

**SOCIAL TRUST AND DAIRY CATTLE FARMING  
CASE STUDY : DAIRY CATTLE FARMERS IN GETASAN VILLAGE, CENTRAL  
JAVA PROVINCE**

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**ABSTRACT**

The study aimed to analyze the relationship between social trust and performance of dairy cattle farming in Semarang Regency, Central Java. The study was conducted in Getasan Village, Getasan District, Semarang Regency, Central Java, Indonesia. The sample size in this study was 96. The information gathered from the respondent's interview via questionnaire were coded and processed using the (SPSS) and were analyzed quantitatively to the possible extent using descriptive statistics such as frequency distribution, mean, and percentage. The Spearman Rank Order Correlation test was used to determine the relationship between social trust and the performance of dairy cattle farming. This study indicates that there is a significant relationship between social trust and performance of dairy cattle farming. The indicators of social trust could influence an organization and its members to improve the performance of dairy cattle farming. This study also proposed some recommendation. The government agents should be more careful in their contacts with rural communities and should avoid activities that can reduce the level of trust.

*Key Words : social trust, dairy cattle farmers*

**INTRODUCTION**

Trust is the most widely used indicator in the measurement of social capital. Several types of social trust include trust by people in their own tribe, other tribes, in politicians, family members, and government service providers. Trust means belief or confidence in the honesty, goodness, skill, or security of a person or an organization (Coleman, 1988).

Interpersonal trust encourages the joining of groups. Individuals who trust others tend to join more groups, and individuals who belong to more groups tend to trust others. Papagapitos and Riley (2008) conclude that social capital measured as trust contributes positively to economic growth. Thus, causality is found to run in both directions between trust and economic growth in that trust affects the performance of many social institutions and social norms, including tax compliance, corruption levels, and quality of the judiciary. James and Sykuta (2004) explained that trust is an action that involves a voluntary transfer of resources (physical, financial, intellectual, or temporal) from the truster to the trustee with no real commitment from the trustee. Social trust starts at the family and grows and spreads to others. Social trust in this study involved three variables namely: trust among farmers, trust in extension agents, and trust in the organization.

This research examined the existence and level of trust among the dairy cattle farmers and the empirical relationship between social trust and the performance of dairy cattle development in Semarang Regency, Central Java, Indonesia. Taking into consideration the above-mentioned, this study attempted to find out the effect of social trust on dairy cattle farming in terms of improving its performance.

**Research Methods**

The study was conducted in Getasan Village in Getasan District, Semarang Regency, Central Java, Indonesia. Data collection was conducted among the farmers of the Getasan Village in the Getasan District, Semarang Regency. Of the 13 villages in the Getasan District,

Getasan Village was chosen purposively since it has the largest population of dairy cattle. The household respondents from Getasan Village were chosen randomly from 683 households using simple random sampling based on Slovin's formula. Based on the formula, the sample size in this study was 96.

Primary data were collected mainly through a survey questionnaire by interviewing the dairy cattle farmers with the help of enumerators. Additional data were gathered through focus group discussions (FGDs) with the participant groups using guide questions, community baseline information, and field observations.

The information gathered from the respondent's interview via questionnaire were coded and processed using the Statistical Package for Social Science (SPSS) and were analyzed quantitatively to the possible extent by using descriptive statistics such as frequency distribution, mean, and percentage. The Spearman Rank Order Correlation test was used to determine the relationship between social trust and the performance of dairy cattle farming.

## RESULTS AND DISCUSSION

### Socio-demographic Characteristics of the Respondents

In terms of gender, 95.8 percent of the total respondents were males while only 4.2 percent were females. Out of the 96 respondents, most of the respondents were in their active stage. The youngest respondent was aged 25 while the oldest was 74 years old. Almost all of the respondents (96.9%) were married and only 3.1 percent were single. In the case of the respondents, 94.8 percent had formal education and a small percentage (5.2%) did not have any formal education. Moreover, the family size of the respondents ranged from two to 11 members. Among the respondents, about three-fourths (74%) were generally nuclear families while only 26 percent had an extended type of household. About 41.7% of the respondents had incomes ranging from \$50 to \$100; 49 percent had income of more than \$100 while 9.4 percent had income below \$100 per month.

### The respondents' perception on social trust and performance of dairy cattle farming among the Getasan dairy cattle farmers

As a whole, the respondents have a high level of trust among co-farmers (Table 1). Almost all of the farmers trusted their co-farmers and they believed their co-farmers will help them whenever they needed help. This relates with Putnam's theory that the more we connect with other people, the more we trust them, and vice versa" (Putnam, 2000, p. 134). Putnam also theorizes that interpersonal trust encourages the joining of groups.

Table 1. The respondents' perception on social trust and performance of dairy cattle farming

VARIABLES	WEIGHTED MEAN	ADJECTIVAL RATING
<u>Social Trust</u>		
1. Trust in co-farmers	2.8	High
2. Trust in extension agent	2.4	High
3. Trust in organization	2.5	High
<u>Performance of dairy cattle farming</u>		
1. Feeds and feeding practices	2.9	High
2. Milk production	2.8	High
3. Dairy health	2.7	High
4. Marketing	2.6	High

As a whole, the respondents highly trusted the extension agents (Table 1). More than half of the farmers in Getasan Village believed they can trust the extension agents. Based on this study, the most effective extension agents were those who were able to relate and

communicate with farm families in the rural community. These extension agents contributed in building a coalition of support for dairy cattle development efforts. Trust in extension agents brought people together and contributed to the emergence of stronger communities (Cox, 2007).

