



DESIGNING A BALANCED SCORECARD FOR COOPERATIVES

Endang Dhamayantie
Faculty of Economics and Business
Universitas Tanjungpura, Indonesia
edhamayantie@yahoo.com

Abstract

Cooperative conditions in Indonesia are generally still weak, both internal and external conditions. Cooperatives face similar challenges as business organization. To strengthen cooperative institutions, cooperative performance measurement systems may adopt the performance measurements of business organization in the same industry. One of the measurement systems is balanced scorecard. Cooperatives can implement it as a tool to monitor, measure, and track the alignment of financial and non-financial performance. Balanced scorecard makes cooperative business strategy more concrete and measurable. This paper aims to develop indicators of cooperative performance measurement which are relevant and suitable with cooperative characteristics in Kubu Raya District based on four perspective approaches of balanced scorecard. The study is conducted through literature study and interview on cooperative management. This research shows the indicators of cooperative performance measurement based on four perspectives of balanced scorecard which are comprehensive, coherent, balanced, and measurable. Various performance measurement indicators are identified through strategic objectives from four perspectives that describe future conditions. Such conditions can be realized along with some stages used to measure the achievement of strategic objectives.

Keywords: Performance Measurement, Balanced Scorecard, Cooperative.

Introduction

Cooperative as a popular economic institution has spread all over Indonesia. Cooperatives can create economic, social, and cultural values to empower the poor. However, in its development, cooperatives in Indonesia have not been able to significantly contribute to national

economy, job creation, and poverty alleviation. Cooperatives are generally weak, both their internal conditions (such as capital, management, organization, technology, business networks) and external conditions; thus, cooperatives are required to work more efficiently and effectively.

Cooperatives face similar challenges to business organizations in developing strategies for survival and development (Beaubien & Rixon, 2012). Comprehensive cooperative development is needed in order to deal with environmental changes to grow and develop, particularly because 361 active cooperatives in Kubu Raya District in 2016 have not showed significant performance and tended to be stagnant. This condition is worrisome, as the members, mostly micro and small business, may abandon them. Those businesses urgently need an institution to protect their business activities to increase their leverage and bargaining power in the market structure. To strengthen cooperative's institution as a business entity, it should be able to combine the application of cooperative principles and modern business model. Moreover, it should be able to choose appropriate strategic management which supports the development of economic activities and can be adopted to its environment. One of the contemporary strategies, which can assist the management of cooperatives to improve their performance, is balanced scorecard. Balanced scorecard can be used to measure cooperative performance from both financial and nonfinancial perspectives. Based on the description, this study aims to describe the development of performance measurement indicators for cooperatives based on balanced scorecard, by reorganizing balanced scorecard's standard model to be applied for cooperatives.

Literature Review

Balanced Scorecard concept was developed by Kaplan & Norton (1992) and intended to make business strategy more measurable and concrete. Balanced scorecard has evolved. Based on the literature review, Perkins *et al.* (2014) classified three generations of balanced scorecards that can be used by managers to describe the scorecard better. Balanced scorecard is an organizational strategy management system based on the measurement and evaluation of performance by a series of optimistic parameters reflecting all aspects of the organization, both financial and nonfinancial (Boiko, 2013). The balanced scorecard framework allows organizations to monitor, measure, and track the alignment of financial and nonfinancial performance aligned with their strategies and visions (Mehralian *et al.*, 2017; Wake, 2015). Balanced scorecard demonstrates relationship between the measurement of organizational performance in four major perspectives, namely financial, customers, internal business process, and learning and growth. Each perspective is based on lagging and leading indicators and contains preventive actions to achieve predetermined targets.

In most literatures, balanced scorecard has been widely tested and adapted to various types of large business organizations and public sectors with varying degrees of application; however, it pays a little attention to cooperatives. A research by Porporato *et al.* (2017) in health care sector in Canada indicated some benefits of implementing balanced scorecard to improve performance. Research by Kollberg & Elg (2011) on three health care organizations in Sweden showed that balanced score-

card is used as a tool to enhance internal capabilities and support organizational development. Northcott & Taulapapa (2012) found that balanced scorecard's adoption rates in public sectors are still low in 73 city and district councils in New Zealand. Greiling (2010) explored the implementation of balanced scorecard in 20 German nonprofit organizations in the early stages of its implementation. Not only in large organizations, it is also implemented among small and medium enterprises (SME) (Manville, 2007).

