

Performance measurement impacts on management and leadership: Perspectives of management and employees

J. Ukko*, J. Tenhunen, H. Rantanen

Department of Industrial Engineering and Management, Lappeenranta University of Technology, Saimaankatu 11, FI-15140 Lahti, Finland

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Abstract

The study focuses on the impacts of performance measurement (PM) on management and leadership—a research area that has not received much attention in the literature. The empirical part of the study is based on 24 interviews from eight case organizations applying the Balanced Scorecard (BSC). Representatives of both management and employees were interviewed in each case organization. The study concludes that performance measurement can only support, not replace managers in leading people. The study shows that when operating with a performance measurement system (PMS), the increased interactivity between the management and the employees leads to higher performance.

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1. Introduction

One of the main purposes of performance measurement (PM) is to deliver reliable information to support decision-making. In the field of performance measurement, mainly the strategic purposes have been under focus. Usually, strategic performance measurement refers to the monitoring of companies' long-range plans and success. However, quite often companies have applied PM on lower levels of organization, such as departments, units, teams, and even individuals. The measures are often operative and close to the employees. In this case, PM has behaviorist impacts as well.

A system measuring human behavior will eventually change the behavior—often positively (Neely et al., 1997). It is most important for the employees to understand why something is or is not measured. Furthermore, the employees ought to know how personal or team objectives are related to the objectives and goals of the whole company. When measuring peoples' activities, the role of leadership is emphasized. For that reason, it is important and relevant to explore performance measurement from the different aspects of leadership, in addition to the strategic perspective.

When operative-level decisions are based on information aggregated by the performance measurement system (PMS), the system may have effects on leadership and furthermore on the management. Martinez (2005) suggests that PMSs focus the employees' attention on issues that are important to the company, by linking key objectives

*Corresponding author. Tel.: +358 3 876 9140;
fax: +358 3 876 9133.

E-mail address: juhani.ukko@lut.fi (J. Ukko).

to the employees' jobs and continuous reviews. In this case, the motivation and commitment of people as well as communication between the management and the employees should be highlighted. These are also essential elements of leadership. Hence, it is possible to find a clear connection between performance measurement and leadership.

The aim of this article is to contribute to the research area of performance measurement by reporting a study of eight cases concerning the impacts of performance measurement on management and leadership. In the earlier literature of performance measurement, the focus has been on the development of a measurement system and the measures (Bititci et al., 1997; Kaplan and Norton, 1996; Neely et al., 2000), the implementation phase (Bourne et al., 2003; Gooderham, 2001; Letza, 1996), or promoting systems and platforms (Kaplan and Norton, 1992; Lynch and Cross, 1995; Mettänen et al., 2004; Neely and Adams, 2001; Tenhunen et al., 2003). However, the impacts of operative-level performance measurement have not received much attention, and the research findings have been contradictory as regards the impact on business performance (Bourne et al., 2005). In Finland, Lönnqvist (2002) has touched the issue when studying the use of performance measurement from the perspectives of management and shop stewards. Rautajoki (1995) has studied the management–employee juxtaposition in the field of productivity measurement. These studies will be discussed below.

The study reported here is a qualitative and explorative case study of eight Finnish organizations operating with the Balanced Scorecard (BSC). The empirical data have been gathered by interviewing the management and the employees of the case organizations. The aim of the study is to find answers to the following questions:

- (1) What impacts does performance measurement have on the leadership?
- (2) What impacts does performance measurement have on the management?
- (3) How do the management's and employees' perceptions differ from each other?

The study brings out the impact of performance measurement by focusing on two aspects: Its impact on management and leadership. The purpose is to highlight the fact that the management and the employees may see performance measurement from different perspectives, which should be considered when designing, implementing and using a PMS.

2. Literature review

2.1. Leadership and management

Stodgill (1950) defines the term leadership as a process or action that affects the actions of an organized group when it is heading for goal setting and goals. According to Ruth (1996), the main qualities of leadership are abilities for long-term strategic thinking, communication skills, integrity and ambition. In popular language, leadership usually refers to motivating and committing people—in short, leading people. Westley and Mintzberg (1989) discuss the term visionary leadership in their article and define it as a process, as described in Fig. 1.

