

Information access among chicken and cattle farmers in Gunung Kidul Yogyakarta and Ngada East Nusa Tenggara¹

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ABSTRACT: The current study aims to identify level of knowledge and sources of knowledge needed by chicken and cattle farmer to promote innovativeness and possible dissemination channels of knowledge. It is expected that results of the study give a better portrait of chicken and cattle farming and could be useful inputs for policies formulation. Based on data from 149 farmers in two districts (Gunungkidul and Ngada) and interviews with key players, we find that knowledge on marketing, feed management, healthcare and reproduction are determinant of innovativeness. Capital is still an unsolved classic problem and hence it is found that knowledge on capital has no significant contribution to innovativeness. Friends/group and extension workers are considered as the most important source of knowledge, while only limited farmers who utilize media as source of relevant knowledge.

Key words: chicken and cow farming, knowledge, entry barriers, innovation, Indonesia

INTRODUCTION

From various parts of the developing world we see that farmers show weak supply responses to allegedly favourable market incentives. Deregulation policies tend to increase levels of inequality in society and poverty of smallholders in poor areas. In Latin America, rural poverty is found to affect more people in many countries and to be considerably deeper than urban poverty (de Janvry and Sadoulet, 2000). In Indonesia, products from chicken and beef have been important element of cooking and nutrition for centuries. There is not a long tradition of commercial chicken and cattle farming, however. Usually, chicken and cattle farmers run their business with simple promises and traditional ways. Their innovativeness is very limited. With a sustained economic crisis and widespread unemployment in rural areas, and even dramatically amplified problems of under- and malnutrition, increased chicken and beef production could serve multiple purposes.

Previous empirical findings from Africa indicate that entry barriers can be high and blocking in the off-farm labour markets as well as in more advanced farm activities. This is due to requirements of investments, information/knowledge and skills, and various acquisition fees (Woldenhanna and Oskam 2001, Barrett et al. 2001, Abdulai and Rees 2001). The same tendencies are found in Latin America (Corral and Reardon 2001), and the process of ‘institutionalizing barriers to entry’ is reported also from geographical contexts in Asia (Goletti and Chabot 2000).

The current study aims to identify knowledge (know-what) needed by chicken and cattle farmer to promote innovativeness and possible dissemination channels of knowledge. It is expected that results of the study give a better portrait of chicken and cattle farming and could be useful inputs for policies formulation.

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MATERIALS AND METHODS

Respondents of the current research were chicken and cattle farmers in two districts: Gunungkidul (in Province of Special Region of Yogyakarta) and Ngada (in East Nusa Tenggara). These two districts were selected due to their both differences and similarities. Both in Gunungkidul and Ngada, poverty was still common phenomenon. Chicken and cattle farming were found in significant number in both districts. However several differences were also identified, such as level of centrality indicated by physical distant to sources knowledge (e.g. universities etc.).

In Gunungkidul, data collection were carried out in Kecamatan Wonosari, Playen, and Panggang, while in Ngada, data collection were collected in Kecamatan Bajawa and Bajawan Utara. In addition to farmers, in depth interviews with relevant sources of information, such as extension workers and government office (*dinas*) officials were also conducted.

The study deployed a mixed methodology combining quantitative and qualitative approach. However, the quantitative approach is still dominant. Both quantitative and qualitative data were collected from various sources. Quantitative data obtained through survey to 149 chicken and cattle farmers in both districts, while qualitative data provided by in depth interviews and field observation.

A questionnaire as the main research instrument was developed and use previous research reviews as the basis. Preliminary interviews with farmers were also used to prepare the research instrument. In general, the questionnaire was divided into two parts: demographics, and knowledge access.

Data obtained from survey were tabulated and analyses with help of a statistical package, SPSS. Quantitative data from in depth interviews analysed using content analysis. Key themes in the interviews are identified and crosschecked with the quantitative data.

RESULTS AND DISCUSSION

Demographic Setting

Respondents of the research are 149 farmers, 108 from Gunungkidul and 41 from Ngada. Out of them, 38 are chicken farmers, 50 cattle farmers, and another 61 run both chicken and cattle farming business. As depicted in Table 1, most (60.4%) respondents are only with elementary school educational background and only 5.4%, which have higher education. It is also obvious that level of education of farmers in Gunungkidul is higher than their counterpart in Ngada.

At average, age of the farmers is 52.6 years ranges from 25 to 80 years old. They have been in business of cattle farming for 21.2 years, and chicken farming for 20.6 years. Farmers in Gunungkidul have been in business longer than their counterpart in Ngada. Number of family member at average is five people and the monthly expenditure of most (39.5%) family is between Rp 1.000.000 and Rp 2.000.000. However, again, monthly expenditure of farmers in Gunungkidul is higher than in Ngada. Interestingly, only 1.3% farmers state that the chicken or cattle farming business is their main source of income. The vast majority (69.1%) of the farmers consider agriculture sector as their main source of income. In general, almost half (47.0%) of the farmers inherited the business from family, while another 45.0% started the business by their own. However, in Ngada, no farmers inherited the business from their ancestors.

Information Access

In general, level of information access or level of knowledge of the farmers are very low as described in Table 2. In the Likert scale, the study shows that access of farmer to the capital information is the lowest score (1.85). The highest score of information access is marketing (3.20). Access to the healthcare, feed management and reproduction management also minimum (lower than 3.00).

As shown in Table 3, the majority (71.14%) of farmers get knowledge from friends/group. Extension workers also play an important role (68.46%) in giving knowledge to the farmers. Aside, the self learning also another source of knowledge (58.39%), followed by extension activities from private institutions (48.32%).

