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Institutional and competitive drivers on managers' training and organizational outcomes



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Abstract Studies of the relationship between employee training and outcomes at the company level, in general, do not produce conclusive results. The objective of this paper is to analyze the drivers and outcomes of managers training. Drawing on institutional and economic-rational perspectives, this research explores the reasons why firms train their managers and which outcomes improve in response to training, to explain the ambiguity of the training effect on performance.

To achieve the main objective, an empirical study was carried out on 374 Spanish firms. Findings support the idea that managers training is driven by institutional forces, particularly normative and mimetic forces, and to a lesser extent by competitive factors. That implies two different kinds of outcome are achieved by training managers: organizational legitimacy improves as well as organizational performance.

While previous studies focus on the rational economic side of the training–outcome relationship, this paper aims to show the importance of the institutional forces in this relationship, looking at drivers and outcomes and so providing further explanations of the effect of training on performance.

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Introduction

From a general perspective, there is agreement on the key role that training plays in organizations. Consequently, it has been and is the subject of extensive research that has focused on training as a tool for the development of human capital, so that organizations have increasing access to people with valuable knowledge and unique and inimitable skills (Barney, 1991) that enable them to achieve sustainable competitive advantage (Koch and MacGrath, 1996), so that they can obtain higher economic rents and, ultimately, enhance organizational results.

In this line of research, there are many studies that have tried to examine the relationship between training and organizational results empirically, using either *objective measures* (Bartel, 1994; Black and Lynch, 1996; Huselid et al., 1997; Barrett and O'Connell, 2001; Úbeda, 2005; Ghebregiorgis and Karsten, 2007; Nikandrou et al., 2008), or *subjective measures* (Amhad and Schroeder, 2003; Jerez-Gómez et al., 2004; Úbeda, 2005; Vlachos, 2008) in an effort to confirm the positive impact of training on organizational outcomes, although the results have not always been conclusive.

Most studies analyzing the effect of staff training at the organizational level do not differentiate between different groups of workers. However, the study of managers training may be more relevant to organizational outcomes, due to its strategic nature and the particular contribution it can make to the generation and maintenance of business competitiveness (Araujo et al., 2006). Although there are certain aspects of managers training that create uncertainty regarding the impact on outcome indicators, in particular the lack of a direct relationship between managers training and productivity and income generation, managers training is important for creating unique organizational capabilities that are difficult to replace, through change management or the spread of a culture of learning and training for all employees (Mabey, 2004), which makes the study of managers training particularly relevant.

However, the literature provides no conclusive empirical evidence of the positive impact of employee training indicators (whether of managers or not) on organizational outcomes (productivity, quality, financial performance, etc.). This leads us to deepen the search for alternative explanations for the fact that the economic benefits, which from a theoretical point of view are associated with training, do not always show up in the corresponding improvement in performance indicators.

Some works point to the need to include contextual factors to explain the relationship between HR practices and organizational outcomes (Gooderham et al., 1999; Paauwe, 2004; Stavrou and Brewster, 2005; Paauwe and Boselie, 2003, 2007; Boselie, 2009). This approach examines the relationship between training and organizational outcomes, while suggesting that it is necessary to undertake a comprehensive study of the reasons that lead companies to train their staff (managers and non-managers).

In addition, some reviews of the study of the effects of human resource practices, including training and its positive

effect on organizational results, suggest that the problems arising from the weaknesses of the theoretical framing of this relationship have been underestimated (Fleetwood and Hesketh, 2006), to the extent that they cannot properly frame empirical studies, while indicating the need for alternative theoretical contributions (Priem and Butler, 2001; Boxall and Purcell, 2003; Boselie et al., 2005).

On the basis of these considerations, this paper describes a study of the relationship between managers training and its effect on the results from a broader point of view, taking into account elements that complement the strictly rational economic framework that is normally considered. This analysis incorporates contextual and social factors in the study of the relationship to extend the framework of study, asking whether companies take such elements into account when making decisions about the conduct of training programs, as well as responding to competitive pressures, and if may improve legitimacy, in addition to improving organizational results.

Moreover, the lack of studies that confirm the effect of the training of managers on results at the organizational level empirically (Collins and Holton, 2004) is an additional factor which inspires us to focus our analysis on managers, especially given the potential of management education and training to transform organizational performance (Araujo et al., 2006) and the strategic nature of managers training, due to the multiplier effect that may increase the impact of their development on the whole organization (Landeta et al., 2007).

Therefore, the current study combines the principles of institutional theory and an economic-rational approach in order to search for the reasons behind decisions to implement managers training programs and the analysis incorporates the influence of factors such as institutional pressures – coercive, normative and mimetic – that go beyond the purely economic pursuit of results, involving the pursuit of other goals such as legitimacy, both within the organization and externally, and the extent to which this may influence or explain organizational results. Providing this new approach, which contrasts with those traditionally used, as well as providing a broader explanation for the conduct of training activities, will be useful to all the actors involved in the training process.

To set out our explanation, the present work is divided into four sections. In the first, we review the empirical literature on management training and organizational results, and, based on the principles of institutional theory, develop the hypotheses that are to be tested. In particular, this raises the question of the extent to which institutional and competitive pressures influence management training, and whether training determines the type of results obtained by the company, whether legitimacy or efficiency, and whether the search for legitimacy explains the effect of training on organizational result, according to the principles of institutional theory.

In the "Methodology" section we deal with research methodology (sample, statistical procedure, measurement of variables). The "Results" section focuses on results, ending with the "Discussion and conclusions" section which provides a discussion of the results and conclusions.

Theory and hypotheses

The economic-rational perspective

To study employee training there is no single theoretical framework (Tharenou et al., 2007), and this applies equally to the training of managers (Landeta et al., 2009), although the field is dominated by theoretical approaches that share a rational economic perspective based on the analysis of economic-rational factors such as human capital and the resource based-view theory (Boselie et al., 2005), which imply a vision of training in terms of increasing either human capital or capabilities.

Thus, the theory of human capital treats training as an investment in improving the skills and competencies of employees in order to improve their productivity and therefore the results of the firm (Becker, 1983). In similar terms, the resource based-view perspective considers that practices that improve the development of human resources as a source of knowledge, where training plays an important role, are a main source of sustainable competitive advantage, because knowledge is valuable, rare and difficult to imitate and substitute (Barney, 1991; Wright et al., 1994; Boxall, 1996; Collins and Clark, 2003).

Empirical confirmation of these positive economic perspectives has often not been thought necessary. There is research to support the positive effect of training on various indicators such as organizational results, productivity (Bartel, 1994; Paul and Anantharaman, 2003; Faems et al., 2005; Zwick, 2006; Birdi et al., 2008), or global indicators (Harel and Tzafrir, 1999; Amhad and Schroeder, 2003; Katou and Budhwar, 2007; Vlachos, 2008). But the results that are produced in relation to productivity are both weak and ambiguous (Koch and MacGrath, 1996), and this is also the case for global indicators (Kathri, 2000; Apospori et al., 2008), and one can find studies where there is no reported effect of training on productivity (Black and Lynch, 1996; Mabey and Ramirez, 2005; Ordiz and Fernández, 2005), or gross measures of company results (Campos e Cunha et al., 2003; Audea et al., 2005; Ordiz and Fernández, 2005; Van Eerde et al., 2008).

