

CHANGES IN OPERATIONS MANAGEMENT OF PRIVATIZED SPANISH FIRMS

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ABSTRACT

Firm privatization entails a thorough process of reform that includes the introduction of new management practices. A review of theoretical and empirical studies conducted confirms that a systematic analysis of changes in management arising after a public company's privatization does not exist. This study explores changes in operations management that take place after a public company's privatization and proposes relevant factors in four operations performance areas. In order to confirm the theoretical propositions posed, we used contemporary multiple case studies as a research methodology. In particular, changes experienced in the operations management area in four privatized Spanish companies were investigated using a longitudinal analysis. The results of this study confirm most theoretical propositions and identify four areas considered are relevant to the process of change in a privatized firm's operations management.

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KEYWORDS: Privatization, changes in management, operations management, case study

INTRODUCTION

History includes periods in which state interventionism has alternated with private initiative and reducing the public sector size has been the main focus. Furthermore, the shift from one stage to another takes place because the negative results obtained from application of the preceding stage's economic policies. Since the 1980s, we have witnessed a defence of private property and initiative in which an anti-State or anti-public sector feeling that postulates a minimum of state intervention in economic life is widespread. In other words, a model of economic developmental has been chosen that focuses on private property and free trade. Only a small role is left for governmental action. Within this ideological context, applying privatization programs to public companies has been a relatively simple affair in many countries.

The current economic crisis has had a two-fold effect. First, it caused a number of governments to intervene in the private sector through varying degrees of nationalisation to avoid the risk of economic and financial collapse (the U.S., the U.K., Belgium, Holland, Austria, Germany and Ireland). According to the Fondazione Eni Enrico Mattei in Italy barometer, 2008 was the first year since 1981 that governments worldwide acquired more assets from the public sector than those they spun off through privatization programs. However, several countries are privatizing their shareholdings (Greece, the U.K. or the U.S.) in an attempt to reduce public debt and deficits triggered by the crisis. Privatization processes cause changes in operational areas of privatized firms.

The primary objective of this study is to explore changes in operations management that take place after a public firm is privatized. To do so, we formulated a series of theoretical propositions regarding the relevant factors behind these changes, assessed the degree of coincidence between the initial theoretical propositions, analyzed firm behavior and determined whether a common pattern among them exists.

This paper is structured as follows: it begins by reviewing the relevant literature and formulating the theoretical propositions. It then explains and justifies the research methodology used, which is based on case studies. The following section is a comparative analysis based on factorial behavior of the cases researched. The paper concludes with an exposition of the main conclusions drawn from the research and a brief reference to the study's limitations.

LITERATURE REVIEW AND PROPOSITIONS

In recent years, both the number of countries and the degree to which each country has privatized its public business sector and the economic importance of the privatization process and its scope have provided an impetus for research (Boubakri and Hamza, 2007; Boubakri *et al.*, 2005, D'Souza *et al.*, 2005; Gupta, 2005; Majumdar, 2008, Megginson, 2005, Méndez-Naya, 2007, Parker and Kirkpatrick, 2005, Ruiz-Porras, 2010, Wu and Parker, 2007). Furthermore, firms with a sufficiently consolidated history of privatization are now available to researchers for study.

Most empirical studies conducted on privatization use two different approaches to analyze corporate performance and evaluate efficiency. Comparative studies use a cross-sectional analysis of public and private firms that are all operating in the market at the same moment in time (Foreman-Peck and Waterson, 1985; Millward and Ward, 1987; Pryke, 1982; Atkinson and Halvorsen, 1986; Bruggink, 1982; Di Lorenzo and Robinson, 1982; Dewenter and Malatesta, 2000; Laurin and Bozec, 2001; Millward and Parker, 1983; Tian, 2000). On the other hand, case studies use an longitudinal analysis before and after a privatization to evaluate the evolution of performance in one sole firm as it transforms from public to private ownership (Burns and Weyman-Jones, 1994, Eckel *et al.*, 1997, Foreman-Peck, 1989; Lynk, 1993, Martin and Parker, 1995, Boardman *et al.* 2003; Boubakri and Cosset, 1998, D'Souza and Megginson, 1999, Megginson *et al.*, 1994).

Nevertheless, it may not be sufficient to ask whether change in ownership bring about increased efficiency. Privatizing a firm entails a thorough process of reform, including the introduction of new governance practices (Estrin, 2002). An analysis of internal changes that take place after privatization will lead to a better understanding of the relationship between privatization and efficiency, and motivate new research in this field. García Álvarez and Mariz (2003, p. 1094) indicate that many empirical studies have attempted to verify whether privatization brings about increased efficiency, however, theoretical and empirical studies that identify the concrete factors involved in this improved efficiency are practically nonexistent. However, some authors, such as Zahra *et al.* (2000), Rondinelli (2004) and Cuervo (2004) use their theoretical models to explain changes that take place in the company after being privatized.

Within this context, and in the spirit of helping bridge this gap, we present this research study, which examines the internal changes in operations management that take place in public firms which have been privatized. The relevant factors of change underlying the theoretical propositions that provide the basis for the development of the empirical study are constructed after a review of the literature and a consultation process with experts in operations management. The propositions are grouped into four areas: location, quality, production process and innovation.

