurs in Indonesia is needed to improve the competitiveness and the carrying capacity of the national economy. The number of entrepreneurs in the manufacturing sector and knowledge-based business sector is still relatively very less when compared to the population of Indonesia. Whereas this sector will become the foundation for improving productivity, competitiveness and national economic growth in the era of knowledge economy in the future bases (Malik, 2012). Based on data from BPS (2012), of the total Indonesian population of 237.64 million, around 1.56% are self-employed or a total of 3,707,205 inhabitants. Indonesia requires millions of new entrepreneurs to support Indonesia become a developed country, as well as job creation as a solution to poverty and unemployment.

In order to develop new entrepreneurs based on knowledge and technology, there should be a variety of efforts to develop entrepreneurship in Indonesia, especially in the sectors of the economy prospective, one of the main in the livestock sub-sector as well as the engineering culture that supports the development of entrepreneurship, the creation of a conducive business environment and support reinforcement for the birth of new entrepreneurs. Livestock subsector, particularly beef cattle farms has bright prospects for development. This is shown in the data this year that the national beef needs around 549.7 thousand tons. Approximately 474.4 thousand tons (86%) of local cattle (farm people). About 32 thousand tons (6%) of imports of frozen meat and 48 thousand tons (9%) of imports of feeder cattle 267 thousand head (of cattle after being fattened for about 110 days, then obtained a total equivalent of beef 48 thousand tons) (Main, 2013).

The ability of domestic beef production has not been able to meet national needs, causing imports of live cattle and beef is still high. Cattle have an important role and market opportunities are high because it is a national meat-producing livestock seed. Livestock business development in the Boyolaliregency be supported with relevant government policies that have a positive impact on improving people's welfare. Many studies show that capital creates a major hurdle for entrepreneurs to start their business. Therefore, the development of venture capital which is integrated with the business incubator will be able to encourage the new entrepreneurs and reduce business failure. Government and business need to provide financial and non-financial support to the birth of new entrepreneurs. Development of supply chain management and partnerships based on value chain is expected to encourage the development of entrepreneurs (Malik, 2012). Based on this background, it is necessary to research that aims to determine the effectiveness of entrepreneurial

training model fattening beef cattle in an attempt to strengthen the competitiveness in Boyolali.

II. METHODOLOGY

This research was conducted in the District Boyolali, Central Java, Indonesia in August 2015. The choice of location and sample using purposive sampling method, which is a way of determining the location of the research based on several considerations in accordance with the purpose of research (Sugiyono, 2006). District Boyolali is an area that has potential for the development of beef cattle farms and the respondent joined in the Beef Cattle Breeders Association. This study design using Pre-Experimental Design with one group pretest and posttest design. The use of this design aims to test the effectiveness of entrepreneurial training model fattening beef cattle. This design is done by comparing the results of pretest and posttest of the respondents as a trainee.

Enterprising data analysis using the concept of small businesses and non-parametric statistical analysis, namely by Wilcoxon Match Pairs Test (Siegel, 1997 and Sugiyono, 2001). Training needs analysis with a qualitative descriptive technique to the data of objective conditions breeders efforts aimed to identify whether training is needed to improve business performance and how the shape of a model training. Analyses were performed by small businesses enterprising concept approach is the application of management functions in production, marketing, finance, organizational management and entrepreneurial qualifications of small businesses. There are five variables measuring objective conditions are variable aspects of small business entrepreneurship (X1), the variable aspects of business management (X2), the variable aspects of production (X3), variable marketing aspects (X4) and variable financial aspects (X5).The steps of analysis:

1. An assessment of each indicator variable by giving a score according Guttman scale is negative answer given a score of 0, positive answers "less" was given a score of 1, the positive answer "enough" was given a score of 2 and a positive answer "good" was given a score of 3.
2. Calculate the average score of each variable
3. Determine the appropriate standard enterprising ideal score for each variable and calculates a score gap is the difference between the real ideal score with a score.
4. Establish the potential needs of each variable (Trimurti, 2008)

Data were analyzed using the Wilcoxon Match Pairs Test is to know the difference between before and after training. These test results to prove the effectiveness of entrepreneurial training model fattening beef cattle.

