MANAGERIAL CHANGE AND STRATEGIC CHANGE: THE TEMPORAL SEQUENCE

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Abstract

The relationship between managerial change and strategic change is a complex issue that challenges our understanding of how firms react to their business environment. In this study, we analyze the influence of the management team and more specifically their knowledge and capabilities in the process of strategic change. To do so, we delve deeper into the relationship between managerial change and strategic change identifying the sequence of these changes. Using qualitative methodology, we analyse ten companies listed on the Spanish Stock Exchange over an extensive period to formulate our propositions. Our analysis shows that managerial change precedes strategic change. Top management team reorganization, even without Chief Executive Officer succession, was a sufficient condition for strategic change to take place. Moreover, we identified key modifications that took place whenever strategic change occurred. Our results provide meaningful insights into the processes of strategic change within firms that broaden our theoretical knowledge in this area.

Keywords: CEO succession, TMT, managerial change, reorganization, strategic change.

Managerial Change and Strategic Change: The temporal sequence

Organizations in the twenty-first century are characterized by ever-increasing global competition, greater customer expectations and constant change. In this situation, the most risky strategy is inaction (Beer & Nohria, 2000; Farjoun, 2007; Wind & Main, 1999) or predictability (Rindova, Ferrier & Wiltbank, 2010). Thus, the strategic fit is still central to strategic management nowadays. Understanding this process can facilitate prompt decision-making at a time when speed has become a competitive weapon and it may also facilitate the strategic fit that all organizations desire (Rajagopalan & Spreitzer, 1997).

According with resources-and-capability-based theory, strategic change can be understood as a dynamic process that takes place in the firm, in response to managerial interpretations of external or internal events (Adner & Helfat, 2003; Gedajlovic, Lubatkin & Schulze, 2004; Clark & Soulsby, 2007; Boyne & Meier, 2009). Since this perspective, the capability of a firm to respond to its environment is linked to the aptitude, experience, and competence of its top managers (Adner & Helfat, 2003; Gedajlovic et al., 2004). Some researchers have pointed out that top managers become blind to the need of change because they are committed to current strategies. Therefore, senior managerial turnover is the primary agency through which a strategic change occurs (Barker et al., 2001; Bigley & Wiersema, 2002; Boyne & Meier, 2009). Nevertheless, greater attention has to be paid to the role of managers in strategic change (Adner & Helfat, 2003), because there is still considerable ambiguity over what top managers actually do in the strategic planning process (Jarzabkowski, 2008). In this sense, nosotros nos planteamos si es realmente necesario cambiar la composición de *Top Management Team (TMT*) para lograr a strategic change. Teniendo en cuenta resources-and-capability-based theory, our investigation sets out the following research question: *is it necessary to incorporate new knowledge and capabilities in the TMT to achieve strategic change*? A response to this question implies: (i) delving deeper into the sequence between managerial change and strategic change; and, (ii) taking a closer look at the concept of strategic change, considering it as a complex construct with multiple interactions between its components. Both the sequence and the content of these changes as a process have overlooked by researchers (Van de Ven & Poole, 2005).

Establishing the temporal sequence of change is *per se* one of the most important research questions in the field of management because may speed up its implementation in increasingly dynamic and turbulent environments (Rajagopalan & Spreitzer, 1997). Resources-and-capability-based theory considers that the top managers influence on strategic change. But, in order to establish a causal relationship between managerial change and strategic change, first we need to establish the sequences between both processes (Van de Ven & Poole, 1995). Previous research in this field has led to inconclusive results. Although some authors have contended that managerial change precedes strategic change (Barker, Patterson & Mueller, 2001; Bigley & Wiersema, 2002; Datta, Rajagopolan & Zhang., 2003; Gordon, Steward, Sweo & Luker, 2000; Lohrke, Bedeian & Palmer, 2004), others have placed strategic change before managerial change (Jarzabkowski; 2003; Wiersema & Bantel, 1993; Zhang, 2006). The inconsistence of the results may perhaps be explained for the different ways of measuring strategic change. Most empirical studies on corporate governance and strategic change have adopted a narrower approach in their definition of strategic change (Brunninge, Nordqvist & Wiklund, 2007). So, the majority of studies have focused on only one component of change—such as strategy (Barker et al., 2001; Boeker, 1997a; Greve & Mitsuhashi, 2007; Michael et al., 2010; Miller, 1993; Zhang & Rajagopalan, 2010), structure (Balogun & Johnson, 2004), power distribution (Miller, 1993; Weisbach, 1988), or control systems (Simons, 1994). Such a narrow definition of strategic change prevents the complexity of interactions between the different organizational and environmental variables from being captured (Rajagopalan & Spreitzer, 1997). According to Van de Ven and Poole (2005), this work develops its concept of strategic change as a process describing (1) the temporal order and sequence of events (narrative process), (2) analyzing the differences observed in the different dimensions of strategic change over time (Variance method): strategy, structure, power and control system.

Our results show that the reorganization of roles between the members of the team, a previously unused typology of change in the TMT, permits the renewal of the capabilities and knowledge of the top managers. The majority of previous studies on the literature have centred on the incorporation of new capabilities and knowledge in TMT, excluding the perspectives considered in this work. Our investigation shows how the assignment of new responsibilities to top managers makes them more aware of the changes in the environment, because they analyse it from a new approach, in a new role. In this way, renewed use of the capabilities and the knowledge of the TMT provoke strategic change, without any need to change the composition of the TMT.

Furthermore, our research has identified key orientations in the development of strategy and structure, which means that we may improve our knowledge of the construct of strategic change. The proposed analysis has allowed the identification of key orientations in the strategy (linked to growth and innovation) and the structure of the firm (visible in its organizational chart and business unit reorganization) that are always present when strategic change takes place.

Finally, following the suggestions of various authors (Petttigrew, 1990; 1997; Van de Ven & Huber, 1990; Van de Ven, 1995; Van de Ven & Poole, 1995; 2005), a longitudinal qualitative analysis was performed, to take into consideration both the dynamic character of the firm and the specific nature of the change itself. Qualitative information enables propositions and hypotheses to be put forward. This information will then form the basis of future research (Noda & Bower, 1996).

The remainder of this paper is structured into four sections. The next section presents a review of the literature on strategic change and managerial succession. The following section describes the methodology employed in the study, followed by a presentation of the findings. The paper concludes with a summary of the conclusions and their implications, including suggestions for future avenues of research.

Theoretical Framework

Direction of Change

The resource-and-capability-based theory of the firm supports the view that the capability of a company to respond to its environment is linked to the aptitude, experience, and competence of its TMT (Dutton & Duncan, 1987; Adner & Helfat, 2003; Gedajlovic, Lubatkin & Schulze, 2004), which in turn determine priorities regarding its resources and capabilities (Mosakowski, 1998). The literature points out that managers possess different qualities and quantities of generic, industry-specific, firm-specific (Castanias and Helfat, 1991; 2001) and related-industry skills (Bailey and Helfat, 2003) that are at the same time valuable, rare, inimitable, non-substitutable and difficult to transfer. In the case of managerial change, only some of these skills are transferable. So, firm-specific and industry-specific skills held by managers are difficult to exploit, if the top managers change their firm or industry. On the contrary, if top managers change positions within the firm, they can exploit all of their skills. Nevertheless, researchers indicate that new top managers who have arrived at their posts through internal promotion, from within the firm, are accustomed to the way of doing things in the firm, and are less likely to initiate strategic change (Hambrick, Geletkanycz and Fredrickson, 1993). In contrast, an employee from another firm who accesses a top-manager post provides a fresh perspective that favours strategic change (Baily and Helfat, 2003), although not all of their capabilities may be exploited, especially firm-specific skills (Harris and Helfat, 1997). Nuestra cuestión de investigación analiza la veracidad de esta idea. En concreto nos planteamos si es necesario cambiar la composición del TMT para renovar los resources and capabilities of top managers de forma que se facilite strategic change? Human capital refers to learned skills (generic, industry-specific, industry-related specific and firm-specific skills) that require some investment in education, training or apprenticeships, including on-the-job training. Managers can differ as regards their set of skills and their level of ability for each type of skill. As they progress in their careers and access new posts, the differences in the human capital that they bring with them and those that they acquire at work (Adner and Helfalt, 2003) become evident.