Location

Public firms are under pressure to buy from local suppliers, which is not always the best option. As a result, they find themselves paying higher prices for inputs than those that could be obtained from other suppliers (Gamir, 1999, p. 60; Cuervo, 1997, p. 73; Millward and Parker, 1983, p. 222-223). Therefore, public firms do not have free rein to make their purchases and choose suppliers.

Moreover, decisions regarding the location of a public firm's plants are not made according to economic criteria, but rather according to political and social criteria (Fernández, 1989, p. 62; Cuervo, 1997, p. 58; Gómez and García, 2004, p. 860). In short, these authors' contributions lead us to establish the following theoretical propositions:

P1: Before privatization, companies are under greater pressure to maintain local suppliers, even paying higher prices for inputs.

P2: After privatization, economic and commercial criteria play a greater role in determining the location of company plants than political and social criteria do.

Quality

The evolution of the concept of quality in industry and services shows that we are shifting from a stage in which quality exclusively refers to end control - to separating faulty products from good ones - to a stage in which quality control targets the entire process with the slogan: "Quality is not controlled - it is manufactured." In this regard, we believe that privatizing a public enterprise can lead to improvements in quality control processes, through the use of quality assurance systems. Quality systems focus on ensuring that an organization's offering complies with specifications laid down previously by the company and the customer, ensuring consistent quality over time (ISO 9000 standards, the EFQM model, benchmarking, etc.). Thus, we can establish the following theoretical proposition:

P3: After privatization, there is an improvement in quality control and assurance systems (product certification, on-going improvement systems, quality circles, work groups, etc.).

Production Process

Several empirical studies indicate that the average cost of producing goods and services is higher in public companies. Their results indicate that private enterprise is better placed to achieve cost reductions and increased productivity (Pryke, 1982; Bruce, 1986; García and Mariz, 2003, p. 1087; Iranzo, 2004, p. 819; Izquierdo *et al.*, 2004, p. 886).

The degree of company capitalisation measured by the capital/labor ratio is higher in public firms (Argimón *et al.*, 1997, p. 31). Capital equals the sum of machinery and transport elements or total fixed assets. In this vein, other studies indicate that public firms are less efficient than private firms because they keep too many workers with high labor costs and bear higher depreciation costs due to excess, generally underused fixed assets (Azofra *et al.*, 1991; Maroto, 1991 and Melle-Hernández, 1999). Boycko *et al.* (1996) uses a different argument to reach the same conclusion. They consider public firms are often used as a tool to boost the economy's net capital formation, which leads to public over-investment in physical capital. Other authors take a contrary stance in this regard. Hirsch (1968) argues that public firms have financial constraints that force them to work with labor intensive technologies. Likewise, RENFE's case, work by Baños *et al.* (2003) points out that labor has been overused compared with capital.

Still other authors (González-Páramo and Hernández de Cos, 2004, p. 662; Bradford *et al.*, 1969) indicate that managers of public firms face the problem of strong union pressure when they attempt to replace jobs with more machinery. Prior and Surroca (2004, p. 686) concluded that "the prevailing situation (for more than two thirds of the sample) is that investments in fixed assets per worker rose after companies were privatized". On the other hand, we believe that after privatization, a company will outsource more of its production, i.e., the option to outsource part of its production will be chosen more frequently, primarily to cut costs in an increasingly competitive market. By and large, public firms do not resort to this resource,

because of problems involved in downsizing the workforce. In short, the following propositions can be established:

P4: After privatization, the costs of producing goods and services in the company fall on average and productivity increases.

P5: After privatization, companies change the production structure and boost the capital/labor ratio.

P6: After privatization, companies outsource more of their production process.

Innovation

On occasion, public companies operate in markets that are not very competitive. Thus, they lack major incentives to boost the degree of innovation (García Álvarez and Mariz, 2003, p. 1088; Durá, 2004, p. 154). Likewise, Melle-Hernández (2004, p. 285-286) argues that public firms lack competition when they operating in poorly regulated sectors, resulting in few incentives to technologically innovate the production or supply of goods and services. In this sense, Fernández *et al.* (2004, p. 602) note that public companies "protected as they are from bankruptcy, have no incentive to innovate with increasingly efficient processes tailored to customers' needs in variety and delivery time and products for meeting both new needs and old ones, but with new forms". Another obstacle to innovation is that these organizations are highly change-resistant.

Therefore, after privatization, market orientation is expected to rise (Parker, 1995), as is interest in developing product and process innovations (Fernández *et al.* 2004). Pulido (2004, p. 196) states that "innovation is stimulated by the privatization process, particularly in competitive conditions and of course, in sectors with a robust technological evolution and highly dynamic markets that easily absorb new products." In an empirical study of thirty-five privatized European firms, Munari and Sobrero (2003) concluded that privatization has a positive effect on the number of patents.

