Supplier logistics performance measurement: Indications from a study in the automotive industry

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Abstract

Managing the supply base is an important but complex issue for automotive manufacturers. One of the instruments companies use in this context is performance measurement. There is ample work on the practice of performance measurement within an organisation. However, much less can be found about the practice of supplier performance measurement. In this paper we offer a brief discussion of the literature on inter-organisational performance measurement and contrast existing concepts of intra-organisational performance measurement with the concepts of performance measurement within a supply chain. We then present indications from a study of four vehicle manufacturers in Europe with regards to their practices of supplier evaluation and present a conceptual framework identifying the functions of performance measurement in this context.

Keywords: Supplier evaluation; Performance measurement; Inter-organisational control; Logistics measures; Automotive industry

1. Introduction

Major OEMs co-operate with hundreds of different suppliers. For example, one of the vehicle manufacturers we studied has a database of around 3000 supplier sites in Europe. More than 1600 are currently supplying the company. Additionally the company has to deal with around 30,000 suppliers of non-production goods: Ranging from suppliers of pens and paper, to suppliers of carpet and furniture. The management of the supply base has been described as a key competence for a company (Fine et al., 1996). One of the techniques companies use for this task is performance measurement. There is a vast amount of literature on performance measurement frameworks and systems. However, most of this work is concerned with performance measurement within an organisation, e.g. the measurement of the performance of subsidiaries and departments, or it deals with issues such as management incentives and employee appraisal. Research on the practice of inter-organisational performance measurement, e.g. how companies use performance measurement to manage their relationships and interactions with suppliers, is rather rare.

In this paper we first discuss basic concepts of intra- and inter-organisational performance...
measurement. We argue that the reasons for measuring and the way performance measurement and management works, differ largely depending on the context. To support the implications of our theoretical reflections, we present outcomes of an empirical study in the automotive industry. In this study we investigate the extent to which four automotive manufacturers use performance measurement at the interface to their suppliers in the area of logistics. We explore the subsequent use of logistics performance data within the logistics department and between different functions such as logistics and purchasing. With this paper we aim to:

- discuss current literature as to what insight it offers for the analysis and design of supplier performance measures and measurement systems;
- present empirical insights into the use of supplier performance measurement in the area of logistics in the automotive industry;
- establish a perspective on the functions of performance measurement as a framework for the analysis of inter-organisational performance measurement.

2. Performance measurement—a disputable concept?

Why is it important to look at the underlying concepts and the functions of measurement? Indeed, many managers and academics alike appear to have no doubt that performance measurement is necessary and therefore do not seek for any deeper justifications. David Garvin (1993) coined a phrase in the Harvard Business Review that has become paradigmatic for this view: “If you cannot measure it, you cannot manage it”. There is certainly some truth in this statement. However, we think that some practitioners and academics alike go too far in an uncritical appreciation of performance measurement. For example, one director of a leading pharmaceutical company recently stated:

A performance measurement system, properly structured and managed, is the missing link between strategic plans and their total execution. (Anonymous, 2001)

Statements like this are almost a direct inversion of Garvin’s phrase towards the meaning of “If you can measure it, you can manage it”. This, of course, clearly overstates the potential of performance measurement. Nevertheless it seems to be the underlying motivation for many performance measurement initiatives.

Whereas on the one hand there are the over-excited protagonists of performance measurement, on the other hand there also exist the antagonistic cynics: the managers or employees who believe that performance measurement is a fundamentally flawed concept. They argue that as soon as objectives and evaluation methods are defined, managers and employees will find their way around, either through gaming, or ‘creative accounting’ and fraud. Or that the measurement will lead to tunnel vision (neglecting other areas which are not measured), disinclination on experimenting, or myopia (see Smith, 1993; Austin, 1994).

Both views seem to be extreme: Performance measurement is surely not the safe secret to success. However, most managers would probably feel very uncomfortable without this instrument. The key to the evaluation of performance measurement in our view has to be based first and foremost on identifying the function of the performance measurement system; and this, again, depends largely on the organisational context, the organisational culture and management intent. We believe that the confusion or disagreement about the sense and benefit of performance measurement stems from the fact that there is dissent on the purpose of measurement and on the question of how performance measurement actually works.

In order to research supplier performance measurement, we have to focus on the functions performance measurement in this context fulfils and the organisational setting in which it is placed. As a starting point we briefly summarise the functions of performance measurement as stated in the extant literature on intra-organisational performance measurement. We then discuss to what extent supply chain and
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