

Accounting Knowledge and Skill Development of Cooperative Employees in Chiangmai Province

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Abstract

This research was a qualitative research that used in-depth interviews and purposive sampling by convenience sampling, for categorizing problems, analyzing associations, an analysis of changes in accounting record accuracy and quantitative research; using a questionnaire to assess knowledge and understanding of the participants before and after the training, as well as a developmental assessment form to check the accuracy of accounting preparation of cooperative employees both before and after the workshop, research aimed at improving accounting knowledge for cooperative employees in Chiang Mai and cooperative stakeholders to create transparency and reduce social inequality. Therefore, the research team summarized the issues of the study, divided into 2 parts as follows: the results of the first part of the study show the results of the development of accounting skills and professional ethics of 800 cooperative employees in Chiang Mai, and it found that the participants' scores on knowledge and understanding of accounting after the training increased by 12.34. Moreover, From the workshops and practical trials, it was found that cooperative employees were able to record accounts and prepare financial statements correctly after additional training; from the accuracy score of 30 percent to 65 percent, which represents the ability to prepare accounts more accurately for 35 percent. For the second part, the results of the training to develop knowledge and understanding about the cooperative system of 500 stakeholders showed that

their knowledge and understanding increased by 15.60%. In addition, there was an economic valuation of the research project's worthiness conducted for the future allowance valuation method, in which the result of the study found that the economic value for the accounting skill development was 1,659,660.50 baht.

Keywords: Cooperative account, Cooperative staff, Stakeholders, Transparency, Social inequality

Introduction

A cooperative is an independent organization of people who voluntarily become a member or a group of stakeholders to meet their economic, social and cultural needs and goals through shared ownership and democratic service. In Thailand, cooperatives have been classified into 2 regions and 7 types as follows: 1) agricultural cooperatives consisting of 3 types, namely agricultural cooperatives, fishery cooperatives, and settlement cooperatives; and 2) non-agricultural cooperatives consisting of 4 types, namely saving cooperatives, service cooperatives, shop cooperatives, and credit union cooperatives (Cooperative Promotion Department, 2020)

However, focusing mainly on Chiang Mai province, there are 282 cooperatives including 177 agricultural cooperatives and 105 non-agricultural cooperatives where most employees lack knowledge and understanding in the operation, as a results, there is an accounting problem – no document management, record of receipts, and systematic accounting. Consequently, the results of employee operations are inefficient, causing corruption in cooperative circles in each area (Chiang Mai Provincial Cooperative Office, 2020)

From the study of the above information, it was found that employees in some areas lack accounting knowledge so they cannot record receipts and payments correctly and cause errors in the preparation of financial statements, that if the cooperative employees have true knowledge, understanding, and skills in accounting, they will be able to carry out their assigned tasks efficiently, record the account correctly, clearly show the operating results as well as instill professional ethics by building an attitude and honesty to prevent potential fraud. For this reason, the researcher is interested in developing the accounting skills of cooperatives in the Chiang Mai area in order to develop manpower and enhance sustainable international competition.

Objectives

1. To design a training manual for developing accounting knowledge and skills suitable for cooperative employees in Chiang Mai.
2. To develop knowledge and skills in accounting for cooperative employees in Chiang Mai
3. To transfer knowledge on the ideology, principles and methods of cooperatives to stakeholders to create transparency and reduce social inequality.
4. To assess the economic added value of the cooperatives in Chiang Mai.

Literature Review

Accounting system is a system for collecting information and documents used in accounting records and reports; including operation methods and tools and equipment, in order to be able to provide necessary information to management for decision-making and present information to related third parties (Boonmeesuan, 2004; Suwan-As, 2011) – it can be summarized as follows: 1) transaction analysis 2) recording the entry in the preliminary book 3) posting from primary to final book or ledger 4) account adjustments at the end of the period 5) preparation of financial statements, and 6) closing accounts (Hirunasmee et al, 2016; Sachakorn & Srijanphet, 2009)

Cooperative accounting system is an accounting system, recognition, and the preparation of financial statements for the organization of persons voluntarily grouped together to operate enterprises of which they are jointly owned. (Cooperative Promotion Department, 2020; Wichaidit & Kositkanin, 2021; Luathanon, Wittayaphum & Premanichnukul, 2014; Kerdprakob, 2011)

A cooperative system is an organization of persons voluntarily grouped together to conduct a democratic joint enterprise to meet the common economic, social and cultural needs and hopes (Cooperative Promotion Department, 2020).

