

Chapter X

Analysing Transformations in Performance Management

Bernd Wondergem, LogicaCMG Consulting, The Netherlands

Norbert Vincent, LogicaCMG Consulting, The Netherlands

Abstract

Performance Management (PM) is a way of managing in which the organisation's goals and organisation model are made explicit. In this chapter, several forms of PM are investigated to meet these observations. The goals and organisation model together form the management model of the organisation. Steering the organisation towards its strategic goals then comes down to repeatedly transforming this management model. In this chapter, these transformations are systematically analysed. In order to do this, we first provide a framework in which several types of transformation can be identified. Second, properties of the transformations are stated and related to different styles of management. In addition, we sketch future trends in a resource-based view on performance management.

Introduction

Performance management (PM) is a way of managing in which the organisation's strategic goals and its organisation model are made explicit. In addition, the connection between those two issues is made by stating how the organisation model produces the organisations output. The explicitly stated goals (the *what*) and organisation model (the *how*) form the core of the management model for steering the organisation.

In PM, running a business is all about transformations. First, of course, a general notion of transformation applies: the organisation transforms some form of input to some form of output. More specific to PM, steering the organisation towards its strategic goals is done by repeatedly transforming the organisation and the management model. In this chapter, we focus on these latter forms of transformation which describe the essence of performance management.

This chapter sets out to do two things. First, we describe a framework for analysing transformations in performance management. Second, we use the framework to identify several types of transformations and describe which properties apply to them. The results of this chapter may enhance the understanding of performance management and thus lead to more effective management.

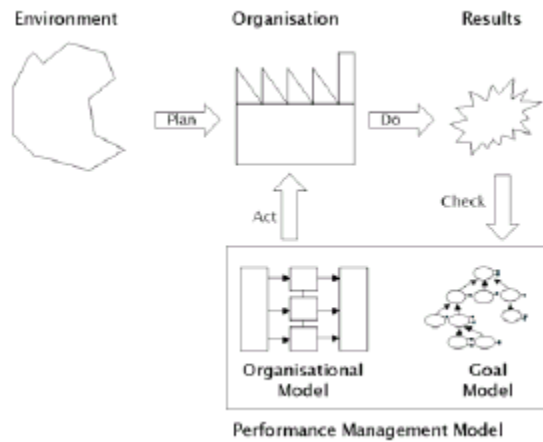
This chapter has the following structure: it provides different views of, and approaches to, PM and presents our vision on the subject. Next, the framework for analysing transformations is presented: the performance management model. In the following section, we use this model for describing several types of transformations. The chapter then deals with future trends. Finally, we provide concluding remarks and an outlook on further research.

Background

In general, organisations try to find, reach and sustain a strategic position in their environment. Mintzberg (1991) has classified the ways to do this into two categories: emergent strategies and planned strategies. "Organisations develop plans for the future and they evolve patterns out of their past" (Mintzberg, 1994). Performance management falls into the category of planned strategies.

Performance Management has a typical set-up. First, the organisation formulates a strategy. Formulating a mission, creating a vision and formulating goals are often seen as preceding steps in strategy-formulation. However, these steps are not always explicitly taken or repeated in formulating or revising the strategy.

Figure 1. *General set-up of Performance Management*



Second, the strategy and the corresponding goals are translated into performance indicators (PI). PI's form measurable indicators which give a quantitative view on the organisation's performance. The PI's are often put on a scorecard, an instrument used for communicating and analysing the performance.

The scorecard is used for steering towards the strategic goals. Therefore, it is used in a cycle for continuous improvement. Deming's cycle (Deming, 1982), consisting of the steps "plan," "do," "check" and "act," probably is the most well-known variant. In this cycle, strategy formulation forms a part of the "plan" step. In addition, this step concerns setting up the organisation for the production of value. Figure 1 sketches the place of the Deming's cycle in the general set-up of performance management. In the "do" step, the organisation produces its products or services and measures its performance through PI's. This provides a fact-based insight into the current performance. The results are evaluated and actions to improve the future performance are defined in the "check" step. Finally, the "act" step consists of implementing the actions. After this, the strategy may be revised and a new cycle starts. The information that is explicitly used in the "check" and "act" steps constitutes the so-called performance management model. This is elaborated upon later in this chapter.

