

# An Application of Strategic Performance Management in a Municipality:

# A Case Study

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**Abstract:** Strategic performance management is a key to track, manage and develop strategies which realize the vision of an enterprise. Also it is a feedback mechanism to detect why the strategies are not be achieved. A set of well-designed strategies are not considered to be effective if they are not well-implemented. BSC (Balanced Scorecard) is a candidate tool to fill this gap between strategy design and implementation. On the other hand, to improve management of administrative functions and desired outcomes, public sector reform raises in most countries. BSC facilitates to implement the strategy for municipalities in order to fulfil the expectations of administrative reform. However, conventional BSC elements such as perspectives, their weights and the scoring method need to customization. In this study, a BSC based performance management system is developed for a municipality. BSC infrastructure changes between profit and non-profit organizations. So, BSC dimensions, weights and the scoring method are determined for mentioned municipality. Finally a BSC software is designed according to these attributes.

**Key words:** balanced scorecard, municipality, strategy map **JEL codes:** H790

# 1. Introduction

The need for public sector reform brings greater pressure from both internal and external sources to demonstrate improvements in its performance various local/municipal governments are taking an interest in performance measurement and reporting with an emphasis on improving performance and increasing accountability (Sharma & Gadenne, 2011, p. 168). In order to provide the required level and quality of public services, budgets or programs and projects on the basis of resource allocation should be based on the strategic plan, annual objectives and performance indicators with their goals (Turkey Ministry of Development 2015).

Balanced Scorecard (BSC) provides the vision of the enterprise to realize in terms of action. By BSC, companies establish their strategic performance management system based on the strategic objectives. Thus, the strategies are adopted by departments and internal integrity is provided. BSC helps to a clear, focused understanding of strategies that are developed by top managers, so facilitate them to be converted to strategic

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targets. On the other hand, as a performance measurement system, BSC forms an infrastructure to strategic control system of enterprises and canalizes individual and departmental targets to the way of enterprise strategy. Especially by the help of the strategic maps, personnel can view the linkage between their works and the enterprise strategy that makes them to behave according to the enterprise strategy.

BSC enables spreading of strategy into the company, getting prevention according to the targets and linking different management processes to each other. It helps to return non-financial objectives to be measured. Traditional performance measurement systems use only financial measures. However, only financial measure focused systems is lack of viewing development of strategic objectives in long term. Enterprises can view current financial measures also can obtain non-financial measures and abilities required in future via BSC. The main attributes of BSC are translating the vision, communicating and linking, business planning, and feedback and learning via perspectives, strategy map or causal linkages. These attributes result in to benefits such as improved alignment of strategic objectives with actions, building up a performance measurement system, aligning strategic initiatives, strengthening an organizational change process, focusing resources on strategy (Greiling, 2010; Rasoolimanesh et al., 2015). And the fact is, implementing BSC means implementing strategy at the same time (Haapasalo, Ingalsuo & Lenkkeri, 2006). And despite Kaplan and Norton (1996b, 2008a) model for BSC implementation, it is a living and unique phase for each organization which means everybody should find their way to do it.

## 2. BSC Structure and Non-Profit Organizations

As shown in Table 1, a BSC card composes of perspectives, strategic objectives, their weights, planned and actual targets and the score. Firstly perspectives and their weights should be balanced. Then appropriate strategic objectives are defined to the perspectives. Performance measurements are also selected for those objectives with weights for both. After that planned targets are determined. At the end of the performance period, actual targets are entered and the data is scored according to the scoring method.

