



## Available online at www.sciencedirect.com

# **ScienceDirect**

Procedia Economics and Finance 26 (2015) 942 - 945



4th World Conference on Business, Economics and Management, WCBEM

# Employee connections. The multidimensional team management scorecard

Alptekin Erkollar<sup>a</sup>, Birgit Oberer<sup>b</sup>\*

<sup>a</sup> Sakarya University, Sakarya, Turkey

<sup>b</sup> Kadir Has University, Istanbul, Turkey

## **Abstract**

Many organizations that resist change are missing growing opportunities; global business interactions are easier to conduct with new technologies; and people become more dynamic in an global work environment. Organizations gain the flexibility to draw on skills and knowledge of virtual teams; investing in these teams to gain a competitive advantage, focusing on their multidimensional character. In this study, a multidimensional team scorecard template was developed that enables a requirements analysis for managing virtual teams. The results revealed that the developed multidimensional team scorecard covers the main strategic dimensions from a management perspective and, in particular, relies on the qualitative factors of the team, determines the quality and group dynamics deficits of a team, and may provide incentives for a sustainable team management approach.

© 2015 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of Academic World Research and Education Center

Keywords: Scorecard, team management, employee, virtual team;

# 1. Introduction

Today, many organizations change the way that they do business in order to keep up with a technologically evolving economy; the work environment is designed by the growing technology, and the temporal and geographical boundaries need to be overcome. Individuals who may never directly interact with each other formed teams and they became common places with an increasing globalization. Virtual teams may come across company boundaries. For virtual project performance management the issue is to determine how to weight the key factors for performance

<sup>\*</sup> Birgit Oberer. Tel.: +1 516 368 0229; fax: +1 516 368 0229 *E-mail address:* journal@etcop.com

evaluation that are directly affecting the virtual project outcome, team performance, as well as organization based and process driven tasks. To cover the virtual project management process and establish performance measurement structures, one instrument offering a systematic approach is the balanced scorecard (Gomes, Liddle 2009; Liau, Chen 2010; Grigore et al. 2010).

## 2. Literature review

The balanced scorecard represents a performance measurement instrument, where objectives, measurands, and strategic actions are categorized according to a specific structure, which is designated as a dimension. The balanced scorecard was designed by Kaplan and Norton. They focus on finance, customers, learning & growth, as well as on an internal dimension. For every dimension, the main targets, objectives, measurands, and measures have to be developed, showing how the dimensions can influence each other (Kaplan, Norton 1996). Later on, the Balanced Scorecard approach was further developed and researchers added different dimensions to those that Kaplan & Norton proposed. The main results of these approaches were that the Balanced Scorecard approach is a flexible one, in which further dimensions such as customers, target markets, and suppliers up to a number of eight can be added and evaluated easily using this approach (Chen et al. 2011; Kaplan, Norton 2004). Nowadays, the balanced scorecard approach is frequently used for most activities in organizations, such as strategic management, marketing, process management, or employee management. The balanced scorecard approach does not depend on the type of organization, which means it can be used for enterprises, governments, non-profit organizations, as well as for single departments in these organizations or in several cases for employees (Goncharuk 2011; Leung et al. 2006). Companies seek alternatives in order to develop their product, services, and internal processes, and overcome barriers caused by globalization and technological hype. Over the past decades, the rise of the Internet has provided new types of collaboration and knowledge sharing options for companies, in which they can hire geographically dispersed knowledge workers and create so-called virtual or 'connected' teams of these knowledge workers (Kuba Tova 2012). According to Cragan et al. (2009) connected teams have three major dimensions:

- · permanent or temporary
- virtual interaction mode
- small group boundaries
  - According to Kirkman (2004) a connected projects teams has the following characteristics:
- A connected team is a task-oriented group that can collaborate across time, space, and organizational boundaries by harnessing the power of computer-mediated communication.
- Connected teams have alterable memberships with clear limits, and a defined customer, technical requirement, and output.

McGrath, J. and Hollingshead (1994) mention that information and communication technologies might be used to support teamwork in different ways:

- information presentation
- support for team member communication
- information process management
- structure of group processes

# 3. Multidimensional team management

To be able to establish management structures for project teams, the multidimensional team scorecard can be used as a main source in the strategic dimension as well as in the operational dimension. A multidimensional team scorecard follows the idea of the balanced scorecard, defining different dimensions, key objectives, actions to be taken, performance indicators, and metrics as well as time frames. Generally, the dimensions in the multidimensional team scorecard are a 'must' because they reflect the whole project related environment. Sub-categories can be defined by project builders. The same is valid for adding further dimensions (see table 1 and table 2).

Table 1. Multidimensional team scorecard, level 1.