The added value in economics is the analysis of economic value. It is a valuation of a products having no market price, most of which are natural resources and tourist attractions. The main methods of the analysis are Market Valuation, Reveal preference, and Stimulated valuation, which simulation is the most popular method (Thaicharoen, 2010)

Economic Value Added is an economic value analysis using Individual Travel Cost Method (ITCM) and Stimulated Valuation and using Contingent Valuation Method (CVM) model, which from the methods mentioned above Simulation Method is most popularly employed (Thaicharoen, 2010; Phomwong, 2014)

Conceptual Framework

This study defines a conceptual framework using principles of learning process design called ADDIE Model as shown in the following figure.

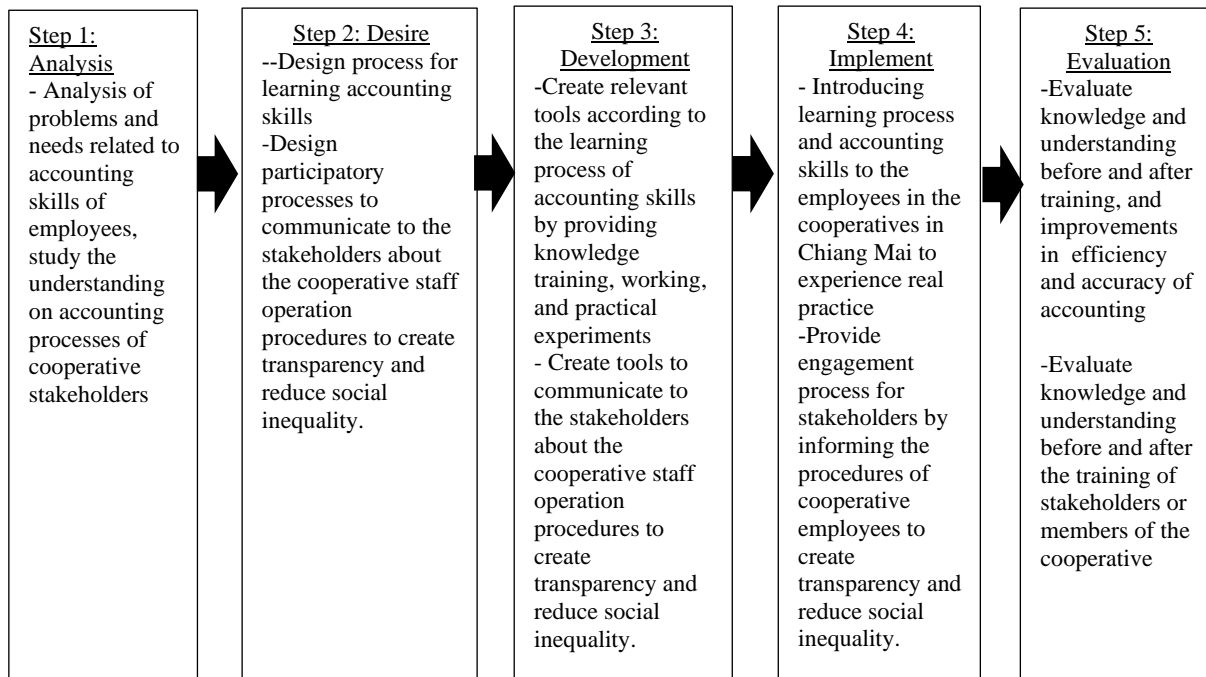


Figure 1 Conceptual framework for research on the development of accounting knowledge for cooperative employees in Chiang Mai Province (Source: Yeesoonsam et al., 2022)

Methodology

1. Population and sample

The sampling used in this study was selected by purposive random sampling with 800 cooperative employees including 500 cooperative stakeholders.