As shown in Fig. 1, performance measurement could be seen as a way to communicate the company's vision to the whole organization (e.g. Kaplan and Norton, 1996). In this perspective, PMSs are related to the leading process of Westley and Mintzberg, especially when: (1) we consider a strategic PMS, (2) one of the measurement objectives is to clarify the company's vision and its

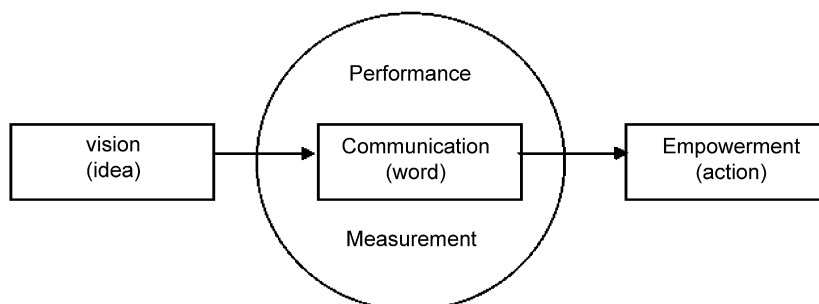


Fig. 1. Visionary leadership as a process. Revised from Westley and Mintzberg (1989).

implications to the whole organization, and (3) the measurement system and its results are open to the whole personnel.

The term management can be defined functionally as the action in measuring a quantity on a regular basis and adjusting an initial plan and the actions taken to reach one's intended goal (Wor-diQ). Management and leadership describe different sides of the same coin, but it is neither necessary nor possible to draw an exact line between them.

2.2. Impacts of PM on leadership and management

When applying a PMS to the operative level, it can be assumed that the new system has some influence on leadership. On the other hand, it can be stated that the leadership style will affect the implementation of the PMS. Bititci et al. (2004) conclude that organizational culture, management styles and performance measurement are related to each other; companies need an organizational culture that focuses on continuous improvement and strategic performance measurement. They also state that a successfully implemented and used PMS will lead to a more participative and consultative management style and may lead to significant performance improvements. Hence, the PMS is not only about what is measured but also how it is measured.

According to Bourne et al. (2002), in the implementation phase corporate culture has an impact on performance measurement. They claim that a paternalistic culture, not punishing for errors and encouraging conversation and analysis, could lead to successful implementation of a PMS. However, Lönnqvist (2002) states that corporate culture or attitudinal matters do not complicate the measurement. In the present study, we examine whether PM has had impacts on leadership style and what are the key elements of successful implementation.

The study of Martinez (2005) reveals that PMSs have a positive effect on, for instance, focusing people's attention on what is important to the company, aligning operational performance with strategic objectives, improving people's satisfaction and aligning people's behaviour towards continuous improvement. Dumond (1994) states that the PMS is most important in guiding an individual's performance and can have even a greater effect when the right types of interaction and information are provided to support that PMS. The PMS affects not only an individual's decisions, but also the

comfort level about the environment and his/her own performance.

Bourne et al. (2005) have examined the differences of the use of a PMS in high-performing business units and average-performing business units in the same company. The study reveals, e.g., that in the high-performing business units (in comparison to the average-performing business units)

- the use of measures is more sophisticated,
- the managers discuss their model of how the business units operate and explain how aspects of operation, people and performance interact,
- the managers use the PM information interactively and communicate about performance intensively, both in formal meetings and "at every opportunity",
- the managers have multiple source of data from different factors in taking action, and
- PM is not the main source of control.

The study of Evans (2004) reveals that the maturity of the PMSs, better approaches to analyze performance results and sophisticated statistical techniques correlate with a higher level of performance. It is also important to turn the data provided from PMS into understandable and useful information (see e.g. Ittner and Larcker, 2003). So, it can be assumed that exact information, interactivity, and communication both in formal meetings and "at every opportunity" are key issues to higher performance, in addition to a consultative management style. In the present study, we examine whether communication between management and employees has become better with the more useful information, whether performance measurement has brought along some new leadership routines for analyzing the measurement results, and whether PM has improved information diffusion through the different organizational levels.