Changes in senior management enrich the number of perspectives and increase the resource base, which gives the TMT the means to recognize the need for strategic change (Castro et al., 2009). New capabilities usually require knowledge that is likely to differ from the current knowledge base of the company (Zhara & Filatotchev, 2004). In short, the arguments of the resource-and-capability-based theory of the firm point to the importance of the renewal of the resources and capabilities of the TMT that can take place, through changes in the composition of the TMT. Hence, the strong influence of top managers, from this perspective, on the response of the firm to external changes (Rosenbloom, 2000; Virany et al, 1992; Tushman and Rosenkopf, 1996). Accordingly, some authors point out that senior managerial turnover is the primary agency through which a change in company strategy occurs (Barker et al., 2001; Bigley & Wiersema, 2002; Boyne & Meier, 2009; Elloumi & Gueyié, 2001; Gordon et al., 2000; Lant et al., 1992). In practical terms, any change in the TMT provides an opportunity to evaluate the role played by the senior executives in formulating and executing company strategy. If changes in top management precede strategic change, it is logical to suppose that a causal relation may exist between top managers and strategic change.

TMT Changes and the Components of Strategic Change

Strategic change involves simultaneous and discontinuous shifts throughout the organization in strategy, power, structure and control (Virany, Tushman and Romanelli, 1992). Some authors have also contended that ‘strategic change’ implies ‘radical modifications’ that take place within a short space of time—perhaps two years (Gordon et al., 2000; Romanelli & Tushman, 1994; Tushman & Romanelli, 1985; Tushman & Rosenkopf, 1996). However, more recent studies have shown that the critical factor is the magnitude of change, rather than the time taken to implement it (Amis et al., 2004).

In the literature, several studies have linked managerial succession to changes in one or more of the above-listed variables in the definition of strategic change—that is, strategy, structure, power distribution and control systems (Table 1).

Several studies have established that Chief Executive Officer (CEO) succession (Miller, 1993; Pitcher Chreim, & Kisfalvi, 2000; Simons, 1994) and TMT changes have a positive influence on strategy formulation **(**Barker et al., 2001; Boeker, 1997a); on structure (Barker et al., 2001; Lant et al., 1992); on power distribution (Miller, 1993; Romanelli & Tushman, 1994; Weisbach, 1988); and on control system (Barker et al., 2001; Simons, 1994). But yet, their results have been inconsistent. Furthermore, some have referred to changes in ‘corporate strategy’ when discussing such matters (Boeker, 1997a), while others have considered changes to the level of ‘business tactics’ (Barker et al., 2001).

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Insert Table 1 about here

Further studies have indicated that the relation between managers and strategic change is contingent, among other aspects, on the environment (Virany, Tushman & Romanelli, 1992; Tushman & Rosenkopf, 1996), the temporal effect (Adner &d Helfat, 2003), the industrial effect and the external ties of top managers (Geletkanycz & Hambrick, 1997), and the structural positions of top managers in the network (Battilana & Casciaro, 2012).

It is apparent from this brief review of previous studies (see Table 1) that empirical evidence exists to show that CEO succession, in particular, and, to a lesser extent, TMT turnover both affect a range of variables that can be considered components of strategic change. However, considerable ambiguity persists over the actual activities of top managers in the process of strategic change

(Jarzabkowski, 2008). Besides, most of these studies have focused on only one of these components of change, and especially on strategy. This paper includes all the components of strategic change and analyses the essential modifications that have to be present, so that we may consider change as strategic change.

Methodology

A response to our research question implies: (i) in the first place, an examination of the relation between managerial change and strategic change in greater depth, by analysing the sequence between these processes; and, (ii) in second place, it implies looking at both the concept and the content of strategic change in greater depth.

Certain authors have analysed the most suitable research methods for the study of company change. These methods take into consideration both the dynamic character of the firm and the nature of change itself. Prominent among these methods are those proposed by Pettigrew (1990, 1997), Van de Ven and Huber (1990), Van de Ven (1992), Van de Ven and Poole (1995; 2005) and Fox-Wolfgramm (1997). Two definitions of change are often used in organizational studies: i) an observed difference over time in an organizational entity on selected dimensions; ii) a narrative describing a sequence of events on how development and change unfold (Van de Ven & Poole, 2005). The second approach is often associated with a process theory explanation of the temporal order and sequence, in which events occur based on a story or historical narrative that involve change (Pentland, 1999; Pettigrew, 1990; 1997; Poole et al, 2000). From this point of view, events represent changes in the variables and these changes constitute stages in the process within an input-process-output model. Thus, as a process unfolds, its sequence of events, inherent causes and consequences can be observed and the proverbial ‘black box’ is opened to establish the antecedents and the results of the changes that have been observed (Van de Ven & Huber, 1990). This analysis calls for longitudinal research in which files, documents and reports illustrate the company's objectives, as well as the visible results of the changes that have been implemented in them.

Sample and Data collection

The initial information was constituted by all the firms listed on the Madrid Stock Exchange (Spain). We selected those firms because they provide greater access to information on the composition of their governance organs. Moreover, the listed firms are much more visible than other firms and therefore, any relevant strategy-related event would be reported in the press. Likewise, the availability of information in annual reports, relevant acts, etc., has helped us to contrast and to verify the data extracted from the press (Churchill, 1999).

The period of study ran from 1993 up until 2000, a period chosen for two fundamental reasons. In the first place, an important change occurred over this period in the business setting, driven by globalization and the technological revolution, which prompted many large Spanish firms to introduce strategic change (Sánchez, Galán and Suárez, 2006). On the other hand, unlike in the earlier decade, the number of mergers over the aforementioned period was not excessive, which would otherwise have introduced bias into our investigation, when including changes in senior management due to mergers. We therefore consider that the period is suitable to pursue the objective of our study.

We began by analysing the management changes that the firms listed on the Bolsa de Madrid (Spanish Stock Exchange) experienced during the 8-year period under study. The data on these changes were collected by comparing the lists of managers in the firms' annual reports on a year-by-year basis. Three types of **managerial change** were identified (Barker et al, 2001; Gordon et al., 2000; Tushman & Rosenkopt, 1996): *succession:* when the CEO changed or a CEO post appeared; *turnover:* when there were changes in other personnel of the TMT; and *reorganization:* when posts or people in positions of responsibility within the team appeared or disappeared.

Turnover, which implies changing a person in a particular post, was initially considered more important for the induction of strategic change, from the point of view of the resource-and-capability-based theory, because it implies a change in the set of resources and capabilities of the TMT. Therefore, reorganization was considered a minor change, because it may imply a redistribution of duties among the same employees, rather than a change in the members of the management team. Thus, the set of resources and capabilities of the TMT are maintained, although their use and application can change with reorganization. Hence, we only classified companies by CEO succession and turnover. Using qualitative data methods, we selected those companies that we expected to yield the most explanatory results. This list included those with the least typical data (Eisenhardt & Graebner, 2007; Silverman, 2005; Siggelkow, 2007; Yin, 1993), such as CEO succession without TMT Turnover and TMT turnover without CEO succession, which were relatively less frequent and would not fit in with the relations that we wish to find (Gibbert & Ruigrok, 2010), in order to ensure internal validity. Our objective was to provide a wide range of examples of succession and TMT turnover. The two extremes of high-turnover companies and firms with no change in their TMT were included to further our understanding of the relations under analysis (Eisenhardt & Graebner, 2007). Finally, a sample was constituted of ten Spanish companies on the basis of qualitative information over the eight-year period of the study.

