Implementing a performance measurement system in Croatia

Vanja Bevanda, Giorgio Sinković and David M. Currie

Summary

Purpose – The paper’s aim is to describe the problems encountered when a performance management system such as the balanced scorecard (BSC) is implemented in the culture of a developing country.

Design/methodology/approach – The article is based on a case study of a government agency in Croatia that initially wanted to purchase information technology software but discovered that it did not have a performance measurement system on which to base the software.

Findings – National and organizational cultures influence the degree of difficulty of implementing performance measurement systems such as the BSC. Exactly which cultural aspects and the degree that they create difficulty have only recently been studied in academic literature. The paper identifies several factors in common with previous studies, but also finds that some factors identified in other studies did not play a significant role in Croatia, while problems occurred in Croatia that have not been mentioned in previous research.

Practical implications – The authors emphasize the importance of adjusting performance measurement systems to the specific cultures in developing countries as well as modifying performance indicators to include the impact of information technology.

Originality/value – The paper emphasizes the importance of adjusting performance measurement systems to the specific cultures in developing countries as well as modifying performance indicators to include the impact of information technology.

Keywords Performance measurement systems, Public utility, Information technology, Developing countries, Croatia, Organizational culture

Paper type Research paper

1. Introduction

The article describes the problems encountered when a performance management system (PMS) such as the balanced scorecard (BSC) is implemented in the culture of a developing country. It is based on a case study of a government agency in Croatia that initially wanted to purchase information technology software, but discovered that it did not have a performance measurement system on which to base the software. In order to deploy information technologies (IT) support, the consultants had to start from scratch building a performance management system. Managers at the agency agreed with the consultants that a BSC approach was appropriate: from vision, mission, and strategy clarification to developing a strategy map showing objectives relating to each of the perspectives and how the objectives linked to one another. After that, the lead and lag performance indicators were derived from the strategy map. In the process, the consultants observed numerous difficulties mainly influenced by different aspects of national and organizational culture.

Based on Fernandes et al. (2006) we argue that the BSC is not a static concept but a dynamic tool aimed to consider spread, content, implementation, and applications, as well as the individual user’s experiences, expected benefits and satisfaction. Kaplan and Norton originally saw the BSC as a measurement tool, but in their recent book (Kaplan and Norton,
2004a, b) present the BSC as a means for implementing strategy by creating alignment and focus. The consulting team identified a need to find a way to develop the agency’s PMS to include new measures, such as measures of information technology’s impact on organizational performance indicators.

The paper is divided into six sections. After an introduction, in the second section we review the literature relating to cultural and managerial conflicts encountered during implementation of a PMS in the public sector in developing countries. In the third section, we describe the extension of the balanced scorecard to government agencies in Croatia, the problems encountered during implementation, and lessons learnt for managers planning to implement a PMS in a developing country. In the fourth section, we investigate the role of information technology in these processes and how to include and measure the impact of information technology (IT) deployment in a performance management system.

2. Implementing BSC in less developed countries: from literature review

Through the years, the BSC has evolved from the performance measurement tool originally introduced by Kaplan and Norton (1992), to a tool for implementing strategies (Kaplan and Norton, 1996) and a framework for determining the alignment of an information, human and organization capital with its strategy (Kaplan and Norton, 2004a, b). The original BSC design identified the following four perspectives:

1. financial;
2. customer;
3. internal-business-processes; and
4. learning and growth.

These perspectives represent three major stakeholders of any business (shareholders, customers and employees), thereby ensuring that a holistic view of the organization is used for strategic reflection and implementation. The success of these perspectives depends on the fact that the perspectives themselves and the measures chosen have to be consistent with organizational strategy. In a BSC system, the measures of organizational learning and growth are the drivers of the measures of the internal business processes. The measures of these processes are in turn the drivers of the measures of the customer perspective, while these measures are the drivers of financial performance. Kaplan and Norton argue that a good BSC should have a mix of outcome measures (lag indicators) and performance drivers (lead indicators) and each of the four strategic areas should have both indicators. The crux of the BSC (Papalexandris et al., 2005) is the linking together of the indicators of the four areas in a causal chain that passes through all four perspectives: applied horizontally within the areas and vertically between areas.

Research into the BSC’s implementation in developed and developing countries (Sinković, et al., 2011) led us to several conclusions:

- Implementing a performance measurement system such as the BSC faces challenges wherever it is attempted,
- Implementing the system in a developing country may encounter problems that are not encountered in developed countries,
- The problems faced when implementing the system in a developing country have not been widely studied,
- It is possible that the assumptions underlying the system may be antithetical to the managerial culture of the developing country.

