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## Knowledge Management Adoption of Animal Husbandry on Broiler Farms in Western Thailand

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This study aimed to explore knowledge management adoption and factors effecting the adoption of knowledge management in broiler domestication in western Thailand. The populations in this study were 87 animal husbandry officer concerning with broiler domestication in western Thailand. A highest and a lowest average mean score, percentage, mean, standard deviation, and Chi-square were used for the statistical treatment. Results of the study revealed the following: 1) most of the animal husbandry officer understood the knowledge management at a moderate level (11-15 out of 20 scores); 2) the animal husbandry officer participated in the knowledge management at a moderate level ( $\bar{X} = 3.32$ ); 3) the animal husbandry officer had attitudes towards the knowledge management at moderate level ( $\bar{X} = 3.57$ ); and 4) the animal husbandry officer adopted the knowledge management at a high level ( $\bar{X} = 4.03$ ). The following were factors effecting the adoption of the knowledge management in broilers: understanding in the knowledge management; participation in the knowledge management; and attitudes toward the knowledge management.

**Keywords:** broilers, understanding, participation, attitudes, knowledge management

### Introduction

The domestication of broilers (meat-type chicken) in Thailand is important in which its export value was 65,225.576 million baht (Planning Division, Department of Livestock Development, 2015). An important mechanism of the production process is management which the animal husbandry is responsible for production control. Most broiler farmers in Thailand do their business in the form of contract farming. This is, the farmers will receive some production raw materials from the trading partner then they are responsible for farm management, workforce, and various public

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commodity expenses such as electricity and water supplies. However, the trading partner is responsible for the expenses on chickens, and feeds. When the size of meat-type chicken reaches needs of the market, the trading partner manages price assurance of the alive meat-type chicken based on its weight together with the subtraction of the expenses on chicks and feeds.

Normally, farmers can domesticate broilers for 5 cropping per year. The animal husbandry plays important roles as a controller of operation performed by farm workers and he must take care of production before making a report on the operational outcomes. Hence, the occurrence of skills in consideration and problem diagnosis is essential for the production efficiency. Nonaka (1995) as cited in Boonyakit *et al.* (2006) claimed that it has an effect on the operation. Knowledge management is very important because if the accumulated knowledge of the animal husbandry is used as a model or developed, it can increase the efficiency in the business competition and build the sustainability of this occupation (Maneewong, 2015). Therefore the researcher is interested in what factors have an effect on the adoption of the knowledge management of meat-type chicken husbandry in western Thailand. Roger (2003) as cited in Thongmun (2012) who found that factors effecting the adoption of knowledge management included knowledge and understanding about knowledge management; i.e. memory competency; construction process interpretation; formulation and dissemination; and knowledge using for increased operational efficiency. Lorsuwanrat (2008) claimed that attitudes toward knowledge management are the manifestation of ideas or feeling to assess decision-making of an individual or a particular situation. Participation in knowledge management can be understood as an individual shares interaction in order to achieve the goals of the group with the occurrence of responsibility sharing.

### **Research objectives**

Specifically, this study aimed to investigate the following:

1. to explore Fundamental data of broiler husbandry in western Thailand;
2. to explore Adoption of knowledge management of broiler (meat-type chicken) husbandry in western Thailand; and
3. to explore Factors effecting the adoption of knowledge management of broilers in western Thailand.

### ***Scope and Delimitation of the Study***

1. Locales of this study were 7 provinces in western Thailand: Nakhon Prathom, Ratchburi, Kanchanaburi, Supanburi, Phetchaburi, Prachuab Kihirikhan, and Samut Songkram provinces.

2. The target group of this study consisted of 87 animal husbandry in western Thailand.

3. Content of the study

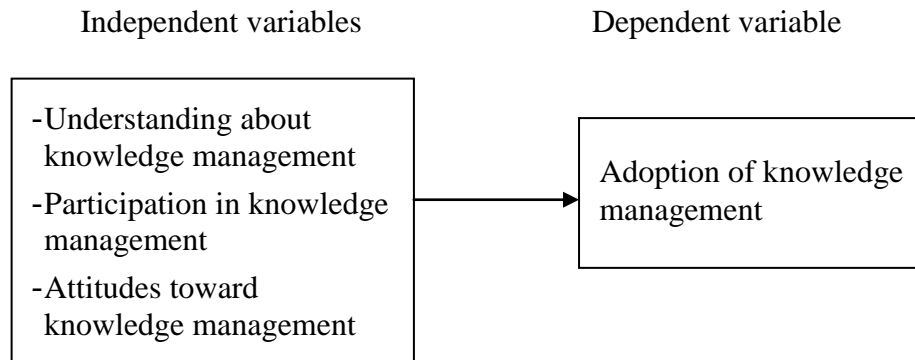
The following were investigated:

3.1 fundamental data of broiler husbandry in western Thailand;

3.2 adoption of knowledge management about broiler husbandry in western Thailand; and

3.3 Factors effecting the adoption of knowledge management in western Thailand i.e. understanding about knowledge management; attitudes toward knowledge management; and participation in knowledge management.

### ***Conceptual Framework***



### **Research Methodology**

The study on knowledge management adoption of animal husbandry on broiler farms in western Thailand was a survey research by using a set of questionnaires to explore a level of understanding about knowledge management, attitudes toward knowledge management participation in knowledge management; and adoption of the knowledge management about broiler husbandry in western Thailand. The research instrument was tested by 3 specialists and the obtained IOC was 0.8. The questionnaire was then administered with 87 animal husbandry. Obtained data were analyzed by using percentage, mean, standard deviation, and Chi-square.

## Result

Results of the study revealed that most of the respondents were male (94.25%), 32-37 years old (39.08%), and bachelor's degree holders (89.66%) with an average monthly income for 30,000 baht and about. Most of the respondents had less than 6 years of service (41.39%) and almost all of them (96.55%) had participated in knowledge management. Less than one-half of the respondents (32.18%) took care of 400,000-600,000 broilers.

Regarding factors effecting the adoption of knowledge management of broiler husbandry in western Thailand, the following were found: 1) most of the respondents understood about knowledge management at a moderate level with the score range of 11-15 out of 20; 2) the respondents participated in knowledge management at a moderate level ( $\bar{x} = 3.32$ ); 3) the respondents had attitudes toward knowledge management at a moderate level ( $\bar{x} = 3.57$ ); and 4) the respondents adopted knowledge management at a high level ( $\bar{x} = 4.03$ ). It was found that factors effecting the adoption of broiler knowledge management were: 1) understanding about knowledge management; 2) participation in knowledge management; and 3) attitudes toward knowledge management.

**Table 1.** Levels of the understanding about knowledge management.

Score (20)	No.	%
Less than 11	17	19.54
15-11	52	59.77
More than 15	18	20.69
An average score = 13.32		
The highest score = 19		
The lowest score = 8		

**Table 2.** Levels of an average score and standard deviation.

Item	$\bar{x}$	S.D.
Participation in knowledge management	3.32	0.44
Attitudes toward knowledge management	3.57	0.46
Adoption of knowledge management	4.03	0.46

**Table 3.** Factors effecting the adoption.

Factors effecting the adoption	Chi square	df.	Sig
Understanding about knowledge management	35.069	11	0.0001
Participation in knowledge management	52.862	23	0.0001

Attitudes toward knowledge management	52.943	24	0.001
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## Discussion

Based on results of the study, the researcher can discuss as follows:

1. The understanding and attitudes toward knowledge management have an effect on the adoption of knowledge management. This conforms to study of Wongsawat (2003) which claimed that knowledge has an effect on the adoption of the standards of Occupational Health and safety system of semi-call cutter industry personnel. Besides, Intharawut (2000) found that understanding and attitudes have a positive relationship with the adoption of ISO 14001 standards.

2. The participation in knowledge management has an effect on the adoption of knowledge management. This conforms to results of a study of Tipboon (2005) on factors having influence on the adoption of quality of the hospital by medical personnel of the Police hospital and a study of Theppan (2009) on factors having influence on knowledge management of lower executives, Bangkok University.

## Suggestions

Based on result of the study, the following should be done:

1. The College of Agriculture and Technology put the importance on animal science farm support and promotion for effective and successful teaching/learning on the basis of actual practice.

2. Clearly determine the policy of animal science farm development both farm for education and farm for business which are beneficial as a sustainable learning source and an income generating source.

3. Adequate budget allocation for effective and continual animal science farm operation.

4. Reduce the task aside from teaching of the teachers responsible for farm care-taking so that they will be able to work for the time effectively.

5. Find personnel to replace the teachers responsible for farm care-taking who are going to retire.

6. Improve farm structures, tools, materials, and equipment for effective and appropriate farm operation.

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