In this chapter, we will consider three aspects of PM as its essence. We define Performance Management as the management method and instrument that:

1. Translates the organisation's strategy in measurable indicators. The "what" of the strategy is thus explicitly translated into quantitative performance indicators.

2. Links the strategic goals of the organisation to the operational organisation. In other words: how the strategy is to be realised is explicitly incorporated in the management model.
3. Incorporates a mechanism for the continuous improvement of performance. For this aspect, we use Deming's cycle as a point of reference.

Different approaches to PM can be distinguished. Without trying to offer a complete overview, we provide a description of some approaches below.

The Balanced Scorecard (BSC) is both an instrument and management model that aims at providing a balanced view on the organisation's performance (Kaplan & Norton, 1992, 2000). It was developed as a reaction to primarily financial steering. Nowadays, it is a popular instrument in many businesses. The BSC looks at the business from four perspectives: financial, customer, internal and innovation & learning. In practice, however, this set-up is sometimes altered by changing the number and contents of the perspectives. In that way, the BSC is custom-made for the specific needs of organisations. The BSC is put to work by searching for key success factors (KSF) within the four perspectives. The KSF's are derived from the organisation's strategy, thereby making its causal dependencies explicit. For each KSF, measurable indicators are formulated, resulting in a set of key performance indicators (KPI). The Balanced Scorecard, as an instrument, forms the tool for steering the organisation with these KPI's. Often, the Deming cycle is used for working towards continuous improvements. Many software tools that implement the (Balanced) scorecard explicitly support the Deming cycle, for instance by providing functionality for data-analysis (check) and action management (act).

Value-based management (VBM) (an overview of this field is given in Scheipers et al., 2002) is an approach for performance management stemming from the areas of financial management and management accounting. VBM is a management control system that measures, encourages and supports maximizing shareholder value. It is based on the conviction that the interests of all stakeholder groups are best served by putting the shareholder first. The term "value" is more complete than earning-measures only, since it also takes the notion of risk, the impact of inflation and opportunity costs into account. VBM requires complete information to calculate "value" properly. In addition, a long-term strategic point of view is required to describe the expected outcomes. VBM is advocated to be used at the corporate and strategic business-unit level. Exploiting VBM requires substantial training, especially for non-experts in finance. In holistic approaches for VBM, continuous improvement of (financial) performance is mentioned. However, the link with operational processes appears to be only indirect.

Six Sigma is an approach that aims at reducing variety in business processes (Harry, 1998). This can be done for processes that produce goods (products) as well as for processes that deliver services. Six Sigma is a form of “management by fact”: it uses statistical information and techniques to measure and analyse business performance. Six Sigma also exploits two variants of cycles for continuous improvements. First, the so-called DMAIC process, for Define, Measure, Analyse, Improve and Control, is an improvement system for existing processes. Second, the DMADV process, having Design and Verify as final steps, is a system for designing new processes.

Designing new processes can be done based on Quality Function Deployment (QFD) (Mazur, 1993). QFD can be seen as a method for high-quality design, which starts with solicitation of customer requirements. QFD distinguishes three types of requirements: (1) revealed requirements (what customers say they want), (2) expected requirements (what customers demand as standard quality) and (3) exciting requirements (beyond the customer’s expectations). These requirements are analysed, prioritised and finally translated to design specifications. This results in a set of measurable product specifications. QFD is an explication of the “plan” phase of the Deming-cycle. The remaining three phases of the Deming cycle are not explicitly covered by QFD. QFD thus provides a structured approach for the design of a quality product and service portfolio and the processes that deliver them.