The same research summarizes the challenges encountered when implementing the BSC in the public sector in developing countries. The list in Table I appears in Holmes’ article, but could easily summarize several of the issues encountered in Croatia.
3. Lessons learnt from Istra Utility: from IT to BSC

Istra Utilities (IU) is a large public utility in Croatia that is owned by the local government. The name is disguised to preserve confidentiality. IU provides a variety of services to citizens on behalf of the government, but it also does external contract work for non-government customers. At present, Istra Utilities consists of five divisions:

1. public areas maintenance;
2. road maintenance;
3. sanitary sewage;
4. horticulture; and
5. chimney sweeping.

The divisions are based on historical practice and the way of doing business in each divisional silo, rather than on purposeful organization design.

The general manager of IU approached the principal of the consulting group for assistance in purchasing a computerized system for recording and reporting IU’s performance. IU selected the principal because of his experience as the former manager of one of Croatia’s largest shipyards and because he now teaches information systems at a local university. After initial consultation with IU management, the consultants quickly realized that the problem was not a lack of computerization of the management information system, but a lack of a management information system. IU did not have a systematic process for measuring

<table>
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<tr>
<th>Challenges</th>
<th>Goals</th>
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<tr>
<td>Human resources – lack of training, subjective promotion and hiring practices, pay not linked to performance or productivity</td>
<td>Strategic planning</td>
</tr>
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<td>Hierarchical, non-participatory bureaucracy</td>
<td>Effective implementation of policies</td>
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<td>State continuity</td>
<td>Increased flexibility and objectivity in performance evaluations</td>
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<tr>
<td>Lack of strategic planning</td>
<td>Open communication both within and between public agencies</td>
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<td>Rent seeking by bureaucrats creates need for competitive sourcing</td>
<td>Separation of political from career appointments</td>
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<td>Poor financial performance</td>
<td>Increased use of contracts to improve continuity</td>
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<td>Performance tracking – training has no relation to career development</td>
<td>Performance and training linked to career development</td>
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<td>Cultural barriers – highly politicized bureaucracy</td>
<td>Participatory culture that encourages creativity and innovation with in public agencies</td>
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<td>Corruption – part of the administrative culture</td>
<td>Citizen involvement in public decisions</td>
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<tr>
<td>Lack of political will – bureaucratic resistance due to an incestuous relationship between politicians and bureaucrats</td>
<td>Customer satisfaction through efficient delivery of services</td>
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<tr>
<td>Transparency – citizens not involved in public decision-making</td>
<td>Reduce cost and increase effectiveness in civil service</td>
</tr>
<tr>
<td>Customer Satisfaction – lack of responsiveness to citizens needs</td>
<td>Impartial bureaucracy</td>
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Source: Holmes et al. (2006)
The entity's performance, did not have a system of controls to guide performance toward strategic objectives, and in fact did not have strategic objectives.

The problem thus became how to introduce modern management practices into an organizational culture that had never utilized them. In fact, not only had the organization never used modern management practices, but the practices frequently were antithetical to the organization's culture.

The director assigned the consulting team two tasks: review the organization's management system to verify who makes decisions throughout the organization, and install a formal strategic planning system throughout the organization, using the BSC approach. The consultants followed a process which comes from Papalexandris et al. (2005) and it is similar to the process presented in Niven (2008), which features the benefit of a Croatian translation of the BSC approach. IU created a working group of ten employees that would constitute an implementation group and in the eight months that the implementation group has existed, it has changed three different leaders, mainly because of a hostile environment from other employees. The consulting team met with senior managers to discuss the BSC, determine relevant perspectives, and define IU's vision and mission. IU managers adopted the first mission statement in the organization's history. Based on the mission statement and management's recognition of perspectives, the consulting team prepared a strategy showing objectives relating to each of the perspectives and how the objectives linked to one another. The lead and lag performance indicators derived from the strategy map. The 20 indicators address each of the four quadrants (customer, finance, internal processes, and learning and growth) and are slightly fewer than the maximum number of indicators suggested for a successful BSC. These indicators represent the first time that IU has attempted to measure performance, so they represent a major step for the organization[1]. At this point, the project is continuing.