2. Educational tools

This tool is used in the following activities: activity 1, study and analyze the situation to assess the accounting potential of cooperative employees in which the informants are involved in the operation, the cooperative employees in Chiang Mai; activity 2, organize a group forum to brainstorm participative opinions between the researcher, informants, and the 800 research samples on the problems and needs of the cooperative accounting and financial management; activity 3, design a book of accounts suitable for cooperatives; activity 4, conduct training to provide knowledge on accounting preparation to encourage the employees to be aware of the importance and the benefits of accounting; activity 5, organize a training workshop and practical training for cooperative employees; activity 6, test, determine, and evaluate the results of cooperative accounting; and activity 7, organize a group forum to train and educate stakeholders on cooperatives and accounting for stakeholders or members to create transparency and reduce inequality in a society, processing, report preparation, and dissemination of research results to cooperatives

1) Group discussion is a tool used to study and analyze the situation of cooperatives. This group discussion is a tool used in Activity 1, study and situation analysis of the cooperatives to assess the potential of participatory accounting between management, staffs, and members of the cooperative in Chiang Mai, in order to estimate the capability of the cooperation between the management, employees, and stakeholders to summarize the issues and the need for resolutions evaluate the readiness of cooperative accountants

2) Focus group is a tool used in small group discussion activities. It is a tool used in activity

3) In-dept interview is a tool used in in-depth interviewing activities. It is a tool also used in activity 2, the organization of a group forum to brainstorm ideas on problems and needs for accounting and financial management of cooperatives in Chiang Mai.

4) Questionnaire is a tool used in the questionnaire activities before and after the training. It is a tool used in the following activities: activity 4, a training to provide accounting knowledge to cooperative employees to have knowledge and understanding about the meaning of accounting, forms, procedures of accounting, benefits, and the importance of accounting; and activity 7, a training to educate the stakeholders or members that the researchers has set the evaluation form

5) Training on accounting knowledge in Activity 4, the training on accounting to help the employees to realize the importance and the benefits of accounting in order that they can gain knowledge and understanding of the correct system according to generally accepted accounting standards; and activity 7, the training to educate stakeholders of members to provide them with knowledge and understanding of the cooperative system and instill the idea to establish the participation and common ownership including to create transparency and reduce social inequality

6) Workshops and practical experiments in activity 5, organizing workshops and practical training for cooperative employees

7) Evaluation of the practicality from the workshop and the practical experiment in activity 6, testing and evaluating the use of the accounting system for cooperative employees by testing the correctness of the preparation and summary of financial statements, which the researcher conducted an evaluation before and after the practical training.

3. Statistics used in data analysis

Data analysis uses a combination of both quantitative and qualitative methods. Qualitative data analysis methods use classification, correlation analysis, analysis of changes in accounting accuracy for quantitative data analysis: percentage, frequency, average, and the correlation analysis of the data using Rating Scale estimation standard.

Qualitative data analysis uses classification, correlation analysis, an analysis of changes in accounting accuracy, and the evaluation of development before and after the workshop. Questionnaires and assessments were quality controlled with Content Validity by 3 experts, with an IOC of more than 0.5. The total consistency of the questionnaire was 0.8. The quantitative data were analyzed along with descriptive statistics by using statistical tools to process data, namely percentage, frequency, mean and correlation analysis using the standard of rating scale estimation

4. Economic valuation of accounting education training

It is an economic assessment of the economic value of training to develop accounting knowledge and skills, and the promotion of professional ethnics for employees by employing Contingent Valuation Method (CVM); estimating the relationship of willingness to pay with variables including gender, status, age, education level, average, monthly income, work experience, and knowledge scores after training (Thamphithak & Unthong, 2011); and using Ordinary Least Square: OLS in the form of Multiple regression equation that can show the relationship between the variables as follows.

$$WTP_i = a + b_1SEX_i + b_2STA_i + b_3AGE_i + b_4EDU_i + b_5INC_i + b_6EXP_i + b_7KNO_i$$

where WTP_i is the willingness to pay for the accounting training of person i (Baht)

SEX_i is the gender of person i .

STA_i is the status of person i .

AGE_i is the age of person i (years).

EDU_i is person i 's level of education, represented by the number of years of education.