However, there seems to be no unanimity on privatization's effect on innovation. In this regard, Sánchez and Vence (2009) point out that privatization of public firms in Spain has usually gone hand in hand with a reduction in R & D efforts per employee. This slump is due to a change in the firm's objectives to commercial criteria. These criteria seek short-term profit and a policy of distributing dividends to create shareholder value. In short, the following proposition can be established:

P7: After privatization, investment in R + D (research, development and innovation) rises.

METHODOLOGY

To confirm the theoretical propositions proposed, we used *contemporary multiple case studies* research methodology (Yin, 1993, 1994, 1998, 2002; Eisenhardt, 1989, 1991; Eisenhardt and Graebner, 2007; Sigelkow, 2007) with an essentially *inductive* and partially *deductive* scientific approach (Yin, 1994). The empirical study's scientific approach is: fundamentally, *analytical induction* through replication logic (analytical generalisation) with which one seeks to establish general laws from the experience of particular cases; and *partially deductive*, since deductive processes may be generated to the degree in which they are based on the theoretical propositions previously obtained from the review of theories, which are empirically verified.

In the case studies in our research, we used a longitudinal analysis approach - i.e., a study of each case before and after privatization – to investigate the changes undergone by the operations management areas of several privatized Spanish firms. We analyzed aspects of corporate evolution that constitute relevant

factors in the process during different stages of public and private ownership. Table 1 presents the empirical data and highlights the present study's main methodological aspects.

Table 1: Technical File for the Empirical Study

Research objectives	To analyze changes in the management of privatized firms. To evaluate the degree of coincidence between the behavior exhibited by the privatized firms analyzed and the theoretical propositions. To outline a common or similar behavior pattern (should it exist) among the firms in the sample.
Research methodology	Multiple and holistic contemporary case studies (simple unit of analysis). Exploratory, descriptive and explanatory study
Unit of analysis	Spanish firms with consolidated privatization processes
Geographic scope	Spain
Universe/Population	Privatized Spanish firms that are members of Madrid's stock exchange and were privatized by means of a public stock offer between 1985 and 2003.
Type of sample	Logical and theoretical sample (capacity of analytically generalising the phenomenon under study), not random (sampling and statistical generalisation)
Sample	Four privatized Spanish firms: ENDESA, Iberia, Indra and Telefónica
Methods of evidence gathering	Documental review (documentation and files) Closed multiple-choice questionnaire Multiple in-depth interviews: open, semi-structured and in person
Sources of information	<u>Internal</u> : documentation (reports and internal files), files (websites, presentations, sound and image files), in-depth interviews, questionnaires, real physical context <u>External</u> : specialised publications, SABI database, reports from official entities and the media
Key informants	Directors (minimum of two) from the firms in the sample who participated in the privatization process
Methods of analyzing the evidence	Fundamentally qualitative: - Individualised description of each case - Search for degree of coincidence between the behavior of the firms analyzed, with the support of theoretical propositions - Creation of theoretical explanation (theoretical systematic comparison)
Scientific approach	Analytical induction through the replication logic (analytical generalisation). Deductive processes based on the theoretical propositions originated by the theories reviewed
Methodological quality and rigor	Validity (construct, internal and external) and reliability
Date conducted	December 2009 - November 2010

This table presents the empirical study's technical file and highlights the present study's main methodological aspects. Source: author.

The units of analysis were Spanish firms with consolidated privatization processes. Thus, we analyzed the cases of ENDESA, IBERIA, INDRA and TELEFÓNICA. This selection is not a representative sample of a population that can be statistically generalized, but rather a logical, theoretical sample that can be analytically generalized (Yin, 1994). An attempt was made to choose cases with greater explanatory capacity and directors willing to assume research commitments. Table 2 shows different aspects of the four firms analyzed, which allow a basic profile of each of them to be drawn.

To collect information, we resorted to several techniques, such as document review, questionnaires sent out for completion and in-depth interviews with a number of directors in the privatized firms selected. Thus, we can contrast the different types of data gathered in the process while maintaining the Triangulation Principle, which guarantees the study's internal and constructive validity (Yin, 2002).

Finally, we followed two generic analysis strategies (Arias, 2003). First, we developed a description of each individual case, which resulted in four descriptive cases. Second, the propositions obtained from the theoretical review were contrasted with the data obtained, through a search for common behavior patterns (a *pattern-matching* analysis) and on occasion, through another modality: *explanation building*.

Pattern matching analysis is an analytical process that consists in comparing an empirically obtained pattern with another pre-established one based on theoretical predictions. If the results coincide, internal validity increases (Chiva, 2001, p. 123). This technique is useful for linking the data with the propositions and reflecting a situation in which different parts of the information extracted from a case can be related to some theoretical propositions (Villarreal, 2010).

Table 2: Basic profiles of the Four Firms analyzed.