BSC	Weight	Objective	Weight	Indicator	Weight	Target (Plan)	Target (Actual)	Score
Perspective	WP1	01.	WO1.	I1.	W1	TP1	TA1	100
				I2.	W2	TP2	TA2	90
				I3.	W3	TP3	TA3	80
				I4.	W4	TP4	TA4	70

Table 1 A Typical Balanced Scorecard Structure

Operating goals of public institutions are to fulfill the purposes of the law of the state to fulfill the objectives set by the competent bodies or can be defined as to provide contributions to society in social issues. While some of the public institutions conduct economic activities, others do business with the principle of providing services only. Like every business, performance metrics have an important place in the management of public institutions. Measuring performance of public organizations is maintained with an emphasis on non-financial aspects such as customer satisfaction, service and product quality and the satisfaction of internal customers. However, the financial aspects should also be evaluated in the performance of these institutions. Since BSC both use financial and non-financial perspectives together, it is used as an effective performance management tool for public institutions. Although public institutions use the same perspectives as the profit organizations, strategic objectives

differs or new perspectives such as citizen perspective or social benefit perspective are added.

Although BSC in public sector is studied by many researchers (Niven, 2003; Kaplan, 2001; Lang, 2004; Phillips, 2004; Garst & Hacker, 2000), the majority of the Balanced Scorecard literature with municipalities forms of survey studies. Kloot and Martin (2000), investigated the implementation of performance management systems in local governments. They have proposed a model in consultation with many managers. Chan (2004) has investigated some municipalities in the United States and Canada to select which factors are important for the implementation in BSC. Three studies of Poister and Streib are important. In their first study, they examine the performance management models and processes in public institutions (Poister & Streib, 1999). Second study of the authors is composed of the survey to 695 municipalities in America (Poister & Streib, 1999). In the survey, the use of municipal performance measures, the importance of management processes, problems encountered and the effects of performance criteria are asked as questions and the answers are explained. In the third study, the municipality's strategic planning and management elements have been investigated (Poister & Streib, 2005). Two questions are asked and the results are reported; in which stage is the municipality in strategic planning and is the strategic plan associated with budget? In their study to different local governments in Sidney, Perera, Schoch and Sabaratnam (2007), search the reasons of failure in transition to balanced scorecard application. Farneti (2009), investigate the scorecard application in a local government in Italy. He has demonstrated that the current state of the scorecard model is not appropriate to this local government and the model should be regulated by the nature of the municipality. Wu, Tsai, Shih and Fu (2010) develop a linguistic scale survey that is evaluated by the internal auditors of the municipalities in Taiwan, according to the BSC indicators, municipalities ranking are obtained. Nilsson (2010) investigates the related actors and their expectations from BSC in a municipality in Sweden. Holliman (2010) makes a survey to 893 municipalities in America for analyzing statistically the usefulness of the management systems including BSC. And finally, Esmaili (2012) has identified key strategic objectives and the critical success factors for a municipality in Canada.

Local authorities, such as other public institutions, have a specific mission and are established for the main purpose of public service rather than for profit. Therefore, BSC applications in local government also similar with other public institutions.

### 3. Milestones for a Balanced Scorecard System Construction

BSC infrastructure changes between profit and non-profit organizations. According to these differences the steps while constructing a BSC system are determined as in Figure 1. And these attributes are specified for a municipality management system.

## 3.1 BSC Perspectives for the Studied Municipality

In BSC, perspectives and strategic objectives in that perspectives changes according to the strategy of each business. The traditional BSC that Kaplan and Norton (1996) has developed consists of four perspectives: Financial, Internal processes, Customer, Learning and Growth perspectives. Most of companies use these perspectives. Nevertheless, because of the structure and property of the business, in some BSC applications conventional perspectives can change and the number can be increase or decrease.