INC_i is the income of person i (Baht/month)

EXP_i is the work experience of person i (years).

b_7KNO_i is person i 's post-training knowledge score (out of 50 points).

Note: Education is the number of academic years of sample i , divided into 4 levels as follows:

$EDU_i = 12$ means high school level / Vocational

$EDU_i = 14$ means Diploma/High Vocational

$EDU_i = 16$ means a bachelor's degree or equivalent.

$EDU_i = 18$ means postgraduate level

Results

From a qualitative research study by means of in-depth interviews of executives of cooperatives in Chiang Mai Province, it was found that cooperatives had 2 main problems in their operations as follows:

1. For the structure of the organization, the problems consist of internal structure flaws such as cooperative members lack participation and ownership, and some of the executive committees still do not have enough knowledge and competence causing some cooperatives to lack clear policy formulation leading to non-transparency; and external structures, such as the lack of network connections to create the power of negotiations.

2. In terms of management efficiency, it was found that cooperatives in some areas still lacked planning, evaluation control. and good personnel development

From the implementation of the development of accounting knowledge for cooperative employees in Chiang Mai by training to provide knowledge and workshops on accounting and to educate stakeholders or members of the cooperative including economic value-added analysis results, the results of the study can be summarized into 3 parts as follows:

1. Results of the design and development of knowledge and skills in accounting for cooperative employees in Chiang Mai

Result from the design a training manual to development of knowledge and accounting skills for 800 cooperative employees in Chiang Mai, the training to provide knowledge along with workshops was held for cooperative employees and committee performing duties in accounting so that they could obtain more knowledge and understand accounting more correctly. Additionally, there were also the workshops to train the cooperative employees to be able to record accounts and prepare financial statements correctly in accordance with financial reporting standards to assess changes before and after the workshop, and there were a manual to be a model to learn accounting skills and an operational manual used among the cooperative employees in Chiang Mai as well as those working in other areas, businesses, or organizations.

Cooperative Receiving-Paying Account Book																						
cooperative name.....Sample.....period.....April, 2021.....																						
Date	receive (Thb.)	Pay (Thb.)	Balance (Thb.)	Assets					Liabilities		owner's equity		Receive			Expense						
				Cash / Bank	product	Debtor	Other current assets	non- current assets	creditor	accrued expense s	share capital	retained earnings	sell product s	get stock capital	other income	cost of sales	utility bills	office supplies	meeting allowan ce	reception fee	other expenses	
1.4.2021	500.00		500.00	500.00							500.00											
2.4.2021		200.00	300.00	-200.00	200.00																	
5.4.2021		50.00	250.00	- 50.00												50.00						
9.4.2021	300.00		550.00								100.00	300.00				200.00						

Figure 2 Cooperative account book
(Source: Yeesoonsam et al., 2022)

Table 1 Shows the level of knowledge and understanding of accounting of cooperative employees, representing Mean (\bar{x}) and standard deviation (S.D.) before and after training

Issues	Before training			After training		
	\bar{x}	S.D.	Level	\bar{x}	S.D.	Level
1) Able to analyze trade transactions and recognize income-expenses correctly	2.18	0.39	low level	4.42	0.50	high level
2) Able to analyze trade transactions and recognize income-expenses in its entirety	2.26	0.44	low level	4.10	0.42	high level
3) Able to accurately summarize the performance of the cooperative in accordance with generally accepted accounting principles	3.24	0.74	moderate	4.46	0.58	high level
4) Able to accurately summarize the financial position of the cooperative in accordance with generally accepted accounting principles	3.30	0.74	moderate	4.24	0.52	high level
5) The cooperatives have an appropriate accounting system the errors can be quickly checked and fixed	3.38	0.70	moderate	4.44	0.58	high level
6) Cooperatives have effective internal control systems	3.34	0.69	moderate	4.28	0.50	high level
7) The accounting system of the cooperative is transparent, clear, and verifiable	3.34	0.72	moderate	4.48	0.61	high level
8) Cooperatives disclose information about their financial reports to stakeholders (cooperative members)	3.32	0.71	moderate	4.34	0.52	high level
9) The financial statements of cooperatives are prepared in accordance with the International Education Standards Framework for professional accountants and rules according to relevant accounting standards	3.38	0.70	moderate	4.42	0.54	high level
10) The financial statements of cooperatives are properly presented and do not contain any material misstatement.	3.36	0.69	moderate	4.26	0.63	high level