CHARACTERISTICS	ENDESA (Case 1)	IBERIA (Case 2)
HEADQUARTERS	Ribera del Loira, 60, 28042. Madrid	Velázquez, 130, 28006. Madrid
ACTIVITY AND SECTOR (Code CNAE 93 Rev. 1, NACE Rev. 1.1)	Electricity production, transport, distribution and commercialisation. Relevant operator in the natural gas sector. (40) Production and distribution of electricity, gas, steam and hot water	Passenger and freight air transport. Iberia is in charge of the passenger and aircraft handling in all Spanish airports. (62) Air and space transport
TYPE OF FIRM	Corporation. Listed on the stock exchange.	Corporation. Listed on the stock exchange.
YEAR CREATED	1944	1927
TOTAL N° JOBS (31/12/2009)	26.305 people	20.671 employees
PRIVATIZATION PROCESS	1988: PSO (20.38%) 1994: PSO (9%) 1997: PSO (30.63%) 1998: PSO (33%)	1999: Restricted bidding (10%) 1999: Restricted bidding (30%) 2001: PSO (48.51%)
MAIN SHAREHOLDERS (31/12/ 2009)	<ul style="list-style-type: none"> • ENEL ENERGY EUROPE (92,063%) 	<ul style="list-style-type: none"> • BRITISH AIRWAYS (13,15%) • CAJA MADRID (22,99%) • SEPI (5,16%) • EL CORTE INGLÉS (3,37%) • THE BANK OF NEW YORK MELLON (6,37%) • CHASE NOMINEES LTD (5,04%)
CHARACTERISTICS	INDRA (Case 3)	TELEFÓNICA (Case 4)
HEADQUARTERS	Avda. Bruselas, 35, 28108. Madrid	Gran Vía 28, 28013. Madrid
ACTIVITY AND SECTOR (Code CNAE 93 Rev. 1, NACE Rev. 1.1)	Defence systems and information technologies. Consultancy, project development, systems integration, business processes and information systems outsourcing. (64.2) Telecommunications (72) Informatics	International telecommunications firm. Landlines, mobile phones and Internet services. (64) Post office and telecommunications
TYPE OF FIRM	Corporation. Listed on the stock exchange.	Corporation. Listed on the stock exchange.
YEAR CREATED	1993	1924
TOTAL N° JOBS (31/12/2009)	The firm's total workforce numbered 26.175 people	Physical workforce of over 264.000 professionals
PRIVATIZATION PROCESS	1995: Direct sale (24.99%) 1999: PSO (66.09%)	1987: PSO (6%) 1995: PSO (12%) 1997: PSO (20.9%)
MAIN SHAREHOLDERS (31/12/ 2009)	<ul style="list-style-type: none"> • CASA GRANDE DE CARTAGENA (5%) • CAJA MADRID (20%) • C. DE AH. DE ASTURIAS (5%) • CORPORACIÓN FINANCIERA ALBA (10,02%) 	<ul style="list-style-type: none"> BANCO BILBAO VIZCAYA ARGENTARIA (BBVA) (5,543%) • C. DE AHORROS Y PENSIONES DE BARCELONA ("LA CAIXA") (5,170%) • BLACKROCK, INC (3,884%) • CAPITAL RESEARCH AND MANAGEMENT COMPANY (3,168%)

This table presents different aspects of the four firms under study that allow a detailed profile of each one to be drawn up. Source: author

Explanation building consists of providing reasoned, detailed explanations for statements and data on the phenomenon (Chiva, 2001, p. 123). This technique is iterative in nature, thus, the final explanation is the

result of following a series of stages that may differ from considerations originally contained in the pattern. Explanation building includes analyzing evidence from case studies, reviewing theoretical propositions and re-examining evidence from a new perspective in an iterative cycle (Sosa, 2006, p. 165).

The rigor and quality of the empirical study is based on its, internal and external construction, validity and reliability (Yin, 1994, 1998; Gibbert *et al*, 2008). Table 3 presents different tests that evaluate this study’s rigor and quality with the corresponding tactics and phases in which they take place.

Table 3: Tests to Evaluate the Study’s Rigor and Quality

Test	Tactic	Research Stage
Construct Validity	Analysis of the conceptual concept and theoretical framework (theoretical triangulation) Development of initial propositions	Literature review
	Use of different evidence collection methods (methodological triangulation): <ol style="list-style-type: none"> 1. Documentation. 2. Consultation with experts 3. Questionnaires 4. In-depth interviews Use of multiple information sources (data triangulation) to confirm evidence in different sources: <ol style="list-style-type: none"> 1. Internal and external, direct (primary) and indirect (secondary) 2. Diverse typologie: documentation, files, interviews, questionnaires, data bases, real physique contexte 3. Diversity of key informants on the same questions 4. Critical evaluation of comparative evidence according to source Almost simultaneous and unified evidence collection and analysis process Establishment of chain of evidence Feedback and interactive contact with informants Review of case reports by key informants Instrumental and general flexibility of the research through the cyclical review of the field study and the original structural model	Research design Evidence collection Evidence collection Collection and analysis Composition All
Internal Validity	Common behavior pattern (supported by theoretical propositions) Explanation creation (systematic comparison of the structured literature in the proposed model).	Global and individual analysis Global and individual analysis
External Validity	Use of rival theories in the original model (theoretical triangulation) Establishment of the unit of analysis and case selection according to the potential for information on the phenomenon under study Selection of data collection methods (methodological triangulation) and information sources (data triangulation) according to the potential for knowledge on the phenomenon under study Application of the replication logic (multiple case studies) to achieve analytical generalisation Consideration of part of the research results as the baseline hypothesis for future lines of research	General design Unit of analysis and case selection General design and evidence collection Global analysis and conclusions Composition and conclusions
Reliability	Draft of a study protocol and follow-up of its guidelines as an action guide Confection of a database that organizes, integrates and synthesises the information obtained from the different sources of evidence	General design and evidence collection General design and evidence collection

This table shows the different tests that evaluate the study’s rigor and quality with the corresponding tactics and phases in which they take place. Source: author.