Consultants identified the following symptomatic findings describing organizational behaviour:

- There are no measures of customer satisfaction: IU did not have any measures of customer satisfaction. Employees are learning to pay attention to customers.
- Lack of confidence between the director and his subordinates: the senior executive is a recent political appointment from one party. Subordinate higher-level managers were from a competing political party. Because of the political differences, there may exist a lack of confidence between the director and his subordinates. However, the new senior executive does have market-oriented business experience, so may be trying to give new direction to the company. It is possible that appointing an outside consulting team is a tool for the executive to achieve this purpose.
- Poor delegation of authority, and poor responsibility for the consequences of decisions: the director makes internal decisions himself, with infrequent delegation.
- No coordination of plans with the overall strategy of the organization: although there is much emphasis on planning, the focus of the plan is on production rather than on strategy.
- No direct costs: all costs for performance are allocated to the organization or division as a whole, rather than to specific tasks. All costs therefore are indirect, and it was not possible to calculate the cost of performing various activities of the divisions. The consultants suggested implementing a work order process for each activity in an attempt to collect information about direct costs, then giving responsibility for controlling costs to the organizational unit performing the activity. Managers of the units opposed the process. It is not yet clear that the organization wants to install processes for controlling spending.
- Pay according to performance is not part of the compensation system.
- Typical silo approach to management: the manager of each division controls the processes internal to that division, and the processes have not been extended to other divisions, a typical silo approach to management.
The authors identify several challenges that might face a manager attempting to implement a modern performance management system such as the BSC in a developing country:

1. **Culture matters.** One of the guiding principles of the working group was that the BSC would not challenge the existing autocratic style of management. This may have been a result of not wishing to embarrass the current administration, but it was sufficiently important that the group tried to frame its mission in culturally neutral terms.

2. **Some basic assumptions of the BSC.** Such as delegation of authority, employee empowerment and responsibility, and pay according to performance are directly contrary to the organizational culture of IU or the national culture of Croatia. Whether these are sufficient to kill the effort to implement the BSC can only be determined through time.

3. **Although there is some evidence that organizational resources may be diverted for personal use, there is no evidence of extensive corruption. Likewise, there is evidence of political influence in the organization, but perhaps not beyond the level of senior administration. There is no evidence that a lack of resources is an impediment to implementing the BSC.**

Holmes et al. (2006) identified these as three challenges to implementing the BSC in developing countries.

The authors did not encounter all 12 challenges identified by Holmes et al. (2006) which appear in our Table I, but we did observe the following:

- The lack of strategic planning was one of the first things noted by the consulting team.
- There may not be a relation between personal improvement and pay, and pay probably is not linked to performance.
- IU experienced poor financial results, perhaps because of the lack of incentives and the lack of a system for allocating direct costs.
- Cultural barriers exist and may be significant, but the barriers may not be those identified in literature: a politicized bureaucracy, corruption, and a lack of political will.
- Customer satisfaction had not been one of the priorities at IU.

Although this effort at installing the BSC was directed by senior management, significant changes in the organizational culture have not yet been required. Only when major hurdles are encountered will it be possible to judge the commitment of senior managers.

4. **Role of IT deployment: from BSC to IT**

IU hired the consultants to analyse the need for an information system in order to introduce computerization of IU’s PMS. Faced with the fact that there is no PMS, the consultants had to start from the beginning with establishing the mission, vision and strategic objectives. In the process, they encountered the problem of a corporate culture that does not support changes.

The main task of the consulting team was to support the process of computerization of IU, believing that the information system (IS) must be an integral part of corporate governance, and that its effectiveness and efficiency depend on the quality of IU’s management system. The role of a modern IS is to support a firm’s existing internal processes and management system. A prerequisite for doing that is existence of a well-defined system of corporate governance.

Applications that support the implementation of BSC are the part of a modern integrated information system known as a performance management system (PMS). Performance management involves careful planning of all business segments, creating key indicators that reflect the actual situation and how a company really operates, and analyzing the reasons and sources of discrepancies between the plan and results.

The IS for a PMS provides familiar visualisation of the necessary metrics through the implementation of key performance indicators and helps define priorities directing the
service for tasks enabling achievement of business objectives. It enables the integration of information resources in order to provide proactive and personalized analysis and reporting. It can help demonstrate employees’ tangible evidence of how they contribute and how their involvement helps the company achieve the strategic objectives.

In addition to monitoring transactions and employee contributions to achieving well-defined objectives, PMS allows mutual comparison of the parts of the organization. Each part creates reports using a unique definition of concepts that are monitored on a daily basis and in this way, PMS can improve control and performance monitoring.