The BSC was introduced to support managers in management accounting, decision-making and management as a whole. It rose to the challenge of the limitations of traditional accounting measures (Kaplan and Norton, 1992, 1996). Its basic idea is to translate strategy into measures, and into action. The BSC included originally four perspectives: Financial, customer, internal, and learning and growth perspectives. The architecture of BSC works as follows: First, there is the financial perspective; it measures the ultimate results of a business. This

may consist of measures of, e.g. revenue growth, profitability, return on investment (ROI), and economic value-added (EVA).

In addition to financial objectives, a company needs customers who generate, for instance, revenue growth. The customer perspective focuses on customer needs, and its measures are typically customer satisfaction, retention, and market share. Actually, financial and customer objectives are desired outcomes, but they do not explicate how to achieve them. A company must define processes in which it must excel to satisfy the customer. The internal perspective defines the activities needed to create the desired customer and financial outcomes. The internal perspective focuses, e.g. on quality, response time, costs, and new product introduction. The fourth perspective, learning and growth, is directed to the future, on how to keep the internal key processes running. The learning and growth perspective focuses on the people and infrastructure of a company. Generic measures are, e.g. employee satisfaction, information system availability, and skills development.

Ittner et al. (2003) have studied the relation between financial performance and performance measurement alignment techniques, e.g. the BSC. They found that the BSC processes are associated with higher measurement system satisfaction, but exhibit almost no association with economic performance. Davis and Albright (2004) have studied whether the bank branches implementing BSC outperform the branches within the same banking organization on key financial measures. They found evidence of superior financial performance for branches implementing the BSC when compared to non-BSC implementing branches. There is some contradiction in research findings concerning the positive impacts of BSC on financial performance. In the present study, we examine whether the PM has had impacts on different areas of management, such as decision-making, quality of products and activities, customer needs and satisfaction, productivity and efficiency improvement, realization of targets, proactive management, finding improvement needs, and consequently on financial performance. All these factors can be seen as essential elements of the BSC framework.

2.3. Management, employees, and performance measurement

Several development and implementation process models have been presented in the performance

measurement literature (Kaplan and Norton, 1996; Lynch and Cross, 1995; Olve et al., 1999; Simons, 2000; Tenhunen et al., 2002; Toivanen, 2001). Almost in every measurement system or process model, the starting point is the vision and strategies of the company. Quite often the measurement system is used also on department or team level, in which case we can talk about operative-level performance measurement. The main gaps in many of the presented process models are that they do not exploit the potential of the employees in the development phase, and they do not deeply consider how the employees could be committed to the use of the system. These two issues are critical when companies search for maximal positive impacts of PMSs. To get more out of an operative-level PM, companies have to consider the employee perspective more in depth.

Lönnqvist (2002) has studied performance measurement from the perspective of employees, utilizing the wisdom of shop stewards. The primary disagreement between the management and the shop stewards was whether or not the management should use performance measurement to control the employees. The management's opinion was that controlling is not an essential issue in performance measurement; the shop stewards felt that controlling the employees is one of the main targets in the measurement. Both parties agreed that non-financial measurement has increased its share and the employees have a bigger role in this measurement than before.

According to a study of Rautajoki (1995), the employees felt that they could not contribute enough to the selection of productivity measures or target levels. The management and the employees also had different opinions about the openness of the measurement system. Rautajoki states that 29% of the shop stewards and 47% of the production managers saw the measurement system completely open to the whole personnel. A major problem for the employees was the impossibility to take part in the development of the measurement system. Both the managers and the employees shared the view about the necessity of productivity training. The study of Rautajoki (1995) brings out the fact that different groups of personnel may have quite different opinions on the measurement.

To conclude the literature review, it can be suggested that the management should consider the employee perspective more during the development, implementation, and use of performance

measurement. It is well justified to study the perception of managers and employees of the actual impacts of performance measurement and how these perceptions differ from each other.