EMPIRICAL RESULTS

The propositions were ranked on a Likert scale with regard to their degree of relevance in explaining the phenomenon. The analysis of these values led to the results shown in Table 4.

Below, we highlight the comparative analysis of the cases studied with respect to each key factor in the corresponding propositions. The coincidence or similarity of explanatory factors gives rise to an exploratory factorial behavior pattern among the analyzed firms. To achieve this, we compared the evaluation obtained through the Likert scale in each case studied by examining each key factor involved in its corresponding proposition. The graphic representation of factorial profiles allows us to establish an x-ray of the factorial behavior of the firms studied. Figure 1 presents the profiles of the four firms studied in order to graphically depict the differences or similarities that exist in their factorial behavior patterns.

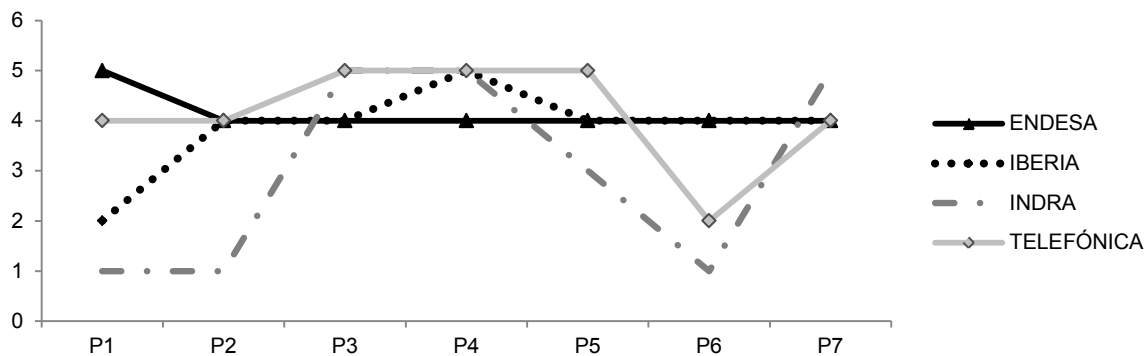
Table 4: Results Obtained In Relation to the Propositions Posed

Areas and propositions		ENDESA (Case 1)	IBERIA (Case 2)	INDRA (Case 3)	TELEFÓNICA (Case 4)	Degree of confirmation
LOCATION	P1.	Confirmed	Not confirmed	Not confirmed	Confirmed	Bipolarity between confirmation and non-confirmation
	P2.	Confirmed	Confirmed	Not confirmed	Confirmed	Multiple positions with a confirmatory tendency
QUALITY	P3.	Confirmed	Confirmed	Confirmed	Confirmed	UNANIMOUS CONFIRMATION
PRODUCTION PROCESS	P4.	Confirmed	Confirmed	Confirmed	Confirmed	UNANIMOUS CONFIRMATION
	P5.	Confirmed	Confirmed	Not confirmed	Confirmed	Multiple positions with a confirmatory tendency
	P6.	Confirmed	Confirmed	Not confirmed	Not confirmed	Bipolarity between confirmation and non-confirmation
INNOVATION	P7.	Confirmed	Confirmed	Confirmed	Confirmed	UNANIMOUS CONFIRMATION

This table presents a summary of the main results in relation with the propositions posed in the four cases obtained through a pattern-matching analysis. Source: author.

A factorial pattern (see Figure 1) can be induced among Endesa (case 1), Iberia (case 2) and Telefónica (case 4) with two totally coinciding positions and three approximate ones for a total of seven factors. Furthermore, there is absolute unanimity in propositions P3, P4, and P7. All cases fairly or completely coincide with the consideration outlined in the proposition. It is noteworthy that the largest disparity occurs in Indra's case (case 3), which maintains two clearly differentiated positions - P2 and P5 - and only coincides with the other cases in the three unanimous factors cited. A final point to note is that except for propositions P1 and P6, confirmed in half the cases, the rest are ratified by at least three of the four cases analyzed (positions 4 and 5 on the Likert scale).

Figure 1: Profiles of Factors Studied



This figure shows the profiles of the factors studied in the production area of the four firms in question (Likert scale). Source: author.

CONCLUSION

The goal of this paper was to explore changes in operations management that take place after a public firm is privatized and to determine whether it is possible to identify common patterns among four cases of Spanish privatized firms analyzed in our study. To do that we formulated seven theoretical propositions regarding potentially relevant changes in some fields of operations management: location, quality, production process and innovation. To confirm those theoretical propositions, we used contemporary multiple case studies as a research methodology. Data were obtained from reliable methods and sources: documentation, files, databases, real physical context, consultation with experts, questionnaires and in-depth interviews with a diversity of key informants. This was necessary to insure that the information used was of the highest quality.