For Table 1 Shows the level of knowledge and understanding of accounting of cooperative employees, representing Mean (\bar{x}) and standard deviation (S.D.) before and after training, It could be concluded that from the test results before and after the accounting knowledge training for 800 cooperative employees, the average scores on various issues from 10 questionnaires, each measuring knowledge and understanding from the score range of 1- 5 points, which is divided into the lowest level to the highest level, so the maximum score of the assessment is 50 points. From the mean and standard deviation analysis, it was found that the knowledge mean after training was higher

than before training, demonstrating increasing knowledge and understanding after undergoing accounting training of the employees. Each standard deviation measured was small indicating that the measured data is close to the mean shows the accuracy of the experiment.

Table 2 Assessment of accounting knowledge before and after the training

Experiment	N	μ	S.D.
Before the training	800	31.10	5.59
After the training	800	43.44	2.70

For table 2, in summary, the results of the pre-training and post-training test for 800 employees in Chiang Mai showed that the post-training knowledge assessment value was higher than before the training – the pre-training knowledge assessment was 31.10 and the post-training knowledge assessment was 43.44. – the participants had increased knowledge in accounting and finance by 12.34.

Table 3 Assessment of cooperative accounting capacity before and after the workshop

Accuracy of Cooperative Accounting	Assessment results before training	Evaluation results after training	changes
Accuracy rate of cooperative accounting and financial statements	30 percent	65 percent	Increase 35 percent

From Table 3, from the evaluation of learning and practical practice of cooperative accounts in Chiang Mai by examining the accuracy of accounting records and financial statements from a full score of 10 (comprising the accuracy of accounting and financial statements) 2 points for revenue recording, 2 points for accuracy in expense recording, 2 points for accuracy in asset recognition, 2 points for accuracy in preparing the statement of financial position, and 2 points for accuracy in managing the income statement), the researcher conducted the evaluation before and after the workshop and were able to summarize the accuracy of accounting from a total score of 3 points, equivalent to 30 percent, a total score of 6.5 points, equivalent to 65 percent, considering as increasing by 35 percent. Therefore, if the cooperative employees have continuous practice until they become proficient in accounting records and summary of financial statements, they will have more accurate performance, be more reliable, know the real performance, and be able to use the accounting information to analyze, control, and formulate various policies appropriately.

2. The results of the development of knowledge and understanding of the ideology, principles and methods of cooperatives for stakeholders to create transparency and reduce social inequality

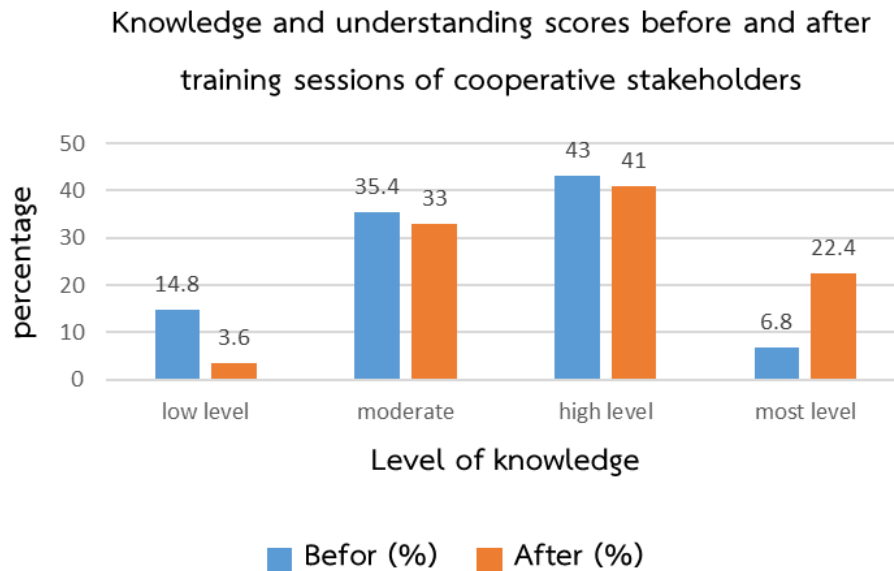


Figure 3 Assessment before and after the cooperative stakeholders attend the training
(Source: Yeesoonsam et al., 2022)

