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FACTORS AFFECTING SUCCESS OF KNOWLEDGE MANAGEMENT IN THAI AGRIBUSINESS ORGANIZATIONS

Abstract:

This research aims to study organizational characteristics and factors that have effects on the success of knowledge management in Thai agribusiness organisations. Questionnaires were used as a data collection instrument and 400 questionnaires were sent to selected agribusiness organizations in Thailand. Descriptive and inferential statistics were conducted for data analysis. The highest number of responders was the organizations with the registered capitals of more than 50 million Baht, operation period of more than 15 years, Thai nationality, and the number of employees of 101-500 persons. Preliminary results from questionnaires indicated that overall opinion on factors affecting the success of knowledge management was at the “High” important level, and the first highest scores on organizational, personal, and knowledge management process factors were technology, motivation, and knowledge application, respectively.

Hypothesis tests indicate that differences in organizational characteristics (i.e., registered capitals, operation period, nationality, and the number of employees) affect the success of knowledge management in Thai agribusiness organization differently at a significance level of 0.05. Moreover, organizational, personal and knowledge management process factors have linear relationships with overall success of knowledge management.

Keywords:

Success Factors, Knowledge Management, Agribusiness Organizations

JEL Classification: M10

Problems and Statement

To be ready for rapid changes in the 21st century, Thailand's development for balance and sustainability must adhere to the strengthening of capital endowment, especially human capital. The 11th National Economic and Social Development Plan (2012-1016) states the adoption of the philosophy of sufficiency economy for Thailand's development to build immunities in all dimensions, including individual, family, community and country. The utilization of human, social, physical, financial, natural resource and environmental, and cultural capitals must be integrated and mutually support each other. Intellectual capital must be built to create an immune system for Thai people and society and human development is needed to ensure its sustainability. The human development comprises analytical and synthesis thinking, creativity, desire for learning, morality, ethics, values, and understanding of basic rights. Moreover, intellectual foundation and learning resources at community level must be developed and strengthen.

Accordingly, development of lifelong learning society becomes one of Thailand's development strategies. The development includes instilling learning habit in all Thais from an early stage of life and promoting collective learning of different ages and creative learning resources, alternative education as well as a learning society for lifelong learning.

As the world moves toward a knowledge-based economy, it is inevitable that Thailand's development has to rely on human development to build a collective learning society, and knowledge is necessary for the creation of value-added products. Knowledge management becomes familiar words to define a mechanism to support the efficiency improvement of knowledge workers. The mechanism consists of knowledge collection, nourishment of creative and innovative environment, document categorization, creation of knowledge directory success of knowledge management. Also, it is important to have good channels for the implementation of knowledge management. It can be said that knowledge comes from searching more than birth. Everyone can learn and practice because it has no restriction on ages and social levels. It is undeniable that "The more knowledge one has, the better advantage one gains".

Knowledge management is an important process to improve working efficiency systematically. It is a continuous learning process that can broaden people's perception and recognize consequences of their own acts. It reflects the employees' values and competencies and can be competitive advantages for career advancement.

The organization tends to lose knowledge once the employees resign or retire, which can potentially affect the business operation. Human development may not be sufficient to retain the knowledge, so the organization should evolve into a learning organization. Accordingly, a knowledge management system must be implemented to promote continuous learning in the organization. However, the knowledge

management is more complicated than typical training development programs since it is a continuous process even after the employees have already gained their knowledge. The organization must be ensured that the experts are willing to transfer and exchange knowledge with others. Moreover, the organization must have good techniques to systematically store specific knowledge for future improvement.

