



# Environmental Product Declarations: exploring their evolution and the factors affecting their demand in Europe



V. Ibáñez-Forés<sup>a</sup>, B. Pacheco-Blanco<sup>b</sup>, S.F. Capuz-Rizo<sup>b</sup>, M.D. Bovea<sup>a,\*</sup>

<sup>a</sup> Department of Mechanical Engineering and Construction, Universitat Jaume I, Castellón, Spain

<sup>b</sup> Department of Engineering Projects, Universitat Politècnica de València, Valencia, Spain

## ARTICLE INFO

### Article history:

Received 28 May 2015

Received in revised form

22 December 2015

Accepted 23 December 2015

Available online 31 December 2015

### Keywords:

Environmental communication

Environmental labelling

Environmental Product Declaration

Product Category Rules

## ABSTRACT

This paper presents the findings of an exploratory study conducted with the aim of analysing the evolution of the use of Environmental Declarations as environmental communication tool in Europe. Previous research has been done in this field focused on analysing differences among Environmental Declaration Programmes, comparison of Product Category Rules and Environmental Declarations for specific product categories, etc. However, the knowledge of the factors affecting their demand from a company perspective is a key aspect for the Environmental Declaration Programmes managers, since it would allow them to orientate future strategies for increasing their implementation.

After analysing the evolution of Product Category Rules and Environmental Product Declarations developed in the International EPD<sup>®</sup> Programme, a survey was designed and distributed to companies that currently had Environmental Product Declarations in that programme. The collected information was related to: factors that led the company to choose the International EPD<sup>®</sup> Programme as an environmental communication tool, communication channels through which companies came to know about the programme, the target public of the Environmental Product Declarations, whether or not companies intend to renew the current Environmental Product Declarations and the reasons for not doing so if that is the case, etc. Communicating objective information and improvement of the corporate identity of the company have been identified as the main factors for adopting International EPD<sup>®</sup> Programme as environmental communication tool. On the contrary, the main weakness identified is the lack of knowledge about EPD programmes in general, by consumers.

© 2016 Elsevier Ltd. All rights reserved.

## 1. Introduction

Today there is an increasing interest across Europe in establishing guidelines that facilitate and drive the measurement and communication of the environmental behaviour of products and organisations (COM 196, 2013). This interest arises as a consequence of the implementation of the Integrated Products Policy (COM 68, 2001; COM 302, 2003), which enhances environmentally friendly products by making their environmental information public.

A number of mechanisms have therefore been developed to favour the dissemination of the environmental aspects of products, most of them within the ISO 1402X family of standards (ISO 14020, 2000). This group of standards proposes Environmental Labelling

(Type I) (ISO 14024, 1999), Self-declared environmental claims (Type II) (ISO 14021, 1999) and Environmental Declarations (Type III) (ISO 14025, 2006) as possible environmental communication instruments that can be applied by companies.

From the consumer's point of view, some studies show that little is known about the meaning of ecolabels, and interpreting the environmental information offered by them is often quite confusing. In this respect, the Flash Eurobarometer (European Commission, 2013) concludes that, amongst others, only 7% of consumers believe that ecolabels provide sufficient, clear and easy to understand information about the environmental impact of products, whereas 32% think that ecolabels provide sufficient information, but that it is not altogether clear. This fact is also confirmed by organisations such as Terrachoice Environmental Marketing, which in 2010 warned about the large amount of environmental information that is sometimes included on the labels of consumer goods and which is not always complete or verified by a third party (TEM, 2010).

\* Corresponding author.

E-mail address: [bovea@uji.es](mailto:bovea@uji.es) (M.D. Bovea).

Within this context, Environmental Declarations (Type III) seem to be the ideal tools to prevent this confusion from arising among consumers and to make environmental comparisons between products/services easier, since they represent a set of environmental indicators based on the application of the Life-Cycle Analysis methodology (ISO 14040, 2006; ISO 14044, 2006) to the product/service under study. This information, verified by an independent third party, is based on complying with a set of pre-established standard operating rules for each product category (Product Category Rules, PCR) and makes it possible to ensure the principle of comparability. That is to say, Environmental Declarations are verified environmental profiles that communicate quantitative information about products both to manufacturers and distributors (business-to-business) and to the final consumer (business-to-consumer). This allows the relevant environmental attributes of products belonging to the same product category to be compared (Manzini et al., 2006).

At international level, a number of different Environmental Declaration (Type III) programmes have come into being, and several PCR have been developed for different product categories. According to Hunsager et al. (2014), some of the programmes that have published the greatest number of Environmental Product Declarations (EPD) are JEMAI<sup>1</sup> in Japan (JEMAI, 2014), Keiti<sup>2</sup>-EPD in Korea (KEITI, 2014), ADEME<sup>3</sup> in France (ADEME, 2014), IBU<sup>4</sup>-EPD in Germany (IBU-EPD, 2014) or the International EPD<sup>5</sup> at the European level (EPD<sup>®</sup>, 2014).

