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# Analyzing Trends in Performance Measurement to Support Strategy Execution

130 - Organizational Response To Globally Driven Institutional Changes

## Abstract

The purpose of this paper is to identify and analyze current trends in performance measurement and management. It should also clarify whether the well-established performance measurement frameworks and methods are able to satisfy the requirements of these current trends or whether they have to be revised and updated in favor of completely new approaches.

## Keywords:

Performance Measurement, Performance Management, Key Performance Indicators, Challenges, Trends, Balanced Score Card, Performance Prism, Performance Wheel

## 1. Introduction

“What gets measured gets done” - this commonly-cited quote in literature (Homburg, Artz, & Wieseke, 2012, p. 60; Pollanen, 2014, p. 79; Yadav & Sagar, 2013, p. 951; Zizlavsky, 2014, p. 211) hypothesizes that organizations can achieve their targets as long as they track them. Maybe this was true decades ago, but nowadays performance measurement is more complex than a matter of simply evaluating organizational results. The latest focus lies in how the measures enable companies to take the proactive approach. (Yadav & Sagar, 2013, pp. 951, 965)

Realizing a company's strategy and enhancing performance often require the implementation of a performance-management system (PMS). (Melnik, Bititci, Platts, Tobias, & Andersen, 2014, p. 173). In that process, the proper performance management system must take consideration of more advanced and integrated factors than solely measuring outcomes in order to achieve the most reasonable decision-making about the course of action to take. (Wong, Tan, Lee, & Wong, 2015, p. 239).

Yet companies face multiple challenges in today's rapidly changing business environment, currently fuelled by the data driven industry 4.0. The central question of interest is thus:

Do the existing performance measurement systems reflect this change?

This paper describes the complexity of today's learning organization, provides a critical analysis of the present PMS, and finally suggests ways of bringing the system in conformance with the needs of 21<sup>st</sup> century organizations.

## 2. The Challenges

The changing business environment commands our attention first and foremost. More than 20 years ago practitioners changed their performance measurement methods (PMMs) from solely financial measures to frameworks to measures that included non-financial means, as, the former methods proved insufficient at portraying an accurate picture of the the 20<sup>th</sup> century business environment. (Yadav & Sagar, 2013, p. 948)

Speed forward twenty years and the business environment has changed once again and is in the midst of changing at a faster pace than ever before. New developments in technology can be seen as major factors that contribute heavily to the rapid changes ,as, these create completely new industries and jobs. Furthermore, this factor leads to increased competition via, for example, the internet, which has skyrocketed in popularity over the last decade and allows potential customers to compare prices at their fingertips and to veritably order products from around the globe. Using the state-of-the-art technology does not offer many comparative advantages any more. Instead, it has become a prerequisite for not losing market share within the industry. (Cox, 2014)

Nevertheless, companies cling to their old PMMs to track their performance and to provide the backbone for execution of their strategy (Voelpl, Leibold, Eckhoff, & Davenport, 2005, p. 5; Zizlavsky, 2014, p. 212). U. Bititci, Garengo, Dörfler, & Nudurupati (2012) suppose that there is a need for advanced integrated performance measurement models because the overall objective of PM should be organizational education and learning (p. 319). Some other authors support this view, as they suggest that PM models should rather be used as a tool to enable continuous learning (Micheli & Manzoni, 2010, p. 469), innovation, growth and control (Voelpl et al., 2005 p. 3, 13; Watts & McNair-Connolly, 2012, p. 234, 15; Zizlavsky, 2014, p. 211, 215), and ultimately enable managing the firm's knowledge (Cao, Thompson, & Triche, 2013, pp. 5566-5567; Wong et al., 2015, p. 239) rather than solely for measuring.

Instead of using performance measurement (PM) tools solely for measuring outcomes, they should include early warning indicators which indicate alarming signals if the company loses track of the desired goals (Melnyk et al., 2014, p. 175). Considering this, a new trend in scientific literature concerning the definition of measures can be observed. Parmenter (2006) states that it is necessary to differentiate between the used terms for measures (p. 4). Some measures are only metrics, used to measure the outcomes, the so-called Key Result Indicators (KRIs). The other type of measure is the early warning indicator, which is supposed to help to steer the company in the right direction with the so-called Key Performance Indicators (KPIs). Since this is a quite new approach, already established

PMMs do not differentiate between these new definitions. Parmenter (2006) views key performance Indicators as the most critical factors, which are crucial for a successful survival of an enterprise (p.

3). Subsequently, if the enterprise is not moving in the right direction, it should be possible to deduce corrective actions from these measures which can bring the strategy and the whole organization back on track. (Melnik et al., 2014, p. 175)

### **3. The Integrated Performance Management Models**

An integrated PMS should support an organization in executing its strategy and meeting objectives. U. S. Bititci, Carrie, & McDevitt (1997) characterize the following mechanisms for managing performance: "... strategy development and review; management accounting; management by objectives; non-financial performance measures, ..., incentive/bonus scheme; personnel appraisal and review" (p. 524). In this context we understand that an integrative framework does more than solely measuring results.

