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# **Outsourcing, competitive capabilities and performance: an empirical study in service firms**

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## **Abstract**

In analyzing the relationship between outsourcing and firm performance, different authors have studied the effects that outsourcing can have on the firm. Even if we establish an initial link between outsourcing and representative measurements of the results achieved through cost savings or the creation of greater market value, no author seems to have established a precise relationship between outsourcing and the most representative measures of company performance (organizational and business performance). After reviewing the literature on this issue, we believe that research has undervalued the impact that outsourcing decisions have on our competitive capabilities. After making an empirical study of service firms, this article finds that there is a relationship between outsourcing decisions and company performance which is articulated via the impact of outsourcing decisions on the firm's competitive capabilities.

## **Keywords**

Outsourcing, Strategic decisions, Competitive capabilities, Performance

## **1. Introduction**

In the study of the repercussions of strategic decisions on organizations, some research areas have been neglected. Various authors advocate the need for more research in this field, especially into the decisions that affect the structure of firms (Lonsdale and Cox, 2000) and suggest that this should be done in association with the performance analysis of the outsourcing strategy (Lee and Sung, 2008). In the process of monitoring the success of organizations, performance and the measurement of performance are the most commonly used tools for assessing whether or not organizations have made the right decisions (Dixon et al., 1990, Neely, 2005, Neely, 2002).

Within the degree of fit to the market environment, which has a direct effect on the results obtained, the need arises to study why firms adopt their particular structures. The main explanatory factor is the gap between the cost of accessing markets and the problem of diseconomies of scale that originate in the excessive size of certain firms (Coase, 1937). At this point the need arises to identify the boundaries of the firm correctly, defining which activities should be performed internally and which should be outsourced.

Outsourcing is a useful method for adjusting the boundaries of the firm in response to external economic pressures. It enables the firm to consolidate its strategy by restructuring its activities in order to stimulate growth of its core business. This involves a fundamental change in strategy (Prahalad and Hamel, 1990). In order to ensure that outsourcing is successful, firms should balance the strategies of vertical integration and externalization (Rothaermel et al., 2006) and analyze in detail the impact of these decisions on their results, by studying all the variables involved in this process. With this in mind, we have presented a model to study the relationship between the impact of outsourcing decisions on the firm's competitive capabilities, taking into account that this impact leads to improved company performance.

Although some authors studying the relationship between outsourcing and performance have analyzed the effect of externalization activities on the firm, we have found, as Jiang and Qureshi (2006) also indicated, few studies of the financial impact of outsourcing on firm performance (Jones, 1993, Gilley and Rasheed, 2000, Barrar et al., 2002). Many issues have yet to be analyzed in the outsourcing–performance relationship, particularly with respect to the impact of outsourcing decisions on the firm's competitive capabilities.

Having determined the need to find a relationship between outsourcing decisions and their impact on the firm's competitive capabilities, our ultimate goal will be to analyze the role of this impact, identified as the key mediating variable in the connection between outsourcing and firm performance. To this end, we have performed a study of this relationship in service firms, and we propose a model of explanatory variables to be studied through structural equations analysis.

## **2. Related literature**

### *2.1. Outsourcing*

Outsourcing can be defined as a predetermined means of externally obtaining goods or services previously provided by the organization itself (Kakabadse and Kakabadse, 2000). Almost all of the authors on this subject come to the conclusion that the firm should focus on activities in which it possesses a sustainable competitive advantage, and externalize those in which competing companies have a specific competitive advantage (Venkatesan, 1992). Prahalad and Hamel (1990) found that companies consolidate their corporate strategies through a restructuring of the firms' activities in order to stimulate the development of their main capabilities. It is necessary to develop the capacity to identify, develop and exploit the core competencies by implementing the strategy necessary to preserve them over time. Externalization of non-essential tasks to firms that specialize in performing them enables organizations to focus on the activities that generate greater added value, thus maximizing the implicit potential of these activities (Jiang and Qureshi, 2006). To achieve this, it is necessary to redefine the size and the boundaries of the organization, by deciding which activities the company will perform

in-house and which activities it will outsource. In this way the company attempts to strike a balance between the different strategies of vertical integration and externalization of activities (Rothaermel et al., 2006).

Outsourcing has recently become an important component of organizational strategy, due on the one hand to pressures from management aimed at establishing the boundaries of the firm (Antelo and Bru, 2010), and on the other hand to a growing recognition of the possible advantages that can be gained from closer collaboration between the firm and the supplier of the service (Miles and Snow, 2001). Other possible advantages found in the literature on this subject include:

- Enabling companies to reduce and monitor operating costs. Economies of scale enable companies to reduce costs and distribute the cost among customers, making the achievement of economies of scale an organizational reason for practicing outsourcing (Kimura, 2002).
- Enabling organizations to focus on their core activities and competencies (Quinn and Hilmer, 1994, Sislian and Satir, 2000): By limiting the number of firm functions for which they are responsible, managers can apply their knowledge and experience to core competencies, externalizing those activities in which they are less competent, thereby benefitting from the experience of the service supplier. Within the range of decisions taken by managers, outsourcing shifts from being a mere cost saving exercise to a strategic decision that increases the firm's main capabilities (Mullin, 1996, Harris et al., 1998, Lankford and Parsa, 1999, Elmuti and Kathawala, 2000).
- Enabling the firm to respond to changes in demand when demand is variable and fragmented. The limited resources of small companies can be a conditioning factor when sudden changes in demand occur. Reductions in demand can lead to the company having to dismiss personnel in whom it has made large investments in terms of education and training (Lankford and Parsa, 1999, Pinnington and Woolcock, 1995, Kakabadse and Kakabadse, 2005).
- To sum up, outsourcing traditionally offers the firm the following advantages: To convert fixed costs into variable costs, to balance the number of employees, to reduce the needs for capital investment, to reduce costs via economies of scale, to accelerate the development of new products, to obtain access to the innovation and latest technologies offered by the supplier of the outsourced service, to focus our resources on those activities with high added value.

On the basis of these studies gathered from the literature, we propose a series of items that can be used in the scale for measuring the benefits of outsourcing decisions.

## *2.2. Theoretical perspectives on outsourcing*

In order to compensate for the loss of internal technological capabilities, firms gradually increase their trust in external partners who can be effective substitutes for their internal capacity to generate knowledge and innovation (Quinn, 1992). Some of the main arguments in favour of outsourcing have attempted to design contingent models that seek

to justify this practice from different perspectives. The literature yields a wide range of different theories that deal with this issue (Gottschalk and Solli-Sæther, 2005).

According to the transaction cost approach, companies will outsource those activities for which the benefit obtained, including both the increase in income and the reduction of costs, which is greater than the transaction costs incurred. This theory predicts that outsourcing will occur when specificity of assets is low and when we find ourselves in a state of low uncertainty and reduced frequency of transactions in these assets (McCarthy and Anagnostou, 2004). The firm cannot continue growing indefinitely; there comes a time when the costs of coordinating the activities within the firm exceed the transaction costs of the market. Thus, the firm will opt for the market or for one of the firm's own structures based on market opportunities and the efficiency to be found in these relationships. From this perspective, the theory of transaction costs defines the boundaries of the firm, as has become the theory of reference in studies of the divisional structure of the firm, vertical integration, and the establishment of strategic alliances (Hoskisson et al., 1999). Resources-based view (RBV) analyzes the firm as a set of unique strategic resources capable of generating a sustainable competitive advantage (Barney, 2001). In essence, this theory not only seeks to determine the competitive advantages obtained from the opportunities in the market, but also considers these advantages to be determined by the resources and capabilities that the firm is capable of identifying, developing and protecting (Penrose, 1959, Wernerfelt, 1984). The complexity of the outsourcing phenomenon requires a theoretical lens based on the integration of diverse theories (Ellram et al., 2008). Transaction Costs Economics (TCE) and RBV explain certain aspects of outsourcing. However it is necessary to incorporate more specific perspectives like Core Competences or Dynamic Capabilities, rather than a general perspective (McIvor, 2009). Hence, from the Competences-based perspective, core competences are the basis for developing sustainable competitive advantages (Prahalad and Hamel, 1990, Rumelt, 1994). Core competences are essential for internal as well as external firm processes (Hafeez et al., 2009).

