



News

Does ISO 9001 pay? - Analysis of 42 studies

by *Basak Manders & Henk J. de Vries* on 10 October 2012



In 1987, ISO published the first ISO 9000 series of quality management standards (QMS). Since then, more than one million organizations in 178 countries have achieved ISO 9001 certification. But have they enjoyed financial benefits from doing so? This article summarizes key results from 42 scientific studies showing that implementing the standard does indeed enhance financial performance - but organizations aiming at real internal quality improvements gain more than those using ISO 9001 as a “quick fix” in response to quality problems or customer pressure.

Although dozens of scientific studies on ISO 9001 have been published to date, a confusing picture of the impact of ISO 9001 on financial performance remains. While many concluded that ISO 9001 implementation and certification had a direct and positive financial impact, others found no significant effect. Beyond the direct link between the QMS and financial success, some studies highlighted other variables that may have an influence.

Meta-analysis approach

To obtain more reliable and valid conclusions, we decided to analyze research findings from a total of 42 empirical studies [1] showing that ISO 9001 implementation had an impact on business, using the meta-analysis procedure developed by Lipsey and Wilson. Meta-analysis is “the quantitative cumulation and analysis of effect sizes and other descriptive statistics across studies” (Hunter & Schmidt, 1990).

We studied the extent to which the financial efficiency of an organization improved after ISO 9001 certification, and if this performance was higher than that of similar, but non-certified, organizations. We looked at financial indicators such as return on assets, sales, investment and equity, and profit margin, profitability, increased sales and market share.

Enhanced financial performance

The analysis shows that ISO 9001 certification does indeed enhance financial performance, and that this is achieved mainly through increased sales. This can be explained by looking more closely at the relationship between ISO 9001 mechanisms and the internal, external and signaling benefits that can lead to increased financial performance (see Figure 1).