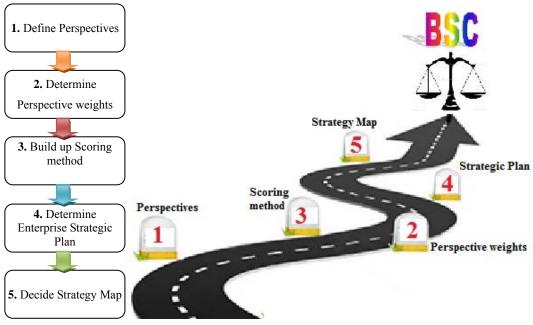


Figure 1 Milestones for a BSC Implementation

Also, in this study that is carried out in Sakarya Municipality — in Turkey, 2 hours to east İstanbul — these perspectives varies. Primarily, the most important perspective financial perspective changes by citizen perspective and the number increases five as following:

- (1) Citizen perspective
- (2) Internal processes perspective
- (3) Legal perspective
- (4) Financial perspective
- (5) Learning and Growth perspective

## **3.2 Perspective Weights**

Companies that uses BSC, distribute performance measures to all perspectives in a balanced way. On the other hand, companies that do not use BSC, mostly focus on financial measurements. According to a survey (Frigo, 2001) which is conducted in 2001 by the Institute of Management Accountants (IMA), the weights of perspectives on companies that use BSC, companies that do not use BSC but measures performance and the suggestion of Norton are shown in Table 2.

	Table 2 Perspective Weights				
Perspectives	<b>BSC</b> companies	Non-BSC companies	Norton suggestion		
Financial	34%	63%	22%		
Customer	21%	8%	22%		
Internal processes	29%	20%	34%		
Learning and Growth	16%	9%	22%		
Total	100%	100%	100%		

The determined perspective weights for Sakarya Municipality are for Citizen perspective: 35%, for Internal processes perspective: 23%, for Legal perspective: 18%, for Financial perspective: 15%, for Learning and Growth perspective: 9%.

#### 3.3 Scoring Method

Youngblood and Collins (2003) advised to decide the scoring method by trial and error via scenarios. For Sakarya Municipality, limit scale method is selected. The scoring is carried out the by weighted sum. That means as mentioned in Figure1 before, every perspective, every objective in these perspectives and every indicator in those objectives have a weight. According to Planned Target-Actual Target comparison, every indicator get a score. This score is multiplied by the indicator's weight. All indicators' weighted sum equals to the related objective. Then the same process is conducted for objectives belonging to the perspective and for all perspectives so on.

#### 3.4 Strategic Plan

Strategic planning is a powerful tool for identifying priorities regarding in future and get decisions based on knowledge. Successful and result-oriented strategic plan consists of four basic steps: Development of a vision describing where you want to achieve, assessing where the company is currently, deciding how to measure your progress and reach your goal (Rashidi, 2008). The BSC method represents strategic planning and system management that are supposed to improve internal and external communication and monitor efficiency of an organization against strategic targets (Rehor & Holatova, 2013). The transportation department section of the strategic plan of Sakarya Municipality is as in Table 3.

Department:	Transportation					
Perspective	Strategic Objective					
Citizen	Create at least two children traffic education park.					
	In public transport, renew the bus fleet that makes benefit for the elderly, disabled and other disadvantaged individuals.					
Internal processes	Implement horizontal and vertical markings in a sustainable manner.					
	Complete the feasibility and route works of railways.					
	Complete to determine the demand for parking in the city center and working to appropriate parking areas.					
	Create an integrated terminal and transfer center for public transport.	100%				
Legal	Implement "vehicle tracking system" and "intelligent stop application" in public transport.	100%				
Financial	Complete the electronic ticket application in public transport.	100%				
Learning and Growth	Train public and private public transport employees in cooperation with professional organizations on a regular basis each year.					