Most of the theoretical propositions posed were confirmed or tend towards confirmation, according to the evidence shown by the firms in the sample. The graphical profiles show a certain similarity among some of the corporate factors studied. Disparities among some cases prevent us from drawing sound conclusions on the possibility of pattern confirmation. The comparative analysis of behaviour, analyzed according to the structure constructed through each area indicated, allows us to conclude that all areas are relevant in the process of change in operations management in the privatized firms.

The study suggests a number of implications for both theory and practice. For the former, the theoretical framework defined in the study offers an integrated view of key factors in operations management that must be studied in the privatization process. For the latter, the study allows managers of privatized enterprises and society in general to ascertain privatization policies' practical consequences for a firm's operations management. Perhaps the most interesting aspect of the study is that it shed lights on internal changes, allowing other public companies to apply them without waiting for privatization.

Two limitations of the study must be noted. First, it is not possible to draw any type of statistical inference to generalize the results. However, case studies allow for analytical generalization, i.e., the extension of existing theoretical arguments based on the analysis of evidence obtained through the logic of constructing an explanation. Furthermore, if we consider this study's reasons and objectives, these limitations are overcome by the advantages case studies contribute. Second, the study was restricted to analyzing changes in behavior before and after privatization, without monitoring the possible impact of other factors. Specifically, the study does not take into account the effect of the economic cycle and evolution of the competitive framework or other sectorial factors that all firms, privatized or not, may have in common and can notably influence changes produced in management.

Lastly, we note that theoretical integration should be paired with a factorial purification after the empirical study. Nevertheless, the results obtained in our study allow for little significant discarding. Likewise, further research could consider a larger sample size and the use of other quantitative research techniques that allow for statistical generalization. In addition the incorporation of different research methodologies, such as the use of expert consensus techniques (Delphi method), to reduce the subjectivity of factor discrimination in developing theoretical propositions would be beneficial. Finally, conducting the study using a controlled sample of similar-sized public and private companies from the same sector would offer interesting insights. A comparison of these future studies to the results presented here would be beneficial. Replicating the study in other countries also represents a useful path forward.

REFERENCE

Argimon, I.; Artola, C. and González-Páramo, J. M. (1997), *Empresa pública y empresa privada: Titularidad y eficiencia relativa*. Banco de España, Servicio de Estudios. Documento de trabajo 9723.

Arias, M. (2003), Metodologías de investigación emergentes en economía de la empresa, *Papers Proceedings 2003*, XVII congreso nacional XIII congreso hispano-francés AEDEM, Université

Montesquieu Bordeaux IV, Bordeaux, p. 19-28.

Atkinson, S.E. and Halvorsen, R. (1986), The relative efficiency of public and private firms in a regulated environment: the case of US electric utilities, *Journal of Public Economics*, 29, p. 281-294.

Azofra, V.; Fernández, A. I.; Hernangómez, J. J. and De Miguel, A. (1991), Análisis sectorial del comportamiento financiero de las empresas públicas y privadas en España: Un enfoque multivariante. *Anales de Estudios Económicos y Empresariales*, 6, p. 335-360.

Baños, J.; Fernández, V. and Rodríguez, A. (2003), La ineficiencia asignativa y su coste económico en RENFE (1955-2000). *Papeles de Economía Española*, 95, p. 352-361.

Boardman, A.E.; Laurin, C. and Vining, A.R. (2003), Privatization in North America, in David Parker and David Saal (eds.) *International Handbook on Privatization*, Edward Elgar, Cheltenham, U.K., p. 129-160.

Boubakri, N. and Cosset, J.C. (1998), The financial and operating performance of newly privatized firms: evidence from developing countries, *Journal of Finance*, 53(3), p. 1081-1110.

Boubakri, N. and Hamza, O. (2007), The dynamics of privatization, the legal environment and stock market development, *International Review of Financial Analysis*, 16(4), p. 304-331.

Boubakri, N.; Cosset, J.C. and Guedhami, O. (2005), Liberalization, corporate governance and the performance of privatized firms in developing countries, *Journal of Corporate Finance*, 11, p. 767-790.

Boycko, M.; Shleifer, A. and Vishny, R. (1996), A theory of privatization, *Economic Journal*, 106, p. 309-319.

Bradford, D. F.; Malt, R. A. and Oates, W. E. (1969), The rising cost of local public services: some evidence and reflections. *National Tax Journal*, XXII (2), p. 185-202.

Bruce, A. (1986), State to private sector divestment: the case of sealink, en Coyne, J. y Wright, M. (eds.): *Divestment and strategic change*, Phillip Allan, Oxford, p. 202-244.

Bruggink, T.H. (1982), Public versus regulated private enterprise in the municipal water industry: a comparison of operating costs, *Quarterly Review of Economics and Business*, 22(1), p. 111-125.

Burns, P. and Weyman-Jones, T. (1994), Regulatory incentives, privatization and productivity growth in UK electricity distribution, CRI Technical Paper 1, Centre for the Study of Regulated Industries, London, Chartered Institute of Public Finance and Accountancy.