In addition to the mentioned approaches, several other methods can be distinguished. A more elaborate overview of approaches to performance management is given in Wondergem (2003). Also, other fields provide approaches to quality and performance management that can be identified. As an example, we mention the approach to software quality, as described in Locuratolo (2002).

These approaches to PM all formulate performance indicators for measuring performance and communicating strategic goals. How this is done differs for different approaches. In general, though, all approaches use an intermediate step between the goals (and strategy) on the one hand and the PI’s on the other hand. This step in between is formed by what we call “measured items” (MI). The measured items indicate which strategic subjects are important enough to be measured by PI’s. In the BSC, for instance, the MI’s are formed by the KSF’s. For Six Sigma, the MI’s are the measured characteristics of the processes and products, such as variability and quality.

In the next section, a model for PM is described. This model is used in later sections to describe and analyse different transformations in PM.

Performance Management Model

A Performance Management model (PMM) contains the information that is used for steering transformations in performance management (see also Figure 1). The PMM fits in our notion of performance management by making the goals and the organisation explicit. The cycle for continuous improvement is not incorporated in the model, since it does not constitute information for steering, but the process itself. Therefore, the cycle is described separately as a series of transformations. The PMM is input for these transformations and, with altered form and contents, forms its output as well.

PM explicitly models the desired performance in a *goal model* (GM) and the factors that drive and produce output in an *organisation model* (OM). The GM and OM are parts of the *performance management model* (PMM). The PMM is completed by a connection between the GM and OM. This connection indicates how the OM produces or influences the GM. In that sense, the connection forms the *handles* (H) used to steer performance.

A performance management model is thus defined as a tuple (GM, OM, H). Details of GM, OM and H are provided in the remainder of this section.

Goal Model

The goal model explicitly states the desired results. It forms a strategic map, consisting of measured items, causal relations between them, and performance indicators. The causal relations between the measured items describe dependencies between the strategic goals and subgoals. The PI's operationalise the measured items: they make the measurement of the performance considering the measured items explicit.

Example: Customer Satisfaction: Contact centres are organisations for which customer satisfaction is of major importance. The management of the fictive unit “The Contact Centre” (TCC) of a company that sells products understands this. Therefore, they explicitly manage their organisation on customer satisfaction. To do this, they constructed the goal model as depicted in Figure 2. The measured item “Customer Satisfaction” is broken down into its constituents. Three other measured items appeared to influence customer satisfaction: satisfaction of the products, the quality of the contact with the customer and the image of the company.

The contact center is directly responsible for the quality of contact only. The other two aspects refer to the company as a whole. The quality of

Figure 2. Example goal model for customer satisfaction



contact is influenced by three other measured items: the quality of the processes of customer contact, the satisfaction of the front-office personnel and the availability of the different channels for customer contact. Together, the measured items and causal relations (the arrows in Figure 2) form the strategic map of the company for steering towards customer satisfaction.

In Table 1, example performance indicators for some of the MI's in the goal model are provided. The third column of the table provides example numerical values for the PI's.

The goal model is defined as a tuple $GM = (MI, CR, PI, O)$, where:

- MI is a set of measured items,
- CR is a relation on MI, the causal relations of GM,

Table 1. Example indicators

| <i>Measured item</i> | <i>Performance indicator</i> | <i>Example values</i> |
|--------------------------------|---|-----------------------|
| <i>Satisfaction of product</i> | <i>% of customers rating the product flexibility eight or higher</i> <i>Number of complaints about the product per month</i> | 75% 35.6 |
| <i>Quality of process</i> | <i>Helpfulness of the call center agents as grade</i> <i>% of complaining customers that accepts offer</i> | 7.4 65% |
| <i>Channel availability</i> | <i>Waiting time in seconds before call is answered</i> <i>Availability (uptime %) of the voice response system</i> | 13.1 sec 97% |

- PI is a set of performance indicators, and
- O is a relation on MI x PI, the operationalisation of the measured items.