Although it has been widely adapted to various types of organizations, implementation of balanced scorecard does not necessarily lead to organizational success. Yongvanich & Guthrie (2009) reported that Thai Stock Exchange firms declare that balanced scorecard implementation does not automatically result in high financial performance. Moreover, 70 percent of balanced scorecard implementations are considered fail (Neely & Bourne, 2000), because some factors (i.e. management skills) are not considered in their implementations (Chavan, 2003; Johanson *et al.*, 2006; Yongvanich & Guthrie, 2009). Some did not consider how to apply it effectively in the context of their organizations (Kollberg & Elg, 2011). Balanced scorecard is a powerful tool which provides significant benefits to an organization if it is implemented appropriately (Perkins *et al.*, 2014).

Furthermore, balanced scorecard is also developed to measure performance. Moe *et al.* (2007) designed a performance measurement using balanced scorecard approach on natural disaster management projects

in Thailand. Thakkar *et al.* (2007) developed a balanced scorecard in food sector companies in India. While Bigliardi & Dormio (2010) developed and verified a general model of balanced scorecard to measure the performance of research and development (R & D) activity in an Italian automotive company. The development of an effective performance measurement system is an important task in every organization to face competition (Thakkar *et al.*, 2007). However, empirical evidences indicate that development of cooperative's performance measurement based on balanced scorecard still has not received attention.

Methods

This study aimed to develop some indicators for cooperatives' performance measurement based on balanced scorecard, which were tailored to the characteristics of cooperatives in Kubu Raya District. Aligned with such objectives, the study was conducted through a combination of literature study and interviews with six cooperative managers, including Agricultural Cooperative, Business Cooperative, and Savings and Loans Cooperative in Kubu Raya District. Meanwhile, literature analysis was conducted by identifying cooperatives performance indicators based on four perspectives of balanced scorecard, namely financial perspective, customer / member perspective, internal business process perspective, and learning and growth perspective. All perspectives were relevant and aligned with cooperatives characteristics in Kubu Raya District. These indicators were then confirmed through an interview process with cooperative managements

to obtain inputs and suggestions for performance indicators based on balanced scorecard. A second round interview was conducted to validate performance indicators of cooperative based on balanced scorecard. Finally, data analysis was conducted using descriptive analysis.

Results

Balanced scorecard provides a framework to measure performance from four perspectives, covering both financial and nonfinancial perspectives (Kaplan & Norton, 1992,1996). Those perspectives are listed as follows:

- 1) Financial perspective: to succeed financially, how should cooperatives present themselves to their shareholders? The cooperative makes financial perspective as the focus for strategic objectives and other perspectives, which are measured in-balanced scorecard. From this perspective, cooperatives focus on maximizing capital owners' (members) and outside investors' satisfaction for equity participation in cooperative business;
- 2) Customer perspective: to achieve their visions, how should cooperatives present themselves in front of customers? From this perspective, the cooperatives must identify customer targets and market segments. Then, they should understand and satisfy consumers' needs. For cooperatives, their owners are the consumers;
- 3) Internal processes perspective: to satisfy their shareholders and customers, in what kind of business, cooperatives shall excel? From this perspective, they must identify the

- most critical processes to create values for customers and their shareholders. The internal business process' value chain model which is employable by cooperatives are innovation, operational, and service;
- 4) Growth and learning perspective: to achieve their visions, how should cooperatives sustain their abilities to change and improve over the years? From this perspective, the cooperatives consider that infrastructures which enable goal achievement in three other perspectives shall be accomplished. There are three important categories in this perspective, namely employee competence, technology infrastructure, and cooperative culture.

Kaplan & Norton (1996) explained that balanced scorecards should include various performance measures to represent all organizational dimensions. It is better for cooperative to use existing benchmark of business firms in the same industry to evaluate performance (Beaubien & Rixon, 2012), while still considering some important criteria decided by each cooperative. Therefore, development of cooperative performance measurement based on balanced scorecard is conducted by modifying relevant and suitable concepts to the cooperatives' characteristics in Kubu Raya District. Analysis results for the development of cooperative performance measurement with balanced scorecard approach are displayed in Table 1.