While it is true that most of these studies refer to the effects of staff training as a whole, the conclusions drawn from the few studies that examine the effect of training in the case of managers (Mabey and Gooderham, 2005) are similar (Burke and Day, 1986; Collins and Holton, 2004). Most of the literature focuses on confirming the effect of the training of managers individually, and on the skills they acquired (King, 1993; McEvoy, 1997; Hunt and Baruch, 2003), while there are fewer studies at the organizational level (Collins and Holton, 2004) that note a positive effect on some occasions on outcome indicators such as quality or productivity (Fey and Björkman, 2001; Aragón et al., 2003; Mabey and Ramirez, 2005), and little or no effect in others (Storey, 2004; Hunt and Baruch, 2003; Landeta et al., 2009).

Thus, the overall picture from the empirical literature on the relationship between managers training and organizational performance, does not always confirm the expectations of a positive effect on the organization. The main problem is that there are no general conditions in which training fails to improve the results of organizations,

and therefore it is not possible to determine why training sometimes has positive effects on different performance indicators and sometimes does not.

The most recent reviews of the literature have addressed this problem by reflecting on possible causes (Boselie et al., 2005; Tharenou et al., 2007), among which methodological problems in research design have been assessed (Wright et al., 2005; Zwick, 2006). However, in addition to the methodological problems and limitations of specific investigations, some authors point to other causes.

Fleetwood and Hesketh (2006, 2008) question the theoretical framework that underlies most of the empirical research on the relationship between training and results, describing it as "simplistic", in line with previous studies which highlight the weakness of the approaches used (Priem and Butler, 2001; Boselie et al., 2005), and propose an alternative and complementary theoretical approaches to deepen the understanding of organizational behavior (Oliver, 1997).

Stavrou and Brewster (2005) and Jayawarna et al. (2007) point to the need to introduce other aspects into the analysis, such as cultural or institutional factors, especially in an uncertain environment in which organizations are subject to external pressures from government and acceptance of accreditation standards (Collins and Holton, 2004).

Jayawarna et al. (2007) highlight the lack of studies investigating the reasons why companies do training, and Kathri (2000) points out to the possibility of a mimetic behavior in incorporating training into companies, noting that some government agencies encourage companies to incorporate practices that are used in other countries.

Landeta et al. (2007) in their work on management training, review the reasons why companies train their managers, suggesting that they not only seek to increase economic efficiency but also seek to achieve social efficiency. Thus, it seems necessary to consider factors that explain the training of managers in analyzing the relationship of training with organizational performance.

Following this line of argument, and following the principles of context-based human resource theory (Pauwe, 2004), we propose to extend the purely rational economic analysis used so far using an approach that gives greater weight to the social context as an alternative source sustainable competitive advantage for companies. In this sense, institutional theory is considered a valid alternative and complementary approach for explaining organizational behavior (Oliver, 1997; Boselie, 2009) with its focus on institutional mechanisms, which is particularly appropriate for the study of human resources (Wright and MacMahan, 1992; Gooderham et al., 1999; Pauwe and Boselie, 2003; Boon et al., 2009; Pasamar and Valle, 2011), and may help to understand the determinants of training.

This approach is used with increasing frequency to explain related change processes, imitation and diffusion of organizational practices (Hagardon and Douglas, 2001) and processes of human resource management (Björkman et al., 2007; Farndale and Pauwe, 2007; Boon et al., 2009), demonstrating the complementary nature of the approach to traditional theories of organizational behavior (Oliver, 1997; Pauwe and Boselie, 2005; Berrone et al., 2007; Rothenberg, 2007).

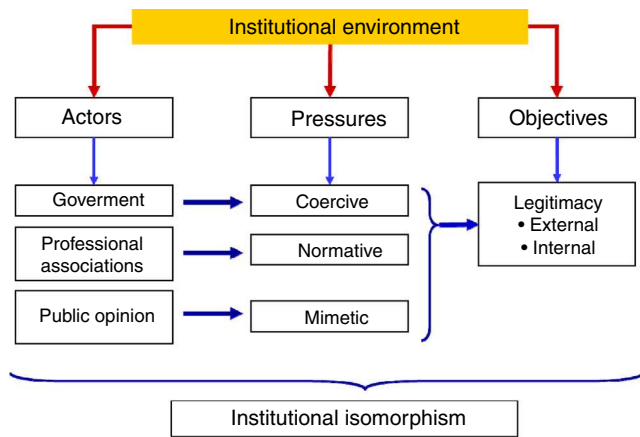


Figure 1 Elements of the institutional approach.

Source: Own elaboration.

The institutional perspective and institutional pressures for training

Institutional theory provides a broader view by introducing a new social perspective in which the consideration of other institutional actors and new pressures in the environment provide different motivations for organizational behavior besides the economic, originating in external social pressures. Institutional theory starts from the premise that organizations in their structures reflect socially constructed reality (Meyer and Rowan, 1977), so that when the environment in which organizations operate is highly structured, it has a strong influence on the behavior of organizations operating in it, homogenizing behavior (DiMaggio and Powell, 1983) (Fig. 1).

As shown in Fig. 1, this perspective involves incorporating new elements into the analysis of the behavior of organizations that have hitherto been neglected, including some external actors, cultural values, beliefs and symbols. This completes the range of the objectives that organizations have, from efficiency to legitimacy, and considers that the behavior of organizations, and ultimately their survival, is largely determined by the social context and the pressures that exist in it.

This is because organizations organize their behavior in relation to the values and standards that are set and are "taken for granted" in the environment in which they operate, seeking the approval of agents in the environment and gaining legitimacy. That is why legitimacy, which can be considered to be consistency between organizational values and socially accepted values (Scott, 2001), becomes the key point of institutional theory, which is connected to the way in which organizations seek to adapt to social expectations and gain acceptance, because acceptance being facilitates the success and survival of organizations (Meyer and Rowan, 1977).

According to this reasoning and the definition of institutions (Scott, 2001), implementation of business practices and human resources practices, such as training, can respond to pressure mechanisms derived from the institutional structure - regulatory, normative and

cognitive - whose influence can shape corporate behavior regarding the decision to train managers.²

Regulative domain: source of coercive pressures

The most obvious pressure mechanism that is introduced by institutional theory relates to the regulation of corporate behavior through explicit regulatory processes, usually established by an authoritative source, with associated controls or sanctions (Scott, 2001).

The existence of laws, rules and regulations established by the State and the Autonomous Communities and monitoring to ensure compliance and the imposition of sanctions or penalties arising from noncompliance influence the future behavior of organizations. This type of pressure, coercive in nature, involves the adoption of practices to conform to the regulations, usually established in a radical way through government mandate.

Organizations whose behavior is guided by the search for legitimacy take precise measures to comply with legally required practices. In this sense, human resource practices often stem from social expectations and legislative requirements (Budhwar and Sparrow, 2002), as is the case for expenditure on corporate training (Farndale and Paauwe, 2007), or the role of social partners such as trade unions or works councils (Paauwe, 2004).

In Spain, although there is no regulatory pressures that compels the implementation of training programs and punishes a failure to establish them, as there is in other countries such as France, there is some coercive pressure from the relevant institutional actors: State, Autonomous Communities and social agents (employers and unions).

First, they have all promoted the institutionalization of continuing training in Spain, starting with the signing of successive National Continuing Training Agreements (1993, 1997, 2001), which are reflected in the reality of training, and has stimulated an increase in the value attached to training, which is considered unquestionable development (for both managers and non-managers) and thus improves the efficiency of the organization practice. This, while not a legal requirement, has worked as a pressure mechanism favoring the dissemination of training, influencing the decisions taken by companies to train their managers.