Figure 1 shows the role of the IS in BSC implementation processes as an engine for developing strategies and as the driver for developing the management system. Computerization itself supports the actual application of the BSC model throughout the organization, provided there is a management system and strategic direction. The word ‘support’ is highlighted because we want to emphasize that information technology cannot compensate the lack of strategic planning or a management control system, nor can it create them.

The role of an information system is to collect, process and distribute the necessary data and information in various forms to employees, managers and business partners through a PMS such as the BSC so that there is a structure for expressing the vision, mission and strategies in clear terms.

Downing (2000) investigated the introduction of BSC model in different companies and showed that 5 percent of them select IT solution before they implement a BSC model, and 29 percent created the model and chose a technological solution at the same time. There are real dangers associated with such approaches, such as the possibility that employees will focus on the IS rather than the BSC performance management system. Purchase or development of IS applications before creating a BSC model brings the danger that resources intended for employees’ education on BSC will be redirect to training how to use application solutions.

Most available IT solutions today come with ready-made libraries of performance indicators that allow users to choose the most important ones in order to develop and use in a short time the backbone of the BSC model. A large part of the BSC’s value stems from the process.
of thinking about strategy and mapping strategy objectives and indicators that need to be successfully incorporated into the organization. Selected BSC indicators represent the uniqueness of the organization. The number of indicators will be the same as in other companies, but the real difference lies in selection of performance indicators that have to ensure a specific organization’s future business success. Therefore, it is difficult to accept that the attached library of available software solution contains indicators that describe a specific company.

From the above the consultants believed that it was not advisable introduce a new information system before IU completed the proposed business improvement: primarily the introduction of a work order as a basic pillar of the cost and the planning process improvement. Once the work order system is introduced, the consultants will need to reanalyse the organization and may introduce new indicators to measure performance.

4.1 Strategic map adjustment

An organization should be seen as a gentle and precious watch that should be adjusted cautiously, but, at the same time, frequently and professionally! (Baracskai, 2010; translated by the authors).

Marr and Adams (2004) found that the learning and growth perspective of the BSC has long been considered its weakest link and they concede that several managers found this perspective to be the “black hole” of BSC. The authors of the BSC, Kaplan and Norton, showed that only few organizations have easily figured out how to populate this perspective with meaningful and relevant measures. A recent study shows that a third of BSC users do not have a learning and growth perspectives (Sinković et al., 2011, cited in Marr and Adams, 2004). Abandoning this perspective was not the case in IU where the consultants sought a way to include a measure of the impacts of culture and information technology into the existing strategic map. They witnessed the significant importance of the learning and growth perspective for expressing specificity of BSC application in a developing country.

In the latest approach to BSC, Kaplan and Norton (2004a, b)[2], learning and growth are described as:

- Human capital (employees’ skills, talent and knowledge).
- Information capital (databases, information systems, network and technology infrastructure).
- Organization capital (culture, leadership, employee alignment, teamwork and knowledge management).

They presented concepts and tools as a part of the BSC to systematically measure the alignment of the company’s human, information and organization capital without which even the best strategy cannot succeed. The degree to which the current set of assets does or does not contribute to the performance of the critical internal processes determines the strategic readiness and their value to the organization.

Human capital (HC) is measured by whether employees have the right kind and level of skills to perform the critical internal processes on the strategic map. It is proposed as a first step in evaluating strategic readiness identifying the strategic job families. That is the employee’s positions with corresponding competences profile have the biggest impact on enhancing the organization’s critical internal processes. The difference between the requirements needed and the company’s current capabilities represents a “competency gap” that measures the organization’s HC readiness.

Information capital (IC) is a measure of how well the company’s strategic IT portfolio of infrastructure and applications supports the critical internal processes. Measuring consists of assigning scores to each category indicating how well developed each item is. The categories are: technology infrastructure, transaction-processing application, analytic applications and transformational application. Technology infrastructure comprises hardware, software, networks, managerial expertise and security required to deliver and
Figure 2 IU Strategic map adjustment

- Increase the satisfaction of the stakeholders (citizens/city)
- Improve communication with citizens and city and create a positive image of themselves and change

- Properly plan the budget and operate within the same
- Manage investment projects

- Provide simple, consistent and reliable processes and improve services
- Rationally manage the processes
- Manage projects

- How intangible assets fit into strategic map?

