

# How Digitalization Improves Quality: a Worldwide Review

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The consequences of digitalization with regard to the improvement of Quality are reviewed. From banking to air and ground transportation, from e-government to health care, from design to production in all types of industries, from education to marketing, from international trade to sustainability, digitalization has provided, through big data analysis, speed, easy access to information and other characteristics a relevant contribution to Quality.

Top management is convinced that investing in information technology is a top priority, in order to keep companies competitive using, for instance, international procurement with worldwide outsourcing, since globalization is a trend with no return. Cost reduction through the optimization of the use of resources is also tantamount, since sustainability is considered a question of survival of the Planet, even for common people.

On the other hand, hackers have introduced dangers to digitalization: theft of citizens sensible data, undue use of credit cards and bank accounts, invasion of public offices and private corporations sites for spying industrial secrets and disturbing operation or access to users are nowadays, most unfortunately, commonplace. Consequences are many times an effective risk to the management of organizations.

However, the balance is positive. The explosion of the available amount of technical, political, scientific and other types of information for everybody through Internet and the easiness of communication between people are, there is no doubt, a strong contribution to Quality. The existence of an enormous number of applications, the possibility to process statistically high volumes of data, the Internet of things, cloud computing and the voice direct communication with computers are developments that show the power of digitalization.

Some examples in different areas and in several countries will be presented, showing qualitatively and quantitatively how this influence happened beyond any most optimistic expectation.