

Building Good Management Practices in Thailand Cooperative Sectors through Total Quality Management (TQM)

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Abstract

In Thailand, Co-Op sectors are a novel business over other sectors depending on the needs of society, culture, and friendly communities. The objective of this investigation was to validate the overall business performances of Co-Op sectors in Thailand to promote the competitiveness of this sector. The key performance indices relating to total quality management (TQM) with 9 major criteria were validated on two groups of Co-Op population, and the score was analyzed in each criterion. In addition, the relationships between those criteria of TQM were created as a performance excellence framework of Co-Op sectors. Developed Co-Op establishing the novel mind-set in a business results as a final goal was archived and strongly improved in all criteria of TQM better than developing Co-Op. Logistic and inventory management, business management, and supply chain, as well as safety, risk assessment and environment were defined as key successes for Co-Op business results with high correlation coefficient ($r^2 > 0.89$). In conclusion, the Co-Op competitiveness needs to provide the TQM, especially good practices in business management.

Keywords: business competitiveness, developing Co-Op, developed Co-Op, good practices, self-assessment evaluation

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1. Introduction

Cooperative sectors (Co-Op) are a major business segment in Thailand in several purposes i.e. Agricultures, Fisheries, Estates, Credit Unions, Services and retail and wholesale shops (Mago, Mazise, and Hofisi, 2013) (Gupta, 2014). Agriculture Co-Op is a major type in developing countries, especially in Thailand, which is very poor in the management systems and needs novel technology integration Kasachat and Chimkul, 2009). There are a large number of barrier issues to inhibit the competitiveness of Co-Op sectors including financial (Benson, 2014), balancing on economic and social conditions (Galor, 2014), organization cost, public policies, and membership. In the present study, self-assessment evaluation (SAE) in nine major criteria of total quality management was developed, and 39 agricultural cooperatives and 15 non-agricultural cooperatives in different competitiveness strategies, developing- and developed-groups were validated. The objective of this study was to validate the overall

business performances of Co-Op sectors in Thailand to promote the competitiveness of this sector using a performance excellence framework. The basic information of this investigation may further benefit the governance policy initiative to promote this sector in the real business in the world class.

Methodology

1. Self-assessment evaluation (SAE) form

In a previous publication, SAE has been well validated in Co-Op population in Thailand as a selective procedure for training, workshops, human development, creative thinking, innovation, and consulting processes (Suwandee and et,al, 2013). The SAE is composed of nine major criteria, i.e., 1) Leadership and clustering, 2) Strategic policy, 3) Customer relationship and national marketing, 4) Information system and analysis, 5) Human resources, 6) Business management and supply chain, 7) Logistic and inventory management, 8) Safety, risk assessment and environment and 9) Business results had been well established.

2. SAE data collection

In general, Thai Co-Op has been divided into two sectors, i.e., Agricultural based Co-Op (total 3,626 Co-Op) and Non-agricultural Co-Op (total 3,110 Co-Op). Thirty-nine agricultural cooperatives and fifteen non-agricultural cooperatives in different competitiveness strategies, developing- (native Co-Op) and developed-groups (Co-Op well-established on total quality management and organizational implementation for a long-term improvement together with government policy) were selected as a population sample. Score ranking in major and minor criteria was evaluated and compared in both developing and developed populations.

3. Statistical analysis

Analysis of variance (ANOVA) was analyzed using SPSS software (version 11.5 for Windows, Microsoft USA). Mean comparison using t-test was validated. Pearson's correlation coefficient in each key indicator was also calculated by SPSS software (version 11.5 for Windows, Microsoft USA).