Of the ten selected firms, four –the first to the fourth in table 2- had undergone CEO succession and TMT turnover; two firms –the fifth and the sixth- had undergone CEO succession but no TMT turnover; two firms–the seventh and the eighth firms- had experienced TMT turnover, but no CEO succession; and two companies –the ninth and the tenth firms- had neither experienced CEO succession nor significant turnover in the TMT throughout the entire period under study. Four examples were placed in CEO succession and TMT changes to diversify the range in this section. Eisenhardt (1989) suggested that four-to-ten case studies may provide a sound basis for analytical generalization. Besides, different sub-periods of change for each company could be identified over the extensive time span covered by our research. This breakdown into sub-periods increased the number of observations for each type of change, thus enriching the analysis and facilitating conclusions. The sub-periods were chosen because of a certain continuity in the events within each period and specific discontinuities at the frontiers of the time frame (Langley, 1999; Langley, Smallman, Tsoukas & Van de Ven, 2013). Table 2 shows the selected firms, their classification in terms of the managerial changes they have undergone and the fundamental characteristics of each one.

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Insert Table 2 about here

Having selected the cases, in reference to earlier studies (Durukan, Ozkan & Dalkilic, 2012; Miller, 1993; Rindova et al., 2010; Romanelli & Tushman, 1994), we used information published in the press about each of the companies to detect strategic changes. As Klarner and Raisch (2013) pointed out, these archival data provide “consistent information for longitudinal studies, but data from questionnaires and interviews can be contaminated by the “biased recall” of respondents (p. 165).

Strategic change includes modifications in strategy, structure, power distribution and control systems. Following an exhaustive review of the literature on strategic change, as well as the measures added by different authors, these four factors were assessed as follows.

* *Strategy changes* were understood as modifications to one or more of 14 variables: price, product quality, quality of service, delivery time, degree of reaction to customer needs, product innovation, differentiation or exclusiveness of the product, structural or short-term company expansion, target sales, market share, advertising spending, company distribution system, and width of product range (Lant et al, 1992).

* *Structural changes* included modifications to one or more of the following four variables: organization chart, subsidiary grouping criteria, business unit size and reorganization, and opening or closure of plants (Pitcher et al., 2000). Another variable traditionally included as part of this group is the creation or the elimination of senior management positions (Tushman & Rosenkopf, 1996). However, in our study, this event was considered a managerial change and is therefore omitted in this section.

* *Power changes* refer to change in the company's capital structure (Weisbach, 1988). Although, power distribution refers to changes in the shareholders, the board of directors and the TMT, public firms publish annual information on the composition of their corporate governance bodies. Therefore, we only used the news items to identify changes in the company's capital structure (Weisbach, 1988).

* *Changes in control systems* involved modifications to any of the following variables: (i) incentive systems; (ii) budget (Barker et al, 2001); (iii) information systems (Lant et al, 1992; Miller, 1993); (iv) inventory control (Lant et al, 1992); (v) planning systems (Barker et al, 2001); and, (vi) administration expenses (Simons, 1994).

The source for this information was the Baratz database, which provides a summary of articles published in the main Spanish financial journals. In total, 3,909 news items were identified for the ten firms in the sample. We also looked at any relevant facts held by the Madrid Stock Exchange relating to the period of our study, so as to corroborate the data, and we compared them with the information from the Baratz database. The search for information was oriented towards content related to the parameters of **strategic change** - strategy, structure, power distribution and control system (Tushman & Romanelli, 1985). This comparison between archival data sources showed that the relevant facts relate above all to the distribution of power with almost no reference to strategy, structure or control systems. Different data sources may perhaps provide different information (Gibbert & Ruigrok, 2010). Accordingly, we created organizational event histories by reviewing information published in the press on each of the companies during the relevant time span.

Finally, contextual data such as uncertainty in the industry and firm performance and size were collected. These data were extracted from information published in annual reports. Among the firms in the sample, 6 compete in stable business environments, while 4 others are innovative firms that compete in a business environment with greater uncertainty. ROA was taken as the specific measure of performance, because it captures the degree to which top managers have effectively deployed firm assets (Geletkanycz & Hambrick, 1997) and it is useful to value the effectiveness of the strategy of the firm (Oster, 1990). The ROA for 1992 and 2001 was also included in the study to evaluate both previous performance and performance after the changes to the firms that took place at the start and at the end of the period under analysis. Firm size was calculated by the logarithmic transformation of their sales volumes for each year. These data are shown in tables 3 and 4.

Insert Tables 3 and 4 about here

Data Analysis

A quantitative data analysis strategy was used to reduce the complex mass of information to a set of quantitative time series, in combination with synthetic strategy, so that we could deduce the sequences (Langley, 1999) between management change and strategic change.

We listed and coded qualitative incidents according to a predefined set of coding instructions on the parameters of strategic change (Appendix 1). In all, 3,909 news items were independently sorted by three coders (one author and another two experts who had not participated in the study), who were given information on the types of change or events under consideration. The coders developed a profile sheet for each company (see Appendix 2). Any given piece of news in which a substantial change in any of these dimensions was observed was assigned a value of 1 in the appropriate category alongside that particular date; otherwise, a 0 was recorded. The various events concerning each company published in the press were sorted into chronological order. The coders then exchanged documents and wrote independent event histories. After this, the three classifications from each coder were compared. Silverman (2005) defined reliability as “the degree of consistency with which instances are assigned to the same category by different observers” (p. 2010). The lowest level of congruence between coders was 0.97. Disagreements were discussed and resolved. Their high level of congruency indicates construct validity and methodological reliability (Gibbert & Ruigrok, 2010). Table 5 includes some examples of the news collected from the press and its coding for the purposes of this study.

Insert Table 5 about here

Results and Discussion

Managerial Change and Strategic Change

Tables 3 and 4 contain chronological summaries of the most relevant events experienced within the company during the period under consideration, as well as the implications of each change that was observed. Managerial change and strategic change may take place in the same year. Given that quantitative studies usually evaluate the annual situation, it might consider that these changes are simultaneous (Barker & Duhaime, 1997; Virany et al., 1992). This observation has led some authors to suggest that the term ‘strategic change’ implies that modifications have taken place simultaneously (Amis et al., 2004). By using the data from the news items, we were able to determine the order of precedence of the changes of the strategic change components that took place within the firms. This information allowed us to establish the sequence of events that took place in each company over the entire length of the study. The information of tables 4 and 5 are ordered in Tables 6 and 7. The table 6 only includes the firm-period which four parameter of strategic change had been modified. This is, the firm-period which strategic change had taken place. The table 7 includes the firm-period which no strategic change had taken place.

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Insert Tables 6 and 7 about here

No strategic change was observed in the firms in which only TMT turnover had taken place, with neither CEO succession nor reorganization (Type 2 in Tables 6 and 7). Nevertheless, this was not the case for the firms that had experienced TMT reorganization without CEO succession (Type 1 in table 7). In this regard, it should be noted that other firms, which developed strategic changes had all reorganized their management teams (Types 1, 3 and 4 in table 6). Conversely, firms that did not undergo strategic change had no TMT reorganization (Types 2, 5 and 0 in table 7). These findings reveal that TMT reorganization appears to be necessary to induce strategic reorientation, because it always precedes strategic change. In fact, none of the firms in this study would be able to initiate strategic change through CEO succession alone. So, CEO succession was perhaps not the main determining factor of strategic change in the firms under study. The change in the set of resources and capabilities of the TMT, when only the CEO changes, is not sufficient in itself to initiate strategic change. Some papers have described how major changes in the firms can occur even in the absence of CEO succession (Virany et al., 1992). These findings might reflect the complexity of modern companies, whereby any single individual, even a CEO, is unable to impose significant change without an accompanying change in TMT (Hambrick & Mason, 1984; Pfeffer, 1981; Wiersema & Bantel, 1992).