Second, union influence is observed in training (Green et al., 1999; Booth et al., 2003), as specified in the articles of collective agreements describing the need and obligation to train employees as a fundamental element of interest to the organization. This form of bilateral agreement between the company and unions is considered crucial in the adoption and use of business practices (Boselie et al., 2003), as has been demonstrated in the adoption of e-learning systems (Comacchio and Scapolan, 2004), which may influence the decision of firms to train their managers.

² The institutional pressures (coercive, normative and mimetic) are social pressures from the environment, and as such influence the decisions of companies about the implementation of training quite independently of who is involved in the decision. However, in the points that follow, although we start from a very general theoretical perspective, we illustrate the influence of each pressure on the decision to provide management training in relation to the actual context of companies in Spain.

Finally, the continuing education system is funded by an obligation to contribute 0.7%, described as an investment to reduce accidents at work and occupational diseases. To some extent this implies that organizations must take into account the running of training programs, as it is a practice that they are compelled to spend part of their resources on. On the other hand, the fact that the European Social Fund allocates significant resources to finance training activities as the primary measure to increase business competitiveness, has been a major support for the legitimization and institutionalization of training as an efficient and necessary practice.

Based on these considerations we posit **Hypothesis 1A**:

Hypothesis 1A. Coercive pressures, resulting from national agreements for continuous training, collective bargaining, union influence and the funding system for training, have a positive influence on the implementation of training programs for managers.

Normative domain: source of normative pressures

Normative pressures, emanating from the conception of socially desired or preferred behaviors, together with the construction of comparative criteria or standards, build regulatory systems that describe how things must be done (Scott, 2001).

The construction of the regulatory system in the institutional environment comes about mainly as a result of professionalization (Greenwood et al., 2002), so that professional associations, consultants and certification programs promote the establishment of certain values, norms and beliefs among organizations, resulting in a kind of normative isomorphism.

Thus, the process of forming associations of human resources professionals around the world helps to establish common standards for the importance of human resource practices (Fardale and Brewster, 2005), and promotes the diffusion of human resource practices, such as staff training. According to Björkman et al. (2007), norms and rules derived from American associations (American Society for Training and Development (ASTD) and Academy of Human Resource Development (AHRD)) or European associations (University Forum for Human Resource Development (UFHRD)) regarding the need for and importance of training, exert a normative pressure on companies to train their managers, and establish standards of appropriate behavior regarding the same. The fact that managers responsible for making decisions on training share these standards as acceptable necessary training in their company is a support that is considered crucial to the implementation of any human resource practice (Stirpe et al., 2013).

In addition to this normative pressure, the growing success of professional networks, through which managers maintain a high degree of connectedness, becomes ever more important (Guler et al., 2002; Brandes et al., 2006). The participation of companies, and in particular members of management, in social networks, or membership in professional associations in which information, beliefs and values are shared, favors certain organizational behaviors and acts as an engine for distributing business practices (DiMaggio and Powell, 1991), as has been demonstrated for the adoption of quality systems (Westphal et al., 1997), or

of certain human resource practices (Murphy and Southey, 2003; Pasamar and Valle, 2011). The greater the participation in professional networks, membership in trade associations or contact with international consultants (Som, 2007), the greater the likelihood that training programs for managers will be implemented, given the widespread belief among professional associations and consultants that more effort in management training enhances their capabilities (Collins and Holton, 2004).

This leads us to propose **Hypothesis 1B**:

Hypothesis 1B. Normative pressures, due to the existence of professional associations linked to the areas of human resources, have a positive influence on the implementation of training programs for managers.

Cultural-cognitive domain: source mimetic pressures

The pressures from the cognitive domain are closely related to the imitation of certain behaviors that are accepted as valid and are given value on account of the fact that they are integral to reference frameworks (Scott, 2001).

So, although there are stronger or weaker pressures that constrain the behavior of organizations, there are times when their response to these pressures is to mimic the behavior of organizations that have the status of leaders, or have a certain prestige in the environment as pioneers in the application of certain practices or strategies. According to DiMaggio and Powell (1991) this response usually occurs when the business faces a highly uncertain situation, and the organization copies practices that have been successful in other known or legitimate organizations and in which they have confidence, creating a situation of mimetic isomorphism, with the ultimate goal of obtaining social legitimacy (Pauwe and Boselie, 2003).

Thus, the imitation of the behavior of leaders and successful companies in a sector has proven to be a determining factor in the behavior of other businesses (Tolbert and Zucker, 1983; Teo et al., 2003; Delmas and Toffel, 2004) and decisions about certain human resource practices (Osterman, 1994; Kostova and Roth, 2002; Pasamar and Valle, 2011).

In this sense, the uncertainty in which decisions about the training of managers are made means that, at least in the most vulnerable organizations in situations of uncertainty, they choose to imitate those companies that have a training plan for their directors and are followed as role models (Combs et al., 2009). This is intended to eliminate the risk associated with the uncertainty of training managers without knowing if positive results will be obtained. Moreover, the importance that most organizations in a sector give to specific actions explains and determines adoption (Fennell and Alexander, 1987; Honnig and Karlsson, 2004; Brandes et al., 2006; Magán and Céspedes, 2007). So, on this basis we propose **Hypothesis 1C**:

Hypothesis 1C. Mimetic pressures, based on the uncertainty in the environment and monitoring leaders in the sector, have a positive influence on the implementation of training programs for managers.

The decision to train managers can therefore be a response to the influence of any or all of these

mechanisms of institutional pressure. However, the influence of these pressures does not exclude the possibility that there may be other factors that determine this decision. The well known characteristic of complementarity, which is a feature of institutional theory, with the rational-economic approach (Oliver, 1997; Clemens and Douglas, 2005; Paauwe, 2004; Boselie, 2009), suggests that there may be two complementary mechanisms, as described by Bansal and Roth (2002) operating in the environment of the company and shaping its performance. One mechanism reacts to institutional pressures, whereby the company influenced by such pressures decides to train managers to obtain the approval of the environment in terms of greater legitimacy, may combine with a second mechanism related to the competitive pressures of environment, so that an economic-rational approach states it would lead companies to train their managers to obtain an improvement in organizational performance.

This would lead us to consider the approaches of economic-rational approach as an element that may influence the decision to train managers. So **Hypothesis 1D** can be expressed as follows:

Hypothesis 1D. Competitive pressures associated with market competition and the need to obtain competitive advantage have a positive influence on the implementation of training programs for managers.

Management training, legitimacy and organizational performance

The influence of institutional pressures on management training makes sense as long as organizations are considered to be social and cultural entities that are embedded in a broader context in which they seek approval of the socially constructed environment in which they operate, thus steering the behavior of seeking legitimacy (DiMaggio and Powell, 1991; Paauwe and Boselie, 2007).

It is therefore legitimacy, considered consistency between organizational values and socially accepted values (Scott, 2001), the key point of institutional theory, just as efficiency is the focus of the economic-rational approach. Therefore legitimacy becomes the engine of institutional theory, as it relates to the way in which organizations seek to adapt to social expectations to gain acceptance, such acceptance facilitating the success and survival of organizations (Meyer and Rowan, 1977).

