Optimum Business and It's Affecting Factors : A Case Study of Provincial Polices Savings Cooperatives Credit Business

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***Abstract*—** This study aimed to find optimum credit business of Provincial Polices Savings Cooperatives, and to analyze the factors that affect volume of the business. Data initial in were by collected from financial report of 125 Provincial Polices Savings Cooperatives years 2014. The estimate of cost and income function were done by regression analysis. The method was also applied to analyze factors affecting credit business volume. The analysis point that total cost and total income were significantly determined by the volume of their credit business. The study revealed 93 percent of the co-operatives run their business than the break even point but still lower than the level of minimize cost and maximize profit. Thus, the co-operative should increase the credit business. This study the factors affecting credit business it were deposit from this member and loan from this lenders.

***Keywords*—** Optimum Business size, Affecting Factors on credit Business

I. Introduction

COOPERATIVE was established during a difficult era of the Industrial Revolution; they can firmly and expand to the current extensive. The cooperative is a business unit founded by members for members which the stakeholders a role as both owner and user. As well as the management of cooperatives at the same time.

In Thailand, the cooperative has continued to grow and currently has a total of seven different types of cooperatives, including Agricultural Cooperative, Fisheries Cooperative, Land Cooperative, Settlement Cooperative, store Cooperative, Service Cooperative and Credit Union Cooperative. Despite the cooperative development growth and is strong Savings Cooperatives, The main objective of the fund is to provide financial services to members; including the promotion of savings and credit to its members as well as to ensure social welfare for other members.

Although the fund is a financial institution that does not aim for maximum profits but the administration needs to fund a profit or surplus for development and expansion including the allocation to members and others involved in various forms as required by law.

To develop cooperatives provide continuous performance under changing economic and social issues of " Optimum Business size" is very importance because businesses size that are too small to make a high average cost per unit, since there are still some factors that cannot be fully available. On the other hand, if a business is too big, it will cause problems in management. The administration is inefficient.

As mentioned previously in this study it aimed to find optimum business size and the factors that affect the size of the fund. However, with limitations in the study the researcher only focused on lending Provincial Polices Savings Cooperatives.

II. Research Objective

1. To determine the appropriate scale of Provincial Polices Savings Cooperatives.
2. To analyze the factors that affect the size of the Provincial Polices Savings Cooperatives.

III. Research Framework

1. Cost functions, revenue functions and optimum credit business.

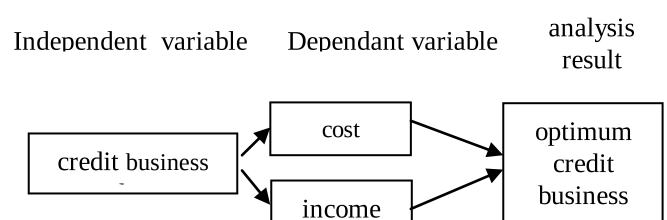

Fig 1. The Conceptual Framework of Cost Functions, Revenue Functions And Optimum Credit Business.

2. Factors that affect the credit business volume.

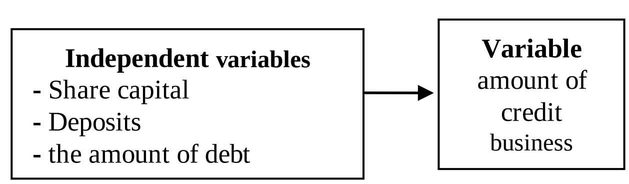

Fig 2. The Conceptual Framework of Factors that affect the amount of credit business.

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IV. METHODS

A. Population

The population of this study was 125 Provincial Polices Savings Cooperatives in the year of 2014. The cooperative business must be at least one consecutive year and is not being filed for bankruptcy.

B. Data Collection

This study used secondary data from financial report of 125 Provincial Polices Savings Cooperatives in the year of 2014 including business volume report, report operating results and other articles.

C. Data analysis

Data initial in were by collected from financial report of 125 Provincial Polices Savings Cooperatives in the year of 2014. The estimates of cost and income function were done by regression analysis. The method was also applied to analyze factors affecting credit business volume and details are as follows:

1) Cost Function

$$TC = a + bVB_{cr} + c\,VB^2_{cr}$$

TC = f(VB)
TC = Total cost of business credit.
VB = Business Volume

2) Revenue Functions

$$TR = a + bVB_{cr} + c\,VB^2_{cr}$$

TR = f(VB)
TR = Total revenue of business credit
VB = Business Volume

3) Analysis optimum business size

- Break-even point

The Break-even point is calculate the breakeven point on conditions that the total cost equals total cost. (TC = TR)

- Minimize cost

The Minimize cost is calculated from mathematical terms, the slope of the line is the average cost, Which is zero at this point, the average cost is equal to marginal cost. (TC = MC)

- Maximize profit

The maximum profit is calculated by adding the condition that the income equals marginal cost (MR = MC)

- Analysis of factors affecting business volumes.

