

HAKIM Aoudia

QRQC

The all-in-one solution for optimizing quality
with Quick Response Quality Control

DUNOD



Translated by Scribae Linguae;
Cathryn Heys (for the foreword, chapter 9 and chapter 10).

Publishing team: Guillaume Clapeau and Églantine Assez

Production manager: Pauline Riou

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*“I have only two methodologies: my eyes and my legs.
These are all I need to see, to judge, to consider, to decide.”*

Kazuo Kawashima

To my father, Chabane Aoudia.

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Foreword

A decade of QRQC! Ten years have already passed since the first edition of this book was published. QRQC is an approach that continues to be rolled out internationally across multiple industries and service sectors.

These past ten years have been marked by several events, both professional and personal. Firstly, on the personal side, I left my job at Valeo after eighteen years of committed service. This outstanding “school of performance” was above all a place where I met some wonderful friends and colleagues. I went on to spend eight years as Vice President, Quality, at rail transport group Faiveley (subsequently acquired by Wabtec), where I was able to implement QRQC across a hundred or so sites internationally, with some unforgettable meetings along the way with colleagues from France, the United States and multiple locations around the globe, including Mexico, Brazil, India, China, the Maghreb, Africa and the Middle East.

Over the past five years, choices made and developments on the personal front led to the launch of the QRQC Academy, which has become a center of expertise for the QRQC approach. This training and consultancy firm brings the competitive and financial advantages of QRQC to businesses of all kinds. Its highly respected consultants/coaches are passionate about what they do and have many years’ experience in major industrial groups. They put their expertise to work for businesses with the aim of satisfying customers and employees alike and reducing the cost of poor quality.

The industrial landscape has evolved over the last ten years: employees and decisionmakers were shaken by the Covid-19 crisis; digitalization, industry 4.0, artificial intelligence and climate change are all progressing fast. Any improvement method, including QRQC, must therefore be tailored as closely as possible to the new issues facing not only managers and employees, but also citizens. For that reason, this new version integrates digital technology, which is crucial in today’s quest to go paperless. It also factors in the strong demand from my readers, and mirrored in our consultancy activities, for guidance on deploying QRQC efficiently across a plant, a country or an international group, despite pushback on various fronts (cultural, organizational or managerial).

Lastly, this new edition is a tribute to my friend and *sensei*, Kazuo Kawashima, who passed away in August 2020. An engaging figure and truly one of a kind, he raised quality standards in the automotive industry and beyond and promoted QRQC tirelessly in Europe and worldwide. My thoughts also go out to his family.

I hope you enjoy reading this book and implementing QRQC!

H. Aoudia

Arcueil, France, August 23, 2023.

Introduction

Many voices are proclaiming the end of “models” or “systems” that have proven excellent in the past, but have now become ineffective. It seems that we will not be able to improve working methods any longer as these have reached a plateau. This is inevitably expressed as relocation to low-cost countries or in reductions to wage bills. Even if this was the case, other realities do exist in parallel: quality problems linked to production in “low cost” countries, significant warranty or recall costs in Western countries (in particular related to safety issues), mistrust on the part of customers and therefore major commercial and financial impacts. The cost thereof can be estimated in terms of billions.

These other realities may shake or even endanger some organizations, in particular the most fragile ones that are not able to anticipate or deal with their quality or safety problems, irrespective of the field of activity or whatever the countries involved.

However, any system requires continuous and daily improvement, otherwise it will fall off. The QRQC (Quick Response Quality Control) has been developed to that purpose. Therefore it is an essential part of any Total Quality approach for which it is the “engine” for continuous improvement.

Some Quality practitioners saw it simply as yet another new fashion, the work of yet another guru. That is not so. In fact, QRQC has been partly inspired by the “Lean Management” principles, as well as by practices taken from the “Toyota Production System” that were formalised by the Japanese industrial engineer Ohno Taiichi in 1978.