III. RESULTS AND DISCUSSION

Characteristics of Respondents

Characteristics of respondents who follow entrepreneurial training fattening beef cattle in the district Boyolali include age, education level, experience farming, family size, number of livestock ownership and breeders work. The average age of farmers is 51 years. The education level of the average farmer is Senior High School. Raising experience an average of 6 years. The average number of family farmers is 5 people. The number of livestock ownership on average 5 animals. Work an average farmer is a farmer breeders.

Table 1. Analysis of entrepreneurship

No.	Measured Aspects	Ideal Score	Score Achieved	%	Gaps Score	%
1.	Entrepreneurial spirit	24	19	79.17	5	20.83
2.	Management organization	15	12	80	3	20
3.	Marketing	21	11	52.38	10	47.62
4.	Production	12	8.97	74.75	3.03	25.25
5.	Finance	9	8	88.89	1	11.11

Source: Primary data processed, 2015

Training Needs Analysis

1. Entrepreneurship, The average score of the entrepreneurial spirit that is owned by farmers with 8 indicator variable is equal to 19 or in a position of 79.17% with a potential requirement to achieve the ideal position by 20.83%. The potential need for farmers in the field of entrepreneurship training especially fattening beef cattle is the attitude of the leadership, optimistic attitude / confident, creative, future-oriented and result-oriented and task.
2. Organizational Management, An average score of organizational management with five indicator variables are in a position of 12 or 80% so there is a potential need to achieve the ideal position of 20%. Training needs in the field of organizational management is a necessity especially in the preparation of business plans, evaluation and beef cattle operations.
3. Marketing, The average score of the management of marketing activities with seven indicator variable is equal to 11 or in a position of 52.38% with a potential requirement to achieve the ideal position by 47.62%. Potential training needs in the field of marketing, especially the description / explanation of the content and benefits of the products sold, selling livestock technical skill, determination of target market.
4. Production, The average score of the management of production with four indicator variable is equal to 8.97 or 74.75% in the position with the potential needs to be able to achieve the ideal position by 25.25%. The potential need for training farmers in production mainly in the selection of skills going, and the determination of quality feed.
5. Finance, The average score of the financial management of businesses with three indicator variables is equal to 8 or in a position of 88.89% with

a potential requirement to achieve the ideal position by 11.11%. Training needs of farmers relating to the financial management of the business is recordingall expenditures and receipts and counting feasibility.

Wilcoxon Test

Analysis of testing the effectiveness or analysis Wilcoxon test is done to look at: (1) the results of calculations or test the knowledge of each breeder both before and after the training, (2) average and the total value of the aspects of the knowledge testing, and (3) different from before and after as well as the level of the value of each farmer. Assessment of knowledge is done by using multiple choice. Every item is actually given a score of 1 and one with a score of 0, and really all given a score of 30 (100%). Test given in writing using a multiple-choice (multiple choice), with the option to correct the score 1 and one 0.

In the aspect of knowledge about the maintenance of fattening beef cattle, beef cattle feed and livestock waste treatment, after the pretest and posttest of all breeders are training a significant increase (Table 2). Increased knowledge is evident from item 30 written questions given to farmers before training gained an average value of 15 and 18. The standard deviation after training before training and after training 3,25 4,16. The minimum value before training 8 and a maximum value of 22. The minimum value after training 8 and a maximum value of 28 (Table 3).