This perspective explains that companies make the decision to train their managers in an effort to secure legitimacy and fit in with established values, rather than in the pursuit of organizational effectiveness, so that the company would be legitimated by institutional actors related to *the widespread perception that the actions of the organization are desirable, proper, and according to socially constructed systems of norms, values and definitions* (Suchman, 1995).

Different institutional actors that businesses confront, and on whose approval their legitimacy ultimately depends, can be grouped according to their origin on two dimensions, so that companies can simplify the sources of approval to which they are subject: external and internal (Ruef and Scott, 1998; Kostova, 1999).

The government, trade unions, business and professional associations, and public opinion are the main external sources of approval for companies that choose to train their managers. On the other hand, managers, workers, shop stewards and shareholders are some of the leading sources of internal legitimacy for the company, so the decision to train managers will depend upon the approval of the managers themselves and other workers who see the company investing in their development.

Thus, the social approval of these actors usually results in a strengthening of relationships between them (Thomas, 2005; Certo and Hodge, 2007), so that, although the decision to train managers is taken for reasons other than increasing efficiency, responding to social pressures, it could still be a wise decision, because it may benefit the organization in terms of greater legitimacy.

On the other hand, as indicated above, the institutional and rational economic approaches are not mutually exclusive, so obtaining greater legitimacy does not preclude improvements in the results obtained in economic terms.

Based on these considerations, **Hypothesis 2** is proposed as follows:

Hypothesis 2A. Efforts in management training will have a positive effect on the external legitimacy.

Hypothesis 2B. Efforts in management training will have a positive effect on internal legitimacy.

Hypothesis 2C. Efforts in training managers will have a positive effect on organizational performance.

In addition to legitimacy, the institutional perspective also includes the improvement of organization performance. Thus, the rationale behind corporate behavior that enhances legitimacy lies in the fact that those organizations that are legitimized in their environment ensure their survival (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Meyer and Scott, 1983). This proposition, which is central to institutional theory, implies that although the organization bases its decision to train managers on the pursuit of organizational efficiency, in seeking legitimacy by responding to the pressures of institutional actors, such as government, social partners, professional and business associations, employees, officers and shareholders, the company gets approval, and strengthens its relationships with these actors, ensuring its survival (Baum and Oliver, 1991), thereby producing improvements in organizational results in economic terms (Harris, 2007).

From this point of view, legitimacy is a means rather than an end (Dacin et al., 2007). Companies with greater legitimacy have strengthened relationships with institutional actors (Thomas, 2005; Certo and Hodge, 2007), which ultimately leads to improved organizational results.

So, this suggests **Hypothesis 3**:

Hypothesis 3A. The external legitimacy accruing to organizations by conducting training of their managers has a positive influence on organizational results.

Hypothesis 3B. The internal legitimacy accruing to organizations by conducting training of their managers has a positive influence on organizational results.

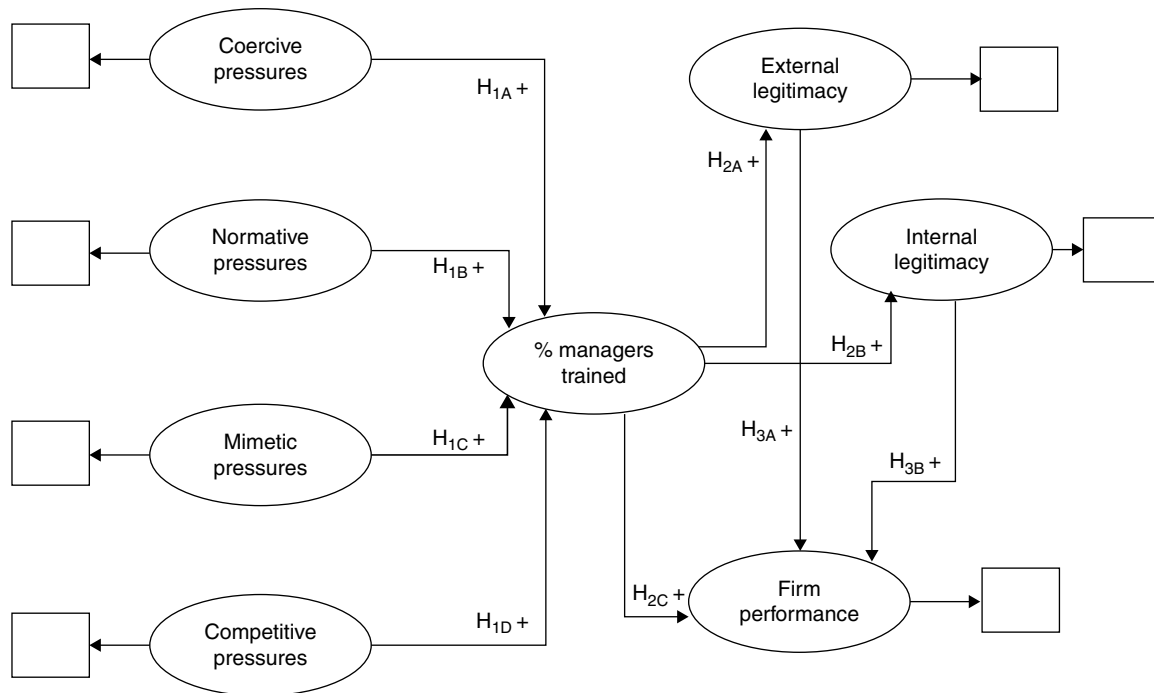


Figure 2 Hypothesis summary.

Source: Own elaboration.

These three hypotheses and their corresponding sub-hypotheses are summarized in the theoretical model set out in Fig. 2.

The empirical testing of this model makes it possible to delve into the reasons why companies train their managers, clarifying which are the factors that influence the decision to undertake training and what is the effect of the training on indicators of outcomes – internal and external legitimacy and organizational results – and if legitimacy explains the improvement in organizational outcomes.

Methodology

Sample and data collection

The population is composed of Spanish companies in the sectors of industry and services with more than 150 employees, and consists of a total of 5800 companies. The sampling frame for selection was the SABI database compiled by the company INFORMA SA.³

The information was collected through a mail survey with telephone follow-up. Field work was conducted between 15 April and 30 July, 2008, using a questionnaire addressed to the director of training and, in his or her absence, to the director of human resources. 374⁴ valid, completed

questionnaires were collected, which gives a response rate of 6.36%. The sampling error is 5 percentage points with a confidence level of 95.5%.⁵

The requested information and the analyses refer are related to managers for several reasons. First, the focus of analysis is on a homogeneous group of employees, so that the factors influencing the decision to train, and further indicators measuring legitimacy are homogeneous, and consistent with the group of managers. Second, the importance of training for this group has been assumed in management decision making, brand guidelines for action and, very often, they are leaders in their respective areas. And third, we believe that this is a group of workers who can be influenced by both types of pressures, competitive and institutional alike.

Variables and measurements

Institutional pressures on managers are conceived to be a multidimensional scale (Annex I), similar to the scale proposed for coercive pressures (DiMaggio and Powell, 1983; Boselie et al., 2003; Hartcourt et al., 2005; Som, 2007). The scale has been tested for the composite reliability, $\rho_c = 0.76$, and average variance extracted, $ave = 0.51$ and these conform to the values recommended in the literature (Fornell and Larcker, 1981; Bagozzi and Yi, 1988, 2012).