Our study has identified a new measurement of management change -reorganization-, which has not been used in prior studies. Managerial reorganization does not necessarily imply a change of the TMT members. Rather, it refers to a reshuffling of responsibilities that perhaps involve the same people. The findings of this study suggest that a reorganization of responsibilities might be sufficient to prompt change, without altering the composition of the TMT. Reorganization is a new typology of change in the TMT that manifests itself in the new use of the capabilities of the TMT members. From the point of view of the resource-and-capability-based theory, reorganization does not imply immediate renovation of the set of resources and skills of top managers. But the new combination of human capital, social capital and cognition, following the reorganization of the posts in the TMT, can strengthen the capability of the firm to initiate strategic change. The change arises when the directors face new experiences or new interactions with the environment, which allows them to pursue new possible lines of action (Tsoukas and Chia, 2002). In this sense, directors who participate in similar functional or business areas can make different decisions related to their content and timing, because different managers can hold different assessments on what they consider the correct course of action should be (Adner and Helfat, 2003). When reorganizing the knowledge and capabilities of the managers, by assigning them other roles, it is possible to overcome inertia and resistance to change. The assumption of responsibilities in a new post can help managers to lend greater attention to the business environment, because they analyse it from another perspective or function. The value of a resource, which has been of no value up until then, may be increased if it is exploited in another way (Newbert, 2008). Furthermore, managers can partly acquire knowledge and develop expertise and abilities through work experience (Bailey and Helfat, 2003). In this way, top managers acquire new human capital via learning and experience (Adner and Helfat, 2003) in their new posts. Therefore, TMT reorganization can facilitate the discovery of new opportunities in the business setting, provoking strategic change.

On the basis of the above analysis, the following proposals can be formally stated:

Proposition 1a: Managerial change precedes strategic change in firms that are seeking to adapt strategically to their environments.

Proposition 1b: TMT reorganization is a sufficient condition to provoke strategic change.

By the other side, whenever CEO succession took place, subsequent TMT reorganization and sometimes TMT turnover were observed. These results reflect those of previous studies (Kesner & Dalton, 1994; Shen & Cannella, 2002). This change in managerial arrangements occurred regardless of whether the CEO successor was an outsider or an insider, or whether the change was forced or voluntary.

Strategic Change

Our analysis of the 3,909 articles showed that there are some rare periods with no change. All of the companies had made frequent modifications to their strategy and structure (Tables 3 and 4). In fact, changes in both strategy and in strategy and structure occurred on many occasions, on the same calendar date. This information supports the thesis of continuous change and the vision of the organization, as emerging patterns arise of continuous adaptation to the business environment (Tsoukas and Chia, 2002). The changes in power distribution were also very frequent, but we think that these changes are more customary in this sample, because it consisted of listed firms. Some authors have suggested that the term 'strategic change' implies that modifications in company strategy, structure, power distribution and control system have taken place within a certain time—for instance, a period of no longer than two years (Gordon et al., 2000; Romanelli & Tushman, 1994; Tushman & Romanelli, 1985). However, we have adopted the view in the present study that the key consideration should not be time. Instead, it should be the magnitude of change taking place in the company (Amis et al., 2004). We considered the magnitude of strategic change in terms of the content and scope of the change that takes place. According to some authors (Virany et al., 1985; Tushman & Romanelli, 1994), strategic change implies modifications in strategy, structure, power distribution and control. In Tables 6 and 7, the changes that occurred are grouped by whether they modified the four parameters of change or, in other words, whether strategic change took place. Adopting this criterion, the qualitative analysis in this study revealed that each time the four parameters were modified in a related way, companies shared a series of specific alterations in both strategy (aspects linked to the company's growth and innovation) and structure (the firm's organization chart and subsidiary grouping criteria). The reorganization is needed to strategic change takes place. The new use of knowledge and capabilities of TMT allows strategic reorientation. The new experiences which managers face in their new roles increase their human capital. In other words, as managers access new posts, the differences in the human capital that they bring with them and those that they acquire at work (Adner and Helfalt, 2003) become evident. La reorganización de roles permite a los top managers tener una visión más amplia de la empresa uniendo la experiencia adquirida en the prior role a los retos que demanda su nuevo rol. Esto puede facilitar el descubrimiento de nuevas oportunidades de innovación por ejemplo, innovación en los procesos al transferir maneras de operar de un departamento a otro. Todo el capital humano es transferible cuando top managers permanecen en la misma empresa (Harris and Helfat, 1997). Strategic change gives managers an opportunity to move organizations into strategic areas in which they can exercise their expertise and talents (Greve & Mitsuhashi, 2007). Por otro lado, las capacidades específicas de la firma permiten detectar sinergias de los conocimientos y capacidades adquiridos en el trabajo de ambos roles facilitando el descubrimiento de nuevas oportunidades de crecimiento menos arriesgadas o menos costosas. This situation may facilitate that firm approves this growth. The appointment of managers to positions that best suit their potential puede facilitar el ajuste entre empresa y entorno (Bigley & Wiersema, 2002; Brauer, 2009; Gordon et al.,2000; Greve & Mitsuhashi, 2007; Jarzabkowski, 2003). By matching business domains with their own knowledge through strategic change, managers can justify their presence and enhance their ability to survive in a firm (Greve & Mitsuhashi, 2007). Asimismo, reorganization of TMT let us explain the importance of outliner changes in structure. The assumption of new roles or responsibilities by the current TMT will necessarily lead to changes in the organigram or to business unit reorganization. La reorganization may implicar la creación de new subsidiary units which need a top manager as responsable. En este mismo sentido, la reorganización puede unir bajo la responsabilidad de un mismo directivo different subsidiary units o bien provocar la separación de la responsabilidad de subsidiary lines en dos new roles, en función de la importancia que se le quiera dar a las different business en el futuro de la empresa. Some authors have included the creation or the elimination of senior management positions as structural changes (Tushman & Rosenkopf, 1996). According to these arguments the identification of these specific modifications in strategy and structure apoyan the intrinsic link between TMT reorganization and strategic change. Consequently, these specifics alterations in strategy and structure appear necessary for us to consider that strategic change has taken place. It would be interesting to construct an indicator of strategic change that considers these major modifications, segregating them from other less significant adjustments to strategy and structure. In this regard, Lant et al. (1992) considered that all the variables inside the strategy and structure parameters are of the same relevance. The present study shows that the changes in strategy linked to growth or innovation in the company are sufficiently more important and one of them must necessarily be present when a firm makes a strategic change. Besides, the structural changes linked to the company organization chart and subsidiary grouping criteria or business unit reorganization might also be present when a firm makes a strategic change. In formal terms, this proposition can be stated as follows:

Proposition 2: Strategic change which follows to TMT reorganization implicate modifications (as necessary evidence) of both its strategy (growth and/or innovation) and its structure (an organizational chart and/or subsidiary grouping criteria and/or

business units that are reorganized), which must be accompanied by a change in both its power distribution and its control systems (sufficient condition).