### **4. The Balanced Score Card**

In the early 1990s Kaplan and Norton found that traditional accounting measures were no longer appropriate for businesses. Hence, they designed a new performance measurement framework, split it up into four different dimensions and added non-financial measures; the Balanced Score Card was created. It was a revolution in PM since it was the first integrative framework and it remains one of the most successful ones. (Yadav & Sagar, 2013, p. 951)

The dynamic business environment was the first challenge that was identified and it has had an impact on different other new challenges. Hence, it is important to have this aspect considered within all areas of the PM system since the whole system must enable rapid adjustments. It is important that a company has implemented a sophisticated review process. Hence, it should allow the company to align its processes and actions with the corporate strategy and to gather knowledge through continuous learning. To guarantee an effective revision process, traceable cause and effect relationships and key performance indicators must be in place from which corrective actions can be derived. Such a system enables companies to take a proactive approach. Furthermore, it generates advantages in key areas, or, at minimum, it allows companies to retain connection with their competitors. In their book "Strategy focused organization" Kaplan & Norton (2001) describe how the BSC can be implemented into a dynamic framework. Yet nothing in their work states anything about how to interlink KPIs with KRIs (p. 311).

### **5. The Performance Prism**

The model that reflects the 2000s environment is the performance prism. This model was chosen as Taticchi, Tonelli, & Cagnazzo, (2010) state that it is a strong integrated tool that was introduced by Andy Neely, Chris Adams and Mike Kennerly (pp. 10-11). Furthermore, the Performance Prism brings

up the most results on Google Scholar compared to other models from that period. The Performance Prism incorporates 5 aspects which are interconnected with each other, namely Stakeholder Satisfaction, Strategies, Processes, Capabilities and Stakeholder Contribution. This model does not dictate a framework; rather it should be used as a template like the Balanced Score Card.

One advantage of this model is the easier strategic alignment. The critical success factors from a stakeholder perspective are developed prior to the strategy creation. The aim of this approach is for the strategy to be developed in such a way that it not only serves the shareholders but also the stakeholders. Nevertheless, managers have to arrive at various compromises, as, it is difficult to satisfy all stakeholders fully. Overall, the performance measures boast a stable base due to the fact that the critical success factors come first.

In this model, the processes are directly linked to the critical success factors and the processes have owners who are responsible for a smooth alignment with the strategy (Neely, Adams, & others, 2000). The owners should know what they have to do to achieve strategic alignment. This does not have to be dictated from the top management rather it should only be double-checked. Although different linkages between the strategy, processes and performance model exists, there is also no sophisticated guideline on how to link the different measures.

## 6. Performance wheel

The factors that were considered for the choice of the third model were defined as the following:

- A model that is not older than 4 years
- An integrated model
- Highest number of Google Scholar search results compared to other models.

The model which has enjoyed the best fit with those factors, was the Performance Wheel. This model was developed by Watts & McNair-Connolly (2012) and is a combination of long-standing, well-tested and new methods (p. 15).

The model puts great emphasis on critical success factors and the associated KPIs. However, the developers of the performance prism do not explicitly indicate where they would set result measures. This is a subjective observation. Sure, the drivers (KPIs) are important, but without result indicators, it is hard to evaluate whether various targets were reached or not. The differentiation between KPIs and KRIs is just a definition task and does not occupy a large amount of resources. Nevertheless, in differentiating between KPIs and KRIs, it is important to find proper cause-and-effect relationships to make sure the drivers can stimulate the results. This problem also occurred during the analysis of the BSC and the Performance Prism. (Watts & McNair-Connolly, 2012, pp. 15-17)

## 7. Discussion

One important question which arises in the realm of performance management, is how to properly posit interlinked financial and non-financial measures and even more important, how to identify the non-financial measures which affect the account balance.

During our analysis of the previously mentioned performance measurement models, we have pinned down the conclusion that none of them provides the informative backdrop necessary for setting measures within the company. Furthermore, it is hard to clarify whether they are inconsistent with one another or not.

Neely, Marr, Roos, Pike, & Gupta (2003, p. 132) label the Balanced Scorecard and the Performance Prism as models of the second generation within performance measurement. One major shortcoming of these models is that no mechanism exists for interlinking various management measures. Companies have to seek clarity on their non-financial measures and how exactly they affect the cash flow and other results. Moreover, if shifts happen in the business environment, managers will only be able to react immediately if they know what levers they have to set in motion. When wrong or ineffective measures are changed, management risks wasting resources unnecessarily.

As we have seen in the section of the challenges, the business environment is rapidly changing. Therefore, it is important that performance models of the third generation have the ability to evolve in accordance with any changes in the industry. (Neely, Marr, Roos, Pike, & Gupta, 2003)

Such a third generation model must illustrate the real linkages and how they affect outcomes, in order to support managers in arriving at the best decision. Otherwise, managers will follow their gut feeling in decision-making if they believe that the measures are not appropriate. (Neely et al., 2003)

Furthermore, it is vital to find the right amount of indicators for a company. Too many indicators, where a manager loses sight of the overview, prove as ineffective as too few, where important issues may go ignored. (Neely et al., 2003)

Through performance management, it should be possible to derive corrective actions. These actions must in turn be observed if they are to achieve the desired effect. If that fails to be the case, the management might update most of their indicators and try other actions. (Neely et al., 2003)

Nevertheless, the best performance management system does not work if an enterprise is not able to retrieve the right information or fails to identify what information is needed (Neely et al., 2003).

## 8. Conclusion

Through the discussion, we can clearly see that it is very important for an enterprise to tie KPIs to its results and to set the right links.

Unfortunately, no comprehensive guideline currently exists which companies can rely upon when setting and linking their key performance indicators to their results. They are highly dependent on having qualified managers in place who prove shrewd enough to set these indicators based on their experience and feeling.

It therefore seems to be an important task for the future for the developing of proper guidelines for setting different indicators and measures. These should make it simpler for companies to find their appropriate measures and linkages.

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