Results and Discussion

Score ranking in each major and minor criteria of developed-groups was significantly improved (Table 1) and greater than those in developing-group by 12-35% (Fig. 1). In addition, the score in major criteria, I) the leadership, clustering, and policy and II) human resources in developed-groups, was reproduced in the same ranking group with good practice (Score = 3.0) based on SAE scoring benchmarking. It was confirmed that the business core improvement following TQM criteria in Co-Op sector was identified as an urgent issue to enhance the competitiveness. Moreover, the logistic and inventory management, human resources, business management and supply chain and safety, risk assessment, and environment were closely related to business results with $r^2 = 0.89$, $r^2 = 0.79$, $r^2 = 0.91$ and $r^2 = 0.96$, respectively (Fig. 2) (Franken and Cook, 2015). The basic knowledge in the present investigation will further be suggested on the government strategic policy driving force on Co-Op sector in Thailand.



Table 1. Total quality management (TQA) score levels in each major criterion of Co-Op sector in both ‘developed’ and ‘developing’ groups. Standard errors of means in each key performance index represent by \pm SE

Major criteria	Score		t-test
	Developing Co-Op	Developed Co-Op	
1. Leadership, clustering and strategic policy			
1.1 Leadership and clustering	2.00 \pm 0.03	3.25 \pm 0.18	**
1.2 Friendly environments and social responsibility	2.02 \pm 0.02	3.33 \pm 0.14	**
2. Strategic policy			
2.1 Strategic policy development	2.05 \pm 0.03	2.92 \pm 0.23	**
2.2 Strategic policy implementation	2.02 \pm 0.02	3.00 \pm 0.25	**
3. Customer relationship and marketing			
3.1 Customer service and two way communication	1.98 \pm 0.04	2.92 \pm 0.15	**
3.2 Customer relationship and satisfaction	1.98 \pm 0.04	2.75 \pm 0.18	**
4. Information, knowledge management and implementation			
4.1 Data collection, evaluation and analysis	1.98 \pm 0.04	2.83 \pm 0.21	**
4.2 Information, knowledge management and implementation	1.95 \pm 0.05	2.67 \pm 0.19	**
5. Human resources			
5.1 Good organization, professional skill, learning organizational and knowledge management organization	1.98 \pm 0.04	3.08 \pm 0.19	**
5.2 Happiness, motivation, awarding system, creative thinking, innovation and talent organization culture	2.02 \pm 0.02	3.17 \pm 0.21	**
6. Business management and supply chain			
6.1 Design and development of novel process and services	2.00 \pm 0.02	2.58 \pm 0.23	**
6.2 Measurement, standardization and data mining and analysis	2.00 \pm 0.05	2.67 \pm 0.19	**
6.3 Implement innovative process and services	1.98 \pm 0.04	2.67 \pm 0.19	**
7. Logistic and inventory management			
7.1 Data collection, simulation and analysis, unique logistic process and inventory management relating to the customers	1.95 \pm 0.05	2.42 \pm 0.15	**
8. Safety, risk assessment and environment			
8.1 Infrastructure construction and management	2.02 \pm 0.02	2.67 \pm 0.19	**
8.2 Concerning on safety, risk assessment and environment	2.02 \pm 0.02	2.50 \pm 0.15	**
9. Business results			
9.1 Customer satisfaction results	1.98 \pm 0.04	2.67 \pm 0.19	**
9.2 Cash flow and marketing results	1.98 \pm 0.04	2.58 \pm 0.15	**
9.3 Human resource and management results	1.98 \pm 0.04	2.67 \pm 0.14	**
9.4 Competitiveness results	1.98 \pm 0.04	2.67 \pm 0.19	**