Since that time, however, Quality functions have had to face new challenges:

- defects on vehicles can now be made public anywhere in the world within a few minutes through the Internet;
- organizations are global businesses and they heavily invest in low-cost countries, in particular in China, which has become a major industrial player in electric vehicles. And even though we are witnessing movements of reshoring or reductions in production loops, the risk still remains;

- nowadays, customers are getting more demanding because they are better informed;
- suppliers are in greater numbers in the production process, which may involve risks if one of them should fail in its obligations.

Under these circumstances, know how to maintain a rigorous and systematic application of these principles of a Quality approach every day and worldwide, internally and externally (suppliers and subcontractors)? QRQC provides an appropriate response to this. It is a unique system of excellence, designed and adapted address this central question, especially with respect to global organizations.

Instead of listing a series of theoretical principles one after the other, I have endeavoured to present a practical and logical approach, intended to provide concrete answers to the following questions:

- How can a problem be solved quickly and effectively?
- How can this problem be shared and any recurrence prevented?
- How is it possible to improve the design of a product and a process for new projects further to past mistakes?
- How can we have managers who are able to train and promote an attitude of continuous improvement?

Much has already been written about the “lean” movement this global and systemic management approach which aims to maximize value for the customer while minimizing waste for the company (production time, quality defects, underutilization of talent, etc.). However, if we consider that it represents a major contribution, this is because QRQC has provided cohesion and has made it easy to implement.

The work that we carried out has allowed us to improve some tools and methods in a structured manner, whilst re-affirming three basic principles:

- Quality is not a matter of techniques or of tools, but a matter of management,
- Quality is everyone’s business, from the Managing Director down to operators,
- Quality of design ensures the quality of both product and process.

Indeed, the concrete and daily implementation of QRQC over several years continues to strengthen our deep conviction that it is one of the most powerful engines for success in organizations that are anxious to achieve short-term results and effectiveness, whilst playing a part in the achievement of long-term strategic objectives. QRQC is not a quality tool or a system. It is a mixture of both attitude and management, based on tools which often have already been in existence and well-understood. What it does provide, in fact, is the “engine oil” that is required for the entire organization to use these, in order to react to and then eradicate any problem, either simple or complex. Everywhere, by everyone, every day.

Many managers have undergone training in problem solving. This involves the much vaunted “Problem Solving Groups” or “Task Forces”. The principle is a simple one in itself: there exists a problem, teams get together for a day and “brainstorm” by trying to apply many different tools in order to find out causes and solutions. The way these famous groups develop in most cases is well-known: at the beginning the participants are highly motivated and rigorous in their approach. A few days later the number of participants decreases, as does the number of meetings. Finally, the problem is more or less abandoned or ends up being partially dealt with, with conclusions which would often be worthy of some government commissions: a great report, but with little impact later on...

The power of QRQC lies in its ability to remind managers of a simple truth, namely any quality approach must above all enable an organization to achieve its strategic objectives through customer and personnel satisfaction. You can win any Quality award you ever wish, but there is no point in it if the end results are dissatisfied customers, a loss of competitiveness and markets or even the closing-down of your organization!

Over the past few years more and more attention has been paid to the formalization of processes and of procedures as the result of various certification schemes, whilst at the same time the very essence of the Quality function had been forgotten:

- to ensure customer satisfaction and loyalty in order to win new contracts;
- to drive continuous improvement throughout the entire organization;
- to aim for 0 defect in order to reduce the costs incurred by poor quality;

- to aim for robust designs and expertise which is acknowledged by the market;
- to have a workforce that is happy to work within the organization.

We hope that this publication will help you to understand over 30 years of experience, so that it can be adapted to your own business context. There are many tools and theoretical principles associated with Quality, but above all as a Quality practitioner I have endeavoured to go beyond theories and tried to explain, openly and in practical terms, how to best apply QRQC. I am nonetheless aware of the fact that, first and foremost, it is the quality of personnel that makes the difference; thanks to a motivated, curious, rigorous workforce that is eager to make improvements every day, eager to learn and to get trained, that any organization will be able to meet the challenges it faces. The Covid crisis has reminded us of how crucial this issue is.