Source: Developed by the authors

Figure 3 IU human capital readiness indicators

- Provide simple, consistent and reliable processes
- Improve services
- Rationally manage the processes
- Manage projects

- Departments’ Managers
- Quality Manager
- Financial Manager/Planner
- Project Manager

- Performance Management System
- Six Sigma Program
- Problem management system
- Internal relationship management
- Service-line knowledge
- Project management

Source: Developed by the authors
use other application. Transaction-processing application supports basic, repetitive transactions of the organization. An analytic application supports data analysis, results interpretation and visualization. Transformational application serves as application glue and requires the greatest degree of organization change to deliver its benefits.

Assessing the organizational capital (OC) is about assessing how the company can mobilize and sustain the organization change agenda associated with its strategy. Organizations introducing a new strategy have to create a culture of corresponding values, a cadre of exceptional leaders who can lead the change agenda, and an informed workforce aligned to strategy, working together, and sharing knowledge to help the strategy succeed.

The measures of HC, IC and OC in the learning and growth perspective of the BSC identify which jobs (HC), supported with which systems (IC) and what climate (OC) are required for value-creating internal processes. These measures are the ultimate lead indicators and the higher state of current readiness assessment, the faster they contribute indicators in financial and customer perspectives.

The IU consultants modified the existing strategic map, changing the indicators of the learning and growth perspective that support critical internal processes (Figure 2) and defining HC (Figure 3), OC (Figure 4) and IC (Figure 5).

Initial assessment of these IU indicators confirmed the evidence of a low level of readiness of human, information and organization capitals for this reason they are not included in the readiness indicators of Figure 5. The consultants identified the need for additional employment and training activities of key managers, as well as requirements for technology infrastructure and applications integration. The level of indicators in learning and growth perspective is proportional to the speed of change in the organization. The learning and growth perspective deepening enabled the measurement, monitoring and management of IU progress through the key indicators of strategic readiness for change.

5. Conclusion: closing the circle from IT to the BSC to IT

We know the consultants who offer their clients three choices: Do you want the corporate tablet to calming, an alibi or business results? (Bard and Soderquis, 2002, translated by the authors).

In this paper, the authors describe a case study of a government agency in Croatia that initially wanted to purchase information technology software, but discovered that it did not have a performance measurement system on which to base the software. The organization must develop a performance management system by forcing adoption of the first mission

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<th>Attribute</th>
<th>Strategic Objective</th>
<th>Strategic Measure</th>
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| Culture    | Foster awareness of the mission, vision and core values needed to execute the strategy | - Citizen satisfaction measured by questionnaire  
- Customer complaints  
- Workforce fluctuation (attrition/(beginning work force + new hires)) |
| Leadership | Develop leaders at all levels | - Leadership gap (percentage of key attributes in competency profile rated above threshold) |
| Alignment  | Align goals and incentives with strategy at all levels of the organization | - Percentage of staff who can identify organization’s strategic priorities  
- Percentage of staff whose objectives and incentives link to BSC |
| Teamwork   | Ensure that knowledge and staff assets that have strategic potential are shared | - Sharing best practices (wikis hits per employee) |

Source: Developed by the authors
and vision statement in the organization’s history, then creating a strategic map and indentifying key measures of the BSC perspective. During these activities, the authors recognized the impact of national and organizational cultures on the speed and success of strategic changes in the organization. Exactly which cultural aspects and the degree that they create difficulty have only recently been studied in academic literature. Several factors were in common with previous studies, but some factors identified in other studies did not play a significant role in Croatia, while problems occurred in Croatia have not been mentioned in previous research.

The authors emphasize the importance of adjusting performance measurement systems to the specific cultures in developing countries as well as modifying performance indicators to include the impact of information technology. They adopted and implemented the improvements of the BSC’s learning and growth perspective suggested by Norton and Kaplan. The level of new indicators is proportional to the speed of change in the organization and indicators enable measurement, monitoring and management of cultural, information and organization capital that played an essential role of IU’s strategic readiness for change.

**Figure 5** IU information capital readiness indicators

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<th>Source: Developed by the authors</th>
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Notes

1. Details can be found in previous published article: From IT To BSC: The Importance Of Culture In Implementing A Performance Measurement System In Croatia, Indian Journal of Economics & Business, Vol. 10, No. 1, March 2011, pp. 39-55.

2. Norton and Kaplan called these factors “intangible asset” and because they included hardware and network in Information capital, they suffered a serious criticism. The authors of this paper consider that the latest BSC methodology improvement was more than helpful and tried to avoid discussion of the scientific community about the definitions of intangible assets. Three dimension of learning and growth perspective, authors simply called strategic readiness of IU.

References


Further reading


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