



# The effect of ISO quality management system standards on industrial property rights in Turkey



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## ABSTRACT

The aim of this study was to assess whether the systematical application of the following ISO quality management system standards: ISO 9001 (Quality Management System), ISO 22000 (Food Safety Management System), ISO 14001 (Environment Management System), ISO 13425 (Medical Device Quality Management System), ISO 27001 (Information Security Management System) and ISO 16949 (Automotive Quality Management System) have had an effect on the emergence of industrial property rights in Turkey. Information was collected about the number of ISO standard certification documents that Turkish organizations received in respect of these standards between the period of 2007 and 2013. For the same period, information about the number of granted patents, petty patents, trademarks and industrial designs in Turkey were also collected. The information was analyzed by year, industrial property right type and ISO standard. A Spearman correlation analysis was also conducted to determine the strength of association between the number of certification documents and the number of granted industrial property rights. The analysis showed that some of the ISO standards had either a positive or negative linear relationship with one or more of the granted industrial property right types. Although the total number of certification documents had decreased over the time period of the study, the number of granted industrial property rights in Turkey had increased over the same period indicating that the adoption of quality management system standards may have led to an increase in national innovation in Turkey. This observation may help to improve innovation in other countries similar to Turkey.

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## 1. Introduction

Globalization with its hundred year history obliged a lot of functional and structural changes in different establishments. At the same time, the development of technology increased the diversity of the products or services presented to the market. Globalization has enabled a product or service produced in any region of the world to become marketable to any other consumer group or establishment in the world [1]. Rising diversity and increasing market size have caused new establishments to start businesses and the world economy to begin to reshape. Protecting an established business' profits with the emergence of these new establishments has become harder than ever. As a result, establishments are competing vehemently in the new economical order [2,3].

Porter (2011) indicates that there is a linear relationship between the competitive power amongst establishments and the life quality of society. One of the factors affecting competition is the

productivity rise of establishments. Porter asserts that as product quality increases it affects the productivity as well. He claims that it is only possible for establishments to compete at a superior level on the basis of innovation rather than cheap labor [4]. In addition, nonconformist approaches towards customer satisfaction or product design can enable a business to be one step ahead of their rivals [5,6].

At the same time, the concepts of novelty and innovation, in the marketplace are used interchangeably, in addition to the several different descriptions each can have [7]. On the one hand, the concept of novelty can be defined in relation to the concept of marketability, as a new or advanced product approach or service [8]. On the other hand, it can be thought of as a conversion of an idea to a marketable product or service, a new or advanced product or distribution approach or a new social service method in the OECD and EU documents [9].

The systems and concepts involved in an innovative approach are the means for success of establishments [10]. Although studies on innovation show that superiority amongst rivals can be achieved

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