Table 1 shows the farmers' opinions towards their cooperatives. As a whole, the respondents have a high level of trust in the organization. Almost all of the farmers agreed that they can trust the cooperative to help farmers improve performance in dairy cattle farming. Studies showed that trust can be placed in individuals or institutions, such as formal organizations. Organizational trust is defined as trust existing within or impacted by organizational settings. However, trust in organizations entails an examination of the trust among people identified within an organization – that is, the organization's members and the officers.

### Tests of Relationship of Variables

Based on the results of the Spearman Rank correlation test, feeds and feeding practices were significantly correlated with trust among farmers ( $r = 0.780^*$ ,  $p = 0.034$ ) and trust in extension agents ( $r = 0.679^*$ ,  $p = 0.032$ ). Since the p-values are less than the significance level (5%), the null hypothesis is rejected. However, no significant relationship was found between trust in organization and feeds and feeding practices ( $r = 0.190$ ,  $p = 0.134$ ) (Table 2). The p-value is more than the significance level (5%), hence, the null hypothesis is accepted. Social trust which facilitates coordination and cooperativism for mutually beneficial collective action was seen as an important asset upon which the dairy cattle farmers relied to manage the performance in terms of feeds and feeding practices.

Meanwhile, there were significant relationships between trust among farmers ( $r = 0.123^*$ ,  $p = 0.045$ ), trust in extension agents ( $r = 0.567^*$ ,  $p = 0.031$ ), and trust in organization ( $r = 0.765^*$ ,  $p = 0.037$ ) and milk production in Getasan Village (Table 2). The p-values are less than the significance level (5%), hence, the null hypothesis is rejected. This indicates that because of these three variables of social trust, the farmers were able to improve the performance of milk production. A thorough understanding of milk quality is an essential component of the knowledge base needed by dairy cattle farmers in order to evaluate, plan, implement and monitor the performance of milk production.

Table 2. Relationship between social trust and performance of dairy cattle farming using Spearman Rank correlation test

VARIABLES	FEEDS AND FEEDING PRACTICES		MILK PRODUCTION		DAIRY HEALTH		MARKETING	
	r	p	r	p	r	p	r	p
Trust among farmers	0.780*	0.034	0.123*	0.045	0.684*	0.037	0.785*	0.028
Trust in extension agents	0.679*	0.032	0.567*	0.031	0.243	0.059	0.712*	0.029
Trust in organization	0.190	0.134	0.765*	0.037	0.063	0.293	0.595*	0.045

\* Significant at .05 level; r = correlation coefficient, p = asymptote significance

When it comes to dairy health as performance indicator of dairy cattle farming, trust among farmers ( $r = 0.684^*$ ,  $p = 0.037$ ) was the only significant factor. The p-value is less than the significance level (5%), hence, the null hypothesis is rejected. Trust in extension agents ( $r = 0.243$ ,  $p = 0.059$ ) and trust in organization ( $r = 0.063$ ,  $p = 0.293$ ) had no significant relationship with dairy health. The p-values are greater than the significance level (5%), hence,

the null hypothesis is accepted. This is related with Prodjoarjo (1992) that the spread of knowledge in relation to dairy health can be defined as a strategy of management practices to control and prevent animal and public health-related losses.

As regards marketing, the test showed that trust among farmers ( $r = 0.785^*$ ,  $p = 0.028$ ), trust in extension agents ( $r = 0.712^*$ ,  $p = 0.029$ ), and trust in organization ( $r = 0.595^*$ ,  $p = 0.045$ ) were significantly related factors (Table 2). The p-values are less than the significance level (5%), hence the null hypothesis is rejected. This indicates that these three indicators of social trust facilitated marketing. Cooperatives in Getasan Village promoted collaboration with market chain actors. It helped farmers establish social networks with individuals and private organizations who can play a useful role in marketing processes in dairy cattle farming. Setiani (2004) added that smallholder farmers generally faced higher marketing costs because of their small volume of marketable surplus, lack of business skills, and lack of access to information and technology. Social trust may provide opportunities for farmers to access services, information and resources that will allow them to improve their capacities in these areas.

### **Conclusions and Suggestions**

Dairy cattle was found to be the important source of income among the group members in Geatsan Village. The group members showed trust in cooperatives and were found to be strongly motivated by success and finding solutions to problems. This study indicated that generalized social trust are important factors of social capital that can help develop and improve dairy cattle farming. Cooperatives can enhance social trust by creating activities for members to behave in a cooperativism manner. This could be an important way for developing social trust to support dairy cattle farming.

This study also proposed some recommendation. The cooperatives and extension agents should enhance the capability of farmers to increase productivity through introduction of improved technology and skills trainings on beef cattle farming. Moreover, the government agents should be more careful in their contacts with rural communities and should avoid activities that can reduce the level of trust. Lastly, the government should improve the level of skills of extension agents particularly in the area of development administration, resource generation, project planning, implementation and evaluation.

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