Research Objectives

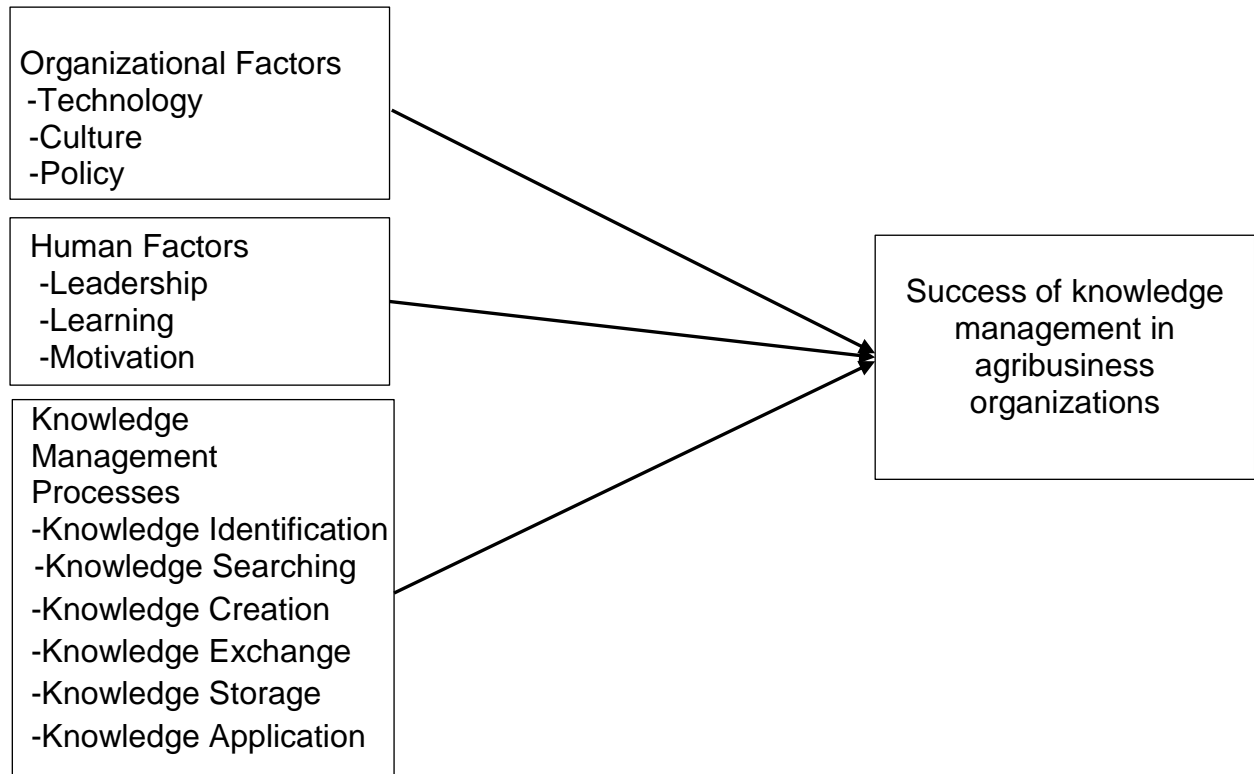
1. To study the influences of organizational factors (i.e., technology, culture, and policy) on the success of knowledge management in Thai agribusiness organizations,
2. To study the influences of personal factors (i.e., leadership, learning, and motivation) on the success of knowledge management in Thai agribusiness organizations.
3. To study the influences of knowledge management processes (i.e., searching, creating, storing, mining, transferring and distributing, and applying) on the success of knowledge management in Thai agribusiness organizations.
4. To study the influence of the success of knowledge management in Thai agribusiness on the success of knowledge management in Thai agribusiness organizations.

Expected Benefits

1. To distribute the findings to interested parties to use as guidelines for the implementation of knowledge management
2. To obtain knowledge on the factors that influences the success of knowledge management in Thai agribusiness organizations and use findings for the development of knowledge management in other industries

Conceptual Framework

The conceptual framework of this research is as follows.



Research Hypotheses

Hypothesis 1: Differences in general characteristics of the organization (register capitals, operation period, nationality, number of employees) have influence on the success of knowledge management in Thai agribusiness organization differently.