In addition, the Dynamic Capabilities Approach considers process leveraging as source of competitive advantage through strategic positioning. Under this scope, the firm competitiveness is based on dynamic capabilities which allow firms to obtain competitive advantages within specific environments (Teece et al., 1997, Binder and Clegg, 2007).

The TCE approach, argues that the properties of the transaction determine the most efficient governance structure—market, hierarchy or alliance (Williamson, 1975). There is no clear consensus about the role of uncertainty as whether it reduces or increases the level of hierarchical governance (Walker and Weber, 1987). Complementarily, TCE focuses on the study of whether the firm should insource or outsource determined activities by balancing the potential for improvements in performance against specific conditions in the supply market (Stratman, 2008). In today's context of growing competitive pressure, firms focus on their core competencies and dynamic capabilities as source of their competitive advantage, and resort to outsourcing for those activities in which they do not have such an advantage (Prahalad and Hamel, 1990). By externalizing activities that are not of a strategic nature, they stimulate the essential competencies of their organizations (Doh, 2005, Nordin, 2008, Zhang and Dhaliwal, 2009). Madhok (2002) studied the way companies organize the internal or external performance of their activities on the basis of certain internal resource and capability conditions. This means that when companies make the right outsourcing decisions, the benefits they obtain serve

to strengthen their internal resources. When defining the boundaries of the company by deciding which activities will be carried out in-house and which will be outsourced, it is important to analyze the consequence these decisions have on the organizations above and beyond their possible impact on performance (Araujo et al., 2003). For this reason, it is important to find out if this impact on performance has a direct effect or if there are mediator variables that act as links between the benefits obtained from outsourcing and performance.

Our results show that there is no direct relationship between outsourcing and performance. It seems instead that the benefits of outsourcing are transmitted through the impact they have on the company's competitive capabilities. This idea is based on the capacity of outsourcing benefits to create value for companies (Holcomb and Hitt, 2007). The theory is that when companies outsource some of their work, there is a discontinuity in the set of activities performed internally—resources—and existing internal activities are replaced by outsourced activities—capabilities (Gilley and Rasheed, 2000). This leads to a return for the companies created by the differential produced by the internal capabilities that remain within the organization and those that have been outsourced (Holcomb and Hitt, 2007). This differential is increased when the right outsourcing decisions are made and the benefits of these decisions strengthen the resources and competitive capabilities of the company.

### 2.3. Outsourcing and firm performance

Various authors have studied the effects of outsourcing on the firm. Their studies range from analyzing the effects on worker productivity on a specific division of the firm, on the general value of the firm, on cost efficiency, and even on the industry as a whole, on sectors, and on countries. Jiang et al. (2006) affirm that outsourcing has an effective influence on cost savings but could not prove any effect on productivity or profitability, both important issues for any of the current systems for measuring performance. This is perhaps because outsourcing decisions have a long-term impact. In relation to outsourcing and performance, we should also cite Kimura (2002), who found no relation between the two in a study of Japanese manufacturing firms; Görzig and Stephen (2002), who found that outsourcing in manufacturing firms increases productivity, while there is no significant relation in the case of outsourcing of services; and Görg and Hanley (2004), who argued that outsourcing reduces performance in small plants but increases it in large ones. Other studies of this relation between outsourcing and performance are shown in Table 1.

Table 1. Studies of outsourcing and their results.

| Author                                    | Main contributions   |
|---|--|
| <a href="#">Jones (1993)</a>              | Examines exclusively the effect of outsourcing on a specific functional division of the firm, without providing an overall vision.                                   |
| <a href="#">Hays et al. (2000)</a>        | Examines in detail the impact of outsourcing on the firm's value, without analyzing the impact on results.   |
| <a href="#">Gilley and Rasheed (2000)</a> | Does not find an outsourcing-performance relationship, although strategy and the dynamism of the environment are found to be mediating factors in this relationship. |

| Author   | Main contributions  |
|--|---|
| <a href="#">Barrar et al. (2002)</a>           | Focus their study on the influence of outsourcing on worker productivity.   |
| <a href="#">Kimura (2002)</a>                  | Does not find a performance–outsourcing relationship in Japanese firms.   |
| <a href="#">Gorzig and Stephen (2002)</a>      | Does not find a relation between the outsourcing of services and firm performance.  |
| <a href="#">McCarthy and Anagnostou (2004)</a> | Using government employment statistics, they examine the impact of outsourcing on the industry as a whole, without entering into individual considerations.   |
| <a href="#">Harland et al. (2005)</a>          | Study the benefits that outsourcing brings to organizations by studying its influence on the different sectors of economic activity and ultimately on countries.  |
| <a href="#">Jiang et al. (2006)</a>            | Establishes an initial link between outsourcing and traditional measures of results, in this specific case, cost efficiency.  |
| <a href="#">Rothaermel et al. (2006)</a>       | Confirms that a good balance between outsourcing and vertical integration favours the company's product portfolio, such that firm performance is increased.   |
| <a href="#">Tate (2009)</a>                    | Perform studies of companies that carry out offshoring of services, establishing that firms should know that more than just being an organizational strategy aimed at reducing costs, outsourcing creates strategic advantages in terms of increasing the quality and market share of their services. |

Source: Developed by the authors.

But even if, as stated above, we start with an initial connection between outsourcing and representative measures of results achieved through cost efficiency or the creation of greater market value (Jiang and Qureshi, 2006), no author seems to have established a precise relationship between outsourcing and business and organizational performance. The impact of outsourcing decisions on our competitive capabilities has been undervalued, as well as the fact that these capabilities can produce competitive advantages in the long term. The benefits of outsourcing influence competitive capabilities, and competitive capabilities generate returns for organizations. It is therefore necessary to propose a model and analyze it empirically, as we will now go on to do.

### 3. Model and hypotheses

#### 3.1. Benefits of outsourcing and its impact on the firm's competitive capabilities

To obtain the maximum benefit from outsourcing, it is necessary to have the right strategic fit between the members in this relationship. Collective learning can develop as the result of this strategic fit, enabling the reinforcement of the core competencies of the firm (Prahalad and Hamel, 1990). These competencies are developed and consolidated over long periods through a process of continuous learning and improvement (Ehie, 2001).

Decisions to externalize activities will be correct to the extent that they enable us to increase our essential capabilities as much as possible. We can therefore state that, the greater the benefits of the outsourcing decisions, the greater the positive impact of these decisions on the firm's competitive capabilities, which can be expressed as follows:

**H1** Correct externalization decisions increase our core competitive capabilities such that the greater the benefits obtained from outsourcing, the greater the impact these decisions will have on the firm's competitive capabilities.

### *3.2. Impact on competitive capabilities and their relation to the determination of firm performance*

From the theoretical perspectives of outsourcing, when the right outsourcing decisions are made, the resulting benefits serve to strengthen the company's internal resources (Nordin, 2008). As outsourcing allows the company to concentrate on those business activities that create greater competitive advantages for it (Javidan, 1998, Pinjala et al., 2006).