A workshop to strengthen the roles and duties to participate in cooperative operations for stakeholders in Chiang Mai is the first step in mobilizing their participation was the way to provide information of cooperatives that should be known as a basis for decision-making to participate in various activities organized by each cooperative. Also, it created a feeling which when each stakeholder was aware of the importance of cooperatives, and knew the scope of their authority to act, they would be interested in participating in the process of the cooperative's operations, in addition to the co-benefit process. For example, they would take part in the decision-making process to select an operating committee, or in meetings to examine the operations of the cooperative by stating questions, etc. Eventually, when stakeholders had a better understanding about the cooperative's affairs and more participation, it would increase the enthusiasm of the cooperative staff, which would ultimately benefit the business of the cooperative.

3. The results of the economic value-added analysis of the development of competency and accounting skills for cooperative employees in Chiang Mai

Table 4 Estimated results of the coefficient of willingness to pay for accounting training

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,342.708	164.006	14.284	0.000***
Gender	b ₁	3.502	13.402	0.261	0.794
Status	b ₂	-23.634	11.388	-2.075	0.038**
Age	b ₃	-8.396	7.340	-1.144	0.253
Education	b ₄	-10.560	4.592	-2.300	0.022**
Income	b ₅	3.723	6.563	0.567	0.571
Experience	b ₆	-1.956	4.457	-0.439	0.661
Knowledge score	b ₇	-1.549	3.345	-0.463	0.643

Note *** There was a correlation with the variable at a significant level of 0.01

** There was a correlation with the variables at a significant level of 0.05

From table 4, when considering the significance to find independent variables that were related to dependent variables, it was found that status and education were related to the willingness to pay for accounting training at the significant level of 0.05, showing that the two independent variables were associated with the dependent variable for 95 percent of confidence level. However, for the other variables such as gender, age, income, experience and knowledge, they were not related to the dependent variable or the consent to pay for the training at a confidence level of 95 percent.

Therefore, the researcher reworked the correlation analysis of the above variables by considering only the independent variables correlated with the dependent variables, and the results were as follows.

Table 5 Estimated results of the coefficients of willingness to pay for attending competency development and accounting skill training when using single status as a base;

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,244,511	62.028	36.186	0.000***
Status	b ₂	-28,737	10.477	-2.075	0.006***
Education	b ₄	-9,405	4.353	-2.161	0.031**

Note *** There was a correlation with the variable at a significant level of 0.01

** There was a correlation with the variables at a significant level of 0.05

Source: From the calculation, substituting the coefficient obtained from the calculation into the willingness to pay equation as follows

$$WTP_i = 2,244,511 - 28,737STA_i - 9,405EDU_i$$

From Table 5, it was found that the status variable was correlated with the willingness to pay at 99%, meaning that on average, those who were single are willing to pay than other statuses for 28,737 baht. In addition, the educational variable was correlated with willingness to pay at 95%, meaning that if participants had an extra year of training, their willingness to pay for training would decrease by 9,405 baht

To consider differences in willingness to pay at different statuses, the researcher re-established the relationship by changing the base variable.

Table 6 Estimated results of the coefficients of willingness to pay for attending competency development and accounting skill training using marital status

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,172,541	57.408	37.844	0.000***
Status	b ₂	14,579	9.673	1.507	0.132
Education	b ₄	-9,531	4.429	-2.152	0.032**

Note *** There was a correlation with the variable at a significant level of 0.01

