

Laws help reduce pollution and do not affect competitiveness, study finds

December 3 2019



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The United Nations Climate Change (COP25) World Climate Summit, which starts today in Madrid, is the latest initiative by world governments to seek agreement on legal frameworks to help protect the

planet. However, there are still many critical voices that question the effectiveness of laws in reducing pollution. Opponents of regulation claim that laws can lead to systems that are too rigid and unable to adapt to technological changes. Others believe that firms will find ways to bypass legal controls and that, therefore, laws do not achieve significant progress. However, this review of research on the subject points to a scenario that is, in fact, much more favourable toward the potential of environmental regulation.

A team of three researchers coordinated by Alberto Aragón, Professor of Business Management at the University of Granada, conducted a painstaking review of the primary empirical research findings on [environmental regulation](#) and business management. The study aimed to offer recommendations based on points of consensus.

The work was conducted in collaboration with Professor Alfred Marcus (University of Minnesota) and Professor David Vogel (University of Berkeley) and is due for publication in *Academy of Management Annals*—the number one research journal in the world by impact factor in the categories of "business" and "management."

The work conducted by Aragón, Marcus, and Vogel reviewed in depth the results of some 70 studies published in the leading academic journals in the world. The samples of the studies reviewed, taken as a whole, included some 97,000 observations made by firms subject to different environmental regulations. The studies considered firms and regulations from many different countries, focusing in particular on the United States but also including firms based in Canada, China, Taiwan, Australia, Costa Rica, the European Union, and India, among others. The conclusions of the present study distinguish between the effects of compulsory and voluntary environmental regulatory pressure.

Compulsory laws are the most widely known, and the studies indicated

that these exerted a stronger effect on reducing pollution among the firms in question than any other factor analysed—even greater than the pressures exerted by customers. Furthermore, the researchers identified differences between the effects attributed to the investigations that oblige firms to use certain technologies to achieve compliance and those that oblige them to achieve certain objectives or outcomes.

Technology-centric performance standards can be more problematic in competitive terms, because fixed systems can become outdated or run the risk of not being well-suited to the particular conditions of many firms. However, those that are based on setting objectives enable each firm to decide on the most appropriate procedures at all times and encourage them to continuously improve if the objective is linked to that of the best performers.

Although such outcome-based regulations were found to be markedly more effective, all compulsory environmental regulations exert tremendous power among firms to reduce pollution. At the same time, the studies found no substantial, generalised drop in profitability or competitiveness among firms as a result of their implementation of these regulations. Many firms even become more competitive as a result of the technological improvements associated with their efforts to comply with the mandatory standards. Furthermore, the option of self-regulation was designed precisely to facilitate even greater flexibility for firms.

Although voluntary environmental regulation has proved to be a very popular development in recent years, its results in terms of the impulse to reduce environmental impact have been modest.

Self-regulation means the company is free to comply with the standard in question, or not. The ISO 14000 systems or the EMAS system proposed by the European Union are among the best-known voluntary environmental regulations. In the region of 400,000 companies in the

world have voluntarily obtained an ISO14001 certificate to show their compliance via an environmental management system in their facilities.

Weak compliance control

The research conducted on this type of standard reveals two worrying factors. First, compliance control is typically weak, which undermines the credibility of the system. Second, many firms focus on the administrative requirements to achieve certification, falling into the trap of "symbolic compliance." All of the studies, however, highlight that voluntary regulations present characteristics that make them potentially interesting, providing certain conditions are fulfilled in their design.

Having reviewed in detail the scholarship dealing with this subject, Aragón, Marcus, and Vogel propose a series of recommendations for future regulations, highlighting the importance of three fundamental aspects. First, governments and organisations that promote voluntary regulations should be concerned not only with the [regulation](#) itself, but also with its monitoring, to ensure its effectiveness. Second, the regulations should simultaneously seek to include both voluntary and compulsory elements, in a bid to combine the flexibility and effectiveness that characterizes each type.

Finally, the study recognises that differences in regulatory requirements around the world generate temptations for many firms and governments, which believe that, by reducing their environmental efforts, they can secure economic advantages.

In that regard, international regulations that are agreed by the countries known to be the heaviest polluters would be a fundamental step toward achieving important future progress. The researchers look optimistically to events such as the World Climate Summit, while recognising that only very limited internationally-coordinated regulatory advances have been

achieved to date.

More information: Aragon-Correa, JA, Marcus, AM, Vogel, D (2020): The Effects of Mandatory and Voluntary Regulatory Pressures on Firms' Environmental Strategies: A Review and Recommendations for Future Research, *Academy of Management Annals* 14(1), in press.

Provided by University of Granada

Citation: Laws help reduce pollution and do not affect competitiveness, study finds (2019, December 3) retrieved 31 January 2023 from <https://phys.org/news/2019-12-laws-pollution-affect-competitiveness.html>

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