Hypothesis 2: Organizational factors (i.e., technology, culture, policy) have linear relationships with the success of knowledge management in Thai agribusiness organizations.

Hypothesis 3: Personal factors (leadership, learning, and motivation) have linear relationships with the success of knowledge management in Thai agribusiness organizations.

Hypothesis 4: Knowledge management processes (i.e., identification, searching, creation, storing, mining, transferring and distribution, and application) have linear relationships with the success of knowledge management in Thai agribusiness organizations.

Research Procedures

1. Population and Sample Size

Population in the research is 5,370 Thai agribusiness organizations in the business of raw materials and livestock distribution and listed in www.thaicompanylist.com. The simple random sampling plan was applied in this research. The sample size calculated from Taro Yamane's formula. (1967, pp. 886-887) was 372 organizations. Literature reviews from previous researches on this business sector show the questionnaire response rates of 29.74% (H.M. Lotx and S.P. van der Merwe, 2013, p 21) and 35.8% (Liezal Alsemgeest and Hohan van Zyl, 2014, p.295). Accordingly, the response rate for this research was expected at 32.77%. Thus, the number of questionnaires were increased to 1,220 ($400 \times 100/32.77 = 1,220.62$).

2. Research Instrument

Data for this research were collected from questionnaires, which were divided into 4 parts as follows:

Part 1: General questions on organization's profile such as registered capitals, operation period, nationality, and number of employees.

Part 2: Questions on important values of knowledge management factors; i.e, organizational factors, personal factors, and processes.

Part 3: Questions on important values of the success of knowledge management.

Part 4: Open-ended questions for the responder's opinion.

3. Data collection

3.1 Validity and reliability tests

1. Validity

Drafted questionnaires were reviewed in terms of the content validity by experts and academic advisers. The questionnaires were improved based on their opinions on the structure and content.

2. Reliability

A pre-test was conducted by distributing 25 questionnaires to the sample group having similar profiles to the defined group. The confidence level of the questionnaires were determined from Cronbach's alpha coefficient.

4. Data analysis

4.1 Descriptive statistics

1. Frequency and percentage distributions: for general profiles of the responders.

2. Means and standard deviations: for significances and effectiveness of balanced scorecards.

4.2 Inferential statistics: to determine the correlation between independent and dependent variables in the hypotheses

1. One-way ANOVA: to determine statistically differences between independent variables on the dependent variable with a significance level of 0.05.

2. Pearson correlation: to determine the relationships between balanced success indicators and their effectiveness.

Results

The analysis of factors influencing the success of knowledge management in Thai agribusiness organizations are summarized as follows:

1. Overall organizational factor on technology has the important value of 4.40 at the highest level. The highest score is on the question “Technology helps the knowledge management speed up swiftly” with the important value of 4.52.

2. Overall organizational factor on culture has the important value of 3.69 at the high level. The highest score is on the question “Organization promotes and supports knowledge exchanges among employees” with the important value of 3.83.

3. Overall organizational factor on policy has the important value of 4.11 at the high level. The highest score is on the question “Organization provides responsible personnel for knowledge management” with the important value of 4.12.

4. Overall personal factor on leadership has the important value of 4.14 at the high level. The highest score is on the question “Management defines knowledge management as an important strategy in the organization” with the important value of 4.15.

5. Overall personal factor on learning has the important value of 4.22 at the high level. The highest score is on the question “Employees can access the organization’s information system” was in the first rank with the important value of 4.22 at the high level.

6. Overall personal factor on motivation has the important value of 4.21 at the highest level. The highest score is on the question “Organization provide seminars and trainings for knowledge transfer within and outside the organization” was in the first rank with the important value of 4.23.

7. Overall knowledge management process factor on knowledge identification has the important value of 4.19 at the high level. The highest score is on the question “Management is the leader in identifying essential knowledge of the work” with the important value of 4.33 at the highest level.