The company's resources and capabilities are the source of sustainable long-term competitive advantages (Peteraf and Barney, 2003). This means that the impact that correct outsourcing decisions have on the development of competitive capabilities is what creates a greater competitive advantage. As competitive advantages lead to improved firm performance (Rothaermel et al., 2006) we can argue that:

**H2** The impact that correct outsourcing decisions have on the development of competitive advantages arising from the strengthening of essential company resources and capabilities is positively linked to firm performance.

We will therefore analyze the relationship between the decision to externalize activities and firm performance through the impact this decision has on competitive capabilities. This is one of the fundamental objectives of this study, which we will now be subjecting to empirical analysis. At the end of this section, we will be presenting the different indicators chosen, and the relationships established between the constructs in Fig. 1.



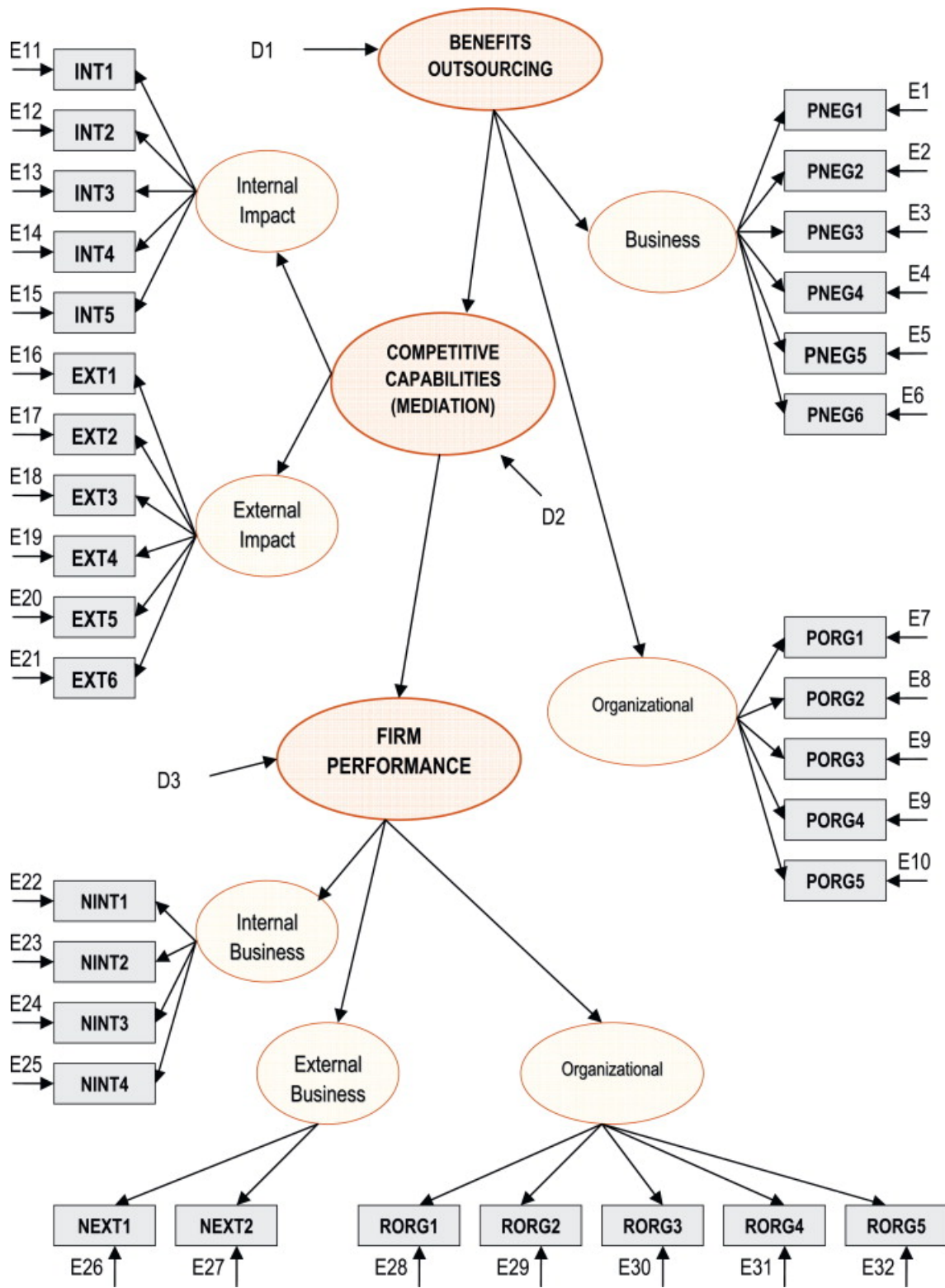


Fig. 1. Factors that affect outsourcing and performance (Conceptual Model). Source: Developed by the authors.

## 4. Methodology—empirical study

### 4.1. Universe, sample, and type of investigation

We decided to use an empirical investigation to verify the hypotheses proposed in our study. The study population selected to carry out the investigation is made up of firms in the service sector. We decided to limit our target group to firms based in Spain with more than 20 employees. We used the database for the DICODI 2006–2007 directory, which includes basic financial information on the 50,000 biggest companies in Spain. From this number, 12,587 firms belong to the service sector and have more than 20 employees. An initial batch of 1000 questionnaires was sent out and this was followed up by telephone contact. A further 1000 questionnaires were then sent out (less 123 questionnaires that had been received correctly filled in from the first batch), so completing the total number of questionnaires sent. We obtained 213 valid questionnaires from this process.

We used the statistical software SPSS 15.0 and EQS 6.1 to analyze the data included in the sample. In order to avoid problems with response that could arise from asking questions about organizational strategy, we took special care to maximize the response rate. To do this, we first performed a pre-test of the questionnaire through in-depth interviews with CEOs from the firms we were studying. In this pre-test, some questions related to some items measuring outsourcing benefits were discredited by managers regarding their direct application to our study. We obtained a total of 213 valid questionnaires, yielding a response rate of 10.65%, sampling error 7.74% (Table 2). We addressed the questionnaire to managers, because they receive information from a wide range of departments and because they are capable of evaluating the variables the study analyzes (Baer and Frese, 2003).

Table 2. Sample: technical specifications.

| Universe                     | Service firms with more than 20 employees |
|------------------------------|---|
| Geographical area            | Spain                                     |
| Methodology                  | Structured questionnaire                  |
| Type of interview            | Mailed structured questionnaire           |
| Population                   | 12,587 service firms                      |
| Sample size                  | $N=213$                                   |
| Confidence level             | 95%                                       |
| Sampling error ( $p=q=1/7$ ) | $\pm 7.74\%$                              |
| Sample design                | Random selection of sampling units        |

### 4.2. Main scales

#### 4.2.1. Benefits of outsourcing

Various different authors (Ehie, 2001, Kremic et al., 2006) have proposed that outsourcing contributes to the development of essential organizational capabilities. If we take the main benefits that correct outsourcing decisions can have for the company's competitive capabilities, we can create a scale to measure the potential benefits of these

decisions (Bustinza-Sánchez et al., 2008). This scale is made up of organizational benefit indicators and business benefit indicators. A series of steps must be taken to enable us to develop a suitable scale for measuring these benefits (Forza, 2002), especially if the scale has not been validated by previous research, as is the case here. The indicators we selected were included in a trial questionnaire which was sent out to other researchers, experts in the industry being studied and potential interviewees.