3. Research methodology

Martinez et al. (2004) present some limitations of early research on the impact of PMSs, for example, as follows:

- (i) Most studies come from surveys with no control on important variables, such as whether the companies have a PMS in place in reality.
- (ii) Survey studies do not provide in-depth understanding on the impact of the PMS. Some of them conclude that the use of the PMS increases business performance, but rarely explain why and how.
- (iii) Very few findings focus on the operational impact of the PMS.
- (iv) Very little research has been reported from case studies.

In an environment described by Martinez et al. (2004), there is a place for a case study focusing on the impacts of PM on operative-level actions. To be able to conduct the case study, there was a need to have access to organizations that operate with a BSC at the operational level. Before the case study, a preliminary survey was carried out by e-mail in Spring 2004. The survey reached 591 organizations, 96 of which sent a response (response rate 16%). In the survey, it was asked, e.g. whether the company used a PMS and if not, the reasons why not. Twenty-nine of the answering organizations had the BSC in use. After contacting the companies applying a BSC, eight of them were interested in participating in the case study. In each of the eight organizations, one representative of the business administration and two representatives of the employees were interviewed face to face during the summer 2004.

In total, 24 interviews were carried out in the offices of the organizations, and all the interviews were recorded. The total interview time was 21 h, from 30 to 71 min per interviewee. Detailed information of the case organizations and the interviewees is presented in Table 1.

The interviewed participants of the management were chosen as near as possible to the top management. The representatives of the employees were chosen by the contact persons of case organizations

and the representatives were both blue collar and white collar workers. Nowadays, there are no traditional blue collar workers in many technology companies, as the employees are mainly highly educated specialists. When the representatives are selected by the case organization, there is always a concern about the criteria by which the representatives have been chosen. However, two employee representatives of the same case company allow comparison between the representatives and improve the reliability of the analysis and the results. Because there was only one representative of the management from each case organization, we asked for the manager's perception and opinion that the whole management of the organization might hold. In our study, the management representatives were on a sufficiently high level in their organization that it can be assumed that they had the overall managerial view on the PM. In addition, all the representatives of the management were included in the management group of their organization. The analysis of the interviews was conducted by two researchers independently, after which a common view was discussed. This procedure was followed to ascertain the reliability of the analysis.

The interviews were semi-structured, using the themes and factors listed below as the basis for the data collection. The impacts of PM on the management and leadership were discussed fairly informally during the interviews. To outline the relevant themes, raised from the literature, for the interviews of the present study, the impacts of PM on management were examined through the following factors:

- decision-making
- quality of products and activities
- customer needs and satisfaction
- productivity and efficiency improvement
- realization of strategic and operative targets
- proactive management
- finding improvement needs.

The impact of PM on financial performance was asked only from the management representatives, because the employees may not possess long-term information about the financial performance.

The impacts of PM on leadership were examined through the following factors:

- leadership style
- presentation of contradictory issues

Table 1
Information on the case organizations and the interviewees

	A	B	C	D	E	F	G	H
Case organization								
Industry	Electricity supply	Manufacture of food products	Engineering activities and related technical consultancy	Manufacture of pharmaceuticals	Manufacture of basic metals	Telecommunications	Retail trade	Secondary education
No. of employees	140	50	490	80	670	450	65	300
Turnover	€14 million	€4 million	€34 million	€7 million	€120 million	€65 million	€9 million	€20 million
Representative Management	CEO	Financial director	Development director	CEO	Development director	Development manager	Division director	CEO
Employee	Production foreman Warehouse foreman	Purchasing manager Salesperson	Competence coordinator Expertise centre manager	Information system manager Research and development laboratorian	Development engineer Furnace-man	Group foreman Mechanic	Information secretary Salesperson	Department manager Education manager
Performance measurement system								
System	BSC	BSC	BSC	BSC	BSC	BSC	BSC	BSC
Years in use	4	1	6	3	5	2	4	1

- leadership routines
- information diffusion

We also examined the implementation process of the PMS through participating in designing, informing, and education about the system.