8. Overall knowledge management process factor on knowledge searching has the important value of 4.24 at the highest level. The highest score is on the question “Employees search knowledge from experts” with the important value of 4.36 at the highest level.

9. Overall knowledge management process factor on knowledge creation has the important value of 4.22 at the highest level. The highest score is on the question “Management recognizes and appreciate knowledge work by the employees” with the important value of 4.34.

10. Overall knowledge management process factor on knowledge exchange has the important value of 4.17 at the high level. The highest score is on the question “Employees can freely participate in knowledge exchange” with the important value of 4.20.

11. Overall knowledge management process factor on knowledge storage has the important value of 4.17 at the high level. The highest score is on the question “Organization implements technology for knowledge storage” with the important value of 4.22 at the highest level. The second highest score is on question “Employees are capable of storing knowledge systematically; e.g., filing or information system” with the important value of 4.17 at the high level. The third highest score is on “Organization informs employees on knowledge stored at the organization” with the important value of 4.12 at the high level.

12. Overall knowledge management process factor on knowledge application has the important value of 4.40 at the highest level. The highest score is on the question “Organization applies new knowledge for efficiency improvement” with the important value of 4.33.

Hypothesis 1.1: Organizations with different registered capitals have different success levels on knowledge management.

The result shows the differences in registered capitals of the organization at a significance level of 0.05. The significance level obtained from the statistical analysis is at 0.044, hence, differences in registered capitals affect the success of knowledge management differently. The average important levels on registered capitals are shown in the table below.

Registered Capitals (Baht)	Average Important Level
Less than 50 million	4.11
51 – 100 million	4.24
101 – 200 million	4.34
More than 200 million	4.19

Hypothesis 1.4: Organizations with different number of employees have different success levels of knowledge management

The result shows the differences in the number of employees in the organization at a significance level of 0.05. The significance level obtained from the statistical analysis

is at 0.012, hence, differences in the number of employees affect the success of knowledge management differently. The average important levels on the number of employees are shown in the table below.

Number of Employees (Persons)	Average Important Level
Less than 100	4.25
101 – 500	4.09
501 – 1,000	4.29
1,001 – 1,500	4.17
More than 1,500	4.39

Hypothesis 2: Organizational factors (i.e., technology, culture, policy) have linear relationships with the success of knowledge management in Thai agribusiness organizations.

The result shows all organizational factors have linear relationships with the success of knowledge management with the correlation coefficients and significant levels shown in the table below. As the alternative hypothesis is accepted and the null hypothesis is rejected, therefore, it can be concluded that the organizational factors have positive linear relationships with the success of knowledge management.

Organizational Factors	Correlation Coefficient	Significance Level
Technology	0.209	0.00
Culture	0.376	0.00
Policy	0.392	0.00

Hypothesis 3: Personal factors (i.e., leadership, learning, and motivation) have linear relationships with the success of knowledge management in Thai agribusiness organizations.

The result shows all personal factors have linear relationships with the success of knowledge management with the correlation coefficients and significant levels shown in the table below. As the alternative hypothesis is accepted and the null hypothesis is rejected, therefore, it can be concluded that the personal factors have positive linear relationships with the success of knowledge management.

Personal Factors	Correlation Coefficient	Significance Level
Leadership	0.358	0.00
Learning	0.360	0.00
Motivation	0.329	0.00

Hypothesis 4: Knowledge management processes (i.e., identification, searching, creation, storing, mining, transferring and distribution, and application) have linear relationships with the success of knowledge management in Thai agribusiness organizations.

The result shows the knowledge identification has linear relationships with the success of knowledge management with the correlation coefficients and significant levels shown in the table below. As the alternative hypothesis is accepted and the null

hypothesis is rejected, therefore, it can be concluded that the knowledge management processes have positive linear relationships with the success of knowledge management.