A number of properties of the goal model that are used in PM are described below. The *impact value* of a causal relation ($mi1 \rightarrow mi2$) denotes the part of $mi2$ that is explained by $mi1$. The *completeness* of an MI, say $mi1$, is the sum of all impact values of the causal relations ($mi2 \rightarrow mi1$). The *score* of a PI expresses the current performance with respect to the PI. The score of a measured item is then given as the average of the scores of all PI's that operationalise it. In order to compute the average of the PI's, they first have to be made comparable (Chang & Morgan, 2000).

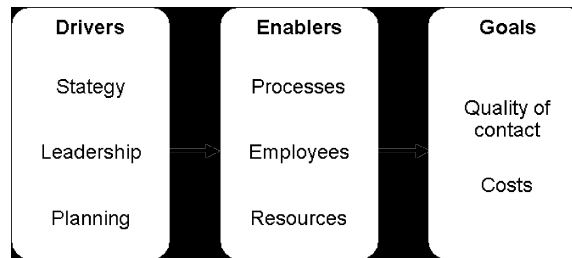
Organisation Model

The organisation model provides the factors that drive and produce the organisation's output. Numerous ways of modeling organisations exist. For our purposes, it suffices to see the organisation model as a directed graph: $OM = (N, L)$, where N is a set of organisational elements and L a set of links. The links model dependencies on the organisational elements.

Example: Contact centre: The management of the contact centre of the previous example has also constructed an organisation model. It has done so based on the COPC model, which is a performance management model for contact centres (COPC, 2002). The organisation model distinguishes goals, enablers and drivers (Figure 4). In short: the goals are produced by the enablers, which, in turn, are directed by the drivers. The goals of the contact centre consist of quality of contact (see the previous example) and costs. The enablers describe how the contact centre is organised: which processes are performed and how are employees and resources used in that? The drivers of the contact centre describe the "way of organising" and contains aspects such as strategy, leadership and planning.

For PM, it is important that the OM is *complete*, i.e., that no relevant organisational elements and links are missed. This would diminish the steering capabilities of the OM. Furthermore, it is important that the OM provides enough *detail*, enabling focused steering.

Figure 3. Example organisation model for contact centers



Handles

Handles connect the goals (measured items) to elements from the organisation model. The handles can thus be formally described as a relation on $GM.MI \times OM.N$. However, the handles are often not stated explicitly. Rather, they reside in the heads of managers. In that sense, the handles are subjectively described: each manager may have his own opinion about which factors influence results. This is in line with the “idiosyncratic set of knowledge” managers are stated to form in Van den Bosch and Van Wijk (2001).

The *scope* of the handles is defined as the portion of all connections between organisation model and goal model that are included in the handles. The scope delimits the possible effectiveness of the management model. A large scope may consider many possibilities to influence a certain goal but may also be time-consuming in decision making. A small scope may quickly lead to a decision about how to steer, but may miss relevant options.

Transformations in Performance Management

Performance management can be seen as a cyclic process of transformations. Based on evidence of the current performance, the goal model indicates which (sub)goals need to be improved. The organisation model states how this can be done. Analysing the evidence in the light of the PMM thus leads to a series of actions that can be taken to improve performance. The actions are implemented and the results are measured again. This starts a new cycle in the management process.

Figure 4. Transformations in PMM



This cyclic management process can be described as a series of transformations. Each transformation uses evidence of the current performance (E) and the current status of the PMM as input. In Figure 4, this is schematically denoted as a model-theoretic statement. Implementing the actions leads to an altered PMM, denoted by PMM'.

Which actions are actually taken, depends on the view management has of the organisation, its environment and their patterns of action-reaction. Together, these issues form the business model. In this sense, the business model (BM) forms the context in which the transformations take place. In Yilmaz and Chatterjee (1999), the BM is called the “theory of knowledge”.

The remainder of this section focuses on actions that directly change the PMM: the transformations of the PMM. In general, three basic types of transformation of the PMM can be distinguished: transformation of the goal model, the organisation model and the handles. These transformations are elaborated in the following subsections. After that, section 5 focuses on future trends for transformations in the organisation itself.