With the selected approach, both management and employee perceptions were gathered. The qualitative research approach is appropriate when the study focuses on the perceptions and experiences of persons. Furthermore, the study is founded on hermeneutics to gain deeper understanding on the phenomenon under discussion. The ontological and epistemological approach of the study is subjectivist, which is quite natural when applying semi-structured open-ended interviews. It is extremely difficult to find valid, objective and quantitative measures to study, e.g. how the leadership style has changed in the company after the adoption of the PMS. In practice, the research of such abstract concepts often has to rely on subjective perceptions of humans, especially in the business context. Furthermore, with an objectivistic, quantitative approach, it is not possible to gain such deep knowledge of the research subject as a subjectivist approach enables.

In the study, each company represents a case. According to Eisenhardt (1989), cases may be chosen to replicate previous cases or extend emergent theory, or they may be chosen to fill theoretical categories and provide examples or polar types (see e.g. Yin, 2003). The cases in this study were not selected to represent polar types. Primarily, the two main criteria were that the companies measured performance with the BSC, and they had applied the measurement to the operational level. These conditions could be seen as the categories Eisenhardt (1989) mentions. The results are applicable to companies that are measuring their performance or companies that are planning to launch a performance measurement development project.

The main underlying assumption of the study is described in Fig. 2, where the management and employees view performance measurement from their own perspectives. Previous studies (Lönnqvist, 2002; Rautajoki, 1995) suggest that the management and the employees perceive performance measurement and its purposes differently. One of the objectives of this study was to discover the issues on which management and employees have congruent opinions and on which the opinions differ from each other. For the measurement to be

successful and, furthermore, to gain a positive impact, it is assumed that the management and the employees ought to have a common view on PM.

4. Findings

4.1. Implementation process

The planning and implementation of the PMS seem to have a rather remarkable role in making the PMS effective. In the case companies, the planning had been done mainly by the management, starting with strategic measures at the company level. After defining the measures at the unit and team level, the role of the employees increases. This is a rather normal and understandable way to start the planning. The management's, as well as employees', opinion was that the employees should be somehow tied also to strategic planning.

One of the most important phases in the implementation process was informing the whole personnel about the new measurement system. The employees of the case companies were not satisfied with the management information concerning the measurement system.

Simply answered, poorly ... in the implementation phase it was obviously a surprise to many employees. It seems that the existence of the system was not internalized ... The marketing of the system was done in a lousy manner. — Expertise centre manager, Case C, Employee representative

In the case companies poor and delayed timing of information distribution and lack of measurement training caused some problems for employee commitment.

Due to the fear of something new, and lack of understanding in the area of measurement, informing about the system and the measurement education should be started much earlier—before measuring becomes part of everyday routines. The employees of the case companies felt that training, which clarifies the link between personal and company-level targets, is useful. The understanding on the entire measurement system was seen to enhance commitment and motivation.

I don't know about the training, at least I haven't been offered any...we have passwords for the system, but it would be more meaningful if you