Cuervo, A. (1997), *La privatización de la empresa pública*. Ed. Encuentro, Madrid.

Cuervo, A. (2004), Empresa pública y privatización, *Papeles de Economía Española*, 100, p. 147-160.

Chiva, R. (2001), El estudio de casos explicativo. Una reflexión. *Revista de Economía y Empresa*, vol. XV, nº 41, p. 119-132.

D'souza, J. and Megginson, W.L. (1999), The financial and operating performance of newly privatized firms during the 1990s, *Journal of Finance*, 54(4), p. 1397-1438.

D'souza, J.; Megginson, W.L. and Nash, R. (2005), Effects of institutional and firm specific characteristics on post-privatization performance: Evidence from developed countries, *Journal of Corporate Finance*, 11(5), p. 747-766.

Dewenter, K. and Malatesta, P.H. (2000), State-owned and privately-owned firms: an empirical analysis of profitability, leverage and labour intensity, *American Economic Review*, 91(1), p. 320-334.

Di Lorenzo, T.J. and Robinson, R. (1982), Managerial objectives subject to political market constraints: electric utilities in the US, *Quarterly Review of Economics and Business*, 22(2), p. 113-125.

Durá, P. (2004), Los fundamentos teóricos del proceso de privatización: influencia del régimen de propiedad en los objetivos y en los sistemas de incentivos, en VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación

SEPI, Ediciones Cinca, Madrid, p. 143-162.

Eckel, C.; Eckel, D. and Singal, V. (1997), Privatization and efficiency: Industry effects of the sale of British Airways, *Journal of Financial Economics*, 43, p. 275-298.

Eisenhardt K.M. and Graebner M.E. (2007), Theory building from cases: opportunities and challenges, *Academy of Management Journal*, 50(1), p. 25-32.

Eisenhardt, K.M. (1989), Building theories from case study research, *Academy of Management Review*, 14, p. 532-550.

Eisenhardt, K.M. (1991), Better Stories and Better Constructs: The Case for Rigor and Comparative Logic, *Academy of Management Review*, 16(3), p. 620-627.

Estrin, S. (2002), Competition and corporate governance in transition, *Journal of Economics Perspectives*, 16(1), p. 101-124.

Fernández, Z. (1989), Reflexiones sobre la dirección y organización de la empresa pública. *Papeles de Economía Española*, 38, p. 59-65.

Fernández, Z.; Romero, A. M. and Vázquez, E. (2004), Privatizaciones y cambios estratégicos (El caso español: 1985-2000), in VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación SEPI, Ediciones Cinca, Madrid, p. 595-623.

Foreman-Peck, J. (1989), Ownership, competition and productivity growth: the impact of liberalisation and privatization upon British Telecom. *Warwick Economic Research Papers Series (TWERPS)*, nº 338, University of Warwick.

Foreman-Peck, J. and Waterson, M. (1985), The comparative efficiency of public and private enterprise in Britain: electricity generation between the world wars, *The Economic Journal*, 95, p. 83-95.

Gamir, L. (1999), *Las privatizaciones en España*. Ed. Pirámide, Madrid.

García, M.T. y Mariz, R.M. (2003), El efecto de las privatizaciones sobre la gestión empresarial.

AEDEM, XVII Congreso Nacional y XIII Congreso Hispano-Francés, Bordeaux, p. 1087-1096.

Gibbert, M.; Ruigrok, W. and Wicki, B. (2008), What passes as a rigorous case study?, *Strategic Management Journal*, 29, p. 1465-1474.

Gómez, M. and García, A. (2004), La privatización y el aumento de competitividad de las empresas españolas, in VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación SEPI, Ediciones Cinca, Madrid, p. 857-877.

González-Páramo, J. M. y Hernández de Cos, P. (2004), La evolución económico-financiera de las empresas privatizadas, 1983-1996, in VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación SEPI, Ediciones Cinca, Madrid, p. 655-670.

Gupta, N. (2005), Partial Privatization and Firm Performance, *Journal of Finance*, 60(2), p. 987-1016.

Hirsch, W. (1968), The supply of urban public services, in H. Perloff y L. Wingo (eds.), *Issues in Urban Economics*, p. 477-526.

Iranzo, J.E. (2004), De la empresa estatal a la multinacional: el papel de las antiguas empresas de propiedad pública en la expansión de la economía española, in VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación

SEPI, Ediciones Cinca, Madrid, p. 813-832.

Izquierdo, G.; Fernández, M. J. and Matellan, A. (2004), Dimensión empresarial y competitividad: economías de escala y la necesidad de la expansión internacional de las empresas privatizadas, in VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación SEPI, Ediciones Cinca, Madrid, p. 879-896.

Laurin, C. and Bozec, Y. (2001), Privatization and productivity improvement: the case of Canadian National, *Transportation Research Part E: Logistics and Transportation Review*, 37(5), p. 355-374.

Lynk, E.L. (1993), Privatization, joint production and the comparative efficiencies of private and public ownership: the UK water industry case, *Fiscal Studies*, 14(2), p. 98-116.

Majumdar, S.K. (2008), Why Privatize? The Decline of Public Ownership in India and its Impact on Industrial Performance, *South Asia Economic Journal*, 9(2), p. 293-336.