Analyze factors affecting credit business volume use multiple regression equation (Multiple Regression Analysis) using a linear equation with variable multiple (Linear Multiple Model).

$$L = a+b1X1+ b2X2+ b3X3$$

L = Business credit volume
X_1 = Share capital
X_2 = Deposits
X_4 = the amount of debt volume
a = constant
$b_1, \ldots, b_n$ = Coefficients show a relationship between independent variables and the dependent variable.

V. RESULTS

Optimum Business and It's Affecting Factors : A Case Study of Provincial Polices Savings Cooperatives Credit Business, the research results.

1. Cost Function

$$TC = 5.717E7+0.814VB_{cr} + 9.719E\text{-}11VB^2_{cr}$$
$$(0.174) \quad (0.048) \qquad (0.00)$$

TABLE I
SHOW COST FUNCTION OF CREDIT BUSINESS OF POLICES SAVINGS COOPERATIVES.

List	regression coefficients	coefficient	t
constant	5.717E+7	1.366	0.174
VB_{cr}	0.814	7.286	0.048
VB_{cr}^2	9.719E-11	1.997	0.00
R^2	0.835		
d.f	123		
sig f	0.00		

2. Revenue Functions

$$TR = 1.132+0.090VB_{cr} + 4.955E\text{-}11VB^2_{cr}$$
$$(0.037) \quad (0.00) \qquad (0.00)$$

TABLE II
SHOW REVENUE FUNCTIONS OF CREDIT BUSINESS OF POLICES SAVINGS COOPERATIVES.

List	regression coefficients	coefficient	t
constant	1.132E+7	2.109	0.037
VB_{cr}	0.090	6.059	0.00
VB_{cr}^2	4.955E-11	7.935	0.00
R^2	0.919		
d.f	123		
sig f	0.00		

TABLE III
SHOWN A COMPARISON OF THE CREDIT BUSINESS TO THE BREAKEVEN POINT , THE MINIMIZE AVERAGE COST AND THE MAXIMIZE PROFIT.

year	**The average credit business of cooperatives**	**breakeven point**	**minimize cost**	**maximize profit**
255 7	693,469,738.7 3	56,899,919.4 0	985,782,353.6 7	9,247,330,471.2 4

The analysis pointed that total cost and total income were significantly determined by the volume of their credit business. The study revealed of the co-operatives run their business than the breakeven point but still lower than the level of minimizes cost and maximize profit.

3. Analysis optimum business size

$$L = 3.931E8 - 0.288X_1 + 0.746X_2 + 1.450X_3$$
$$(5.471) \quad (-1.692) \quad (10.621) \quad (7.884)$$

TABLE IV
SHOWN ANALYSIS OF FACTORS AFFECTING BUSINESS VOLUMES

variable	**regression coefficients**	**SE.B**	**Beta**	**t**	**Sig.**
constant	3.931E8	7.179E7		5.471	.000
Share capital	-0.288	0.170	-0.95	-1.692	.093
Deposits	0.746	0.070	0.597	10.621	.000
The amount of debt	1.450	0.184	0.445	7.884	.000

To analyze the factors affecting credit business it were deposit from this member and loan from this lenders.

VI. Conclusion

1. The analysis pointed that total cost and total income were significantly determined by the volume of their credit business. The study revealed the co-operatives run their business than the breakeven point but still lower than the level of minimizes cost and maximize profit. Thus, the co-operative should increase the credit business.

2. This study found that the quantity credit business and its deposit affected. Positively to the business credit which means. If the cooperative needs to increase business volume to the minimize cost, that would be necessary to increase the amount of the deposit, which is a source of capital within the cooperative. Or financing from third parties, that is to borrow money from financial institutions. Or cooperative organizations together.

VII. Suggestion

1. Increasing the volume of credit business, more can be done by stimulating factor positive effect on the amount of credit is the amount of money which is raised locally and a loan from the outside to bring the loan to members.

2. Business of cooperatives police are nonprofit but cooperatives are intended only profits for member so cooperatives cannot operate at a profit.

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