³ The database contains more than 100,000 industrial and service companies, of which 5800 have more than 150 employees. From these we selected a random simple to represent the original population of companies.

⁴ In the end, 48.5% of companies in the sample have between 150 and 250 employees, and 51.5% more than 250 employees.

⁵ There are no statistically significant differences between the companies in the population and the simple in terms of total capital, turnover, return on sales, economic return or total profits, from which it is possible to conclude that the sample represents the population and there is no response bias.

The measurement scale for normative pressures is based on DiMaggio and Powell (1991) and Campbell (2006). Composite reliability, $\rho_c = 0.76$, and average variance extracted, $ave = 0.51$, were tested.

The scale for mimetic pressures is derived from Kostova and Roth (2002), Teo et al. (2003), and Brandes et al. (2006). Composite reliability, $\rho_c = 0.76$, and average variance extracted, $ave = 0.51$, were tested.

Competitive pressures are measured using a subjective indicator derived from the proposal made by Paauwe (2004). The scale is adapted using the competitive factors most frequently associated with training in the literature, improving the qualifications of human resources, improving productivity and enhancing engagement. (Composite reliability: $\rho_c = 0.88$; and average variance extracted, $ave = 0.72$).

The company training effort is measured by the percentage of senior managers trained in the course of a year.

To measure the legitimacy, two variables were used to collect the two dimensions: external legitimacy and internal legitimacy (Annex I), using multi-item scales that reflect the perception of the company in terms of improving different aspects related to the external and internal legitimacy. The items used to measure each aspect of legitimacy refer to the institutional actors who are seen as the sources of legitimacy, and are adapted from the proposals made by Ruef and Scott (1998), Kostova and Zaheer (1999) and Dacin et al. (2007), as well as the main empirical work on organizational legitimacy (Thomas, 2005; Certo and Hodge, 2007) (composite reliability: $\rho_c = 0.83$, and average variance extracted: $ave = 0.56$, for external legitimacy and composite reliability: $\rho_c = 0.86$, and average variance extracted, $ave = 0.61$, for the internal legitimacy).

For the measurement of firm performance we used an indicator that reflects the profitability of sales, overall profitability and financial performance of the companies in the sample, measured as the average value for each year from 2007 to 2011 using information from the SABI database for those years. Composite reliability is $\rho_c = 0.92$ and average variance extracted, $ave = 0.80$.

Reliability and validity of the scales used

The evaluation of the measurement model followed a two step procedure as recommended by Anderson and Gerbing (1988). In the first stage, the measurement model was estimated using confirmatory factor analysis (CFA) to test the goodness of fit of the measurement scales (Fornell and Larcker, 1981; Anderson and Gerbing, 1988). Many studies have used CFA to test the psychometric properties of measurement scales (Alegre et al., 2006; Gerbing and Anderson, 1988). Montoya-Weiss and Calantone (1994) recommended this method for testing individual item reliability, internal consistency and scale reliability, and the analysis of the average variance extracted for discriminant validity (Annex II). In this case, CFA was used with the method of maximum likelihood estimation, as it is the most appropriate method when the normality of the data is not certain, as in this case (Chou et al., 1991; Hu et al., 1992; West et al., 1995).

We used the indicators proposed by Fornell and Larcker (1981) and Bagozzi and Yi (1988, 2012) of average variance extracted (ave) and composite reliability (ρ_c) respectively.

In this case, the method offers similar indicators of fit which are more rigorous than other methods using the Satorra–Bentler Chi Square distribution statistic (Satorra and Bentler, 1994), as the literature suggests (Hair et al., 2006; West et al., 1995). The quality of the fit is the correspondence between the variance-covariance between the observed matrix and the estimated (measurement) matrix. CFA simultaneously evaluates the multidimensional nature and the reliability of the measurement of each construct and dimension.

CFA adjustment measures were estimated using EQS v.6.1. The indicators are within the parameters recommended in the literature (Podsakoff et al., 2003; Hoyle and Panter, 1995; Anderson and Gerbing, 1988; Fornell and Larcker, 1981), so there is a good and robust fit for the measurement model (Satorra–Bentler $\chi^2 (209) = 276.54$ ($p = 0.001$), NFI = 0.91, NNFI = 0.97, CFI = 0.98, IFI = 0.98, RMSEA = 0.03). The NFI, NNFI, CFI, and IFI, statistics are higher than 0.9 and RMSEA is less than 0.08, as recommended in the literature, and whether they have been estimated in a robust form or not.

If we focus on the analysis of individual indicators for each item, all have significant values of the standardized coefficient at a level of 95% ($p < 0.05$) confidence. Based on the obtained results we can conclude that the model is suitable for measuring the constructs specified.

As for the reliability and internal consistency of each scale, we see that all scales have a suitable value of composite reliability (ρ_c), as Fornell and Larcker (1981), Bagozzi and Yi (1988, 2012) propose, which is greater than 0.6. With respect to the average variance extracted (ave), all scales are higher than the recommended limit of 0.5.

Finally the validity of the measurement model was tested using content validity and construct validity. Following the recommendations of Fornell and Larcker (1981) discriminant validity was confirmed.

Results

In Table 1 the means and standard deviations and correlations between variables of the model (Fig. 2) are presented. Significant positive correlations between the main variables are observed.

The proposed structural equation model (SEM) has been estimated as recommended by Byrne (2006) and shows that the measures of fit of the structural equation model (SEM) are within the parameters recommended in the literature, so there is a good fit (Satorra–Bentler $\chi^2 (276) = 478.71$ ($p = 0.000$), NFI = 0.86, NNFI = 0.92, CFI = 0.93, IFI = 0.93, RMSEA = 0.05).

In Fig. 3 and Table 2, structural parameters estimated between the variables forming the structural equation model are shown. In view of the estimated structural parameters, it is found that the coercive pressures have no significant influence on the percentage of managers trained ($\lambda = -0.03$, $p > 0.1$), which leads us to reject Hypothesis 1A. It cannot be argued that national service training agreements, collective agreements or union influence have a significant positive influence on the implementation of training programs for managers, contrary to the argument of

Table 1 Means, standard deviations and correlations.