Discussion

Cooperatives and other business

Table 1. Key Performance of the Cooperatives Based on Balanced Scorecard

Perspective	Strategic Objectives	Measures
Financial Perspective	Liquidity	Current ratio
	Solvability	<ul style="list-style-type: none"> ▪ Total debt to total asset ratio ▪ Owner's equity to total assets ratio ▪ Capital adequacy ratio
	Profitability	<ul style="list-style-type: none"> ▪ Return on asset (ROA) ▪ Return on equity (ROE) ▪ Return on investment (ROI)
	Operational cost efficiency	BOPO ratio
	Growth of assets	Ratio of current assets to assets last year
	Growth of revenue	Ratio of current revenues to revenue last year
	Growth of SHU	Ratio of current SHU to SHU last year
	Decrease in nonperforming financing (NPF)	Ratio of current NPF to NPF last year
Customer Perspective	Member welfare	<ul style="list-style-type: none"> ▪ SHU percentage to gross participation ▪ Member economic ratio
	Member satisfaction	<ul style="list-style-type: none"> ▪ Customer satisfaction index ▪ Ratio of member complaints
	Member retention	Ratio of outgoing members to total members
	Member acquisition	Ratio of adding new members to total members
	Service efficiency	Service efficiency ratio
Internal Process Perspective	Superior product development	Ratio of current superior product to superior product last year
	Process of becoming a member	Manufacturing efficiency cycle
	Service speed	Manufacturing efficiency cycle
	Improvement of facilities and infrastructure	Percentage of additional facilities and infrastructure
Growth and Learning Perspective	Employee satisfaction	Satisfactory survey
	Employee retention	Ratio of outgoing employees to the number of employees
	Employee productivity	Revenue per employee
	Development of employee competency	<ul style="list-style-type: none"> ▪ Ratio of employee participation in training to the number of employees ▪ Learning capability index
	Improvement of information technology	Percentage of information technology improvement
	Improvement of cooperative culture	Organization culture health index (OCHI)

(References: developed authors from various sources)

organizations require ability to develop business performance in order to survive amidst competitive business

environment. Cooperative management can design and operate performance measurement systems by applying

balanced scorecard. Balanced scorecards can expand cooperative performance, from financial perspective to nonfinancial perspective. It even extends to customer perspective, internal operation process perspective, and learning and growth perspective. Developing cooperative performance measurement using balanced scorecard approach is basically derived from cooperative needs to build a comprehensive, coherent, balanced, and measurable performance measurement system to survive amidst competition. During its development, cooperatives can adopt the measurement for business organization performance in the same industry (Beaubien & Rixon, 2012). Meanwhile, balanced scorecard approach can help decision-makers to visualize and evaluate the overall objectives of an organization through performance measurement. In turn, it shall develop confidence in modifying logical facts which may lead to organizational performance and encourage understanding of internal/external stakeholders' concerns, values, and objectives of organizational priorities (Thakkar *et al.*, 2006).

Based on the characteristics and conditions of the cooperatives in Kubu Raya District, some comprehensive, coherent, balanced and measurable cooperative performance measurements are developed based on four balanced scorecard perspectives. The study analyses depicted in Table 1 explain the identification of cooperative performance measure-

ments through strategic objectives which are formulated in order to achieve their visions and missions. The measurements are also employed to calculate the achievement of strategic objectives. Strategic objectives include four perspectives which describe aspiring future conditions. A clear description of strategic objectives aspired by the cooperatives shall facilitate appropriate measures to calculate the achievement of strategic objectives.

The use of cooperative performance measurement framework developed in this study should be based on:

- 1) Understanding the visions and missions described in cooperative objectives;
- 2) Understanding relationship between selected strategic objectives;
- 3) Analyzing measurements employed in selected strategic objectives.

For successful implementation of balanced scorecard, it must be precisely done by considering organizational needs (Perkins *et al.*, 2014). In implementing performance based measurement systems, according to Thakkar *et al.* (2007), organizations (in this case especially cooperatives) should do the following:

- 1) To analyze internal and external organization's environmental changes (e.g. market trends, consumer preferences, competitors);
- 2) To use various techniques to develop measurements, such as group discussion, nominal group technique, SWOT (Strength, Weakness, Opportunity, Threat) analysis, PEST (Political, Environmental, Social and Technological) analysis, and fi-

- nal review with top management. Those measures aim to obtain parameters accordingly, considering that this model uses subjective judgments about four balanced scorecard perspectives;
- 3) To consider the possible use of software in setting strategic objectives in order to produce the correct comparison;
 - 4) To understand the use of causal principles in balanced scorecard.