The next stage involved a pre-test on potential interviewees that had satisfactory results in terms of the exploratory analysis we were performing and enabled us to draw up a definitive questionnaire (Table 3). The items included in the definitive questionnaire were evaluated according to a 7-point Likert scale (1=not at all beneficial, 7=absolutely beneficial) to assess the benefits of outsourcing. These benefits can be classified into two main categories, organizational benefits and business benefits, represented by the corresponding items in the table. The analysis of the principal components of the scale indicates that there are indeed two categories, business and organizational benefits, as the study of unidimensionality is positive. When we continued with the factor analysis, complications arose in the model that required different adjustments to be made, fundamentally to correct the values of  $R^2 < 0.5$  so as to ensure that our measurement indicators were accurate. After determining that adjustments were necessary, we decided to eliminate items PORG5 and PNEG1, so obtaining the indicators shown in Table 3 that validate the model. The analysis of the scale's internal consistency produced a value of  $\alpha = 0.887$ , which indicated that it was a valid measurement instrument for our purposes.

Table 3. Items measuring outsourcing benefits in relation to firm's resources and capabilities.

| <b>Organizational benefits</b>             | <b>Business benefits</b>                            |
|--|---|
| PORG1—improves operations technologically  | PNEG1—allows focusing on core activities            |
| PORG2—allows access to latest technologies | PNEG2—increases business flexibility                |
| PORG3—improves management processes        | PNEG3—increases customer satisfaction               |
| PORG4—increases innovation trends          | PNEG4—allows focus on internal business improvement |
| PORG5—reduces organizational risks         | PNEG5—improves strategic positioning                |
|  | PNEG6—gets rid of problem functions                 |

*Source:* Developed by the authors.

#### 4.2.2. Impact on competitive capabilities

As stated above, we can establish parallels between outsourcing decisions and an increase in competitive capabilities, when we view this relationship from the perspective of the impact of outsourcing on the firm's capabilities. To do this, we established a 7-point Likert scale (1=not at all important, 7=extremely important) based on the 11 capabilities established to enable companies to develop the right competitive strategy (Miller and Roth, 1994).

The analysis of the scales' unidimensionality is positive; that is, all of the indicators load on the corresponding factor. The factor study of the main components yields two factors, which we will call "impact on external competitive capabilities" and "impact on internal capabilities". Both factors present good values for the Alpha Cronbach ( $\alpha = 0.883$ ), and

the study of the inter-item and total item correlations obtained enables us to ensure that this scale is composed of indicators that are satisfactory at the exploratory level.

Complications arose with the confirmatory factor analysis that required us to correct the values of  $R^2 < 0.5$ , leading us to eliminate component 2 (i.e. complications related to the impact on internal competitive capabilities) and item EXT6 (Table 4).

Table 4. Scale for the impact of outsourcing decisions on firms' competitive capabilities.

| Internal competitive capabilities                    | External competitive capabilities                          |
|--|--|
| Enable punctual delivery of the service              | EXT1—provide flexibility to face market demand             |
| Enable faster delivery of the service                | EXT2—introduce new services into the market more rapidly   |
| Increase the competitiveness of our prices           | Ext3—distribute our services more widely                   |
| Enable us to offer consistent quality                | EXT4—increase the number of our services                   |
| Enable us to obtain better results from our services | EXT5—contribute to promoting our services more efficiently |
|  | EXT6—develop post-sales services                           |

Source: Adapted from [Miller and Roth \(1994\)](#).

#### 4.2.3. Measuring firm performance

In this section, we return to the concept of measuring firm performance as the most frequently used instrument for monitoring the success of management strategies. The group of business performance indicators assess whether the right corporate strategy has been followed from the point of view of its contribution to achieving company objectives. Organizational performance explains the firm's gains in terms of current market presence (market share or growth in sales) and potential presence (development of products and diversification). One might argue that using objective rather than subjective data enables us to achieve a more precise analysis of the data when establishing business and organizational performance. However, many studies have shown that there is a high correlation between both kinds of data. This correlation enables us to ensure that both sources are equally valid (Datta, 1991). It is also advisable to indicate that when multi-sector populations are being studied, as in our case, measures based on the perceptions of the people interviewed are more appropriate (Ketokivi and Schroeder, 2004).

In constructing the measurement scale, we again used a 7-point Likert scale (1=total disagreement, 7=total agreement). As this is a multidimensional concept, we believed it best to include indicators that measured both business and organizational performance (Table 5) based on the contributions of the main authors in this subject matter (Venkatraman and Ramanujam, 1986, Abernethy and Lillis, 1995, Kaplan and Norton, 2006). In this scale, three components associated with measures representative of firm performance were obtained. These affected internal or external business performance, or the organizational profile of the firm. In the first and second cases, the exploratory factor analysis did not present any problems, but for the third component, which referred to indicators of organizational performance, the analysis pointed to the need to eliminate

items RORG1, RORG4, and RORG5 (Table 5). The analysis of the scale's internal consistency yields a value of  $\alpha=0.847$ , so confirming that it is also a good instrument for measuring the proposed goal.

Table 5. Scale of the main measures of firm performance.

| Measures of business firm performance   | Measures of organizational firm performance   |
|---|---|
| NINT1—performance of our firm measured as profits over assets (economic profitability or ROA)         | RORG1—number of customer complaints   |
| NINT2—performance of our firm measured as profits over own resources (financial profitability or ROE) | RORG2—number of services initiated but not finalized at the request of our customers<br>PNEG3—increases customer satisfaction |
| NINT4—level of recovery of investments made in our firm   |   |
| NEXT1—market share of our firm in its main services and markets                                       | RORG3—length of time between the customer's request for a service and the final delivery of that service                      |
| NEXT2—growth in sales of our firm in the main services and markets                                    | RORG4—general level of satisfaction of our customers with the firm  |
|   | RORG5—degree of loyalty of our customers to the firm  |

Source: Adapted from [Venkatraman and Ramanujam, 1986](#), [Kaplan and Norton, 2006](#), [Abernethy and Lillis, 1995](#).

## 5. Results

We used Confirmatory Factor Analysis to find out to what extent the indicators selected for the different scales are reliable and valid. This analysis was performed on constructs or latent variables and the results are set out in Table 6. In the analysis of the reliability and validity of the scales, the reliability of each factor was calculated using composite (CR) and internal (alpha) reliabilities: the content analysis was supported by a review of the literature; the convergent validity analysis was performed using the average variance extracted (AVE) and the individual factor loading. Lastly, for the discriminant validity analysis we applied the procedure devised by Fornell and Larcker (1981) which establishes that over 50% of the variance of the construct is due to its indicators.

Table 6. Standardized factor loadings, explained variance and degree of significance of the parameters for the measurement model.

| Item  | St. factor loading ( <i>t</i> ) | Reliability ( $R^2$ ) | Item  | St. factor loading ( <i>t</i> ) | Reliability ( $R^2$ ) |
|---|---------------------------------|-----------------------|-------|---------------------------------|-----------------------|
| <i>Indicators for the variable "benefits of outsourcing: business benefits and organizational benefits"</i> |                                 |                       |       |                                 |                       |
| PNEG3   | 0.755 (8.943)                   | 0.569                 | PORG2 | 0.761(12.592)                   | 0.579                 |
| PNEG5   | 0.675 (8.173)                   | 0.485                 | PORG3 | 0.851(13.021)                   | 0.724                 |
| PNEG6   | 0.741 (8.811)                   | 0.548                 | PORG5 | 0.816 (13.963)                  | 0.666                 |
| PNEG7   | 0.816 (9.520)                   | 0.666                 | PORG6 | 0.873 (14.430)                  | 0.762                 |

| Item   | St. factor loading ( <i>t</i> ) | Reliability ( <i>R</i> <sup>2</sup> ) | Item  | St. factor loading ( <i>t</i> ) | Reliability ( <i>R</i> <sup>2</sup> ) |
|--|---------------------------------|---------------------------------------|-------|---------------------------------|---------------------------------------|
| <i>Indicators for the variable “impact of outsourcing decisions on external competitive capabilities”</i>                            |                                 |                                       |       |                                 |                                       |
| EXT1   | 0.748 (11.321)                  | 0.560                                 | EXT4  | 0.794 (12.186)                  | 0.631                                 |
| EXT2   | 0.801(12.310)                   | 0.641                                 | EXT5  | 0.756 (11.461)                  | 0.571                                 |
| EXT3   | 0.791 (11.976)                  | 0.625                                 |       |                                 |                                       |
| <i>Indicators for the variable “business performance: internal and external business performance and organizational performance”</i> |                                 |                                       |       |                                 |                                       |
| NINT1  | 0.882 (14.887)                  | 0.779                                 | NEXT1 | 0.931(14.468)                   | 0.867                                 |
| NINT2  | 0.849 (15.428)                  | 0.722                                 | NEXT2 | 0.852 (14.317)                  | 0.727                                 |
| NINT3  | 0.765 (13.083)                  | 0.585                                 | RORG2 | 0.579 (9.587)                   | 0.535                                 |
| NINT4  | 0.722 (11.992)                  | 0.521                                 | RORG3 | 0.769 (9.932)                   | 0.591                                 |