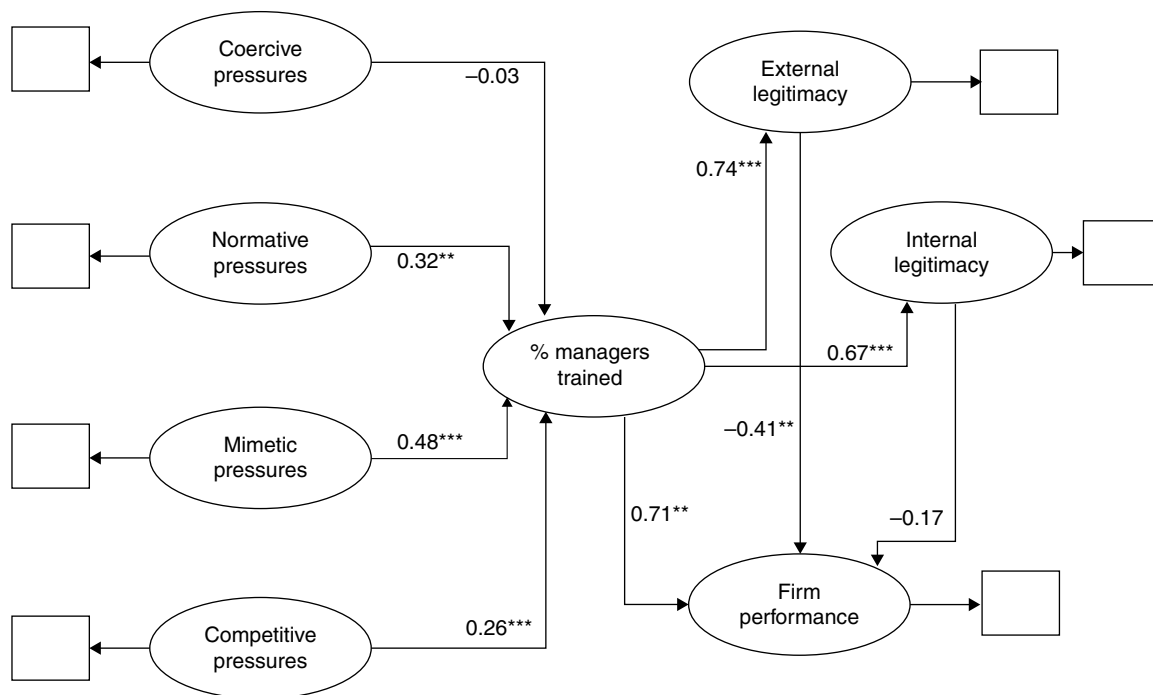
| | Mean | Standard deviations | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-------------------------|-------|---------------------|---------|---------|---------|---------|---------|---------|---------|--------|
| 1 Industry | 0.50 | 0.50 | 1 | | | | | | | |
| 2 % Managers trained | 55.90 | 33.26 | -0.05 | 1 | | | | | | |
| 3 Coercive pressures | 2.33 | 0.90 | -0.02 | -0.02 | 1 | | | | | |
| 4 Normative pressures | 2.17 | 0.83 | -0.05 | 0.13** | 0.53*** | 1 | | | | |
| 5 Mimetic pressures | 3.22 | 0.90 | 0.08 | 0.13** | 0.17** | 0.29** | 1 | | | |
| 6 Competitive pressures | 4.23 | 0.83 | 0.06 | 0.15** | -0.12 | -0.03 | 0.3*** | 1 | | |
| 7 External legitimacy | 2.43 | 0.83 | 0.09 | 0.07 | 0.29*** | 0.45*** | 0.43*** | 0.16*** | 1 | |
| 8 Internal legitimacy | 3.62 | 0.71 | 0.16*** | 0.12** | 0.09 | 0.11* | 0.38*** | 0.44*** | 0.44*** | 1 |
| 9 Firm performance | 3.08 | 7.62 | 0.08 | 0.41*** | -0.08 | -0.01 | 0.21*** | 0.12** | 0.05 | 0.14** |

Source: Own elaboration.

* $p < 0.1$.

** $p < 0.05$.

*** $p < 0.01$.



* $p < 0.1$
 ** $p < 0.05$
 *** $p < 0.001$

Figure 3 Estimated structural parameters.

Source: Own elaboration.

Farndale and Paauwe (2007) based on studies in other national contexts.

Normative pressures do have a positive and significant effect on the percentage of managers trained ($\lambda = 0.32$, $p < 0.05$), leading us to accept Hypothesis 1B in the sense that such pressures resulting from the existence of professional associations linked to the areas of human resources and training, research universities and professional institutions and the media have a positive influence on the implementation of training programs for managers, a result that is consistent with the approaches of Greenwood et al. (2002), Som (2007) and Mazza and Alvarez (2000).

Similarly it is found that mimetic pressures have a positive and significant effect on the percentage of managers trained ($\lambda = 0.48$, $p < 0.01$), so the Hypothesis 1C is also accepted, in the sense of uncertainty and tracking sector leaders positively influences the conduct of training programs for managers.

In short, with the exception of coercive pressures, the results confirm that institutional pressures (normative and mimetic) explain why training programs oriented toward management are established.

Finally, we find that the competitive pressures also have a positive and significant effect on the percentage of

Table 2 Direct and indirect effects in the structural model.

| Independent variables | Dependent variables | | | | | | |
|-----------------------|---------------------|---------------------|-------------------|---------------------|-----------------|-------------------|-----------------------------|
| | % Managers trained | External legitimacy | | Internal legitimacy | | Firm performance | |
| | | Direct effects | Direct effects | Indirect effects | Direct effects | Indirect effects | Direct effects |
| Coercive pressures | −0.03 (0.28) | − | −0.03 (0.28) | − | −0.02 (0.28) | − | −0.01 (0.28) |
| Normative pressures | 0.32** (2.15) | − | 0.14 (1.52) | − | 0.22 (1.54) | − | 0.09 (1.50) |
| Mimetic pressures | 0.48*** (3.40) | − | 0.36** (1.96) | − | 0.33* (1.92) | − | 0.14 [†] (1.86) |
| Competitive pressures | 0.26*** (2.58) | − | 0.19*** (1.75) | − | 0.18* (1.72) | − | 0.08 (1.70) |
| % Managers trained | − | 0.74*** (3.85) | − | 0.67*** (3.69) | − | 0.71** (2.45) | − |
| External legitimacy | − | − | − | − | − | −0.41** (2.53) | − |
| Internal legitimacy | − | − | − | − | − | −0.17 (1.28) | − |
| Industry | − | − | − | − | − | 0.07 (1.22) | − |

Source: Own elaboration.

Goodness of fit of robust structural model: Satorra–Bentler $\chi^2(276)=478.71$ ($p=0.000$), NFI=0.86, NNFI=0.92, CFI=0.93, IFI=0.93, RMSEA=0.05.

* $p < 0.1$.

** $p < 0.05$.

*** $p < 0.01$. t values in parentheses.

managers trained ($\lambda=0.26$, $p<0.01$), which allows us to accept **Hypothesis 1D**. This result is consistent with the consideration arising from a review of the institutional literature, in the sense that the existence of institutional pressures from the environment does not preclude continued competitive action, and the two kinds of pressure are not mutually exclusive as determinants of the organizational decision to implement training programs for managers.

Hypothesis 2 stated that the percentage of trained managers has a positive and significant effect on both the external and internal legitimacy, as a result of which management training is desirable and consistent with the socially constructed systems of norms and values (Suchman, 1995) and organizational outcomes (Fig. 2). Fig. 3 shows that the percentage of trained managers has a positive and significant effect on external legitimacy ($\lambda=0.74$, $p<0.01$), confirming **Hypothesis 2A**. There is a similar effect on internal legitimacy ($\lambda=0.67$, $p<0.01$), which confirms **Hypothesis 2B**. There is also a positive and significant influence on organizational outcomes ($\lambda=0.71$, $p<0.05$), so **Hypothesis 2C** is accepted, confirming that obtaining legitimacy (a key pillar of the institutional approach) and improvement of organizational outcomes can go hand in hand.

In relation to the effects of external and internal organizational legitimacy in company results, it is found that the external legitimacy has a significant negative influence on results ($\lambda=-0.41$, $p<0.05$), which leads us to reject **Hypothesis 3A**. In contrast with this, internal legitimacy has

a positive and significant effect on organizational outcomes ($\lambda=-0.17$, $p>0.1$), so **Hypothesis 3B** is accepted. These are unexpected results, given that the review of the literature (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Meyer and Scott, 1983) suggested that organizations that obtain greater legitimacy secure, albeit indirectly, improved organizational outcomes.