Knowledge Management Processes	Correlation Coefficient	Significance Level
Knowledge Identification	0.364	0.00
Knowledge Searching	0.297	0.00
Knowledge Creation	0.328	0.00
Knowledge Exchange	0.317	0.00
Knowledge Storage	0.239	0.00
Knowledge Application	0.233	0.00

Discussion

Many researches on knowledge management focus on combining tacit and explicit knowledge in order to upgrade the knowledge through a continuous cycle from knowledge exchange, transfer, integration, and new knowledge education. Continuous development of knowledge management will help the organization distinguish differences and create competitive advantages (Chong and Lin, 2008). The organization needs to study and decode all learning processes to build good practices, which also relies on many factors such as organizational support and personal factors. Although this research excludes personal's attitudes on knowledge management, but it can point out the organizational viewpoints from the priority given by the organization in all components of knowledge management. Consequently, it can influence employees' behaviors and performances, which is in accordance with the findings that the efficiency of knowledge management came from team learning (Wu and Wong, 2006).

The research result indicates motivation as one factor that influences the success of knowledge management. The organization can provoke and persuade the employees to participate in knowledge management activities through rewards and recognition. It will boost their morale and make them feel important in the organization, become good role models, and eventually, bring more participants into the program. This finding is consistent with the previous research that promoting and supporting employees on learning skill will enhance their performances (Waleeratana Tunthulseth, 2009).

Result from this research also indicates that knowledge management could be successful by technology supported by the organization. Likewise, the findings by Susana and Joaquin (2012) confirmed that innovation and technology management would affect business performances, improve workers' efficiency, and increase customers' satisfaction and profits. However, the implementation of innovation and technology management may be so problematic that the organization may not have motivation or incentive to invest (Brown and Frame, 2009).

On the subject of personal factors, leaders definitely have influences on the success of knowledge management. The most valuable task that the leader should do is creating value and determination within the organization (Vijarn Panich, 2004). The leadership role is important for the implementation of knowledge management that he/she should be a role model with the determination to promote knowledge creation and sharing (Wong and Aspinwall, 2005).

Additionally, the leader can initiate and encourage the knowledge management in the organization by creating collaborative working environment, sharing and exchanging activities through various channels, e.g., small group discussion among operators to improve work efficiency, formal and informal discussion panels, and brainstorming groups. To ensure the success of knowledge sharing, the group members should embrace openness and listen to others with no prejudice.

One important component is knowledge management processes. It was found that knowledge management processes was correlated to the success of knowledge management. This finding is consistent with the research by Pornthep Charathsri (2013) that knowledge collection is essential for knowledge management and it will help improve efficiency of the organization. Typically, knowledge management's objectives cover 3 aspects; i.e., operational development, human development, and organizational development. Apart from knowledge management processes, knowledge sharing is considered to be one factor that can improve knowledge management efficiency. Previous research (Boondee Boonyakij, 2004) indicated that knowledge sharing was a process of distributing stored knowledge to targeted group through exchange channels, and it would finally it will be applied for the maximum profit. In addition, the organization should promote and support knowledge collection of best practices and creation of a community of practice (CoP).

Recommendation (Policy aspect)

1. The organization should create and encourage the learning culture to promote knowledge sharing in the organization.
2. The organization should support employees to build and share knowledge through formal and informal networks and to encourage knowledge sharing in the organization.
3. The organization should promote and support employees to create a systematic knowledge management with methodology and tools.
4. The organization should implement information technology as a part of the knowledge management. Information technology includes communication technology to support collaborative working environment and databases. Besides, the organization must ensure that information technology should be efficient, effective, and user-friendly.

Recommendation (Academic aspect)

1. Data in this research were collected through the questionnaires. Interviewing approach could be conducted in the future research to obtain in-depth information.
2. Future research should study the influence of knowledge management formats.
3. Future research should include the influences of leadership styles and leaderships classified by local culture characteristics on knowledge management formats.
4. Future research should compare costs and financial feasibility for decision making on the investment of information technology for knowledge management.

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