Available online at www.sciencedirect.com

RAI Revista de Administração e Inovação xxx (2016) xxx–xxx

http://www.revistas.usp.br/rai

Port environmental management: Innovations in a Brazilian public port

Cristiane Gularte Quintana [a,*], Pelayo Munhoz Olea [b,c], Patrízia Raggi Abdallah [d,e], Alexandre Costa Quintana [f,e]

[a] *Universidade Federal do Rio Grande (FURG), Educação Ambiental, Rio Grande, RS, Brazil*
[b] *Universitat Politècnica de Catalunya, ETSEIB/UPC, Administração e Direção de Empresas, Barcelona, Spain*
[c] *Universidade de Caxias do Sul – UCS, Caxias do Sul, RS, Brazil*
[d] *Escola Superior de Agricultura Luiz de Queiroz – ESALQ, Economia Aplicada, Piracicaba, SP, Brazil*
[e] *Universidade Federal do Rio Grande – FURG, Rio Grande, RS, Brazil*
[f] *Universidade de São Paulo (USP), Controladoria e Contabilidade, São Paulo, SP, Brazil*

Received 12 August 2015; accepted 18 July 2016

Abstract

The purpose of this article was to identify the innovations developed at the Port of Rio Grande, according to the dimensions of the Oslo Manual, related to environmental management in the period 2010–2012. It also analyzed whether the possible innovations developed by the port relate to the assessment requirements of environmental management, proposed by ANTAQ. For this, we used a type of qualitative content analysis, with in-depth interviews applied to a population of thirty port managers, and a quantitative study which sought to examine whether the innovations obtained are related to the assessment requirements of environmental management. As a result, 45 innovations were identified, these being classified according to the Oslo Manual in: 2 product innovations; 14 process innovations; 5 marketing innovations; and 24 organizational innovations. Considering the frequency of occurrence of innovations in the sector, the requirement of ANTAQ implementing the environmental agenda presented the highest number of innovations, mainly related to process innovations.
© 2016 Departamento de Administração, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo – FEA/USP. Published by Elsevier Editora Ltda. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Keywords: Innovation; Ports; Environmental management

Introduction

In the evolution of relations between the city and the port, a set of changes can be seen, such as the reorganization of the environments and the emergence of the specific market (Monié & Vidal, 2006). Ports are institutions generating negative as well as positive impacts on the environment where they are located. Negative impacts are those that damage the environment, as for example, the changes in the movement of water and the marine ecosystem, problems caused by the effect of dredging, and the disposal of residues. Positive impacts are noticed through local economic development, both regional and national, the generation of new jobs, investment by industries in local housing, an increase in specialized labor, and the installation of new companies (Crucey, 2006; Giner Fillol & Ripoll Feliu, 2009).

In the beginning of the 21st century, innovation became the key for profits and the market share in the business world. Innovations occur at a fast pace and become obsolete at the same pace, but governments only seek them when they need to organize the economy. The term innovation is difficult to define and even more to measure. Innovation can be considered as a creation of a product or an improvement of a process. Most of the successful entrepreneurs, though not the only ones to practice innovation, are still creating value by exploring some way of change in technology, materials, prices, taxes, demographic, or geopolitical issues (Carvalho, 2009; Mattos & Guimarães, 2005).

For a better definition of the term innovation, the Organization for Economic Co-operation and Development (OECD) and

Peer Review under the responsibility of Departamento de Administração, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo – FEA/USP.

* Corresponding author.
E-mails: cristianequintana@hotmail.com (C.G. Quintana), pelayo.olea@gmail.com (P.M. Olea), patrizia@furg.br (P.R. Abdallah), quintana@vetorial.net (A.C. Quintana).

http://dx.doi.org/10.1016/j.rai.2016.09.001
1809-2039/© 2016 Departamento de Administração, Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo – FEA/USP. Published by Elsevier Editora Ltda. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

Please cite this article in press as: Quintana, C. G., et al. Port environmental management: Innovations in a Brazilian public port. *RAI Revista de Administração e Inovação* (2016), http://dx.doi.org/10.1016/j.rai.2016.09.001

the European Commission, through a group of specialists from about 30 countries collecting and analyzing data about innovation, developed the Oslo Manual. The manual represents a tool, which addresses concepts, definitions and methodologies about the innovation process, and it aims to provide a structure where the existing research can evolve toward equivalence and help beginners. The manual also presents guidelines, which allow for the development of comparable innovation indicators in the countries of the Organization for the Economic Co-operation and Development (OECD, 2005).