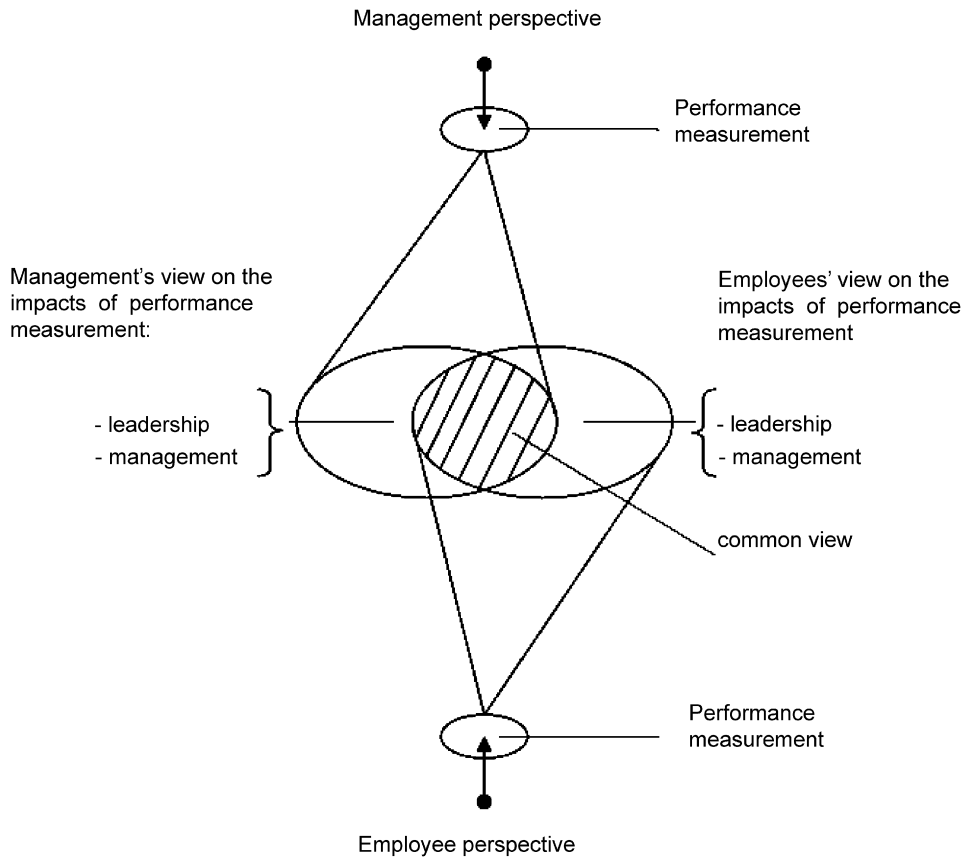


Fig. 2. Performance measurement from the perspectives of employees and management.

knew better how it works and what the structure [of the system] is. —Mechanic, Case F, Employee representative

The management of the companies seemed to have a slightly too positive view of their employees' capabilities to adopt and understand new management systems. The role of training should be emphasized in the companies where the level of employees' education is at a lower level. The employees' representatives and the management of the case companies had a shared opinion that the employees should have a bigger role in the area of PM, at least what comes to the employees' individual metrics and goals.

4.2. Impacts on management

The information gathered from the PMS and the analysis of the information has been utilized quite well in the case companies' decision-making. Along with the performance measurement, the companies

have been able to allocate resources like money and workforce to the right places.

For example, we do many different tasks inside the company before the product is finished for the customer. If we've measured that the defining phase of the product has taken too long time, it has been easier to add workforce to that phase. So, the measurement has helped resource allocation. —Development manager, Case F, Management representative

This has been possible because the companies have found the right targets for development, for example, in production and employees' skills and capabilities. Hence, the quality of activities and processes has improved inside the companies. It can be said that by gathering suitable information from the right targets, the decision-making will become faster and more confident. This shows that the case companies have been mainly careful and focused in the PMS definition process.

Most of the companies collected information from their customers' needs and satisfaction on a regular basis. Both the management's and the employees' opinion was that without analyzing the customer information, it is difficult to succeed in increasing competition in the market. The collection of information on products and reclamations was considered very important as well, because of its straight link to customer satisfaction and needs. Thus, in the case companies PM had a clear impact on customer satisfaction and product quality both from the management's and the employees' perspective.

The companies utilized well the measuring information collected from the metrics of productivity and efficiency of production and other activities. The problems in production and employees' personal skills, as well as prioritization of different activities were some examples that the companies had solved with the measuring information.

For example, we've repaired the product defects much faster, after we started to measure it. Only the fact that we've adopted the metric has improved the confirmation of finished jobs ... so, the invoicing has become quicker, which affects the financial performance. —Development manager, Case F, Management representative

The management's opinion was that the impact of PM on the financial performance had been realized mainly by improving productivity and efficiency. The improvements were done mainly by organizing the resources in a new way, and the role of measurement information was significant in this process.

In most of the case companies, the management and the employees saw that PM had helped the companies to carry on their strategies and achieve their strategic goals better than before.

This decade has actually gone so well financially and it seems that the measurement system has had a certain impact. The goals have been mainly achieved in all these years the measurement system has been in use. So, it's hardly a coincidence. —CEO, Case A, Management representative

The situation was very similar with the operative goals, indicating that the operative targets were in line with the strategic goals. This means that the

case companies have succeeded well with their measuring systems as a whole, because the idea of PM is that the operative targets should support the strategic targets.

