ELSEVIER

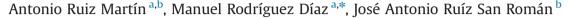
Contents lists available at ScienceDirect

Resources Policy

journal homepage: www.elsevier.com/locate/resourpol



Measure of the mining image



- ^a University of Las Palmas de Gran Canaria, Spain
- ^b University Complutense de Madrid, Spain



Article history: Received 20 December 2012 Received in revised form 7 January 2014 Accepted 10 January 2014

Keywords: Image Mining image Public opinion Economic development Social impact

Jel Classification: M31 Q5 O50

ABSTRACT

Mining is a very important activity for economic and social development, but traditionally research has centered on its technical and operative aspects, instead of studying the image transmitted to the rest of society. This has originated diverse problems, fundamentally due to the information which the population receives via the mass media and which sometimes creates a current of opinion contrary to the development of this extraction activity. In order to resolve the mining communication problems it is necessary to develop a measure of the mining image based on a reliable and valid scale. This is a useful tool in developing a procedure to connect the society with other mining stakeholders and to analyze whether the real image of mining activity is similar to the image transmitted and perceived by society, since the news about the mining industry usually are focused on extreme situations or catastrophes that monopolize the information in the media. In this study a field research based on an attributes scale is developed, with the aim of measuring the mining image. The surveys were carried out in a mining area, where people have direct and real information about the mining industry and its consequences on society, environment and economy.

© 2014 Elsevier Ltd. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/3.0/).

Introduction

Image is defined by Kotler and Armstrong (2012) as a set of ideas, beliefs and impressions a person mentally has of an object. On the other hand, Santesmases Mestre (2012) considers the "image" as a mental representation of the attributes and perceived benefits of a product or brand. Organizations have to create a suitable image to develop a competitive strategy and a powerful positioning in the market (Aaker, 1995, 1996). Image has been widely studied in the service quality field. Grönroos (2007) considers that in order to increase customer influence a favorable and well-known image is an advantage for any organization. In this context, image has an external impact on customer perceptions of the products and services. Moreover, image is highly related to service quality and customer satisfaction.

In marketing research the concept of image has been studied from different perspectives; such as the brand image (Dobni and Zinkhan, 1990; Dowling, 1986; Rynes, 1991; Biel, 1992; Keller, 1993; Aaker, 1996), the launching of new products (Hem et al., 2001; Ambler and Styles, 1997), retail stores (Peterson and Kerin, 1983; Simmons, 1987; Lewison, 1999; Dickson and MacLachlan, 1990; Severin et al., 2001; Oppewal and Timmermans, 1997; Nevin and Houston, 1980;

E-mail addresses: mrodriguez@dede.ulpgc.es (M. Rodríguez Díaz), jar.sanroman@gmail.com (J.A. Ruíz San Román).

Rosembloom, 1983) or tourist destinations (Hunt, 1975; Crompton, 1977; Coshall, 2000; Fakeye and Crompton, 1991; Etchner and Ritchie, 1993; Tapachai and Waryszak, 2000; Stern et al., 2001). However, the image of the mining sector has not been studied, in spite of news frequently appearing to inform about problems, ecological disasters or dangerous consequences to the population.

The concept of image has been applied to different areas, such as, products, individual and corporate brands, geographical areas, economic activities, events and even specific people who project a commercial image. On this basis, Dowling (1986) establishes that an image is "the set of meaning by which an object is known and through which people describe, remember and relate to it". From this perspective, the term "object" opens the idea of image to multiple aspects, beyond that of a product or company. In addition, Keller (1993) considers the perceptions on the brand are mirrored as existing memory links in the consumer, whereby centering this concept exclusively on the end user and, therefore, the image concept only exists in the mind of the consumer (McInnis and Price, 1987). Keller (1993) establishes that the associations can be created through the direct experience with the object, by the information perceived through different mass media and by means of the own personal inferences based on the received information and their scales of values. Fig. 1 shows the theoretical model used for designing and testing a scale of measurement of the mining image. The information can be received from different sources as well as in different forms. Firstly, direct information can

^{*} Corresponding author.

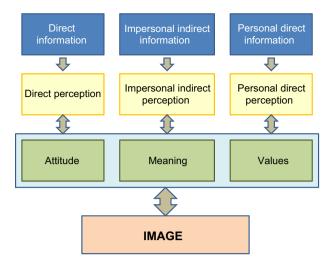


Fig. 1. Image creating process.

produce a perception, which then generates an attitude associated to a meaning and predetermined values. On the other hand, the information can arrive through previous interpretation, known as indirect information. This information can be transmitted by impersonal mass media, such as, television, radio, the press and so on; or by means of a person who transmits the information with or without an interpretation. The perception by the receptor will determine an attitude and an image of the object or event.