Transformations of Goal Model

Transforming the goal model can be identified at two levels. First, measured items and causal relations may be altered. Second, performance indicators and their connection to measured items can be changed.

On the level of MI's and causal relations, the notion of completeness is important. If the GM is not complete enough, MI's may be added. The precondition of such a transformation can be stated as: the completeness of mi1 is too low, where mi1 is a measured item out of the goal model. The action in the transformation consists of adding a measured item mi2 and the causal relation (mi2 → mi1). The post-condition of the transformation then states that the completeness of mi1 is higher. The proof of this claim hinges on the assumption that the impact value of mi2 on mi1 is non-zero and positive.

Example: Adding measured items: Consider the goal model of the first example (Figure 2). Suppose that the MI “Satisfaction of product” is not complete enough. Therefore, this MI is augmented with the following underlying

MI's: "Satisfaction of product quality," "Satisfaction of product price" and "Satisfaction of product flexibility."

Changing MI's and causal relations can also be required by a change of strategy. In contrast to the previous transformation, which is internally oriented through the notion of completeness, a change of strategy is an external factor to the goal model. Since organisations reside in dynamic environments, strategies need to be frequently adjusted and sometimes rigorously changed. As said before, the goal model forms a strategic map. Therefore, the goal model should properly reflect the strategic goals and relations between them. Coherence between strategy and goal model is, however, a subjective issue. This means that transformations that aim at adjusting the goal model to the strategy heavily rely on the business model of the individual manager.

Changes in PI's may stem from several reasons, as is shown in Wondergem and Wulferink (2002). The corresponding transformations of the goal model therefore aim at different improvements. A first reason to alter PI's is the *availability of source data*. With these data, the contents of the PI's are filled. PI's for which the source data is not sufficiently (easily) available, may be deleted or replaced by more suitable variants. Second, PI's need to be *recognisable*, which means that management needs to either be familiar or become familiar with the PI's. If PI's are not recognisable, this hinders effective steering. Insufficiently recognisable PI's are therefore replaced by PI's that better suit the manager's experience. As a third reason to change PI's, we mention *dysfunctional behaviour* (Birnberg et al., 1983). PI's measure specific aspects of the organisation's performance, leaving room for "gaming": giving insufficient attention to other important issues. These issues can in turn be covered by PI's as well, resulting in a balanced set of PI's. In addition, the measurement of PI's should leave little room for "smoothing" the results. PI's which are automatically delivered from a data warehouse may serve this purpose, since their computation from source data is strictly specified. Fourth, PI's need to be *consistent* in definitions, providing the possibility to compare PI's. This is for instance required for benchmarking. Finally, PI's, or rather, the way in which performance is measured, should fit within the *culture* of the organisation. Measuring performance on individual levels, for instance, requires a culture that supports this. Otherwise, it may be seen as an intrusion on individual rights and as such may harm effective steering.

Transformations of Organisation Model

The organisation model reflects the explicitly stated scope managers have for finding actions for improvement. Transformations of the organisation model may

aim at providing a more complete (broad) model or at detailing certain components of the model.

If the OM, for instance, appears to be not complete enough, new organisation elements may be added. Adding an organisation element and linking it to the existing OM, provides managers with a broader scope for steering the organisation. In certain quality models, such as the Dutch INK model (INK, 2001), several identified phases describe this growing complexity. Starting, for instance, with isolated actions, a proceeding phase considers series of actions and their interdependencies, i.e., processes. The final phase may describe a holistic view on the organisation and its place within its environment.

Next to the completeness of the OM, its level of detail is also of importance. In practice, a first measurement of performance using a rather coarse grained model pinpoints the organisation processes which require improvement. Only these processes are then described in more detail, thus focusing the energy for improvement. Providing more detail for existing organisation elements may be done by decomposing the element. A process, for instance, can be decomposed into several sub-processes. This enlarges the insight in the problem areas and enables more specific decisions on improvement issues.