Table 3 Transportation Part of the Sakarya Municipality Strategic Plan

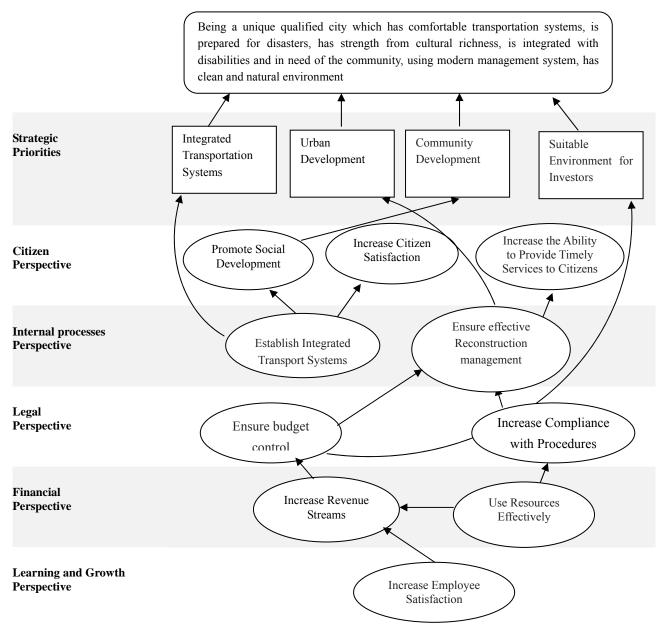
#### 3.5 Strategy Map

The aim of the strategy map is simple — to show how a range of potentially disparate activities link together to enable an organization to achieve its vision (Irwin, 2002). In the light of the above strategic objectives to be achieved for each perspective, a strategy map has been designed providing a graphical representation of the overall strategic goal, together with the financial resources needed to achieve it. The strategic map tells the story of the organization.

The map describes management's theory about how the mission and vision will be accomplished by explaining how organization-wide strategies relate to themes and how those themes relate to one another (Eagle, Cooke & Rossi, 2004). To canalize the whole enterprise to the same way is extremely important. The strategy map

helps to this aim and also enables a way to feedback. The developed strategy map for the Sakarya Municipality is shown in Figure 2.

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## 4. Conclusions

BSC enables enterprises to dynamically build performance management system on the strategic objectives which has brought a comprehensive approach to performance management. Constants of BSC change in operating non-profit purposes. These changes are carried out on a municipality and milestones for BSC implementation in public sector are proposed. Determining these constants such as perspectives and their weights, will be result in

make overall performance grade more reliable. By an effective design and usage of the strategy map, more applicable results can be obtained. To realize the vision of the municipality, a BSC based strategic plan and strategy map is designed.

Since all balanced scorecards are aligned according to the Strategy Map, it is the crucial step to clarify the corporate strategy. Future work will include customization of strategy map for a municipality. Strategy map should not be only a visual tool but also its performance need to be calculated which verifies its cause and effect structure.

#### **References:**

Chan Y. C. L. (2004). "Performance measurement and adoption of balanced scorecards: A survey of municipal governments in the USA and Canada", *International Journal of Public Sector Management*, Vol.17, pp. 204-221.

Eagle K., Cooke T. and Rossi T. S. (2004). "Translating strategy into results", Government Finance Review, Vol. 20, No. 5, pp. 16-22.

Esmaili D. (2012). "Assessing organizational competency in infrastructure asset management: The case of water and wastewater in Ontario Municipalities", Master Thesis, University of Toronto, Canada.

Farneti F. (2009). "Balanced scorecard implementation in an Italian local government organization", *Public Money & Management*, Vol. 29, No. 5, pp. 313-320.

Frigo M. L. (2001). "2001 CMG survey on performance measurement: Trends and challenges in performance measurement", *Cost Management Update*, No. 115, pp. 1-3.

Garst K. and Hacker M. (2000). "Case studies: Designing and installing a performance measurement system within a professional society — A case study", *Managing Service Quality*, Vol. 10, No. 4, pp. 216-226.

Greiling D. (2010). "Balanced scorecard implementation in German non-profit organisations", *International Journal of Productivity* and Performance Management, Vol. 59, No. 6, pp. 534-554.

Haapasalo H., Ingalsuo K. and Lenkkeri T. (2006). "Linking strategy into operational management", *Benchmarking: An International Journal*, Vol. 13, No. 6, pp. 701-717.