No	Objectives	Comment			
1 Design a team	Design a team communication process		HR related / IT related		
2 Establish a to	Establish a team benchmark system		Project performance / outcome analysis		
3 Establish a pr	Establish a project lifecycle application		IT / Team related		
DIMENSION	DIMENSION				
I STAKEHOLDER					
Ia) Project customers					
Target	KPI	Framework	Priority		
Time to market	t <sub>n</sub> -t <sub>0</sub> calculation	Results in week xx	P [1-5]		
Benchmarking	Customer satisfaction	Results in week xx	P [1-5]		
Ib) Other customers					
Target	KPI	Framework	Priority		
Time to market	t <sub>n</sub> -t <sub>0</sub> calculation	Results in week xx	P [1-5]		
Benchmarking	Customer satisfaction	Results in week xx	P [1-5]		
II INTERNAL					
IIa) Processes					
Target	KPI	Framework	Priority		
Active process management	Process improvement index, process optimisation degree	Results in Q x	P [1-5]		
IIb) Staff					
Project members					
Target	KPI	Framework	Priority		
Improve service performance	Service performance indicator				
	Complain index				
Management (vice president, sponsors, seniors, juniors, volunteers)					
Target	KPI	Framework	Priority		
Internal sponsorship program					

Table 2. Level 2, multidimensional team scorecard.

DIMENSION	RELATED CATEGORY	IMPACT ANALYSIS
1 STAKEHOLDER	DIM 2, DIM 3	
	Category 2a	Level 3
	Category 3b	
2 INTERNAL	DIM 1, DIM 3	
	Category 1a, b	Level 3
	Category 3a, b	

3 LEARNING	DIM 1, DIM 2	
	Category 1a, b	Level 3
	Category 2 a, b	

Fig. 2 shows the second level of the connected team management scorecard (template). At the second level, interdependences can be marked. Considering the first level, 'COMBINED with' can be included. This relationship is shown in table 2 for all the dimensions. The benefit lies in the improvement of the update procedures, in case the interdependences are known. To have a strategic approach for the impact analysis, the second level of the template can be used. In this example there is an impact on the dimensions 1 (stakeholders) and 3 (internal processes). On the other hand, all of these dimensions have an influence on the companies' plans in dimension 1 (stakeholder dimension). These interdependences should be summarized in the template's second level. A detailed impact analysis can be added in case it is needed in the third column of the template. This could be any kind of documents summarized in an impact analysis along with its results that can be embedded in the template.

# 4. Summary

The results of this analysis revealed that the developed connected team management scorecard covers all the main strategic success factors from a sustainable perspective and, in particular, relies on the qualitative factors of the connected team, determining the quality and internal deficits of the connected team, and may provide clues for factors to improve. Apart from this connected team management scorecard, an instrument should be developed to analyze the impact of this connected team on other connected ones, the whole organization, as well as on strategic partners outside the company. Such an instrument is currently under development.

## References

Chen, Y.C., Wen-Cheng W. and Ying-Chien C. (2011) 'A Case Study on the Business Performance Management of Hilton Hotels Corporation', *International Journal of Business and Management*, 4(2), pp. 213-218.

Cragan, J. F., Kasch, C. F., and Wright, D. W. (2009) 'Communication in small groups: Theory, process and skills'. Boston, MA: Wadsworth Cengage Learning.

Gomes, R.C. and Liddle, L. (2009) 'The Balanced Scorecard as a Performance Management Tool for Third Sector Organizations: The Case of the Arthur Bernardes Foundation, Brazil', Brazilian Administration Review, 6(4), pp.354-366

Goncharuk, A. (2011) 'Making the Mechanism of Enterprise Performance Management', Economia: Seria Management, 14(1), pp. 58-72.

Grigore, A.M., Badea, F. and Radu, C. (2010) 'Modern Instruments for Measuring Organizational Performance', Annals of the University of Oradea: Economic Science, 1(2), pp. 951-956.

Kaplan, R.S. and Norton, D.P. (1996) 'Using the Balanced Scorecard as a strategic management system', Harvard Business Review, 74, pp. 75-85.

Kaplan, R.S. and Norton, D.P. (2004)'Measuring the strategic readiness of intangible assets', Harvard Business Review, 82, pp.52-63.

Kirkman, B L., Rosen, B., Tesluk, P E., Gibson, C B. (2004)'The Impact of Team Empowerment on Virtual Team Performance: The Moderating Role of Face-To-Face Interaction,' *Academy of Management*, 47(2), pp.175-192.

Kuba Tova, J. (2012) 'Growth of collective intelligence by linking knowledge workers through social media', *Lex et Scientia*, 19(1), pp.135-145. Leung, LC, KC Lam and D Cao (2006) 'Implementing the balanced scorecard using the analytic hierarchy process and the analytic network process', *Journal of the Operational Research Society*, 57(6), pp. 682-691.

Liau, S.K. and Chen, S.F. (2010) Evidence-based Study on Performance Evaluation of Social Educations Institutions with Balanced Scorecard, Journal of Social Sciences, 6(3), pp. 453-458

McGrath, J. and Hollingshead, A. (1994) 'Groups interacting with technology'. Thousand Oaks, CA: Sage Publications.