



São Paulo - Brazil - May - 22nd to 24th - 2013

Acc4emic INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

“INTEGRATING CLEANER PRODUCTION INTO SUSTAINABILITY STRATEGIES”

Environmental Management System ISO 14001: Comparative Analysis of Business Sectors between Regions and Countries

CAMPOS, L. M. S.^a, SANTOS, T. H. S. dos^a, SPENASSATO, D.^a, TRIERWEILLER, A. C.^{a*},
BORNIA, A. C.^a CARVALHO, D. N.^a

a. Universidade Federal de Santa Catarina, Florianópolis

**Corresponding author, andreatri@gmail.com*

Abstract

The enterprises show growing concerns regarding environmental issues, which can no longer be treated in isolation, because they are part of a system that requires planning, implementation, monitoring and continuous improvement, ie the implementation of Environmental Management Systems. Thus, this article aims to analyze the growth of ISO 14001 certifications in industries, worldwide, between regions and countries. The article was built by literature review and document analysis with the acquisition of the database provided by ISO - International Organization for Standardization (ISO, 2011). It has a quantitative and descriptive focus, having been made the processing and analysis of data with the help of Excel spreadsheets and descriptive statistical techniques using the *Statistica*® software, version 7.0. The analyses occurred in four steps: (i) Grouping of valid certifications in 39 industrial sectors in 2010 for each country into regions, (ii) Separation of valid certifications in industry in 2010 by the countries of Latin America (20 countries), South America (11 countries) and Brazil (iii) The regions were the focuses - 2006 to 2010 - to identify the sectors with the largest number of certifications and annual growth, and (iv) The analysis of data on emissions ISO 14001 from 2006 to 2010 by industry sector and by region. It consisted of some intersections based on techniques such as cluster analysis and descriptive measures of data. The main results are that: Brazil is the country with the largest number of certifications (885) Latin America, while Guyana has no certifications, this may be a consequence of low industrial development, and there is no pressure to deployment of Environmental Management Systems. The sector that had the highest number of certifications in Latin America and Brazil was the Basic metal & fabricated metal products, because Brazil is a major exporter of iron ore, impacting in the leadership of this sector. The country with the highest growth in number of certifications in 2010 was China. The growth largest of certifications was in 2008 with 22%, while in 2010 the increase was 12%. There is an evident concern with the implementation of Environmental Management Systems and ISO 14001 certification, exceeding market issues and becoming a key differentiator for building the company's image. This article is not intended to exhaust all possibilities of research; the data available can be used in different ways, with applying other statistical techniques.

Keywords: *Environmental Management System, EMS, ISO 14001, Cluster Analysis.*

“INTEGRATING CLEANER PRODUCTION INTO SUSTAINABILITY STRATEGIES”

São Paulo - Brazil - May 22nd to 24th - 2013