Table 1. Demographic information

Item	Gunungkidul		Ngada		All	
	<i>N</i>	%	<i>n</i>	%	<i>n</i>	%
Education						
- Elementary school	59	54.6	31	75.6	90	60.4
- Junior high school	19	17.6	5	12.2	24	16.1
- Senior high school	24	22.2	3	7.3	27	18.1
- University	6	5.6	2	4.9	8	5.4
Monthly expenditure						
- < Rp 500.000	1	0.9	29	70.7	30	20.4
- Rp 500.000-Rp 1.000.000	32	29.6	8	19.5	40	27.2
- Rp 1.000.000-Rp 2.000.000	57	52.8	1	2.4	58	39.5
- > Rp 2.000.000	18	16.7	1	2.4	19	12.9
Main source of income						
- Agriculture	70	64.8	33	80.5	103	69.1
- Chicken/cow farming	2	1.9	0	0.0	2	1.3
- Other	36	33.3	8	19.5	44	29.5
Origin of business						
- Legacy	70	64.8	0	0.0	70	47.0
- Started by myself	36	33.3	31	75.6	67	45.0
- Started with friends/group	2	1.9	2	4.9	4	2.7
- Other	0	0.0	8	19.5	8	5.4
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Age (years)	55.3	10.5	45.1	10.1	52.6	11.3
Family member	4.2	1.5	5.7	1.8	5.0	2.0
Number of employees (person)						
- Cow farming	1.8	1.2	1.4	1.6	1.7	1.3
- Chicken farming	1.5	1.2	1.5	2.3	1.5	1.6
Years in business						
- Cow farming	22.2	11.8	17.5	9.1	21.2	11.4
- Chicken farming	23.3	11.2	8.8	8.8	20.6	12.1

Table 2. Level of knowledge

Knowledge	Gunungkidul*	Ngada*	All*
Capital	1.90	1.67	1.85
Health care	2.65	1.87	2.48
Marketing	3.58	1.83	3.20
Feed management	3.19	1.57	2.83
Reproduction management	3.08	1.47	2.73

*Measured using 5-point Likert scale (1=novice, 5=expert)

Table 3. Source of knowledge

No	Source of knowledge	n	%
1	Friends/group	106	71.14
2	Extension workers	102	68.46
3	Self learning	87	58.39
4	Private institutions	72	48.32
5	Non-formal education/training	62	41.61
6	Inherited knowledge	54	36.24
7	Information from schools/universities	49	32.89
8	Television	41	27.52
9	Radio	41	27.52
10	Formal education	13	8.72
11	Newspaper/magazine	8	5.37
12	Internet	3	2.01

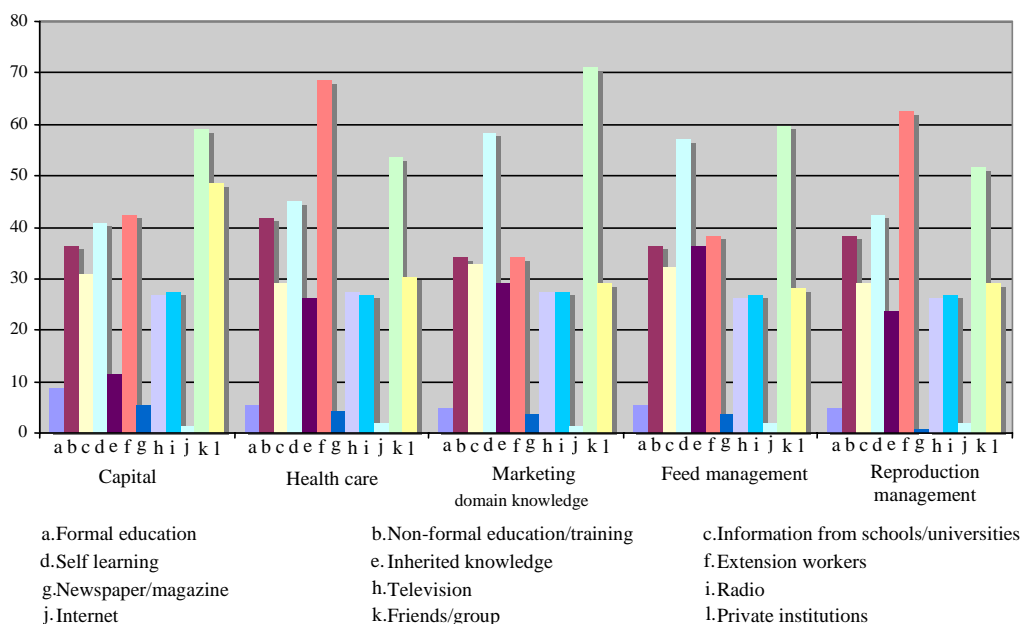


Figure 1. Source and domain of knowledge

Print and electronic media have not become the important source of knowledge yet. Twenty seven point fifty two percent of the farmers get information from television and radio. Only 2.01% farmers use internet as source of knowledge.

From the domain of knowledge that gotten from various sources, the most information of capital knowledge coming from friends/farmer group as shown in Figure 1. Other Sources of capital information are private institutions and extension workers, respectively. Knowledge of healthcare from extension workers, followed by friends/group, and self learning. Extension workers are also the most important of knowledge source for both marketing and feed management.

CONCLUSION

The sources of knowledge which relevant to gain the innovation are in the domains of marketing, feed management, animal healthcare, and animal reproduction. Friends/group and extension workers are the important for all domain of knowledge.

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