Moving toward sustainability, several innovations adopted by an increasing number of companies have emerged, which include better production methods, decreased emissions and the search for environmentally friendly products or services. The ability of organizations to generate innovations that contribute to their competitiveness is called innovativeness, and comes from the decision-making carried out by companies, which also includes environmental issues (Krafta, 2008; Simon, 2008).

The Brazilian ports are undergoing a process of change aiming to increase competitiveness and the attention to aspects related to environmental actions, which are discussed by society more and more (Almeida, 2010). Giannetto (2004:47) affirms that, "the ports in Brazil need to build paradigms based on the most modern management tools, where respect for the worker, the environment, and the society must be imperative of changes." Little by little, port managers are understanding the relevance of the relationship of their activity with the physical and social-economic space they take part in. Thus, it is a factor to be addressed within the planning, operational and commercial management of the port organization (ANTAQ, 2012).

This study had the Port of Rio Grande as its research object, being the southernmost seaport of Brazil. The referred port is located in the city of Rio Grande and has not only privileged natural characteristics but is also able to serve the ocean going vessels, as its access channel has great depth. The port has an excellent offer of transport infrastructure comprising road, waterways and airport modes. The multimodality of the Port of Rio Grande is an important factor in the reduction of costs and in the increase of logistic efficiency, aggregating more value to the goods going through its premises (Porto do Rio Grande, 2012; Quintana & Philomena, 2007).

According to Koehler (2008:61), "the reference point for the actions of environmental management in the Port of Rio Grande is the Operation Permit no. 03/97 issued by IBAMA in 1997, and renewed in 2005." The environmental projects carried out in this port aim to comply with the conditions imposed by the permit.

In this sense, it must be observed that the ports cannot be isolated from the commercial reality of those using them, to avoid finding themselves disconnected from the social and environmental processes occurring inside and around the ports. For this, the incorporation of innovations in the processes becomes urgent and there is nothing more modern than the insertion of concepts and practices of environmental management. Therefore, the port modernization in Brazil will be incomplete while it does not face these challenges (Kitzmann, Asmus, & Koehler, 2014).

It should be noted that some improvements have occurred in the environmental area, such as the inclusion of environmental monitoring in the National Plan for Drainage. Although this aspect still represents only one environmental element being taken into consideration by the port administrations, other elements need to be observed from the aspect of strategic actions aimed toward the port environmental management (Lourenço & Asmus, 2015).

Situations like this in an environment of competition between ports, primarily those that are geographically close, might be a key point in the choice of where the handling of a certain product will occur. Therefore, the attention to port innovation becomes relevant, as the ports that are more environmentally prepared will obtain an extra advantage over the others (Kitzmann et al., 2014).

More specifically, considering the institutional aspect as the operational aspect, in the study of Lourenço and Asmus (2015), some of the weaknesses observed in the Environmental Management of the Port of Rio Grande were: the Port Administration (Superintendence) relation with the environmental agencies is still fragmented; the existence of bureaucratic issues compromising the flow and agility in the decision-making; little articulation between the Port Installations and Bonded Warehouse Licenses and the Organized Port License; lack of perception from some public servants as to environmental issues; discontinuity of staff of the Department of Environment, Safety and Health, causing management gaps; inadequate use or replacement of some conditions of the Environmental Permit, as is the case of the Environmental Monitoring Programs. In view of that, identifying innovations carried out in the Port of Rio Grande may be an important element of competitive differential.

In this sense, the general aim of this research was to identify the innovations developed in the Port of Rio Grande according to the dimensions of the Oslo Manual, related to environmental management. Moreover, this study intends to analyze if the possible innovations developed by the port are related to the evaluation requirements of environmental management proposed by ANTAQ.

In order to have sustainable and economic development in the port area, it is essential to identify which innovations are happening in environmental management.

In the historical context, the Port of Rio Grande was the first Brazilian port to obtain the Environmental Permit. The main factors to comply with the licensing requirements are related to the compliance with environmental conditioning factors; thus, the studies related to the environmental actions developed in the ports are relevant. According to Lourenço and Asmus (2011:1), "the licensing is an integral part of the process of environmental control that does not end with the granting of the permit for operating of the undertaking, but monitors and follows up its operation."

The theme of the research focuses on innovation, in this case, delimited by aspects related to innovations in environmental management. The object of this study is the Port of Rio Grande, based on the actions developed by the Department of Environment, Health and Safety (DMASS) and the Port of Rio Grande Superintendence.

Please cite this article in press as: Quintana, C. G., et al. Port environmental management: Innovations in a Brazilian public port. *RAI Revista de Administração e Inovação* (2016), http://dx.doi.org/10.1016/j.rai.2016.09.001

Download English Version:

https://daneshyari.com/en/article/7429702

Download Persian Version:

https://daneshyari.com/article/7429702

Daneshyari.com