Conclusion

Cooperatives need to design performance measurement using business organization's benchmarks in the same industry. One of performance measurement systems which can improve cooperatives' performance significantly is balanced scorecard. This study develops cooperative performance measurement with balanced scorecard approach based on four perspectives which are adapted to the cooperatives' characteristics and conditions in Kubu Raya District. Using standard parameters from balanced scorecard, the cooperatives are expected to implement a good work plan with clear strategic objectives, measurement of achievement of strategic objectives, and integration between perspectives. In addition, cooperatives can use performance measurement as a tool to control cooperative performance. Future studies can develop more specific performance measurements, which are relevant to the characteristics and conditions of each type of cooperative. In addition, the validity of cooperative performance measurement needs to be statistically tested.

References

- Beaubien, L., & Rixon, D. (2012). Key performance indicators in cooperatives: directions and principles, *Journal of Cooperative Studies*, 45 (2), 5-15.
- Bigliardi, B., & Dormio, A.I. (2010). A balanced scorecard approach for R&D: Evidence from a case study, *Facilities*, 28 (5/6), 278-289.
- Boiko, I.(2013). Instruments of implementing the enterprises' strategy, *Economics & Sociology*, 6 (2), 71-81.
- Chavan, M. (2009). The balanced scorecard: a new challenge, *Journal of Management Development*, 28 (5), 393-406.
- Greiling, D. (2010). Balanced scorecard implementation in German nonprofit organisations, *International Journal of Productivity and Performance Management*, 59 (6), 534-554.
- Johanson. U., Skoog, M., Backlund, A., & Almqvist, R. (2006). Balancing dilemmas of the balanced scorecard, *Accounting, Auditing & Accountability Journal*, 19 (6), 842-857.
- Kaplan, R., & Norton, D. (1992). The balanced scorecard: measures that drive performance, *Harvard Business Review*, 70 (1), 71-79.
- Kaplan, R., & Norton, D. (1996). Using the balanced scorecard as a strategic management system, *Harvard Business Review*, 74 (1), 75-85.

- Kollberg, B., & Elg, M. (2011). The practice of the balanced scorecard in health care services, *International Journal of Productivity and Performance Management*, 60 (5), 427-445.
- Manville, G. (2007). Implementing a balanced scorecard framework in a not for profit SME, *International Journal of Productivity*, 56 (2), 162-169.
- Mehralian, G., Nazari, J.A., Nooriparto, G., & Rasekh, H.R. (2017). TQM and organizational performance using the balanced scorecard approach, *International Journal of Productivity and Performance Management*, 66 (1), 111-125.
- Moe, T.L., Gehbauer, F., Senitz, S., & Mueller, M. (2007). Balanced scorecard for natural disaster management projects, *Disaster Prevention and Management*, 16 (5), 785-806.
- Neely, A., & Bourne, M (2000). Why measurement initiatives fail, *Measuring Business Excellence*, 4 (4), 3-7.
- Northcott, D., & Taulapapa, T.M. (2012). Using the balanced scorecard to manage performance in public sector organizations, *International Journal of Public Sector Management*, 24 (3), 166-191.
- Perkins, M., Grey, A., & Remmers, H.(2014). What do we really mean by “balanced scorecard”?
- International Journal of Productivity and Performance Management*, 63 (2), 148-169.
- Porporato, M., Tsasis, P., & Vinuesa, L.M.M. (2017). Do hospital balanced scorecard measures reflect cause-effect relationships? *International Journal of Productivity and Performance Management*, 66 (3), 338-361.
- Thakkar, J., Deshmukh, S.G., Gupta, A.D., & Shankar, R. (2007). Development of a balanced scorecard: An integrated approach of Interpretive Structural Modeling (ISM) and analytic Network Process (ANP), *International Journal of Productivity and Performance Management*, 56 (1), 25-59.
- Wake, N.J. (2015). The use of the balanced scorecard to measure knowledge work, *International Journal of Productivity and Performance Management*, 64 (4), 590-602.
- Yongvanich, K., & Guthrie, J. (2009). Balanced scorecard practices amongst Thai companies: performance effects, *Pacific Accounting Review*, 21 (2), 132-149.