** Highly significant difference at $p \leq 0.01$ by t-test.

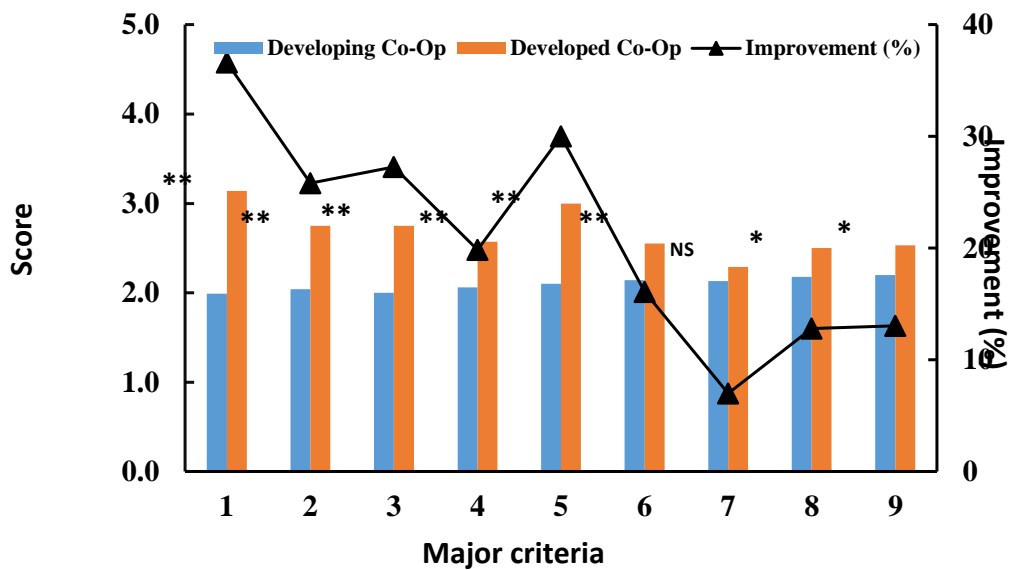


Fig. 1. Validation score levels of Co-Op sectors in each major key performance index and improvement percentage of ‘developed Co-Op’. NS = non-significance; * = significance at $p \leq 0.05$ (95%); ** = highly significance at $p \leq 0.01$ (99%)

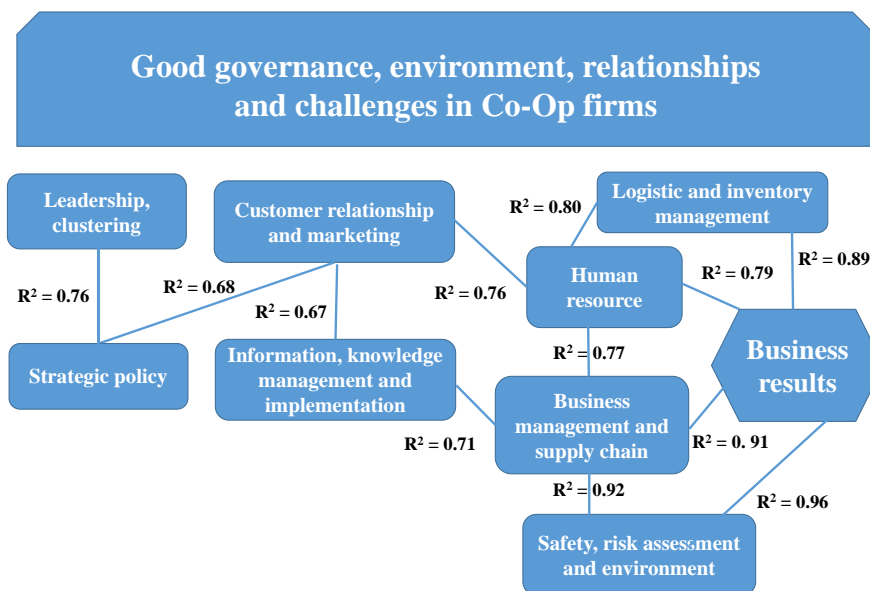


Fig. 2 Performance excellence framework of major criteria in TQM evaluation of Co-Op sectors. Relative correlation coefficient was set as > 0.65 .



Conclusions

Co-Op sectors are a key business in traditional competition derived from social community requirements. In general, the return of investment in this sector is not a primary criterion. Therefore, the major criteria relating to TQM play a key role as competitiveness in the market sharing, positioning, wide-ranking on consumer perception and bench marking, especially in the national class as well as international levels. The overall improvement strategies in each

major criteria of TQM were validated depending on the Co-Op-dependent weakness to further enhance the competitiveness in the global trading policy.

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