Insert Table 8 about here

If we group the types of change that occurred by the competitive business environment of the firms (Table 8), we see that the firms used TMT reorganization in an isolated way (6 times) or combined with turnover and/or CEO (13 periods in total), in a stable environment. On the contrary, turnover was used more often in uncertain business environments, where one type of change takes place (4 times), nevertheless, it is too small this number to generalize. Moreover, in general, the changes in top management are positive for performance, if uncertainty exists in the business environment. On the contrary, if the environment is stable, the changes to top management are usually negative for ROA, with the exception of the reorganization of TMT, when it is the only managerial change that is used. Our analysis shows that managerial change precedes strategic change. Therefore, we may say that the strategic change that is solely initiated through the reorganization of the management team always has a positive effect on ROA. It is striking that ROA subsequently diminishes in stable environments, if the reorganization is used in combination with CEO succession to initiate strategic change. However, if the environment is uncertain, the combination of CEO succession and reorganization to initiate strategic change subsequently improves ROA. It seems that in stable business environments, firms that exclusively use the reorganization of TMT to initiate strategic change show improvements in their performance. Meanwhile, in turbulent business environments, it seems that firms that use both reorganization or CEO succession and reorganization to initiate strategic change show improvements in their performance. In this sense, some studies have pointed out that CEO succession (and subsequent modifications to the management team) led to a considerable improvement in the company's business performance (Castanias & Helfat, 2001; Gong & Wu, 2011; Kesner & Dalton, 1994; Wiersema & Bantel, 1993). From the point of view of the resource-and-capability-based theory, TMT reorganization helps to exploit all managerial capital, because all the capabilities are transferable within the same firm (Harris and Helfat, 1997). This can explain our results that show better performance after reorganization, both in stable environments and in more dynamic environments if accompanied by CEO succession. However, it is needed more evidence about this issues. Therefore, it would be interesting to developed them as future lines of investigation

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Insert Figure 1 about here

Other possible future avenues of research is relating to board. Changes in the management team were apparently related to turnover in the board of directors in the present study, which coincides with the findings of previous studies (Aivazian, Ge & Qiu., 2005; Westphal & Fredrickson, 2001). The board of directors can play an important role in prompting better strategic adjustment of the firm, contributing diverse knowledge and expanding its absorptive capacity (Zahra & Filatotchev, 2004). New managers are often appointed by boards of directors with a view to instigating change in firms. This suggests that the board of directors may be a decisive factor in strategic decision-making (Zhang, 2010). Future research might therefore also examine the influence of the board on strategy formulation, to determine whether strategy is either a function of the board alone or a function of the board and management acting together (Castro et al, 2009).

Our study has contributed to the development of the theory, because it has highlighted that when the firm seeks to adjust itself better to the business environment, it might need to draw on the entire set of resources and capabilities within the TMT, including firm-specific skills; an implicit but as yet underdeveloped hypothesis in the literature (Bailey and Helfat, 2003). As Miller (2003) indicated, firms can obtain competitive advantage from the resources and the skills that they already possess. Human capabilities of reflection and reinterpretation allow the reconfiguration of their behaviour to adapt to new situations and experiences (Tsoukas and Chia, 2002), which favours strategic change. In addition, this work highlights the importance of the development of human capital when the TMT faces new experiences of roles. It is no sufficient to have rare and valuable resources, it is necessary to develop new ways of combining the actual set of resources and capabilities, to adjust itself better to the environment, in such a way that market opportunities may be exploited and competitive threats neutralized (Newbert, 2008). The demographic composition of the TMT might be less important for change (Dalton et al., 1998) than the appointment of managers to positions that best suit their potential (Bigley & Wiersema, 2002; Brauer, 2009; Gordon et al.,2000; Greve & Mitsuhashi, 2007). Therefore, it is possible to match each person's behaviour and experience to the role that suits them best (Jarzabkowski, 2003) without changing the composition of the TMT.

This study has some limitations. Change is not usually caused by any one factor; even though there may be a dominant factor (such as the vision of the managerial team), most strategic change occurs for a number of significant reasons (Grouard & Meston, 1995; Tsoukas and Chia, 2002). As Langley (1999) pointed out, the synthetic strategy of qualitative analysis implies a sparser level of detail in process tracing for each case and has the advantage of producing relatively simple theoretical formulations. It contributes a generalization of the moderated data that only makes sense if dealing with a number of cases that should be over five. Although ten firms were analysed in this study, in-depth case studies and empirical analyses should be undertaken with a view to verifying the relations that we have observed in this study.

Conclusions

Following the arguments of the resource-and-capability-based theory, it has been shown that the managers as depositories of capabilities, knowledge and background can orient their decisions to initiate strategic change. However, is it necessary to incorporate new knowledge and capabilities in TMT to initiate strategic change? In our investigation, we have found that it is not so, because the reorganization of roles between the members of the team permits the renewal of the capabilities and knowledge of the top managers.

This study has affirmed that strategic change may be initiated by exploiting the actual set of resources and skills of the TMT, if these resources and knowledge are focused on other management roles through its reorganization, which permits new ways of combining those resources and capabilities, to obtain a better adjustment to their business environment. So, it is sufficient to initiate strategic change in stable business environments through the reorganization of the TMT to improve firm performance, without it being necessary to change the composition of the TMT. In second place, we contribute to knowledge in this field, because analysis of the content of the changes has enabled us to identify key modifications within the strategy and the structures that are always present when a strategic change takes place, which improves our knowledge of the theoretical construct of strategic change. Besides, identification of the sequence between top management change and strategic change may mean that we can accelerate the implementation of change in the present business environment, in which the speed of response is itself a competitive advantage.

The findings of this paper have numerous implications in this field.

First, this study clarifies the temporal sequence of TMT change and strategic change. In particular, the study demonstrates that TMT reorganization is a sufficient condition for strategic change. Practitioners need to know that strategic change can be achieved without members of the TMT having to be dismissed. It may be more profitable to exploit the entire set of resources and capabilities within the TMT, including firm-specific skills when strategic change is initiated. This situation underlines the importance of seeking the best fit between the knowledge and the experience of the TMT and the nature of their role in the firm.

Secondly, the analysis of strategic change indicates that the periods without change are scarce or inexistent, which supports the thesis that change is immanent in organizations (Tsoukas and Chia, 2002). This work helps to distinguish the momentum of strategic change within that process of continual change. The findings enable the identification of the variables that bring about strategic change. The study has defined strategic change in a firm in terms of specific modifications of its strategy (growth or innovation) and structure (organization chart or subsidiary grouping criteria), which must be accompanied by changes in both its distribution of power in the firm and in its control systems. This, in turn, facilitates construction of relevant indicators to measure the level or degree of change that is achieved.

Thirdly, CEO succession was not the main determining factor of strategic change, because subsequent TMT reorganization and TMT turnover were observed in most cases of CEO succession. This might reflect that the CEO needs TMT collaboration to develop strategic change. In stable business environments, it is better to initiate strategic change through the reorganization of TMT without CEO succession to improve the performance of the firm. However, in turbulent environments, the combination of both CEO succession and reorganization initiates strategic change and may improve the performance of the firm.