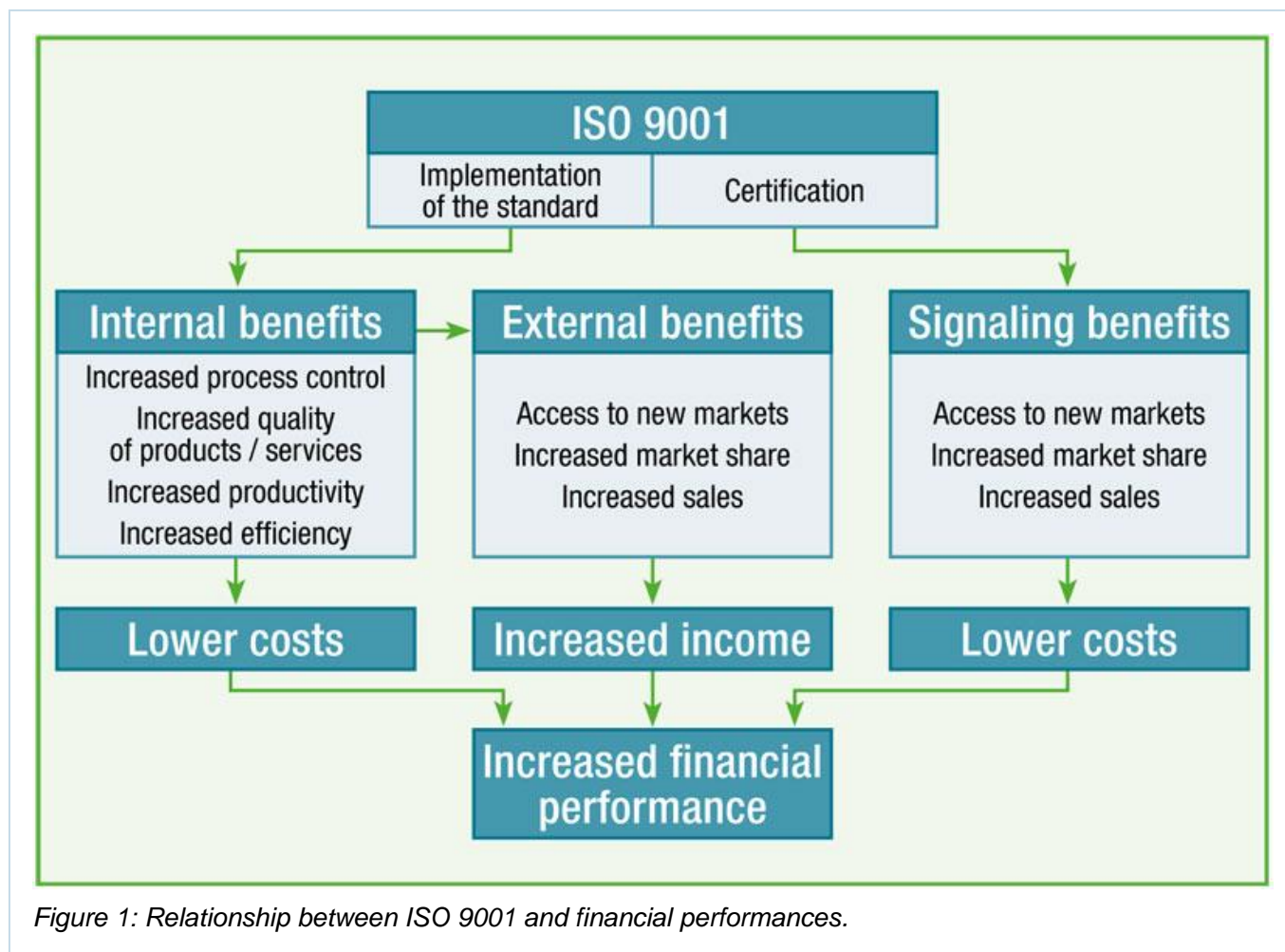


Figure 1: Relationship between ISO 9001 and financial performances.

First, ISO 9001 implementation can bring internal benefits, although organizations may not become financially more efficient immediately after being certified. Second, increased process control, quality, productivity and efficiency may improve customer satisfaction and, therefore, provide some external benefits. Lastly, the ISO 9001 certificate itself may provide benefits by signaling quality.

According to signaling theory (Spence, 1973), an information asymmetry exists in markets in the sense that customers often do not have full knowledge of the characteristics of the product and its supplier. Quality management standards like ISO 9001 can partly solve this problem by signaling the quality of the organization. Our study indicated that ISO 9001 certification increased sales, but it remains unclear if this is caused by increased customer satisfaction, or by the signaling effect.

Internal or external motivation ?

There may be some moderating factors to explain the different outcomes of the various studies, and the differences between the performance improvement companies observe. Motivation and internalization are the two most discussed variables which organizations should take into consideration when implementing ISO 9001.

First, the motivation for implementing ISO 9001 can influence its effect on financial performance.

Organizations may wish to obtain certification for external reasons such as pressure from customers, markets or governments, or for internal reasons such as improving productivity and efficiency. Those targeting short-term external benefits could expect to gain mainly external benefits, while those aiming at real quality improvement could expect to achieve higher overall benefits.

Second, the degree to which ISO 9001 principles are adopted internally is dependent on the motivation of the organization, and is thought to be critical to successful implementation. Organizations with external motivation tended to implement measures prescribed by the standard as a quick fix to quality problems, while those with internal motivation were more likely to use the standard and the underlying principles in day-to-day decision making to really improve quality. Internalization of ISO 9001 principles is considered necessary in achieving the most significant performance benefits from the QMS standard.

Good reason to implement ISO 9001

Our research has some theoretical, societal and business implications. First, analyzing the many existing ISO 9000 studies to draw reliable and valid conclusions enriches the knowledge of ISO 9001 certification, and helps to resolve the debate on its impact.

Second, using the meta-analysis method gives future researchers a starting point by summarizing the studies carried out to date. It is also important for organizations considering ISO 9001 implementation since the process of obtaining certification and maintaining the system involves time, money and effort - and they need to know if these costs outweigh the benefits of better business performance.

Our findings indicated that, on average, ISO 9001-certified organizations achieve benefits, particularly from increased sales. Policy makers at the national level may see this as a good reason to encourage ISO 9001 implementation in their country.



Basak Manders

Basak Manders

PhD student

ROTTERDAM SCHOOL OF MANAGEMENT, ERASMUS UNIVERSITY

Rotterdam, The Netherlands



Henk J. de Vries

Henk J. de Vries

Associate Professor of Standardization

ROTTERDAM SCHOOL OF MANAGEMENT, ERASMUS UNIVERSITY

Rotterdam, The Netherlands

1] This article is based on Basak Manders' MSc thesis "*The financial impact of ISO 9000 certification : a meta-analysis*", which won the 2011 Dutch National Quality Management Research Award organized by the Dutch Network for Quality Management (NNK). For more information, contact : BManders@rsm.nl, or visit <http://www.rsm.nl/people/basak-manders/>

Media Contact



Elizabeth Gasiorowski
Denis

Elizabeth Gasiorowski Denis

Editor in Chief of ISO Focus+

COMMUNICATION SERVICES

+41 22 749 03 25

gasiorowski@iso.org

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