Maroto, J. A. (1991), Las empresas públicas españolas: un análisis comparado, en clave empresarial. *Cuadernos de Información Económica*, 119, p. 1-9.

Martin, S. and Parker, D. (1995), Privatization and economic performance throughout the UK business cycle, *Managerial and Decision Economics*, 16, p. 225-237.

Meggison, W. L. (2005), The Economics of Bank Privatization, *Journal of Banking and Finance*, 29, p. 1931-1980.

Meggison, W.L.; Nash, R.C. and Randenborgh, M. Van. (1994), The financial and operating performance of newly privatized firms: an international empirical analysis, *Journal of Finance*, 49(2), p. 403-452.

Melle-Hernández, M. (1999), Algunos resultados efectivos de las privatizaciones en España: Una primera aproximación. *Economía Industrial*, 330, p. 141-158.

Melle-Hernández, M. (2004), Las empresas públicas en la UE: hacia un nuevo paradigma de la intervención pública en la economía, en VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación SEPI, Ediciones Cinca, Madrid, p. 281-312.

Méndez-Naya, J. (2007), Privatización y Fusiones en Oligopolios Mixtos, *Estudios de Economía*, 34(1), p. 37-52.

Millward, R. and Ward, R. (1987), The costs of public and private gas enterprises in late 19th century Britain, *Oxford Economic Papers*, 39, p. 719-737.

Millward, R.E. and Parker, D.M. (1983), Public and Private Enterprise: Comparative Behavior and Relative Efficiency, in Robert Millward, Parker, Rosenthal, Sumner and Topham (eds.) *Public Sector Economics*. Longman, New York, p. 199-274.

Munari, F. and Sobrero, F. (2003), Privatization's effects on R&D investments, en M. Calderini, P. Garrone y M. Sobrero (eds.), *Corporate governance, market structure and innovation*, Edward Elgar, Cheltenham, p. 67-91.

Parker, D. (1995), Privatization and agency status: identifying the critical factors for performance improvement. *British Journal of Management*, 6, p. 29-43.

Parker, D. and Kirkpatrick, C. (2005), Privatization in developing countries: A review of the evidence and the policy lessons, *Journal of Development Studies*, 41(4), p. 513-541.

Prior, D. and Surroca, J. (2004), Análisis de la relación entre la intensidad y el tipo de inversiones en la empresa antes y después de la privatización, en VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación

Cinca, Madrid, p. 671-691.

Pryke, R. (1982), The comparative performance of public and private enterprise, *Fiscal Studies*, 3(2), p. 68-81.

Pulido, A. (2004), Innovación, competitividad y privatización, en VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*. Fundación

SEPI, Ediciones Cinca, Madrid, p. 185-199.

Rondinelli, D.A. (2004), Políticas e instituciones para dirigir el proceso de privatización: la experiencia internacional, in VV. AA., *Teoría y política de privatizaciones: su contribución a la modernización económica. Análisis del caso español*, Fundación SEPI, Ediciones Cinca, Madrid, p. 115-141.

Ruiz-Porras, A. (2010), Privatización, competencia por depósitos y desempeño bancarios, *Estudios de Economía*, 37(1), p. 67-104.

Sánchez, M.C. and Vence, X. (2009), Effects of privatization on innovation: evidence of the spanish case, paper to be presented at the Summer Conference on CBS - Copenhagen Business School.

Siggelkow, N. (2007), Persuasion with case studies, *Academy of Management Journal*, 50(1), p. 20-24.

Sosa, S. (2006), *La génesis y el desarrollo del cambio estratégico: un enfoque dinámico basado en el momentum organizativo*. Tesis doctoral, U. Las Palmas de G. Canaria.

Tian, G.L. (2000), State shareholding and corporate performance: a study of a unique Chinese data set, *Working Paper*, London Business School.

Villarreal, O. and Landeta, J. (2010), El estudio de casos como metodología de investigación científica en dirección y economía de la empresa. Una aplicación a la internacionalización, *Investigaciones Europeas de Dirección y Economía de la Empresa*, 16(3), p. 31-52.

Wu, H.L. and Parker, D. (2007), The Determinants of Post-Privatization Efficiency Gains: The Taiwanese Experience, *Economic and Industrial Democracy*, 28, p. 465-493.

Yin, R.K. (1993), *Applications of case study research*. Newbury Park, Sage Publications, London.

Yin, R.K. (1994), *Case study research. Design and methods* (2^a ed.). Newbury Park, Sage Publications, London.

Yin, R.K. (1998), The Abridged Version of Case Study Research, in Bickman, L. and Rog, D. J. (eds.): *Handbook of Applied Social Research Methods*, Sage Publications, Thousand Oaks, p. 229-259.

Yin, R. K. (2002), *Case study research: design and methods*. 3rd ed. Newbury Park, Sage Publications, London.

Zahra, S.A.; Ireland, R.D.; Gutierrez, I. and Hitt, M.A. (2000), Privatization and entrepreneurial transformation: emerging issues and a future research agenda, *Academy of Management Review*, 25(3), p. 509-524.

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