

Franceschini · Galetto · Maisano



Management by Measurement

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A world that is changing faster and faster forces companies to a continuous performance monitoring. Indicators give the impression to be the real engine of organizations or even the economy at large. But performance indicators are not simple observation tools. They can have a deep “normative” effect, which can modify organizational behaviour and influence key decisions. Companies are what they measure!

The selection of good performance indicators is not an easy process. This monograph focuses on the designing of a Performance Measurement System (PMS), knowing that “magic rules” to identify them do not exist. Some indicators seem right and easy to measure, but have subtle, counter-productive consequences. Other indicators are more difficult to measure, but focus the enterprise on those decisions and actions that are critical to success. This book suggests how to identify indicators that achieve a balance in these effects and enhance long-term profitability.

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Designing Key Indicators
and Performance Measurement
Systems

 Springer

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PERFORMANCE MEASUREMENT
SYSTEMS**

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Foreword

For a long time I was troubled by the doubt that those who were criticizing the School of Management Engineering were right, in considering this school a poor imitation, combining both the “old school” of engineers and that of Economics.

In spite of the success of this new professional figure into the working world, I had the irritating suspect that – in a society where everything blooms and withers rapidly – would be the result of a temporary trend, doomed to be substituted by new ones.

This perplexity (it has been difficult for me to make it clear) arose from the lack of a well-grounded and distinctive culture at the basis of Management Engineering, like the culture of the great polytechnic school of Monge and d’Alembert, never untied to the confrontation with the ability of solving new problems.

I was ignoring the fact that, letting things take their course and allowing teachers and researchers do their work, would have finally captured a new and precise identity. An identity derived from the comparison with the different, dynamic and more complex problems proposed by the actual socio-economic system, which requires – as well as the technical-scientific knowledge of the classical engineering – a more agile and flexible attitude and *modus-operandi*.

The manuscript of Franceschini, Galetto and Maisano is a concrete sign of this achievement.

The authors, by means of their robust experience in the metrological area and their long and fruitful work in the quality area, discuss the performance indicators issue, analysing it completely and organically.

Topics under discussion cross the boundary of classical engineering and experimental domain, presenting new questions and giving well-structured answers to the issues which inevitably originate from the use of indicators to evaluate results and performances in complex fields. For example within the public sector, the subject who invests and incurs expenses is not the one who evaluates and benefits from the results.

Fine are the arguments which show that indicators are not mere technical means of evaluating performance, but rather “normative” tools conditioning the behaviours of the subjects whose actions are being examined.

This mechanism – well known by sociologists, but unfamiliar to engineers – becomes an integral and integrated part of the Management Engineering culture.

Authors – real management engineers – develop the issue, not only explaining it by the use of well-fitting examples, but also suggesting the rules for the construction of performance measurement systems, identifying their potential as well as their drawbacks.

Such a text had been missing, and its appearance has made this need more clear.

In conclusion, it only remains for me to wish the authors the well-deserved success for this book.

Sergio Rossetto¹

¹ Dean of the Fourth School of Engineering of Politecnico di Torino (Italy).

Preface

Every day life is literally pervaded by the presence and use of indicators: company performance indicators, price indicators, Stock Exchange indexes, air quality indicators, indicators of social status, and many others. Indicators give the impression to be the real engine of social systems, economy, and organizations. Furthermore, the interest in developing effective systems to measure performance results is growing more and more.

Is it so necessary using indicators in characterizing or evaluating complex systems/processes?

In global competition-oriented frameworks, continuous performance monitoring is not a choice. It is a need. Strategic targets and operational methods to reach and control results are necessary but, unfortunately, not sufficient conditions to ensure the survival of organizations.

In some sense, performance measurements are the core of process management. They start from collecting and analysing data, making it possible to track progress, identify strong and weak points, and – finally – drive improvements.

The purpose of this monograph is to describe in detail the main characteristics of indicators and performance measurement systems.

This text is divided into six chapters.

Chapter one deals with basic concepts about indicators and process performances. The second chapter discusses critical aspects, troubles and curiosities which can be produced representing a generic system by means of indicators. The third chapter focuses the attention on the problem of the “uniqueness” of representation. Given a process, the way to represent it through indicators is univocal? Chapter four analyses indicators properties. Description is supported by a large use of examples and practical applications. Fifth chapter illustrates methods for implementing performance measurement systems: how to activate and maintain them over time. It also examines the role of indicators as “conceptual technologies”. In conclusion, chapter six deals with the concepts of indicator, measurement, preference and evaluation, comparing them from the objectivity and empiricity viewpoints.

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