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TABLE 1

Authors	Sample	Principal Contributions
Barker et al.,2001	Declining firms attempting turnarounds	Extent of TMT replacement **positively** influences both business level strategic change and change in structure and control but had no relationship with domain change activity. There may be reciprocal causality between the extent of TMT replacement and business-level strategy change
Barker y Duhaine,1997	Successful firm turnarounds	Greater level of strategic change(change in strategy) if CEO is replaced
Boeker, 1997a	67 firms in the semiconductor industry	TMT turnover from other semiconductor firms is positively related to strategic change (new product –market)
Gordon et al., 2000	Furniture and computer software firms	CEO changes positively influence with strategic change TMT turnover **decreased** likelihood of strategic change TMT Heterogeneity is not related to strategic change
Greve and Mitsuhashi, 2007		Newly hired CEO is not related to strategic change % TMT entries are negatively related to strategic change % TMT exits are not related to strategic change
Lant et al., 1992	Furniture and computer software firms	CEO changes positively influence with strategic change TMT turnover is **not related** to strategic change TMT Heterogeneity is positively related to strategic change
Miller, 1993	36 medium or large-sized firms from mature industries	CEO succession is positively related to changes in organizational dimensions
Pitcher et al., 2000	Case study	All CEO succession were followed by strategic and structural change regardless of CEO origin, prior performance, etc.
Simons 1994	10 newly appointed CEO	CEOs use control system to promote strategic change
Tushman and Rosenkopf, 1994	Firms of cement industry	CEO change have a relative impact on the firm Discrimination between the effects of TMT turnover and CEO change The combination of CEO change and TMT turnover depends of the turbulence of environment.
Virany et al., 1992	38 minicomputer firms	High performing firms initiate reorientation and TMT turnover without CEO succession Internally promoted CEO initiates widespread changes in TMT and throughout the firm improving firm performance
Wiersema and Bantel 1992	87 of the 500 largest manufacturing firms	Average tenure of TMT is positively related to strategic change Tenure heterogeneity of TMT is not related to strategic change
Zhang and Rajagopalan, 2010	176 publicly-traded manufacturing firms	The origin of the CEOs affects their ability to formulate and to implement strategic changes

TABLE 2

Managerial change	Company	Environment	Sector	Fundamental characteristics
Succession-TMT turnover	Firm 1	stable	Hotels, restaurants and cafés	Very fast expansion and growth Multiplied 20-fold its nº of outlets in the period
	Firm 2	incertainty	Production and assembly of equipment	Unfavourable economic situation in the sector Ambitious investment plan Forced succession (year one) and succession due to retirement (year eight)
	Firm 3	incertainty	Electricity	Public enterprise New legal environment to liberalize the sector.
	Firm 4	stable	Banking	Large geographic expansion
Succession-no TMT turnover	Firm 5	stable	Foodstuffs	Considerable growth through acquisitions.
	Firm 6	stable	Drinks and tobacco	Unfavourable economic situation in the sector nationwide International growth (acquisitions, alliances, joint ventures) Quality Assurance policy (specified place of origin for wines)
No succession-TMT turnover	Firm 7	incertainty	Equipment production and assembly	Commitment to quality. Placed as head of the group. Highest degree of TMT turnover: executive vice president
	Firm 8	stable	Foodstuffs	Top management main shareholders Senior managers with severance protection clauses
No change	Firm 9	stable	Foodstuffs	Products innovated through acquisitions The growth does not result in reorientation, the former policy seems to continue in force
	Firm 10	incertainty	Other consumer goods	Focus strategy: A subsidiary as head of the group

TABLE 3

			Type*	Share	Board	CEO	TMT Change**	Strategy	Structure	Control	Size	ROA
Firm 1	stable	Year 1	1	X	X						3,5	18,19
		Year 2					Reorganization	Expansion	Organization chart		3,8	15,56
		Year 3						Innovations	New plants oppening	X	4,0	22,64
		Year 4	2		X		Turnover		New plants oppening		5,1	26,61
		Year 5	4	X		X	Turnover	Internet distribution			5,2	25,45
		Year 6					Reorganization	Diversification	business unit reorganized	X	5,4	22,03
		Year 7	4	X	X	X	Turnover	Internet distribution	New business unit		5,5	16,97
		Year 8		X	X		Reorganization	1st diversification not related	Organization chart	X	5,5	9,89
Firm 2	incertainty	Year 1	4	X							6,5	1,95
		Year 2			X	X	Reorganization	New services and products	Grouping criteria	X	6,6	2,42
		Year 3	2					Outsourcing			6,5	2,60
		Year 4					Turnover	Quality assurance	business unit size		6,6	2,89
		Year 5	0								6,7	2,81
		Year 6	2		X		Turnover	Distribution	Autonomous plants closing		6,8	3,38
		Year 7							business unit size		6,9	3,50
		Year 8	4		X	X	Reorganization	R&D	Organization chart	X	6,9	3,66
Firm 3	Incertainty	Year 1	0								5,5	0,06
		Year 2	1	X			Reorganization	Diversifications and exports	business unit reorganized	X	5,5	0,05
		Year 3	2				Turnover	Exports			5,7	0,06
		Year 4			X				business unit size		5,7	0,05
		Year 5	4	X		X	Turnover				5,6	0,05
		Year 6					Reorganization	Internationalization	New business lines	X	5,7	0,07
		Year 7	2	X				New products			5,7	0,08
		Year 8			X		Turnover		New plants oppening		5,8	0,37
Firm 4	stable	Year 1	0	X				New products			4,7	0,83
		Year 2		X	X						4,5	0,06
		Year 3	3	X					Business unit size		4,6	0,30
		Year 4			X		Both	Growth and quality	Grouping criteria	X	4,8	0,67
		Year 5	3	X	X			Distribution	business unit size		4,7	0,85
		Year 6			X		Both	Focus	business unit reorganized	X	4,6	1,07
		Year 7	4	X	X	X	Reorganization	Innovations and low prices	Organization chart		4,6	1,03
		Year 8			X		Reorganization		business unit size	X	4,6	0,39

TABLE 3 (continue)

			Type*	Share	Board	CEO	TMT Change**	Strategy	Structure	Control	Size	ROA
Firm 5	stable	Year 1	0					Expansion			4,6	0,83
		Year 2						Low prices			4,5	0,55
		Year 3	4		X				New subsidiaries		4,9	0,81
		Year 4			X	X	Reorganization	Internationalization	Organization chart	X	4,9	0,77
		Year 5	0					New products			4,9	0,72
		Year 6						Quality products	business unit size		5,0	0,79
		Year 7	1		X						5,0	0,66
		Year 8					Reorganization	Diversifications and advertising	business unit reorganized	X	5,3	0,65
Firm 6	stable	Year 1	0	X				Quality wines			5,2	0,96
		Year 2		X	X				Business unit size		5,2	0,86
		Year 3	1		X		Reorganization		Business unit size		5,3	0,89
		Year 4						Diversifications	New plants	X	5,3	0,91
		Year 5	4		X	X	Reorganization	Direct foreign investment	business unit reorganized		5,3	1,04
		Year 6		X	X		Reorganization	Market share	Business unit size	X	5,3	0,98
		Year 7	1	X	X		Reorganization	Innovations and quality	-	X	5,3	0,74
		Year 8		X			Reorganization	Growth	Organization chart		5,3	0,62

*TMT Changes Typologies: 1 Reorganization, 2 Turnover, 3 Turnover+Reorganization, 4 CEO+Reorganization, 5 CEO+Turnover, 0 No TMT changes.
**Both: Reorganization and turnover