Example: Detailing the organisation model: Consider the example organisation model of The Contact Center as depicted in Figure 3. Suppose that the processes do not deliver the expected quality. In order to be able to select (only) under performing processes, this organisational element is broken down into the following sub-elements: customer contact, instruction, training, supervision, reporting and planning. Furthermore, customer contact processes may be divided into pre-sales, sales, after-sales and service.

Both types of transformation of the OM make it more complex. This coincides with the growing professionalism with which performance management is executed: over time, management learns to stepwise increase its focus. Simplifying the OM by deleting elements may also take place. The need for this may, for instance, stem from a simplification in the actual organisation or from a change of focus in management instruments.

Transformations of Handles

Handles form the connection between the organisation model and the goal model. As such, they constitute the possibilities in the OM that a manager explicitly considers for reaching a certain goal in the GM. In general, managers

start with a certain view on the handles. By experience, they learn that certain handles do or do not work. This enhances or concentrates the set of options they consider in steering. In that way, the set of handles is personally defined and alters over time. In this respect, the professionalisation of management aims at providing managers with the right set of handles.

Future Trends in Transformations in the Organisation

In this chapter, we discuss future and emerging trends in performance management by focusing on organisational transformations. To this end, we view organisations as a set of activities, coordination-mechanisms and responsibilities, in line with the set-up of Mintzberg (1983). In this set-up, we distinguish three categories of transformation, which will be elaborated on in the following subsections:

1. *Transformation of the responsibilities:* from effort-driven towards result-driven management.
2. *Transformation of coordination:* from yearly to dynamic resource allocation.
3. *Transformation in activities:* from competitive advantage to sustained competitive advantage.

Toward Result-Driven Business Management

Performance Management can be used to transform the control style and the budgeting process of the organisation. In addition, it makes the current way of working more explicit and thus transparent. This leads organisations toward a result-driven style of management.

The control style and organisation's budgeting process can have an impact on the way an organisation will set up its performance management model. Different control styles can be identified. Gould and Cambell, (as described in Strikwerda, 2000), have defined three control styles: strategic planning, strategic control and financial control. An organisation should select a dominant style to make clear what the organisation expects from the PMM (De Waal, 2001). In addition, this signals the dominant type of performance indicators which will be used. Financial control will use primarily financial indicators, while strategic planning requires information from non-financial sources as well.

The nature of the budgeting process influences the construction of the PMM. In result-based budgets, as opposed to cost-based budgets, the relationship between performance and patterns of action-reaction is more complex. This requires detailed insight into the causal relationship between the MI's and the links with handles. The use of a balanced scorecard will thus coincide with the construction of more professional models of performance management.

Example: Results and indicators: The contact center from example two is directly responsible for the quality of contact only. The contact center has two goals: (1) quality of contact, and (2) costs. In the case of financial control, the contact center mainly will be reviewed on the total costs.

| <i>Examples of financial control</i> | <i>Performance indicator</i> | <i>Measured item</i> |
|--|--|--|
| <i>Costs per complaint</i> | <i>Total costs divided by the total number of complaints</i> | <i>Cost to service a product</i> |
| <i>Costs of personnel</i> | <i>Total costs of all personal in the contact centers</i> | <i>Personal costs to process the complaints</i> |
| <i>Non-personal costs of the channel</i> | <i>Costs of tools used in the contact centers</i> | <i>The additional costs to process the complaint</i> |

In the strategic planning style not only the costs, but also the quality becomes more important. Then Table 1 gives a reflection of relevant performance indicators. Organizations that change their control style from financial to strategic or vice versa thus also transform their performance management model.