In order to ensure that the constructs used in the study do not refer to the same concept and genuinely represent different variables, a discriminant validity analysis must be performed. For this purpose, we calculated the composite reliability, which must be greater than 0.70 (Fornell and Larcker, 1981), and the average variance extracted for each of the constructs, which in this case must be greater than 0.50 (Barclay et al., 1995). The indicators selected for the different scales have greater factor loadings than the construct in which they are assigned, and the variance between the indicators is greater in relation to their construct than the variance shared between constructs (Compeau and Higgins, 1995).

The correlations between the factors are less than 1, and the average variance extracted is greater than the variance between them, which means that the selected indicators have discriminant validity (Fornell y Larcker, 1981). We also analyzed the discriminant validity of the constructs as proposed by Howell (1987), for which we calculated the correlations observed, which must be less than the maximum correlation that could be obtained from their reliability coefficients (calculated correlation). The results, which show the validity of the constructs we have used, are attached in Table 7 (the correlation calculated from the reliability coefficient is shown in italics).

Table 7. Composite reliability, average variance extracted, and observed correlation/maximum possible correlation.

|                              |                   |                  |                  |
|------------------------------|-------------------|------------------|------------------|
| <b>Composite reliability</b> | 0.801             | 0.848            | 0.738            |
| <b>AVE</b>                   | F7 (Benefits out) | F3 (Impact C.C.) | F8 (Performance) |
| F7 (Benefits out)            | 0.562 (AVE)       | <i>0.815</i>     | <i>0.719</i>     |
| F3 (Impact C.C.)             | 0.748             | 0.785 (AVE)      | <i>0.836</i>     |
| F8 (Performance)             | 0.294             | 0.316            | 0.538 (AVE)      |

Values in italics indicates maximum possible correlation.

After validating the scales to determine whether they are appropriate for the purpose for which they were designed, we designed the structural model with the set of indicators that have proved valid to show the different constructs of the current study. To do this, we used confirmatory modelling, which is consistent with the specification of a model whose

relationships have been established according to our review of the literature. We analyzed the structural equations that shape the model to evaluate their statistical significance. Once we had introduced the graphic model, we then analyzed its validity using a method similar to that used with the different scales, affirming that the parameters of the relationships between the constructs will provide the quantification that enables us to determine whether our hypotheses are correct. Finally, the specification of the model developed after the validation of the corresponding scales confirms that we can propose an empirical model to attempt to clarify the relationship between the benefits of outsourcing and the impact of these benefits on our competitive capabilities, as well as how the latter serve as a link between these benefits and the level of performance achieved by the companies.

As for the model, it is important to make clear that the parameters correspond to regression coefficients for the exogenous or independent variables on the latent variables, and that the model is validated because there is a unique mathematical solution for these parameters. As the statistical process underlying this process is that of Maximum Likelihood, the estimates we obtained are such as to maximize the likelihood that the results obtained have been extracted from a population that contains these estimates. This is an iterative process that follows repeated cycles until convergence is achieved, which estimates an adjustment function or minimization of discrepancy between the covariances we observed and those obtained using the model. In order to achieve our objectives, it is important to point out that a mediation relationship is established between the variables in the model. In order to analyze this mediation relationship (Baron and Kenny, 1986, Brown, 1997), we began by studying the direct causal relationship between the benefits of outsourcing decisions (referred to here as variable X) and the performance of the company (variable Y). The results can be seen in Fig. 2.

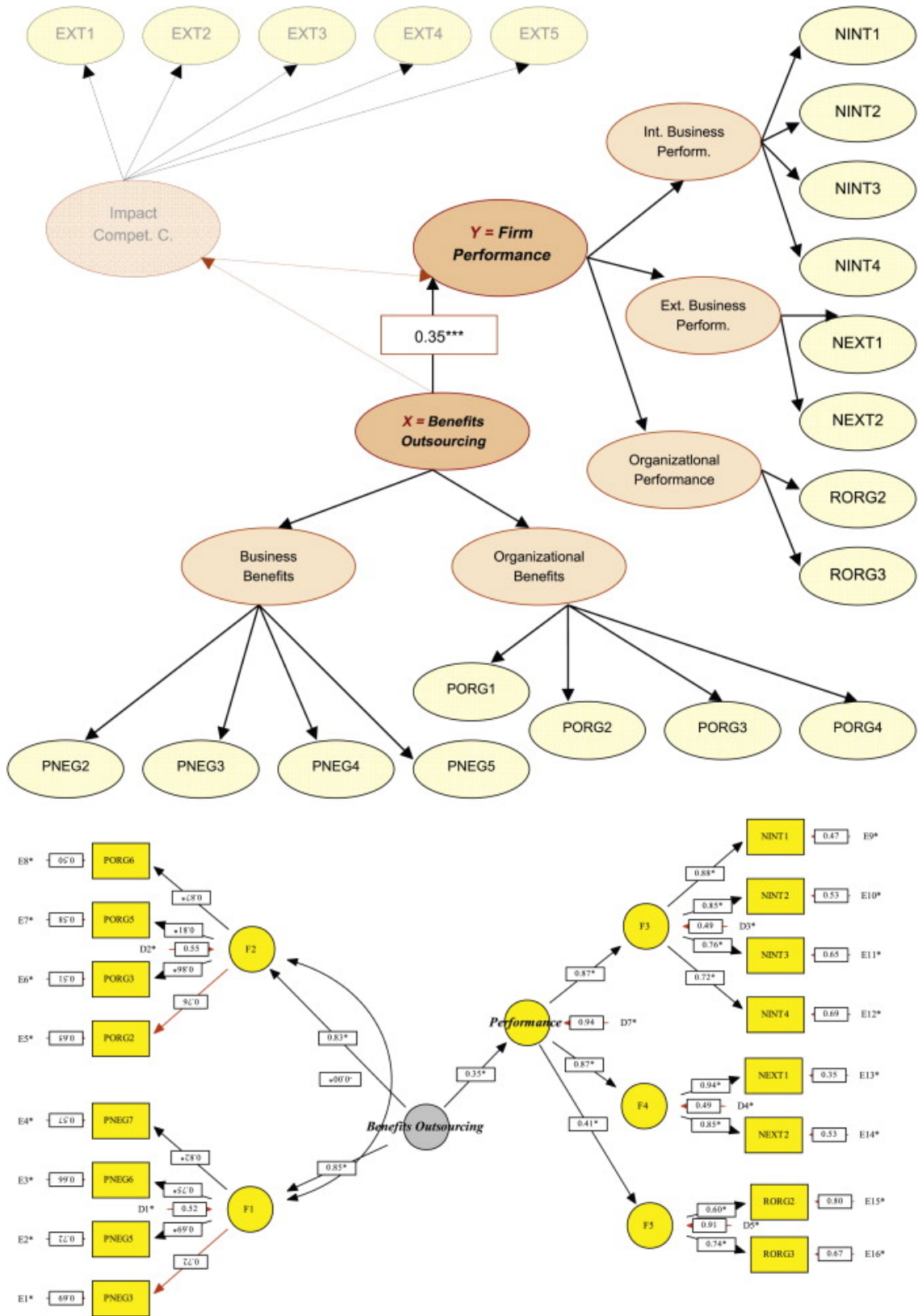


Fig. 2. Direct causal relationship between the benefits of outsourcing and performance. Significance level: \*\*\* $p < 0.001$ .