Holliman E. A. (2010). "Management models for municipalities: Does one size fit all?", PhD Thesis, University of Maryland University College, USA.

Irwin D. (2002). "Strategy mapping in the public sector", Long Range Planning, No. 6, pp. 637-647.

Kaplan R. and Norton D. (1996). The Balanced Scorecard, Harvard Business Press.

Kaplan R. S. (2001). "Strategic performance measurement and management in nonprofit organizations", Nonprofit Management & Leadership, Vol. 11, No. 3, pp. 353-370.

Kaplan R. S. and Norton D. P. (1996b). "Using the balanced scorecard as a strategic management system", *Harvard Business Review*, Vol. 74, No. 1, pp. 75-85.

Kaplan R. S. and Norton D. P. (2008a). "Mastering the management system", Harvard Business Review, Vol. 86, No. 1, pp. 63-77.

Kloot L. and Martin J. (2000). "Strategic performance management: A balanced approach to performance management issues in local government", *Management Accounting Research*, Vol. 11, pp. 231-251.

Lang S. S. (2004). "Balanced scorecard and government entities", The CPA Journal, No. 6, pp. 48-52.

Nilsson K. (2010). "Expectations from administrative reforms: An attempt to implement the balanced scorecard in a public sector organization", *International Journal of Public Administration*, Vol. 33, pp. 822-831.

Niven P. R. (2003). Balanced Scorecard Step-by-Step for Government and Nonprofit Agencies, Wiley, New York, p. 72.

Niven P. R. (2004). "Balanced scorecard step-by-step for government and nonprofit agencies: Performance assessment", *Transportation Journal*, No. 1, pp. 26-55.

Perera S., Schoch H. and Sabaratnam S. (2007). "Adoption of the balanced scorecard in local government organizations: An exploratory study", *Asia-Pacific Management Accounting Journal*, Vol. 2, No. 1, pp. 53-70.

Phillips J. K. (2004). "An application of the balanced scorecard to public transit system performance assessment", *Transportation Journal*, No. 1, pp. 26-55.

Poister T. H. and Streib G. D. (1999). "Performance measurement in municipal government: Assessing the state of the practice", *Public Administration Review*, Vol. 59, pp. 325-335.

Poister T. H. and Streib G. D. (1999). "Strategic management in the public sector: Concepts, models, and processes", Public

Productivity & Management Review, Vol. 22, pp. 308-325.

- Poister T. H. and Streib G. D. (2005). "Elements of strategic planning and management in municipal government: Status after two decades", *Public Administration Review*, Vol. 65, pp. 45-56.
- Rashidi K. (2008). "Performance measurement system in higher education by using balanced scorecard", Master Thesis, University of Istanbul, Turkey.
- Rasoolimanesh S. M., Jaafar M., Badarulzaman N. and Ramayah T. (2015). "Investigating a framework to facilitate the implementation of city development strategy using balanced scorecard", *Habitat International*, Vol. 46, pp. 156-165.
- Řehoř P. and Holátová D. (2013). "Application of balanced scorecard method as a tool for strategic management of chosen municipality", in: *Management, Knowledge and Learning International Conference*, Croatia, 19-21 June.
- Republic of Turkey Ministry of Development (2015). "Strategic management in government report", available online at: http://www.sp.gov.tr.
- Sharma B. and Gadenne D. (2011). "Balanced scorecard implementation in a local government authority: Issues and challenges", *The Australian Journal of Public Administration*, Vol. 70, No. 2, pp. 167-184.
- Wu J. C. T., Tsai H. T., Shih M. H. and Fu H. H. (2010). "Government performance evaluation using a balanced scorecard with a fuzzy linguistic scale", *The Service Industries Journal*, Vol. 30, pp. 449-462.
- Youngblood A. D. and Collins T. R. (2003). "Addressing balanced scorecard trade-off issues between performance metrics using multi-attribute utility theory", *Engineering Management Journal*, Vol. 15, No. 1, p. 11.