According to the management of the companies, the measurement has brought out future aspects of the company and the business. The focus is no longer on the quantitative data of history, as in the financial statement. This comes up, for example, when planning the education of employees concerning their skills, capabilities and know-how. The management tries to find out what kind of skills the employees will need in the future, not only today. The employees did not find so much proactive elements in performance measurement. The reason may be in the nature of the work. The management operates mainly with strategic issues, whereas the employees work in everyday tasks with short-term targets.

When looking at the management effects that the performance measurement has highlighted, it can be said that the commitment of the whole organization has to be on a very high level. The main reason for that can be the bonus systems that were linked to the measures except for one of the case companies. In this company, the effects of performance measurement on the management were seen as much more slight from both management's and employees' perspective, compared to the other companies.

4.3. *Impacts on leadership*

The management's and the employees' views on the impacts of performance measurement on leadership style differed from each other quite a lot. The management of the case companies felt that performance measurement had brought a new aspect to the leadership. Along with the measurement, the conversation between the management and employees had improved. Processing different issues of work had become easier with explicit goals.

This has brought more edge and exactness to the conversation when we talk about facts. How comfortable the employees find it, is a different issue, because it's always easier to talk about issues based on imagination and visions. —CEO, Case H, Management representative

According to the employees, the contents of the conversations had changed. However, they felt that the way of presenting different issues of work

depends much more on the organizational culture and individual characteristics of the manager than on performance measurement. The management and the employees agreed that the measurement information had brought certain frames to the contents of personnel development discussions. Similarly, difficult issues were easier to handle with the exact information.

For some managers it's easier to work with this kind of system and for some others it's not. Some are naturally talented leaders. Anyway it's better if you have facts in the background of the discussion. For example, it's good for the insecure employees who easily think that they're going to be blamed for something. —Salesperson, Case G, Employee representative

The study shows that the performance measurement has brought new routines to the case companies. There are many different meetings on different organizational levels, where the participants analyze and present the measurement information and try to solve detected problems. The companies have also developed instructions related to the situations where some metrics give an impulse. The companies have established, for example, analysis groups and development groups. The employees do not see the new routines as clearly as the management. The reason may be that before the measurement system has been extended to the unit and team level, the new routines do not meet all the groups of employees.

The management's and the employees' opinions differed quite a lot considering the diffusion of measurement information. The common opinion was that there is much more information available than before PM adoption. The management saw that information is shared in many forms in different channels, e.g. department, personnel and team meetings, newsletters, notice boards, and the intranet. The common opinion of the management was that the diffusion of information through the organization has been rather successful. The employees' opinion was that the information is not always understandable, it is separated to different systems, and joint measurement meetings are organized too seldom. They also thought that the responsibility of gaining information depends too much on the employees' own activity.

I think that the information sharing has been too cliquish and poor so far. Maybe there has been

some sort of practical training period with the measurement system and that's why the management has been too insecure and restrained concerning measurement information distribution. —Expertise centre manager, Case C, Employee representative

It could always be done better. Of course you can find the information from the system if you just go to dig around, but you'll have to be active... It could also be clearer if the corporate level and the unit level information was found in the same place, not scattered like now. —Warehouse foreman, Case A, Employee representative

The persons whose understanding of PM is on a low level are often persons with poor computer skills, making the use of the intranet difficult. In some case companies, the employees did not know what metrics and targets the other teams or units had. This was felt embarrassing in the situations where the measurement was related to the bonus system. The employees saw that the information should be more understandable, the reporting system should be easy to use and the discussions between management and employees should be increased.

As a summary of the performance measurement impacts on leadership, it could be argued that the impacts are felt much more strongly from the point of view of the management than that of the employees. The employees saw that the changes to the leadership came mainly through the organizational culture and managers' individual characteristics. The perceptions of the employees and managers on the impacts of PM on the management and leadership are presented in a frequency table (Table 2).

The scale used in Table 2 is based on the view and analysis of two researchers. On the basis of the factors used in the interviews, the analysed data were categorized to provide a more precise view of the impacts of PM.