A collective image on a given object, event or idea, will generate a public opinion that can directly influence the social, economic, political and legal surroundings. In this sense, image has great importance when it affects a wider and more complex scope of things than just products or companies: such as public administrations, associations. an activity or economic sector, an ideology or public opinion. In this context, not much research nor scientific theories on image composition and evaluation on wider generic concepts other than that of products, exists. Mining is circumscribed in this wider idea that directly affects the possible exploitation of resources necessary for life. The collective distortion of the reality of this economic activity, can determine a current of public opinion contrary to the extraction of the mining wealth. However, when the real image approaches the collective image, we can conclude that the possible decision to be taken, on whether to extract or not extract resources, will be more justified with facts more able to be contrasted.

From this perspective, for a better understanding of the image, it is not only important to know "what is", but also "what is not". Aaker (1996) establishes that one of the most common mistakes made is confusing brand identity (i.e., the associations that the company tries to communicate) with brand image (i.e., the associations that the end users finally perceive). This phenomenon is known as "the brand image pitfall". This affirmation applied to the field of the collective image of an economic activity could be known as "collective image or public opinion pitfall," which normally takes place when the information received is indirect and biased. Therefore, it is possible to confuse the identity of an activity (understood to be the associations that a company or set of companies that make up an activity or sector, tries to communicate) with the image of the activity (i.e., the associations finally perceived by the end users or group of people with the capacity to develop a collective image and, consequently, a current of public opinion).

It is necessary to develop a mining image scale for different reasons. Corporate social responsibility (CSR) in the mining industry is a knowledge field that can give an initial theoretical support. In this context, Walker and Howard (2002) note that CRS and other such voluntary initiatives are important for mining companies to reach some objectives. The first objective deals with the poor public

opinion of the sector as a whole, since the opinion of natural resource extraction industries is influenced more by concerns over environmental and social performance than by performance in areas such as product pricing, quality and safety (Rae and Rose, 2001). On the other hand, pressure groups have consistently targeted the local and international legitimacy of the mining sector. Finally, maintaining the operational licenses is a constant challenge for the companies that must negotiate with statemen and local governments and guarantee the sustainability and impact of the extraction activity (Jenkins and Yakovieva, 2006). These circumstances create the need to develop a mining image scale, because managing CSR is essential to pinpoint which are the perceptions and attitudes of society. Therefore, the mining image is the way to connect society with other mining stakeholders in order to guide the decision making process. Moreover, governments take their decisions based on public opinion, where the mining image plays a fundamental role together with the mass media and personal communications. Therefore, based on Kotler and Armstrong's (2012) considerations, we can define the mining image as a set of ideas, beliefs and impressions a person mentally has of the mining activity; developing the mining image in such a way as to connect society with other mining stakeholders to improve communication, shared knowledge, decision making processes and sustainability as well as to reduce the social and environment impact.

The objective of this work is to design and evaluate the reliability and validity of a scale used to measure the image of the mining activity. Since image is a concept which can vary according to how information is received and processed, we exclusively focused this work on people closely linked to the mining sector, either because they have a profound knowledge of it, or work, or reside very close to the mining activity. We begin by describing the methodological steps followed in developing the scale, specifying the geographical surroundings where the field work took place. Then, we present the results of the research, where the different factors which integrate the mining image are described. Then, the reliability and validity of the scale is analyzed and a structural equation model is carried out to contrast the relationship between the factors and the mining image concept. Finally, the main conclusions of the research are discussed.

Scale development

The purpose of measurement in theory testing and research is to provide an empirical estimation of a theoretical construct (Gerbing and Anderson, 1988; Anderson, 1983). The process of measurement involves a sequence of steps that can be followed to guarantee the reliability and validity of the scales developed to measure marketing constructs (Churchill, 1979). According to the procedure suggested by Churchill (1979) and taking into account the proposition of Gerbing and Anderson (1988) to incorporate confirmatory factor analysis (Jöreskog and Sörbom, 1984; Bentler, 1985) for the evaluation of unidimensionality, the development of the mining scale followed this methodology. One of the principal problems in the scale development in this study is that it is pioneer research in the field of image, and it is very difficult to find studies with framework and research contrasting the usefulness of this construct. Thus the different steps of the methodology proposed by Churchill (1979) will be exposed in order to develop the mining image scale.

Specifying the domain of the construct

Traditionally research on mining activity has focused on technical and environmental aspects, since they are the principal concerns of companies and society. Nevertheless, the important consequences that this economic activity produces have expanded the

Download English Version:

https://daneshyari.com/en/article/7387866

Download Persian Version:

https://daneshyari.com/article/7387866

<u>Daneshyari.com</u>