The capacity of EPD to display comparable environmental information about products and services in a reliable and verifiable way has turned them into instruments that are crucial on international markets with environmental perspective (Bergman and Taylor, 2011). Their use has been grown exponentially (European Commission, 2013). Nevertheless, the EPD have still not reached the level of expansion currently enjoyed by Environmental Labeling (Type I), which is the environmental communication instrument most applied and best known in different industrial sectors, such as the construction one (Ibáñez-Forés et al., 2012).

This paper has essentially two aims. On the one hand, it seeks to analyse the evolution of the demand for environmental declarations by studying the Product Category Rules that have been carried out and the Environmental Product Declarations published in the different product/service categories and by countries. On the other hand, it also intends to identify the motivating factors that have led companies to opt for this environmental communication tool, as well as to continue to use it over time. Furthermore, in the case of companies that have not renewed their Environmental Product Declarations, it seeks to identify the reasons for not doing so, as well as what environmental communication tool they have chosen to replace it with and why. This information was collected by means of an online questionnaire, which was answered by a representative sample of companies with products that are certified with an Environmental Product Declaration.

This analysis is focused on the International EPD System, as it is the pioneering programme and the most widely implemented at the European level. Furthermore, it also has the greatest number of PCR developed by categories belonging to the industrial, construction, agricultural, foodstuffs and services sectors, amongst others (Hunsager et al., 2014).

## 2. Background

The implementation of EPD in companies has been studied in the literature from several different perspectives such as: the process of developing EPD and PCR, the differences between programmes, comparison of PCR and EPD between programmes, etc. Table 1 lists some of these studies, classified according to their main subject matter.

As can be seen in Table 1, although a number of publications have focused on analysing the process of obtaining EPD, PCR and/or carrying out practical cases (Benaviste et al., 2011; De Moraes et al., 2013; Del Borghi et al., 2007; Fet and Skaar, 2006; etc.), only three studies attempt to identify the motivating factors that lead companies to opt for EPD as a tool for communicating the environmental impact of their products/services. These studies are those by Rätty et al. (2016), which identifies the preferences of firms in the Norwegian timber sector as regards environmental certification; Zackrisson et al. (2008), which obtains EPD for 10 products from different industrial sectors and identifies the main advantages and disadvantages experienced by the companies in that process; and Manzini et al. (2006), who interviewed managers from 17 Italian companies, evaluated in the years 2001–2002, to identify the motivations driving the public/industry to obtain EPD.

There are also several studies that were conducted to analyse the factors that lead companies to choose other tools as alternatives to EPD. Hence, for example, Subramanian et al. (2012) identified the lack of alignment and standardisation of PCR on a global scale and Hunsager et al. (2014) pointed out the need for greater harmonisation and transparency in the processes involved in generating EPD.

The lack of literature studies specifically focused on analysing the evolution in the use of Environmental Declarations as environmental communication tool, together with the factors that affect their use, points out a need of more research in this field. Knowing the aspects influencing their demand from a business perspective could be a key aspect for the Environmental Declaration Programmes managers, since it would allow them to orientate future strategies for increasing their implementation.

## 3. Methodology

The methodology for analysing the evolution of the EPD and the factors affecting their demand is shown in Fig. 1.

The first stage (*Evolution of the implementation of EPD & PCR*) consists on the study of the implementation of EPD and the development of PCR over time in the International EPD System since 1999, when it was created. The study is focused on this program because it is the most widely implemented programme at the European level.

The second stage (*Factors affecting the demand of EPD*) considers three steps:

- Questionnaire definition, where an online questionnaire is designed with the aim of identifying the reasons why companies choose EPD as a mechanism for environmental communication and why they continue using it over time. To do it, firstly, a multidisciplinary team of experts in environmental communication tools is conformed. Secondly, a preliminary draft of the questionnaire is designed and a pilot test is conducted by applying it to a reduced number of selected companies that currently have an EPD in force, in order to check the understanding and completeness of questions. Finally, the final version of the questionnaire is defined.
- Search of companies and gathering data, where the representative sample size was at first defined taking into account the

<sup>1</sup> Japan Environmental Management Association for Industry.

<sup>2</sup> Korean Environmental Industry & Technology Institute.

<sup>3</sup> Agency for Environmental and Energy Management.

<sup>4</sup> Institut Bauen und Umwelt e.V.

<sup>5</sup> International Environmental Declaration.

Download English Version:

<https://daneshyari.com/en/article/1744194>

Download Persian Version:

<https://daneshyari.com/article/1744194>

[Daneshyari.com](https://daneshyari.com)