We then analyzed the mediating effect that the impact of the benefits of outsourcing on competitive capabilities (variable M) has on the model. The use of structural equation



models simplifies the modelling of mediation relationships thereby enriching the analysis of the relationships between the variables. The results obtained can be seen in Fig. 3. The following conditions must be fulfilled in order to be able to guarantee that variable M has a mediating effect:

- Condition 1: That there is a direct causal relationship between the exogenous variable X and the possible mediator variable M (a significant direct effect was established when we obtained a value for the parameter of 0.979, standardized 0.909, with a standard error of  $se=0.095$ , and a t-value of  $t=10.565$  where the t-value is defined as the ratio between the estimated parameter and the standard error).
- Condition 2: That the mediator variable M has a significant effect on the exogenous variable Y (estimated parameter 0.267, standardized 0.342,  $se=0.243$ ,  $t=1.100$ )
- Condition 3: Finally if we compare the two figures, we observe that when we introduce the mediator variable M, the effect of variable X on variable Y drops to almost zero ( $0.028$ ,  $se=0.270$ ,  $t=0.102$ ). When we include the mediator variable M, we can see the direct causal effect between variable X and variable Y falls from 0.35 to 0.03, which means that of the original direct effect of variable X on variable Y, the effect of the mediator variable accounts for 0.32, which leads us to conclude that said mediator variable M (impact on competitive capabilities) is a significant variable in the study of the relationship between the benefits of outsourcing (X) and the main indicators of company performance (Y). It can therefore be asserted that the mediator variable “impact on competitive capabilities” accounts for 91.43% of the total effect that the benefits of outsourcing decisions have on the performance of the company.

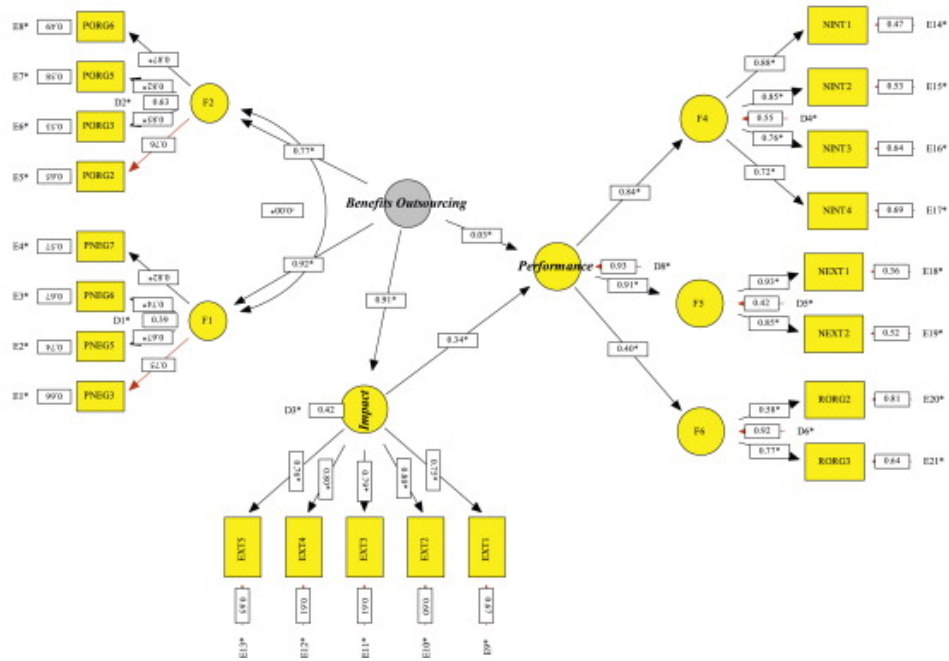
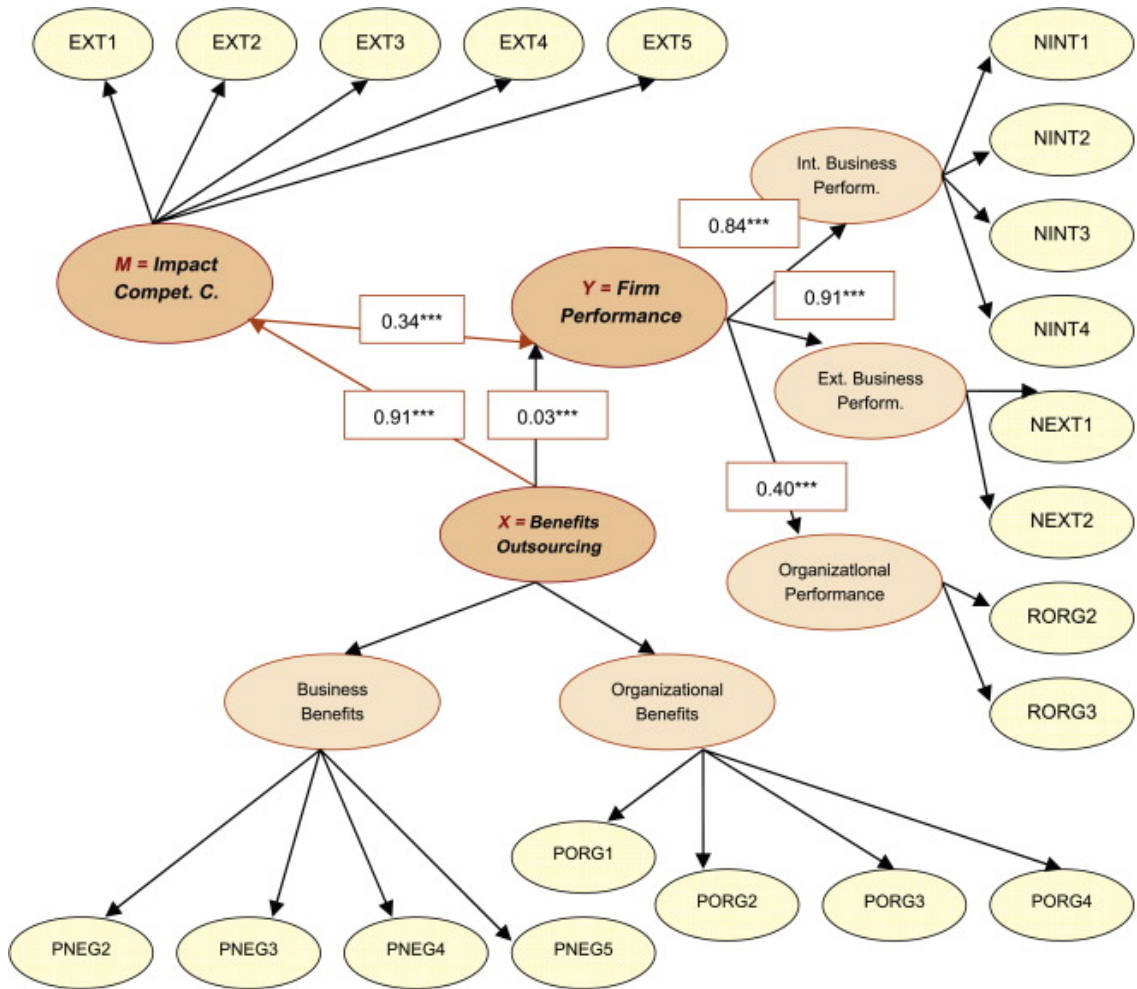


Fig. 3. Model of the mediating role of the impact on competitive capabilities. Significance level: \*\*\* $p < 0.001$ .

