

## 2.6.2 ISO 9001 Quality Management Systems: Critical Analysis of Literature Review

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### Author's short bio

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### Abstract

**Purpose and Methodology/Approach:** This paper follows a previous one focused on a bibliographic review of motivations, benefits and difficulties in implementing quality management systems (QMS) based on ISO 9001 standard (Saraiva et al, 2017). Controversial, conflicting and even contradictory, and/or non-consensual findings in same or different countries have suggested other dimensions were lacking. So, a further and critical analysis was deepened in order to identify possible flaws in dimensions of analysis and in methodological issues, which is the scope of this paper.

**Findings:** Many research works were based on perceptions/opinions (eg. motivations, benefits, difficulties) and tangible results were missing, being conclusions built only on qualitative data. Quantitative data were not used to objectivize and validated qualitative findings. Physical or economic indicators rarely were presented. Researchers may not have asked for quantitative data or even ignore these aspects of organizational reality, or the organizations also do not have this type of data. It is hard to corroborate statements (from company's managers) or findings (from researchers) without other objective evidences (examples are: motivations influence the QMS performance; cost reduction is a benefit; the biggest difficulties in implementation/certification of QMS are the excessive and complex (bureaucratic) documentation, the weak commitment to quality by management and staff, the high cost/scarce resources and the time spent with the additional tasks for the implementation process; organizations operating an ISO 9001 QMS show a better performance).

Another matters such as the relative size of the certification phenomenon in each country or region and their economic and social development were generally unknown or were not taken into account. These contextual factors can distort findings.

The scientific affiliation of researchers (eg. Industrial engineering, Management, Sociology, Organizational psychology) may also have implications for the research perspective and aspects that are privileged in analysis and conclusions.

**Research Limitation/implication:** Additionally, other methodological issues can also be related to data collection instruments (eg. questionnaires to collect perceptions/opinions) are not the most appropriate for achieving some desired information or data processing does not validate conclusions. Thus, we will take into account in our future research these limitations we have identified in this one and strongly recommend to other researchers our conclusions.

**Originality/Value of paper:**

These reflections and findings suggest further and deeper work for research in QMS and other related topics, looking for those dimensions already identified as missing, and/or considering more dimensions, bearing in mind concerns that quality movement is losing popularity, because it does not appear to managers consistently with quantitative data proving contributions of quality to increase productivity and competitiveness. Finally, we raise methodological questions about research on these topics, and other dimensions of analysis are recommended.

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**Keywords:** Quality management system, Motivations, Benefits, Difficulties; ISO 9001 QMS

## 1. Introduction

In the last decades of the 20th Century the ISO 9001 standard have provided a universal frame for implementing Quality Management Systems (QMS) in all business sectors (private, public and social). The QMS Certification has become the largest phenomenon in the quality movement at world level, giving rise to many research work carried out by researchers from different scientific backgrounds. Quality is a broadband construct, assuming several meanings depending on the perspectives of economic and social actors. Being an area that draws lessons from various scientific disciplines, and not having a strong and own body of knowledge, it seems natural that there are also controversial, conflicting and even contradictory, and/or non-consensual findings. However, the technical and theoretical interest is very large, due to the actual and potential impacts on the performance of organizations.

This paper follows a previous one focused on a bibliographic review of motivations, benefits and difficulties in implementing quality management systems (QMS) based on ISO 9001 standard (Saraiva et al, 2017). In view of the conclusions and previous experience with other bibliographical reviews we have conclude that it would be useful to try to go further in understanding the differences found and to identify guidelines for this type of research. So, a further and critical analysis was deepened aiming to identify possible flaws in dimensions of analysis and in methodological issues, which is the scope of this paper.

The review of the previous literature was again analyzed, bearing in mind the identification of variables that had not been considered and that could have some impact on the conclusions. This second analysis allowed identification of some missing variables, but also more explanatory understandings. In this paper we selected the most representative authors from each country, because this dimension could bring new analysis perspectives.

## 2. Critical Analyze

The reasons that lead an organization to implement and certify its QMS, have an internal and/or external nature (Dahlgard, Kristensen & Kango, 1992). Behind the consideration of the existence of internal reasons there is the idea that quality is something objective and intrinsic to products, while external reasons are based on the idea that quality is more subjective and dependent on external factors (Giaccio, Canfora & Del Signore, 2013). The benefits were also classified in internal and external by many authors.

Table 1 resume motivations and benefits identified by several authors. This table also identifies other variables not always present in the literature review. We have added the columns of the scientific background, gross domestic product per capita, human development index, and business and industry size, aiming to deepen analysis.

Table 1 - Motivations and Benefits

| Country / Region          | Author(s)                          | Scientific background    | Company Dimension and activity sector  | Motivations (Internal/external) | Benefits (Internal/external) | Market Saturation (ISO survey) | Econ. Develop. (PIB/capita) 2017* | HDI (2016)** |
|---------------------------|------------------------------------|--------------------------|--|---------------------------------|------------------------------|--------------------------------|-----------------------------------|--------------|
| Australia                 | Beattie and Sohal (1999)           | NA                       | NA                                     | ---                             | ---                          | Decrease                       | ---                               | 2            |
| Australia and New Zealand | Feng, Terziovski and Samson (2008) | Management and Marketing | NA Manufacturing and Service Companies | ---                             | ---                          | Decrease                       | ---                               | 2<br>13      |