Table 2. Results of the pre-test and post-test knowledge

Respondents	Pretest	Post test	Difference	Signs Ladder		
			Pre and Post	Ladder	+	-
1	17	17	0	3.5	3.5	0
2	13	17	4	17	17	0
3	15	19	4	17	17	0
4	21	28	7	27	27	0
5	19	19	0	3.5	3.5	0
6	17	18	1	8.5	8.5	0
7	16	20	4	17	17	0
8	17	17	0	3.5	3.5	0
9	13	14	1	8.5	8.5	0
10	17	20	3	14.5	14.5	0
11	12	12	0	3.5	3.5	0
12	15	17	2	12	12	0
13	10	15	5	22	22	0
14	14	14	0	3.5	3.5	0
15	19	14	-5	22	0	22
16	10	22	12	29	29	0
17	17	15	-2	12	0	12
18	22	27	5	22	22	0
19	14	16	2	12	12	0
20	8	8	0	3.5	3.5	0
21	15	20	5	22	22	0
22	16	15	-1	8.5	0	8.5
23	11	16	5	22	22	0
24	16	19	3	14.5	14.5	0
25	13	21	8	28	28	0
26	12	18	6	26	26	0
27	17	18	1	8.5	8.5	0
28	17	22	5	22	22	0
29	18	23	5	22	22	0
Total	441	521			392.5	**42.5**
Average	15	18			T = 392.5	

Source: Primary data processed, 2015

Table 2 above shows that the results of posttest (521) is greater than pretest (441). This means that the

training activities affect the improvement of knowledge of farmers. Efforts to prove that the results of training can improve knowledge of farmers, the Wilcoxon test using the formula Z. Z Test with test participants used as research subjects in excess of 25 people. Testing by the formula Z as follows:

$$Z = \frac{T - \mu_T}{\sigma_T}$$

T = number of levels / ranks were small at 42.5

$$\mu_T = \frac{n(n+1)}{4}$$

$$\sigma_T = \sqrt{\frac{n(n+1)(2n+1)}{24}}$$

$$Z = \frac{42{,}5 - \frac{29(29+1)}{4}}{\sqrt{\frac{29(29+1)(2x29+1)}{24}}} = \frac{42{,}5 - 217{,}5}{\sqrt{\frac{50461}{24}}} = \frac{-175}{45{,}85} = -3{,}82$$

If the error level of 0.025 (p) the price of the Z table = 1.96. Price -3.82 Z count was greater than 1.96 (the price - is not taken into account because of the absolute price), so Ho rejected. So entrepreneurship training fattening beef cattle significant effect of increased knowledge of farmers training. Wilcoxon test results before and after training in descriptive statistics presented in Table 3.

Table 3. Descriptive statistics Wilcoxon test results for the knowledge

	N	Mean	Std Deviation	Min	Max
Before	29	15	3.25	8	22
After	29	18	4.16	8	28

Source: Primary data processed, 2015

Based on Table 3 shows the results mean after training (18), is also greater than the mean before training (15). Thus the difference of knowledge in question is that there is a positive change from the knowledge of farmers who attend training.

Effectiveness Training Model

Descriptive analysis is done by comparing data from each of the first and second evaluation followed by seeing the difference that using non-parametric statistical tests (Wilcoxon test) with the formula Z testing because the number of farmers who followed the training of more than 25 people. The test is an indication of how far the effectiveness of the training model of the creation of new entrepreneurs who developed the ability of farmers in entrepreneurial fattening beef cattle. Results of the implementation of entrepreneurial training models fattening beef cattle is able to empower farmers in developing entrepreneurial skills. Analysis of effectiveness testing is done by looking at the results of the calculation aspect of the knowledge of farmers training. The results show there is an increase or significant differences in the knowledge that the breeder training.

CONCLUSION

The results based on the concept of business enterprising shows that the average score entrepreneurial spirit of farmers by 19 (79.17%), the average score organizational management of 12 (80%), the average score of the management of marketing activities by 11 (52.38%), the average score of 8.97 for production management (74.75%), the average score of 8 business financial management (88.89%). The results based on analysis using Wilcoxon test by comparing the results of the pre-test and post-test on aspects of knowledge showed a significant effect. This means there is a change or an increase in the ability of the participants after the training is given, so that it can be concluded that entrepreneurship training fattening beef cattle effectively empower farmers.

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