5. Discussion and conclusions

The study reveals some evidence about the positive impacts of performance measurement on leadership. The greater amount of more specific and exploitable information provides a more solid base for management–employee communication. Although the management and the employees did not share the opinion about the success of the PM

Table 2
Impacts of PM on management and leadership: a frequency table

	Management representative (<i>n</i> = 8)			Employee representative (<i>n</i> = 16)		
	No impact	Some impact	Substantial impact	No impact	Some impact	Substantial impact
Management						
Decision-making	0	3	5	3	3	10
Financial performance	0	1	7			
Quality (products and activities)	0	2	6	3	3	10
Customer needs and satisfaction	1	1	6	2	5	9
Productivity and efficiency improvement	1	2	5	2	3	11
Realization of strategic and operative targets	0	0	8	0	3	13
Proactive management	2	0	6	6	5	5
Finding improvement needs	0	0	8	3	3	10
Leadership						
Leadership style	1	2	5	9	4	3
Presenting contradictory issues	0	0	8	4	2	10
Leadership routine	1	0	7	3	5	8
Information diffusion	0	1	7	8	3	5

information diffusion, they were unanimous concerning the fact that discussions, information diffusion and interactivity between the management and the employees should be emphasized at every opportunity, when PM is launched to the operative level of the company, to achieve higher performance.

In contrast, the perception of the employees and the management of the impacts of PM on leadership style differed considerably. The employees did not see that PM could provide new elements to the leadership style, as it was seen to depend much more on the organizational culture and the individual characteristics of the managers. Hence, it can be concluded, as a limitation to using performance measurement, that PM can only support, not replace the managers in leading people. PM will not solve or fix problems of organizational culture or in leading people.

The findings of the present study are somewhat contradictory to the study of Bititci et al. (2004), as they conclude that a successfully implemented and used PMS will lead to a more participative and consultative management style. In our study, the employees perceived that even if the PMS is used successfully, it does not guarantee improvement in leadership style. Apparently, the use of a PMS does not obliterate the need to consider the social and cultural aspects of leadership. The findings of this study are in line with the study of Bourne et al.

(2005). Their research revealed the importance of interactive use of a PMS to improve the performing of the company.

Our study suggests that PM has a range of impacts on the different areas of management. Under suitable circumstances, the impacts are positive. It can be stated that the maturity of the PMS, the measurement linkage to the reward system, and the educational level of the employees are some key factors behind the positive impacts. The findings reveal that the maturity of the PMS enables the transformation of PM data to usable and exploitable information. By using this information, it was possible to allocate the resources to the right activities, which led to higher financial performance. Case company B had used the BSC for 1 year and they did not yet have a clear picture of the range of measures or analyzing the results. Case B was also the only case organization that operated without a linkage between the measurement and the reward system. So, these things may explain why in Case B both the management and the employees perceived the impacts of PM on the management and leadership much less in comparison to the other case companies. Case H had also used the BSC for 1 year and the impacts of PM were perceived much stronger in comparison to Case B. We suggest that the difference could be explained by the clearly higher level of education of the employees in Case H. The findings are quite well in line

with the study of Evans (2004). He found that there is a correlation between the maturity of the PMS and a higher level of performance.

Our findings did not support the importance of leadership style and organizational culture in the implementation process of the PMS. Instead, we suggest that the most important issues when launching the PMS are early information and powerful marketing of the new system. In addition, it is especially important for the management to clarify to the whole personnel why and to what purposes the new system is intended to be used. Our findings differ little from the findings of Bourne et al. (2002), as they present that a paternalistic culture, not punishing for errors and encouraging conversation and analysis, could lead to successful implementation of a PMS.

As a limitation of the study, it can be stated that the empirical evidence is based only on 24 interviews from eight organizations. Generalization of our findings to concern all organizations applying the BSC should be done cautiously. The findings need strengthening, especially as regards the relation of leadership to the implementation and use of the PMS, as the research findings are to some extent divergent in comparison to earlier studies. Despite the limitations, we believe that this study and its findings are relevant for the academics and practitioners in the field of PM, because the impact of PM on management and leadership from the perspective of management and employees is an innovative topic, but has not been studied extensively. For further research, the relation of leadership to the operational level performance measurement is an important research area and it needs to be examined more deeply and widely from different perspectives. Furthermore, it would be interesting to extend our sample to enable comparison between different branches, and also between private and public organizations.

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