** There was a correlation with the variables at a significant level of 0.05

Source: From the calculation, substituting the coefficient obtained from the calculation into the willingness to pay equation as follows

$$WTP_i = 2,172.541 - 9,531EDU_i$$

From Table 6, when considering the level of significance, the status variable had no relationship with willingness to pay, meaning that, on average, people with marital status had no effect on willingness to pay for training. However, the educational variables were correlated with willingness to pay at a 0.95 confidence level, meaning that if the participants had an additional year of study, their willingness to pay for the training would decrease by 9,531 baht. When setting variables of widowed, divorced, separated status as base, the study results will be as follows:

Table 7 Estimated results of the coefficients of willingness to pay for attending competency and skill development training in accounting using widow, divorce and separated status as a base

Variable	Symbol	Coefficient	Standard deviation	t - statistic	Significant
Constant	a	2,127,870	62.028	36.186	0.000***
Status	b ₂	33,867	13.296	2.547	0.011**
Education	b ₄	-10,686	4.439	-2.407	0.016**

Note *** There was a correlation with the variable at a significant level of 0.01

** There was a correlation with the variables at a significant level of 0.05

Source: Calculated by substituting the calculated coefficients into the willingness to pay equation, the results are as follows.

$$WTP_i = 2,127,870 + 33,867STA_i - 10,686EDU_i$$

From Table 7, it was found that the status variable was associated with willingness to pay at the 95% confidence level, meaning that, on average, those who were widowed, divorced, and separated were more likely to pay more than any other status: equals 33,867 baht. In addition, the educational variable was correlated with willingness to pay at the 95% confidence level, meaning that if participants had an extra year of training, their willingness to pay for training would decrease by 10,686 baht.

When considering the data of 800 participants, it was found that 255 of the participants were single, 461 were married, and 84 were widowed/divorced/separated, which could bring such data and the mean of Education, which is equal to 13.10 years, to find the economic value of attending training to develop competencies and skills in accounting as follows:

The economic value of the training for 255 single participants is $(2,244,511 - 28,737 - 9,405(13.10)) * 255 = 533,604.97$ baht.

The economic value of the training to develop competency and accounting skills of 467 participants with marital status equals to $(2,172,541 - 9,531(13.10)) * 467 = 956,268.85$ baht.

The training's economic value for widowed/divorced/separated, 84 persons in total, is $(2,127,870 + 33,867 - 10,686(13.10)) * 84 = 169,786.89$ baht.

Therefore, the economic value of this training is equal to 1,659,660.50 baht.

Discussions

From the study of cooperatives' problems in Chiang Mai, most of the problems encountered was that the employees lacked knowledge and understanding in accounting operations, and there was no systematic accounting. This was consistent with the results of Kerdprakob's study (2011), a study on the problems of accounting cooperatives in Ang Thong. It was found that the highest average problem in personnel aspect was that the accounting officers had inadequate knowledge and understanding on financial matters, considered as moderate problem. The following problem was that the officers lacked motivation to perform duties due to low compensation, also considered as moderate problem. Thus, the recommendations for cooperative Executives in Ang Thong to increase efficiency in work operations are as follows: 1) have the Department of Auditing provide trainings to educate the accounting officers 2) consider more compensation for the officers so that they could have more incentive to work.

From training to provide knowledge on accounting to cooperative employees assessed before and after the training by using a questionnaire, it was found that the knowledge after training was higher than before the training – the pre-training knowledge assessment was 31.10 and the post-training knowledge assessment was 43.44. In conclusion, the participants' knowledge about accounting and finance increased by 12.34, and the accuracy to summarize the accounts increased by 35%. Therefore, if cooperative employees received continuous training and practice until they became proficient in accounting records and summary of financial statements, their performance would be more accurate and reliable – which was similar to the study of Wichaidit & Kositkanin (2021), guidelines for developing accounting potential that affect the success of cooperative accountants in Thailand. The results indicated that accounting potential including professional knowledge had a positive effect on the success of the accountant's work in Thailand in every aspect such as achieving goals, procurement and the use of resources, operational process, and satisfaction of all parties, so, cooperative accountants should focus on the potential in all 5 areas for use in their work, and should develop potential to enhance other relevant competencies to be applied in practice, leading to good performance in further operation. Furthermore, it was related to the study of Luethanom & Wittayaphum & Premanichnukul (2014) that the processes to classify accounting in terms of analysis and interpretation had relationship and positive impact on overall financial reporting performance. Hence, cooperatives should improve the accounting process and promote the process of personnel development to have more knowledge of accounting information.