In addition, with reference to the indirect effects of coercive, normative, mimetic and competitive pressure on each of the indicators (external legitimacy, internal legitimacy and organizational outcomes) Table 2 indicates that mimetic pressures ($\lambda=0.36$, $p<0.05$) and competitive pressures ($\lambda=0.19$, $p<0.1$) have a positive and significant indirect effect on external legitimacy, indicating that other institutional pressures (coercive and regulations) do not influence external legitimacy in a significant way.

The same occurs with the internal legitimacy, which is to say that mimetic pressures ($\lambda=0.33$, $p<0.1$) and competitive pressures ($\lambda=0.18$, $p<0.1$) have a positive and significant indirect effect on internal legitimacy, while coercive and normative pressures do not influence internal legitimacy in a significant way.

Finally, mimetic pressures ($\lambda=0.14$, $p<0.1$) have a positive and significant indirect effect on organizational results, while institutional and competitive pressures do not significantly influence organizational outcomes.

In short, normative pressures have a clear influence on the percentage of managers trained, but not on indicators of

legitimacy or organizational outcome. Similarly, competitive pressures influence the percentage of managers trained, but do not affect organizational results, even if they do have an indirect effect on external and internal legitimacy. Finally, mimetic pressures have a clear influence on the percentage of managers trained and also an indirect effect on the indicators of internal and external legitimacy and organizational outcomes (Table 2).

Discussion and conclusions

This work starts from the ambiguous relationship between effort on training managers and non-managers personnel and the performance of organizations. The literature does not reach definitive conclusions, finding that there is no conclusive empirical evidence on the impact of training staff (and the training of managers in particular) on the outcome indicators of the organization: productivity, quality, financial results, and so on. This is confirmed by the work of Paul and Anantharaman (2003), Audea et al. (2005), Mabey and Ramirez (2005), Zheng et al. (2006), Ghebregiorgis and Karsten (2007) and Van Eerde et al. (2008), among others. This has led us to seek explanations that incorporate contextual factors into the analysis to explain both the decision to conduct managers training activities, and the objectives that companies hope to achieve by training their managers.

Thus we conclude that it is appropriate to extend the theoretical framework underpinning most studies, human capital theory or resource-based view theory, by introducing new perspectives that take into account the role of social and contextual factors in the relationship between training and organizational performance, in line with the approaches of Paauwe (2004), Stavrou and Brewster (2005), Paauwe and Boselie (2007) and Boselie (2009). We thus extend current theory by introducing institutional theory into the analysis.

This approach addresses the influence of factors that have not been taken into account so far by the analysis based on competitive advantage, which has studied the relationships between managers training and organizational results. This extended analysis includes the consideration of institutional pressures – coercive, mimetic and normative – together with the competitive pressures and their role in the business decision to implement training programs targeted toward managers. This approach highlights the extent to which the search for legitimacy is a result that is achieved by training managers and the function of legitimacy in explaining organizational outcomes.

Thus, the present study takes into account the role of national agreements on lifelong learning, collective agreements, the financing system of training and union pressure as coercive pressures, the proliferation of specific academic qualifications for human resource professionals, the professionalization of the sector and the active role of national and international comparison related training for managers as normative pressures, and the activities of professional associations, environmental uncertainty and impulse to copy the training of managers implemented by competitors in their industry, or to follow the most successful companies in their sector that implement managers training as mimetic pressures.

Since we consider that there may be two types of motivation, competitive pressures and institutional pressures, in the decision on managers training, it is reasonable to suggest that there are two types of objectives that firms pursue when training their managers. So while the economic-rational perspective emphasizes improved organizational outcomes, the institutional perspective argues that companies train their managers to increase their legitimacy, as Meyer and Rowan (1977), Scott (2001) and Paauwe (2004) indicate.

It has been found that the effort invested in managers training (i.e. the percentage of managers trained) is driven by institutional pressures (normative and mimetic) and competitive pressures. The limited role of coercive pressures in the Spanish context, unlike the findings of Farndale and Paauwe (2007) in other national contexts, should be noted. In contrast, the present study identifies the importance of mimetic pressures. The mimetic behavior of firms in relation to managers training may be due to the fact that, as pointed out Love and Cebon (2008), the last to adopt an extended practice often do so for institutional reasons. According to Combs et al. (2009), ambiguity about the economic effectiveness of training explains this mimetic behavior of firms, as they come to believe that by providing training to a greater number of managers will improve organizational results. However, the results confirm that normative pressures also explain the implementation of training programs for managers to a significant extent, according to the approaches of Som (2007), in addition to any effect found for competitive pressures, which supports the theoretical approach used, in the sense that institutional pressures and competitive pressures may be complementary rather than mutually exclusive, as argued by Oliver (1997), Paauwe and Boselie (2005) and Berrone et al. (2007).

The present study also confirms that the percentage of trained managers has a positive and significant influence on the external and internal legitimacy of the company, which justifies the approach of institutional theory in the sense that companies perform training, not only for reasons of organizational efficiency, but also trying to gain legitimacy by adapting to social expectations to gain acceptance. This result is consistent with those obtained by Meyer and Rowan (1977), Suchman (1995) and Rao et al. (2001).

It was also found that the percentage of trained managers has a positive effect on organizational outcomes, which again indicates the complementarity of institutional approaches and the economic-rational perspective. In short, it is conceivable that firms train their managers not only to pursue improvements in their results, but also to adapt to socially accepted norms and values. In addition, to the extent that the training of managers advances such adaptation and the search for legitimacy, companies may pay less attention to organizational performance and, consequently, this could explain why there is an ambiguous relationship between training – of staff in general and of senior staff in particular – in the results of previous research. Earlier studies have confined themselves to analyzing the effect of training on organizational performance from an economic perspective.

Our results confirm the positive effect of internal and external legitimacy on organizational outcomes, as proposed by institutional theory, which argues that those

organizations that are legitimized by their environment ensure their survival (Meyer and Rowan, 1977; DiMaggio and Powell, 1983; Meyer and Scott, 1983). This proposition, which is central to institutional theory, implies that although an organization may base its decision to train managers on the pursuit of organizational efficiency, in seeking legitimacy through the acceptance of the pressures from institutional actors, the company gets approval, strengthening relations with those actors, which leads to better results (Baum and Oliver, 1991). This conceptual approach is not confirmed in the Spanish companies studied, and the results of the present study contrast with those obtained by Barreto and Baden-Fuller (2006) for Portugal, which could be a result of the fact that training is overly geared to obtaining legitimacy, ignoring other specific business needs, meaning that the effects of training are poorly internalized. This is an explanation that has been put forward by De Kok (2002) and Hillebrand et al. (2011). However, further work will be needed to examine the reasons for this result, which is not consistent with findings from studies conducted in other countries.

In view of this result, it can be argued that the Spanish companies studied here decide to train their managers looking, first, to obtain social legitimacy and, secondly, to improve their performance. This does not, however, explain the link between legitimation and organizational efficiency, or the lack of it.

Why do companies train their managers? It is clear that institutional pressures (normative and mimetic) influence the decision to train managers, which can be justified by improvements in external and internal legitimacy, but empirically this relationship is only effective for mimetic pressures and their effect on the external and internal legitimacy through managers training. Therefore it would be wise to exercise caution with Spanish companies when, following the approach of Meyer and Rowan (1977) and DiMaggio and Powell (1983), we assert that companies train their managers, because the other companies in the industry do so, in order to gain greater legitimacy.