Toward Dynamic Resource Allocation

The Deming circle, as stated before, is widely used to manage the process of continuous performance improvement. The Deming circle is executed at strategic, tactical and operational levels. The integration between the management levels (vertical integration) and between the departments on the same level (horizontal integration) should ensure that the actions are coordinated and all directed toward the strategic goals. The Deming circle can be seen as the operationalisation of management control. Management control consists of several control subsystems each with their own view on strategy (Simons, 1995). We mention two types: (1) the diagnostic control subsystem, where strategy is seen as a plan and performance indicators are used as control object and (2) interactive control, where strategy is viewed as a pattern of actions. In our consulting practice, we see that performance management often solely focuses

on the diagnostic control system (Wondergem & Eskens, 2003). The diagnostic control system, however, is a single-loop learning process, while successful implementation of performance management requires at least a double-loop learning process (Kaplan & Norton, 1992). In single-loop learning, the actions are directed towards realising the target of the PI's. Double-loop learning enables organisations to analyse and revise the assumptions underlying the PMM and uses the evidence to define new norms. With double-loop learning, the organisation can plan the strategy and the necessary actions to realise the business strategy. In that, the organisation uses the PMM to operationalise the business strategy and can evaluate the strategic map and the causal relationships. Double-loop learning can make the connection between the diagnostic and interactive control system. Finally, deuterio learning can be distinguished (Argyris, 1982). Deuterio learning is about the speed and quality of the learning process and thus influences the flexibility and adaptability of the organisation. Considering the increased dynamic nature of the business environment, we envision that deuterio learning will become a strategic necessity for many organisations.

In general, the business environment transforms from a make-and-sell environment (industry era) into a sense-and-respond environment (information era). Changes in the environment make strategies obsolete. Therefore, the speed of evaluating the chosen strategy increases and the speed and frequency of walking, through the Deming circle should keep the same pace. As an effect, the strategic planning horizon shortens and budgets become obsolete sooner. As a consequence, information should be available in real time and actions are focused on short-term results. To make sure that the organisation develops the right product features and is able to adapt to the changes in a flexible manner, the performance results must be reviewed more frequently. We envision that, instead of making a yearly budget, organisations make quarterly rolling forecasts and align their resource allocation with the strategic requirements. This is in line with the vision of the Working Council for CFO's (WCC, 2001).

Example: The responsibility of the Contact Center for only the quality of the contact is based on the assumption that the product (make and sell) and the service of the product (sense and respond) can be separated and that the Contact Center is only a service entrance and not a sales point. Nowadays, however, customers do not separate sales and service; customers calling a contact center also want information about products or even want to buy products (cross-selling). Fulfilling customer needs with additional product features (extra games for a Nintendo) has a high impact on the satisfaction of the product.

When the satisfaction of the product is declining and the customer Contact Center meets all of their goals (quality of contact, quality of process,

employee satisfaction, channel availability), it is not the current planning that should be revised, but the assumptions that lie beneath it. Changing these assumptions will transform the performance management model.

Toward Sustained Competitive Advantage

In the end, Performance Management should help an organisation to create superior performance and sustained competitive advantage. When taking an inside perspective on strategy, the actions should be focused on the enablers: processes, employees and resources. In this light, we mention several research questions that deserve renewed or ongoing attention. First, we mention the issue of process optimisation. A second question amounts to how the productivity of the employees can be increased. A third question centers around how to exploit synergies out of the resources, both tangible and intangible. Given the complexity of the causal relations between MI's and the organisation model, a resource-based view on performance management may well become more relevant. We thus propose more attention be given towards an "enabler-oriented" vision on performance management.

Conclusions

We have described a framework for analysing transformations in performance management, including the performance management model. Using this framework, several types of transformation were described. The framework describes which elements of the organisation and its management model can be transformed by performance management, as well as the factors that play a role in the transformations. In addition, an initial description of the properties of the transformations was given and future consequences for the organisation were sketched.

This chapter has focused strongly on the *information* that is used in transformations in performance management, as formulated in the goal model and the organisation model. As an additional aspect, the section about future directions sketched possible paths of evolution for organisations that use performance management. Actually using the information in PM was only briefly touched upon in this chapter. It is, however, an important issue since it heavily influences the success of the implementation of PM. The combination of insights into which information is necessary for steering, how to organise performance management

and knowledge of effective ways of actually using the information, will provide better means for successfully implementing performance management.

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