The results of the structural analysis of the model are shown in Table 8 together with the goodness-of-fit indices for each construct. We first studied the model's goodness of fit according to the indicators and the recommendations of Hair et al. (2001). To do this, we considered three kinds of indicators: measurements of absolute and incremental goodness of fit and measurements of parsimony. For the first group of indicators, we chose the goodness of fit index (GFI), the root mean square error of approximation (RMSEA), and the root mean residual (RMR). The first indicator, GFI, is restricted to the interval (0.1) and the greater this value, the better the fit. Values above 0.90 are considered to represent a good fit, making the value of 0.991 obtained by our model acceptable. The RMSEA is an indicator based on the error of approximation expected for each degree of freedom in the study population. Values between 0.06 and 0.08 indicate a good fit, and these values can even reach 0.10 in some cases. Our model shows a value of 0.067, indicating that it is within the interval for a good fit. Finally, the RMR is an indicator similar to the RMSEA and should take values of less than 0.05 to indicate good fit, as occurs with our model (0.033).

Table 8. Goodness-of-fit indices for each construct and for the model.

| Types of fit       | Measures                                | Nomen. | Levels of acceptance         | Benefits out            | Impact C.C.            | Performance             | Model                    |
|--------------------|---|--------|------------------------------|-------------------------|------------------------|-------------------------|--------------------------|
| <b>Absolute</b>    | Chi-square likelihood test              | CMIN   | Ofrece test de significación | 45.842<br>( $p=0.071$ ) | 5.055<br>( $p=0.109$ ) | 45.845<br>( $p=0.241$ ) | 334.207<br>( $p=0.183$ ) |
|                    | Goodness-of-fit index                   | GFI    | >0.900                       | 0.943                   | 0.990                  | 0.946                   | 0.965                    |
|                    | Root mean square error of approximation | RMSEA  | 0.050–0.080                  | 0.073                   | 0.007                  | 0.079                   | 0.067                    |
|                    | Root mean residual                      | RMR    | <0.050                       | 0.034                   | 0.017                  | 0.044                   | 0.048                    |
| <b>Incremental</b> | Compared fit index                      | CFI    | >0.900                       | 0.970                   | 0.999                  | 0.966                   | 0.937                    |
|                    | Normed fit index                        | NFI    | >0.900                       | 0.951                   | 0.998                  | 0.947                   | 0.918                    |
|                    | Tucker–Lewis index                      | NNFI   | >0.900                       | 0.956                   | 0.999                  | 0.949                   | 0.925                    |
|                    | Adjusted goodness-of-fit index          | AGFI   | >0.900                       | 0.912                   | 0.970                  | 0.916                   | 0.922                    |
| <b>Parsimony</b>   | Normed Chi-square                       | CMINDF | Range (1–5)                  | 2.413                   | 1.011                  | 2.697                   | 2.031                    |

It is also necessary to confirm that the model shows good incremental fit. This kind of fit is determined by examining the increase in the fit of the study model as compared with another model, in general the null model. In most cases, values for the indicators of more than 0.90 are considered to be acceptable. In the model we are studying, all of the indicators are above this minimum value (AGFI=0.982; NFI=0.967; NNFI=0.998; CFI=0.997). The last aspect of the study is the model's parsimony of fit, where we indicated that only the normed  $\chi^2$  is appropriate in confirmatory analysis. The values for this indicator range from 1 to 3 or even 5, which means that our value of 2.031 is within the acceptable limits.

The results of the analyses are consistent with the hypotheses proposed above and therefore serve to confirm them (Table 9). These results are in line with the general study hypothesis, namely that the benefits of outsourcing have a positive impact on the firm's competitive capabilities and that this in turn improves organizational and business performance.

Table 9. Acceptance/rejection of hypothesis.

|                                 | Structural model                | Coefficient            | Accept/reject                 |
|---------------------------------|---------------------------------|------------------------|-------------------------------|
| Benefits outsourcing            | Impact competitive capabilities | 0.909 ( $t=1.565$ )*** | <a href="#">H1</a> : Accepted |
| Impact competitive capabilities | Firm performance                | 0.342 ( $t=1.100$ )*** | <a href="#">H2</a> : Accepted |
| Benefits outsourcing            | Firm performance                | 0.349–0.028            | Accept mediation              |

Significance level: \*\*\* $p<0.001$ .

## 6. Discussion

### *6.1. Relationship between the benefits of outsourcing and the impact of outsourcing decisions on competitive capabilities*

One of the main purposes of our study is to establish how the link between outsourcing and company performance operates. We propose that this link lies in the impact that outsourcing decisions have on the firm's competitive capabilities (those benefits of outsourcing that are manifested in the development of competitive advantages). This impact should in turn be manifested in improved company performance (an issue we will be discussing in the next section). The coefficient that determines the causal relationship between the benefits of outsourcing and the impact of the competitive capabilities (0.909;  $p<0.001$ ) enables us to ascertain that a positive relationship is established between the two variables, which leads to the acceptance of Hypothesis H1. The theoretical justification comes from the fact that Resource-based theory states that the reason for outsourcing lies in the capacity that it grants organizations to focus exclusively on those activities that enable them to develop sustainable competitive advantages over time through the full use of available resources. We were unable to validate the impact of this particular aspect of outsourcing on internal competitive capabilities. From this, we can conclude that the externalization of non-essential activities does not affect the competitive capabilities based on internal resources, as this effect is not direct. This is the opposite of what we found in the case of impact on external capabilities. The most important impact of outsourcing on firms lies therefore in the ability it grants them to obtain competitive advantages by facilitating their adaptation to market conditions.

### *6.2. Relation between the impact of outsourcing decisions on external competitive capabilities and firm performance*

In the end, Hypothesis H2 was validated by the factor loading obtained (0.342 with  $p<0.001$ ) and this enables us to affirm that the impact of outsourcing decisions on organizations' external competitive capabilities has positive outcomes in terms of

improved performance for the organizations. On the basis of the general theories that serve as a basis for this study, the capability to adapt to market conditions reduces uncertainty and develops sustainable competitive advantages, producing a higher level of firm performance. As regards the different kinds of performance analyzed here, we can see that the capacity to adapt to the market leads to improved business performance, both external (0.910;  $p < 0.001$ ) and internal (0.835;  $p < 0.001$ ), as also occurs with organizational performance (0.396;  $p < 0.001$ ). The impact of organizational performance is fully confirmed, since the indicators of external performance we chose refer to achievement of greater market shares and growth in sales. These objectives are closely related to the improved adaptation to market conditions that externalization of activities offers through their impact on external capabilities which, as we have said, facilitate this adaptation. As to the internal indicators, we should point out the role of organizational performance derived from delivering a higher number of completed services, as well as the importance of being able to provide the service to the customer more quickly.

### *6.3. Importance of this study*

After detailing the specific relationships indicated in the preceding sections, we end the general discussion of the data obtained by presenting the general results and the most significant limitations. Of the hypotheses proposed on the causal relationship between different exogenous variables, that is, the structural model that defines the connection between the benefits of outsourcing and firm performance, we have managed to confirm the hypotheses regarding the positive relationship between the benefits of outsourcing and the impact of these outsourcing decisions on competitive capabilities, as well as the fact that this impact leads to a higher level of firm performance. This means that the proposed model is valid for the measurement scales and for the sample chosen, so allowing us to affirm that the benefits of outsourcing have positive effects on companies by enabling them to develop essential competitive capabilities.