This work confirms that the broader perspective of the study of training and its influence on organizational outcomes, incorporating contextual approach to institutional theory, gives a more complete picture of picture of the

factors that influence managers training. So, this study has incorporated an institutional perspective on the theoretical and explanatory analysis, and has provided empirical tests of this broader relationship between institutional pressures and competitive pressures and the effort to train managers, as well as the effect of training on indicators of legitimacy and organizational results. The present study is the first research that examines these relationships in the Spanish context, obtaining interesting results as to the reasons why firms make their decisions about training their managers, and about the effect of training on indicators of external and internal legitimacy and the performance indicators for the organization.

This research has some implications for companies management, and managers should be aware of the need to integrate competitive aspects and to implement training activities to meet the training needs of the organization, rather than merely responding to different types of institutional pressures (following industry leaders uncritically, responding to the funding system or the existence of subsidies, or social considerations about training). By improving the knowledge and skills of managers, regardless of the degree of transfer to the work place of the knowledge and skills acquired through training, the company can add positive value, as training is seen as positive by individual managers, as well as by different social partners and society as a whole.

This study has some limitations. From a conceptual perspective, the lack of empirical studies on the effect of managers training on organizational outcomes can be seen as the first limitation, which this work attempts to overcome. A second aspect of this limitation is that this exploratory study has a cross-sectional design, using the data available to test Hypothesis 1. This makes it impossible to examine the influence of institutional pressures on the training effort in the medium and long term. The measures of institutional legitimacy and pressures are the perceptions of the respondents, and are, therefore, subjective, which may have introduced some bias into the results, in the sense that the effect of pressure on legitimacy may have been overrated. For further research on this problem, it would be desirable to combine quantitative data with other, qualitative data, introducing case studies that would make it possible to have a closer and more detailed investigation of the reasons why firms make their decisions about training their managers.

Annex I. Measurement scales

Description of the items

Competitive pressures, coercive pressures, normative pressures and mimetic pressures of concern to managers (senior and middle managers) have been measured using the following scales:

Coercive pressures

PC1. Compliance with legal regulations

PC2. Offer subsidized training

PC3. Union pressure

Normative pressures

PN1. Obtaining quality certification

PN2. Being a member of business associations that encourage participation in training activities

PN3. Pressure from Professional Associations

Mimetic pressures

PM1. Tracking of the leading companies in the industry

PM2. Consistency with the organizational culture of the holding corporation

PM3. Importance of Training in the firm sector

Competitive pressures

PCOM1. Improve the skills of its senior managers, middle managers

PCOM2. Improve the productivity of its senior management, middle management

PCOM3. Increase involvement and engagement with company executives

(Rank 1 = lowest, 5 = highest)

The external and internal legitimacy of the company as a result of training, was measured using the following scales:

External legitimacy

LE1. Reputation and image of the company in business circles

LE2. Increased presence of the company in the media

LE3. Relations with other expert companies in training

LE4. Acceptance of the company at its closest geographical environment

Internal legitimacy

LI1. Commitment and employee identification with the company

LI2. Employee Motivation

LI3. Work climate

LI4. Employee Satisfaction

(Scale: 1 = minimal improvement, 5 = maximum improvement)

The results of the organization were measured using an indicator which reflects the profitability of sales, profitability and financial performance of the companies in the sample, measured as the average value for each in the years 2007 to 2011 using information from the SABI database for these.

RO1. Return on sales

RO2. Return on assets

RO3. Return on equity

Annex II. Confirmatory factor analysis

| Variable/items | $\lambda_{c,e}$ | R^2 | Confidence ^a |
|--|-----------------|-------|-------------------------|
| Coercive Pressures | | | |
| <i>Compliance with legal regulations</i> | 0.776 | 0.601 | $\rho_c = 0.76$ |
| <i>Offer subsidized training</i> | 0.643 | 0.414 | a.v.e = 0.51 |
| <i>Union pressure</i> | 0.720 | 0.518 | |
| Normative Pressures | | | |
| <i>Obtaining quality certification</i> | 0.728 | 0.530 | $\rho_c = 0.76$ |
| <i>Being a member of business associations that encourage participation in training activities</i> | 0.765 | 0.585 | a.v.e = 0.51 |
| <i>Pressure from Professional Associations or Industry Trade Groups</i> | 0.646 | 0.418 | |
| Mimetic Pressures | | | |
| <i>Tracking of the leading companies in the industry</i> | 0.670 | 0.450 | $\rho_c = 0.76$ |
| <i>Consistency with the organizational culture of the holding firm</i> | 0.724 | 0.524 | a.v.e = 0.51 |
| <i>Importance of Training in the firm sector</i> | 0.756 | 0.571 | |
| Competitive Pressures | | | |
| <i>Improve the skills of its senior managers, middle managers</i> | 0.844 | 0.713 | $\rho_c = 0.88$ |
| <i>Improve the productivity of its senior and middle managers</i> | 0.899 | 0.808 | a.v.e = 0.72 |
| <i>Increase involvement and engagement with company executives</i> | 0.797 | 0.635 | |

| Variable/items | $\lambda_{c,e}$ | R^2 | Confidence ^a |
|--|-----------------|-------|-------------------------|
| External legitimacy. The training has helped improve on ... | | | |
| Reputation and image of the company in business circles | 0.715 | 0.512 | $\rho_c = 0.83$ |
| Increased presence of the company in the media | 0.807 | 0.651 | a.v.e = 0.56 |
| Relations with other expert companies in training | 0.764 | 0.583 | |
| Acceptance of the firm at its closest geographical environment | 0.699 | 0.489 | |
| Internal Legitimacy. The training has helped improve on ... | | | |
| Commitment and employee identification with the company | 0.724 | 0.524 | $\rho_c = 0.86$ |
| Employee Motivation | 0.773 | 0.597 | a.v.e = 0.61 |
| Work climate | 0.795 | 0.632 | |
| Employee Satisfaction | 0.818 | 0.670 | |
| Firm Performance | | | |
| Return on sales | 0.858 | 0.735 | $\rho_c = 0.92$ |
| Return on assets | 0.954 | 0.911 | a.v.e = 0.80 |
| Return on equity | 0.863 | 0.744 | |

Source: Own elaboration

Goodness of fit robust confirmatory factor analysis (CFA): Satorra-Bentler χ^2 (209) = 276.54 ($p = 0.001$), NFI = 0.91, TLI = 0.97, CFI = 0.98, IFI = 0.98, RMSEA = 0.03.

Recommended for a good fit of the data values (Podsakoff et al., 2003; Hoyle and Panter, 1995; Anderson and Gerbing, 1988; Fornell and Larcker, 1981): Satorra-Bentler χ^2 ($p < 0.05$), NFI > 0.9, TLI > 0.9, CFI > 0.9, IFI > 0.9, RMSEA < 0.08.

^a Scale composite reliability, $\rho_c = (\sum \lambda_i)^2 \text{var}(\xi) / [(\sum \lambda_i)^2 \text{var}(\xi) + \sum \theta_{ii}]$ (Bagozzi and Yi, 1988). Average variance extracted, a.v.e = $\sum \lambda_i^2 \text{var}(\xi) / [\sum \lambda_i^2 \text{var}(\xi) + \sum \theta_{ii}]$ (Fornell and Larcker, 1981).

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