From the results of the assessment of stakeholders' knowledge and understanding about cooperatives, for the stakeholders in Chiang Mai, before and after training, it was noticeable that there was a change in the participants' training scores – after receiving the training, there were those having more scores and reaching a very good level, showing that the stakeholders had a greater understanding on cooperative business operations. When each stakeholder was aware of the importance of cooperatives and the scope of the powers and duties, they would

have more interest to participate in various stages of cooperative operations in addition to the co-benefit process. For instance, the stakeholders would participate in the decision-making process for the operating committee or in meetings to examine the operations of the cooperative through questioning, etc. This was in accordance with Malai (2015), who conducted a study on the factors affecting stakeholders' participation in business operations of Prao Agricultural Cooperative Limited, Phrao District, Chiang Mai. The result showed that important factors involved in business operations sorted from highest to lowest average were: a sense of belonging to the cooperative, the convenience to do business with the cooperative, reward (dividend/average cash back), staffs' services, security, suitable location, credibility of operating directors as a source of funds (loan), and the publicity of information about cooperative and welfare.

When considering the significance to find the independent variable correlated with the dependent variable, it was found that there were differences in willingness to pay at different statuses. When considering the data of 800 participants, it was found that 255 of the participants were single, 461 were married, and 84 were widowed/divorced/separated, which could bring such data and the mean of Education, which is equal to 13.10 years – the training for development of competency and accounting skills of 467 persons with marital status equals $(2,172.541 - 9,531(13.10)) * 467 = 956,268.85$ baht, which is a tool to help analyze the project's worthiness by the same method. with the study of Areerat Thaicharoen (2010). She has studied Economic valuation of the College of Music Mahidol University with the objective to evaluate the economic value by using the Individual Travel Cost Method: ITCM. The results of the study showed that the factors related to the number of trips attend music performance at the College of Music, Mahidol University, including the total cost of traveling and education level by the College of Music's economic value in 2008 was 38,976,710.77 baht

Conclusion and suggestions

From the above research results, it can be concluded that most of the cooperative employees lack accounting knowledge because they do not graduate directly in accounting. In addition, there is no experience in accounting in accordance with the correct rules according to financial reporting standards. As a result, the accounting record and the preparation of financial statements are inefficient, and cannot be used in appropriate economic decision-making of cooperatives. In consequence, if cooperative employees have increased knowledge and understanding of accounting after the workshop and be able to continuously practice in accounting in accordance with financial reporting standards, the financial statements of cooperatives in Chiang Mai will be more transparent and more reliable, and it will allow the Cooperative Board to bring such information to be used in economic decision making and planning for the future more properly. Besides, when the stakeholders learn more about the cooperative system and its importance, they will understand their role and are aware of their involvement, creating transparency in the cooperative system and sustainably reducing social inequality.

New knowledge and the effects on society and communities

Cooperatives in Chiang Mai attending the research project learned about "Cooperative Accounting System" – how to set up an account and the preparation of financial statements – which gives cooperative employees sufficient knowledge and competence to properly prepare accounts and financial statements in accordance with financial reporting standards, drawing more transparency and reduce errors in accounting because the employees will honestly record the accounts according to correct, complete documentary evidence, and reliably summarize the financial statements.

Cooperatives in Chiang Mai participating in the research project learned about "Cooperative accounting system" along with accounting methods and preparation of financial statements, through 5-step ADDIE model process: 1) problem analysis or causes of errors 2) appropriate system design 3) knowledge development and Practice 4) operation and 5) evaluation when performing a sequence of steps. These procedures are effective because they identify the issues and the most appropriate solutions to the circumstances to maximize the benefits in developing accounting knowledge, skills and ethics of the employees, which will enable them to have sufficient knowledge and abilities to prepare accounting and financial statements accurately in accordance with financial reporting standards. That will be the source of transparency and reducing errors occurred from accounting. The employees will honestly record the accounts according to accurate, complete documents and evidence; reliably summarize financial statements; and be as a model for other cooperatives in other areas.

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