The most important impact of outsourcing on companies is that it enables them to obtain competitive advantages by allowing them to adapt better to market conditions. As in the general theories on which this study is grounded, the capacity for adaptation to market conditions reduces uncertainty and develops sustainable competitive advantages, enabling companies to achieve higher levels of performance.

## **7. Conclusions**

Various authors have studied the effects of outsourcing on the firm. The reasons for outsourcing grounded in the capacity that it gives organizations to focus exclusively on those activities that enable them to develop sustainable competitive advantages over time are justified by the opportunity outsourcing gives firms to use their resources at maximum capacity. This study presents the relationship between the benefits of outsourcing and the impact that outsourcing decisions have on the competitive capabilities that the firm develops, although this impact has only been shown to affect external capabilities. This is because the impact on external capabilities is indirect, which is not the case for internal capabilities. This observation leads us to conclude that outsourcing encourages the development of resources that enable the achievement of sustainable competitive advantages. For this reason, the study analyzes the impact that the theoretical benefits of

outsourcing have on companies' external competitive capabilities from a dual perspective of business capabilities (increases flexibility, improves customer satisfaction, enables firms to focus on their core activities, and strengthens them strategically) and organizational capabilities (technological improvement of operations, access to new technologies, perfecting management processes, and increase in innovations).

Using the structural equations model, we confirmed that this impact on competitive capabilities is reflected in the increased level of flexibility with which the organization responds to market demand, faster introduction of new services, broader distribution of services, an increase in the number of services, and a contribution to promoting services more efficiently. A summary of these effects is shown in Fig. 4, where we can see the different business and organizational aspects of the various benefits of outsourcing, and also the impact on external competitive capabilities. The obtaining of competitive advantages offered by outsourcing by facilitating the firm's adaptation to market conditions is the most important impact of outsourcing on organizations.

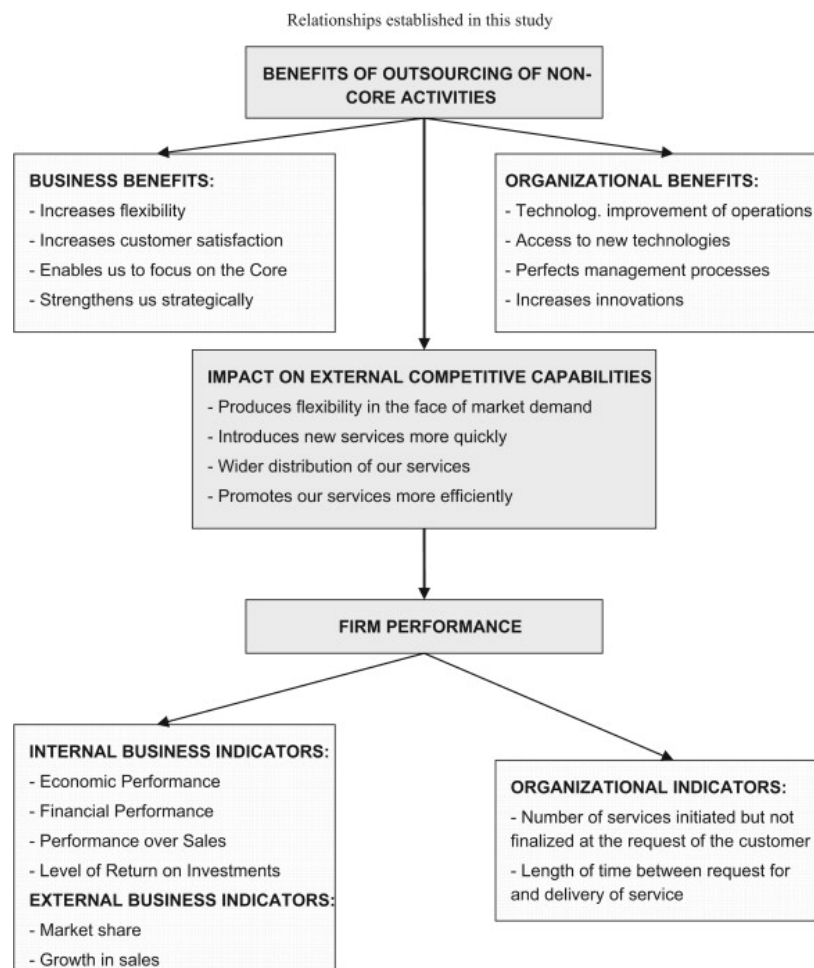


Fig. 4. Relationships established in this study.

Our analysis of the impact of outsourcing decisions on the firm's competitive capabilities confirmed that this impact is the mechanism that links outsourcing decisions and firm performance. This is because the organizational capability to adapt to changing market conditions is a mechanism for reducing uncertainty, making this capability a catalyst for

obtaining competitive advantages that allow companies to achieve higher levels of performance.

Our study proposes that the impact of outsourcing decisions on firm performance has special relevance in the case of business performance, whether internal (traditional measures of company performance, such as ROA, ROE or return on investments) or external (market share or growth in sales), and also affects organizational performance. The impact of outsourcing on competitive capabilities has repercussions for the group of external capabilities and is thus more closely linked to firm business performance. The indicators of external performance validated in this study refer to the achievement of greater market shares and an increase in sales, goals that are closely related to better adaptation to market conditions. Outsourcing therefore facilitates this adaptation to changing market conditions through its positive impact on external competitive capabilities. This relationship can be observed in Fig. 3, where we see that business performance includes internal indicators such as ROE and ROA, external indicators such as growth of sales and increased market share, plus a number of indicators of organizational performance.

### *7.1. Academic implications*

From an academic perspective, this study's main contribution lies in the connection it establishes between the potential benefits of outsourcing and company performance, through the impact of outsourcing decisions on the firm's competitive capabilities, and in particular its external capabilities. This allows us to conclude that outsourcing improves flexibility in the face of changing market demand. It also enables companies to offer new services more quickly, to distribute them more widely, and to promote them more efficiently. These improvements influence business benefits, especially those external benefits most closely related to changing market conditions.

### *7.2. Limitations and future lines of research*

Although we have found important relations between the variables included in our study, the results must be interpreted with some caution, due mainly to the fact that the study is exploratory and that its goal is thus to show essentially whether or not there are interrelations between these variables. In addition, our information is based on the perceptions of a single member of the firm, and firms are taken only from the service sector, another limitation. Finally, since this is a cross-sectional or static analysis, it does not capture the dynamic nature of the factors that determine the relationship between the variables that affect the benefits of outsourcing. This means that, even if the relationships are significant, other factors not included in the current study may also play an important role.

Although the study has limitations, the empirical work performed can be considered interesting because of the diversity of the data used and the fact that the statistical interpretation of the data validates the hypotheses proposed. As a whole, the study performed represents an advance in the process of articulating the relationship between outsourcing and the benefits it provides, especially in terms of business and organizational performance.

As for future lines of research, it would first be interesting to study the effects that training the supplier of the service and the degree of complementarity with the supplier have on outsourcing. It may also be interesting to determine whether a greater or lesser degree of prior outsourcing influences the model proposed.

A possible limitation of the model is that it only considered the benefits of outsourcing. Another study could analyze the drawbacks, as for example in the case of externalities produced by offshoring, specifically those related to the impact on the environment. Finally, we have analyzed outsourcing from a general perspective of service operations, although the same study could also be performed on more specific kinds of outsourcing (ICTs, logistics, etc.)

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