TABLE 4

			Type*	Share	Board	CEO	TMT Change**	Strategy	Structure	Control	Size	ROA
Firm 7	incertainty	Year 1	0					Quality			5,5	0,22
		Year 2	3		X		Both	New products	business unit reorganized	X	5,5	0,223
		Year 3	0		X			New products	Business unit size		5,5	0,188
		Year 4						Focus on service	Business units size		5,5	1,15
		Year 5	0						Business unit size		5,6	1,09
		Year 6							New plants		5,6	1,13
		Year 7	3		X		Reorganization		Business units reorganized		5,6	1,07
		Year 8			X		Turnover	New services		X	5,7	1,1
Firm 8	stable	Year 1	2	X				Quality			5,2	10,52
		Year 2		X					Business unit size		5,3	8,19
		Year 3		X	X		Turnover	Internationalization			5,3	3,71
		Year 4	5	X	X						5,3	3,3
		Year 5				X	Turnover	New outlets			5,3	1,71
		Year 6						New products	Business unit size		5,4	7,28
		Year 7	0								5,4	6,44
		Year 8	0	X				Quality and distribution			5,4	6,12
Firm 9	stable	Year 1	0					Growth	Business unit size		5,5	0,95
		Year 2	1	X							5,5	0,91
		Year 3					Reorganization	New products	business unit reorganized	X	5,6	0,82
		Year 4	0		X			Quality			5,6	0,89
		Year 5		X	X			Delivery lead-times	New plants		5,6	0,83
		Year 6		X							5,6	0,94
		Year 7	1	X							5,7	0,98
		Year 8			X		Reorganization	International growth	business unit reorganized	X	5,9	1,18
Firm 10	incertainty	Year 1	0	X				business unit sale	business unit size		4,5	0,11
		Year 2		X	X				plants closing		4,5	0,3
		Year 3		X	X						4,6	0,35
		Year 4	0					Innovations			4,6	0,34
		Year 5	0		X						4,6	0,39
		Year 6		X	X			New patents			4,7	0,39
		Year 7	1	X			Reorganization	Focus on pharmamar			4,8	0,38
		Year 8		X				New products	Organization chart	X	4,9	0,16

*TMT Changes Typologies: 1 Reorganization, 2 Turnover, 3 Turnover+Reorganization, 4 CEO+Reorganization, 5 CEO+Turnover, 0 No TMT changes.
** Both: Reorganization and turnover

TABLE 5

News	Strategy	Structure	Power	Control
The firm has opened a new branch to diversify its activities	Innovation	B U Size		
In July 2014, the firm opened the first shop in Belgium, the first non-Mediterranean country in the EU where the firm has set up activities.	Sales turnover	Plants opening or closure		
The chairman of the firm has created a General Manager position in order to discharge some of the management responsibilities that he had exclusively exercised up until now. Before, the organisation chart was distributed to different area managers who were directly supervised by the chairman		Organization chart		
A banking entity has signed the agreement to buy 18% of the capital of the firm			Share Capital	
The firm has invested 400 million in One World Software to adapt the economic and financial information to a new currency (Euro)				Information system
The firm has opened the first establishment in Morocco where its group has had a factory since 1999.		Plants opening or closure		
The firm has bought 767.7 million pesetas, 84.75% of the capital of its supplier Luxor. This operation is to reduce cost, as the product of Luxor is what increases the cost of the pizzas	Structural growth	B U size		Budgets
The firm has redefined the strategic position to compete in prices with its competitors				
The firm has begun to commercialise its products on internet	Distribution			
The firm has signed a contract to develop and introduce the use of fire resistant materials, in order to offer additional safety to the user.	Quality product			
The firm has introduced the SGMA (an environmental management system) to obtain ISO 14001 certification. To do so, the firm has an environmental assessment team at each of its regional branches in charge of centralizing the information used to set up the system and to establish controls over the whole process.	Quality process			Information system
The firm has advanced with its integration process through the presentation of its new corporate identity which merges the two company logos.	Advertising			
The firm has developed a new international purchasing system to centralize all the offers from its Spanish, Portuguese and American suppliers.				Stock control

TABLE 6

Type*	Share	Board	Strategy	Structure	Control	Strategic Change
1	X	X	Expansion Innovations	Organization chart New plants oppening	X	yes
1	X		Diversifications and exports	Business unit reorganized	X	yes
1		X	Diversifications and advertising	Business unit reorganized	X	yes
1		X	Diversifications	Business unit size New plants	X	yes
1	X X	X	Innovations and quality Growth	- Organization chart	X	yes
1	X		New products	Business unit reorganized	X	yes
1	X	X	International growth	Business unit reorganized	X	yes
1	X X		Focus on pharmamar New products	Organization chart	X	
	X X	X	Internationalization	Business unit size		yes
3	X	X	Growth and quality	Business unit size Grouping criteria	X	yes
3	X	X X	Distribution Focus	Business unit size Business unit reorganized	X	yes
3		X	New products	Business unit reorganized	X	yes
3		X X	New services	Business units reorganized	X	yes
4	X		Internet distribution Diversification	Business unit reorganized	X	yes
4	X X	X X	Internet distribution 1st diversification not related	New business unit Organization chart	X	yes
4	X	X	New services and products	Grouping criteria	X	yes
4		X	R&D	Organization chart	X	yes
4	X		Internationalization	New business lines	X	yes
4	X	X X	Innovations and low prices	Organization chart Business unit size	X	yes
4		X X	Internationalization	New subsidiaries Organization chart	X	yes
4	X	X X	Direct foreign investment Market share	Business unit reorganized Business unit size	X	yes

*TMT Changes Typologies: 1 Reorganization, 3 Turnover+Reorganization, 4 CEO+Reorganization, 5 CEO+Turnover,

TABLE 7

Type*	Share	Board	Strategy	Structure	Control	Strategic Change
2		X		New plants oppening		no
2			Outsourcing Quality assurance	Business unit size		no
2		X	Distribution	Autonomous plants closing Business unit size		no
2		X	Exports	Business unit size		no
2	X	X	New products	New plants oppening		no
2	X		Quality			no
5	X	X	New outlets New products	Business unit size		no
0						no
0						no
0	X X	X	New products			no
0			Expansion Low prices			no
0			New products Quality products	Business unit size		no
0	X X	X	Quality wines	Business unit size		no
0			Quality			no
0		X	New products Focus on service	Business unit size Business units size		no
0				Business unit size New plants		no
0						no
0	X		Quality and distribution			no
0			Growth	Business unit size		no
0	X X	X X	Quality Delivery lead-times	New plants		no
0	X X X	X X	business unit sale	Business unit size Plants closing		no
0			Innovations			no
0	X	X X	New patents			no

*TMT Changes Typologies: 2 Turnover, , 5 CEO+Turnover, 0 No TMT changes

TABLE 8

Environment	Managerial changes*	Roa -1	ROA +1
Stable	Reorganizationn	decrease	increase
		increase	constant
		decrease	increase
		decrease	increase
		decrease	increase
		increase	increase
	Turnover	high incre	decrease
		decrease	decrease
		decrease	decrease
	CEO and BOTH	increase	Decrease
		Decrease	increase
	Both	Decrease	increase
		increase	decrease
	CEO +reorganization	increase	decrease
		increase	decrease
		increase	decrease
Incertainty	Ceo+ reorganization	increase	increase
		increase	increase
	Turnover	increase	decrease
		decrease	increase
		decrease	constant
		increase	increase
	Reorganization	constant	constant
		constant	increase
	CEO and BOTH	constant	increase
	Both	constant	decrease
		increase	decrease

* Both: Reorganization and turnover

APPENDIX 1: MEASURING ORGANIZATIONAL CHANGE: DEFINITION OF VARIABLES

CHANGES IN STRATEGY:

LOW PRICE: this represents a change in the company' price strategy, which means a significant drop in prices to leave the company in a more attractive position compared to its competitors. It should be distinguished from forced price change resulting from environmental changes affecting all companies in the sector, e.g. a drop in fuel prices as a result of a reduction in the price of a barrel of crude oil.

PRODUCT QUALITY: this represents a change in the firm's product quality strategy, which means actions the company takes and specifically designs to have this type of effect, such as positive modifications and improvements to the end product. It includes quality assurance certificates obtained by the company as indicators of the changes it has made in this respect.

CUSTOMER ASSISTANCE QUALITY: this represents a change in the company's customer assistance strategy and covers specific measures taken in this regard, e.g. an improvement in personal customer assistance or customer welcoming protocols at the plant.

DELIVERY LEAD-TIMES: this represents a change instigated by the company in its delivery lead-time strategy.

DEGREE OF REACTION TO CUSTOMER REQUIREMENTS: this represents a change in the company's degree of reaction to its customers' requirements, i.e. the company is geared and prepared continuously to modify its products and its service provision in order to adapt itself to new market requirements and customer tastes and preferences.

INNOVATION: this represents a change in innovation within the company. Innovation is understood to refer to adopting new products, services or processes - new in that they have never been implemented in the company before - whether in-sourced or outsourced, generally with the aim of improving performance and efficiency. This includes significant changes in the R&D budget.

PRODUCT EXCLUSIVITY: this represents a change in the exclusive nature of the product the company puts on the market. It is clearly a step towards a differentiation strategy.

GROWTH: represents a change in the strategic size of the company. The most common means of achieving this are mergers, takeovers, and strategic alliances. In this regard, a distinction should be made between what is known as short-term alliances (joint ventures) and structural alliances. The former refers to agreements, normally short or fixed term, with other companies, designed to jointly cover some specific plan of action on the market. The second type is characterized by being permanent, which affects the core competitive essence of both firms. This should not be confused with high turnover operations, which form part of the company's ordinary operations.

SALES TURNOVER: this represents a change in the company's sales turnover strategy. This specifically covers all actions aimed at conquering new markets in which the company, until now, has not been present.

MARKET SHARE: this represents a change in the company's strategy regarding the achievement of a larger share of its current markets. Unlike the previous variable, the aim now is to achieve a stronger position and participation in markets where the company already operates.

ADVERTISING AND PUBLICITY: this represents a change in the strategy related to significant components of communications. Among other items, it encompasses changes in advertising and public relations variables (image and sponsorship).

DISTRIBUTION: this represents a change in the distribution strategy for the company's products and services. Distribution is understood to mean a series of tasks and operations that take place from once the product goes into the storage warehouse until it is delivered to the customer. It includes changes to wholesalers and the supply chain.

BREADTH OF PRODUCT RANGE: this represents a change in the company's product range. It is important to distinguish between the concepts of product line and product range. Line refers to a set of products with common characteristics, whereas product range refers to the number of different lines the company sells; thus the number of product lines determines the breadth of the product range.

CHANGES IN STRUCTURE

ORGANIZATION CHART: this represents a change in the firm's organization chart, which depicts a summary of its hierarchical structure, mainly reflecting the positions and relationships of authority among the different items on the chart, formal communication channels, formal structuring (divisions, departments, sections) and a diagram of the formal distribution of responsibilities.

GROUPING CRITERIA: this represents a change in the grouping criteria adopted by companies to determine the design of their organisational structure or business units. Grouping by function is aimed at putting those job positions that perform similar tasks as far as content is concerned in the same department, so that departments will then correspond to different functions—marketing, production, finance, and so on. Grouping by markets is aimed at structuring job positions on the basis of the product for which they are working, i.e., the organization is divided into sections equivalent to market segments for the different products and services sold by the company. Finally a matrix structure indicates when groupings by function or by market are set up under the same chain of command so that subordinate job positions are covered by dual supervision.

BUSINESS UNITS SIZE: this represents a change in the absolute and relative size of the different business units in a diversified company, also known as its ‘organization portfolio’. Examples of these include taking a larger shareholding in a subsidiary by the holding company (see Note 2), or the acquisition, disposal, investment in, or disinvestment in a fringe business line. It includes setting up new business lines and includes increases or reductions to overall headcount.

REORGANIZATION OF BUSINESS UNITS: this represents a change to the mix of business lines operated by the company. Examples include the creation of central management offices for subsidiary companies or the horizontal integration of different related parties into one larger business.

STRUCTURALLY AUTONOMOUS PLANTS AND OTHER DIVISIONS: this represents a structural change in structurally autonomous plants and other divisions—such as opening, expanding or closing them. (To distinguish the difference between actions relating to the holding company and its subsidiaries, see Note 2 below.)

CHANGES IN POWER DISTRIBUTION

SHARE CAPITAL STRUCTURE: this represents a change in the company's share capital structure, which means a modification in percentage holdings as a result of buying or selling shares. Special mention should be made of equity-based share capital extensions, which, given the nature of these operations, should not be considered a change in power distribution because they do not represent modifications of shareholding percentages. Reductions in share capital also do not represent changes. Extensions can be considered as such only when they cause significant changes in shareholding percentage. Split operations (modification of share face value) are not considered changes in power distribution. Mere announcements of share capital extensions shall not be computed as changes, but rather shall be considered when they become effective.

CHANGES IN CONTROL SYSTEMS

ADMINISTRATIVE PROCEDURES: this represents a change in the company's administrative procedures, which is understood to mean a series of interrelated steps that need to be taken sequentially to perform different administrative tasks. An example is a change of procedures carried out in the procurement of raw materials. Changes to the incentive system are also covered under this heading.

BUDGETS: this represents a change in budgeting, which is the written numeric expression of the business plan, i.e. the allocation of resources to the different business lines in the company. Budgets reflect where resources are to be used and how the company is to be managed, while also serving as a means for establishing priorities.

INFORMATION SYSTEMS: this represents a change in the company's information systems, especially its accounting system, which is the fundamental basis for decision taking.

STOCK CONTROL: this represents a change in the stock control systems and warehouse management (inventory storage and maintenance, product turnover, and so on).

PLANNING SYSTEMS: this represents a change in the planning systems, which means modifications to the target setting systems (how they are established), decision-taking criteria, policies or regulations about what the company should or should not do.

DIFFERENCE $\geq$ 1% IN SGA COSTS / SALES: this represents a change in the ratio between general and administrative expenses compared to sales, a result which would be evidence of a change in the firm’s control systems.

NOTES

1. It should be remembered that the objective is to measure change, so that only those items of news that correspond to modifications in the company's life as per the different sections described above shall be recorded.

2.A company shall be considered a subsidiary of another when a significant percentage of its share capital belongs to the latter. Generally, changes in the subsidiary will be covered as business units under the option for the structure variable. However, when a holding company owns the majority of the shares in a subsidiary and it is a unique business (the business of the subsidiary coincides with the holding company's main or one of its main activities), changes in the subsidiary shall be recorded as changes in the main holding company under the relevant category corresponding to the nature of such change.

3. It is possible that one item of news represents changes in different variables at the same time. In such cases, the modifications shall be recorded for all those variables affected in any one of the relevant categories. However, it should be remembered that such cases are exceptional and not the norm.

APPENDIX 2

MEASURING ORGANIZATIONAL CHANGE

CHANGES IN STRATEGY

LOW PRICE Modifications Compared competitors	PRODUCT QUALITY Improvement Modification	CUSTOMER ASSISTANCE QUALITY	LEAD TIMES	DEGREE OF REACTION TO CUSTOMER REQUIREMENTS	INNOVATIONS Product Services Process	PRODUCT EXCLUSIVITY	GROWTH Mergers Strategic Alliances		SALES TURNOVER	MARKET SHARE	ADVERTISING	DISTRIBUTION	WIDTH OF PRODUCT RANGE
							Short time	Structural					

CHANGES IN STRUCTURE

ORGANIZATION CHART Relationships of authority Communications channels Responsibilities	GROUPING CRITERIA by Function, Markets, Matrix	BUSSINESS UNIT SIZE	REORGANIZATION OF BUSINESS UNITS	STRUCTURALLY AUTONOMOUS PLANTS AND OTHER DIVISIONS Opening or closing

CHANGES IN POWER DISTRIBUTION

SHARE CAPITAL STRUCTURE

CHANGES IN CONTROL SYSTEMS

ADMINISTRATIVE PROCEDURES Incentives System included	BUDGETS	INFORMATION SYSTEMS	STOCK CONTROL	PLANNING SYSTEMS	DIFFERENCE $\geq$ 1% IN SGA COSTS / SALES