

2009

Information Systems Outsourcing In Spain: Reflections From The Practitioners

Reyes Gonzalez

University of Alicante, Department of Business Organization, mr.gonzalez@ua.es

Jose Gascó

University of Alicante, Department of Business Organization, jl.gasco@ua.es

Juan Llois

University of Alicante, Department of Business Organization, Juan.llois@ua.es

Follow this and additional works at: <http://aisel.aisnet.org/mcis2009>

Recommended Citation

Gonzalez, Reyes; Gascó, Jose; and Llois, Juan, "Information Systems Outsourcing In Spain: Reflections From The Practitioners" (2009). *MCIS 2009 Proceedings*. 65.

<http://aisel.aisnet.org/mcis2009/65>

This material is brought to you by the Mediterranean Conference on Information Systems (MCIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in MCIS 2009 Proceedings by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

ICT INVESTMENTS & OUTSOURCING

INFORMATION SYSTEMS OUTSOURCING IN SPAIN: REFLECTIONS FROM THE PRACTITIONERS

Gonzalez, Reyes, University of Alicante, Department of Business Organization. Zip Code. 03080. Alicante. Spain. mr.gonzalez@ua.es

Gascó, Jose, University of Alicante, Department of Business Organization. Zip Code. 03080. Alicante. Spain. jl.gasco@ua.es

Llois, Juan, University of Alicante, Department of Business Organization. Zip Code. 03080. Alicante. Spain. Juan.llois@ua.es

Abstract

The widespread growth of Information Systems outsourcing on an international scale contrasts sharply with the somewhat limited development of this practice in Spain. That is why the present paper deals with the situation of Information Systems outsourcing in this country. For this purpose, we have used the opinions and comments of those in charge of Information Systems departments at the largest Spanish firms through a normative Delphi study. Outsourcing makes it possible to achieve strategic as well as economic advantages and managers propose a number of ways to reduce the risks associated with this practice. Provider specialisation and permanent client-provider contact are key aspects in order to ensure outsourcing success and development. This paper is basically descriptive though it uses quantitative information. Furthermore, it refers exclusively to the context of large Spanish firms. Despite the limitations mentioned above, the paper has the advantage that in the panellists' words we interpret the results obtained, which means that we can largely ratify the results of the first questionnaire elaborated. Moreover, it is worth studying the Spanish outsourcing model, which is less developed and has not received as much attention from researchers as that of other Western countries.

Keywords: *Outsourcing, Spain, IS Managers*

1 INTRODUCTION

Information Systems (IS) outsourcing is defined as the practice of turning over part or all of an organisation's IS functions to external service provider(s) (Teng, Cheong and Grover, 1995). According to Willcocks, Fitzgerald and Feeny (1995) Information Technology (IT) outsourcing means handing over the management of some or all of an organisation's IT, IS and related services to a third party. Following Loh and Venkatraman (1992) IS outsourcing represents the significant contribution by external providers of the physical and/or human resources associated with all the components or with specific components of the IT infrastructure within an organisation. That contribution forms part of a contractual agreement which can even mean the assumption of managerial responsibilities associated with the delivery of IT services by the provider (Clark, Zmud and McCray, 1995). The *e-business* revolution has forced a transformation of the traditional outsourcing structures into new forms of outsourcing such as *Internet Service Outsourcing*, *Applications Service Outsourcing* and *Business Process Outsourcing* (BPO) (Watjatrakul, 2005; Yadav and Gupta, 2008). IS outsourcing has benefited both from the economic globalisation and from the potential of IT, and additionally represents the response of firms to the pressures exerted by the business environment—generated by greater competition, rapid technological changes and shorter development cycles— seeking to maintain their competitive advantages (Samaddar and Kadiyala, 2006).

IS outsourcing has experienced a remarkable growth in recent years. Driven at first by the firms' attempts to reduce or control costs and to focus on their core business, and then seen as a way to improve IS services, outsourcing is now a widespread phenomenon (Lee, Huynh and Hirschheim, 2008) . Despite this growth, Spain still lags behind in IS outsourcing (Steria, 2005) and perhaps for this reason, researchers have not gone into this subject sufficiently in depth yet.

The aim of this paper is therefore to clarify the situation of IS outsourcing in Spain, the business context where it finds itself, its expansion level, its main motivations and difficulties, and the degree of satisfaction achieved by its users, as well as its future prospects. With this aim in mind, we thought it appropriate to ask IS managers to give us their opinions about these issues, which served as the basis for a two-stage Delphi study. During the first stage, we prepared a questionnaire which 329 IS managers of large Spanish firms filled in. We summarised the conclusions and results drawn from this first round in 11 questions that we submitted to the said managers; 18 of them agreed to answer and comment on the results. This paper is focused in analysing the results of the second round⁵⁴. Next, we describe the methodology applied along with the results and conclusions of our study.

2 METHODOLOGY

The Delphi method, developed in the 1950s by Olaf Helmer and Norman Dalkey for the RAND Corporation, is a qualitative technique for obtaining data that focuses mainly on the study of the evolution of events in future, based on the opinion of a group of experts (Okoli and Pawlowski, 2004). At present, researchers use this method both to predict the future and to shed light on the problems of the present (Pérez and Schüler, 1982). It is precisely in this latter sense that we are going to use the Delphi in our research study. This is therefore a normative Delphi study (Buckley, 1995) through which we try to check the values, preferences or beliefs of a number of experts in relation to a specific matter (in our case, how IS managers value outsourcing in Spain).

The method consists in requesting from a panel of experts their opinion in writing about a specific topic in a series of rounds, by means of several surveys or questionnaires, and always anonymously. Each round provides the experts with feedback about the results obtained during the preceding round so that they can modify their previous answer —thus coming closer to a consensus with the other interviewees— or keep their opinion (Bradley and Steward, 2002; Shi and Bennet, 2001; Dekleva and Zupancic, 1996; Gutiérrez, 1989). The successive rounds encourage reflection, progress toward consensus and greater broadmindedness on the part of the experts interviewed (Dexter *et al.*, 1993). Anonymity allows the participants to exchange ideas or preferences with no fear to show a conflicting opinion and without any pressures to reach a consensus (Li *et al.*, 2002). The panel members express themselves honestly because they do not have to worry about the consequences of their answers and are never under the influence of the most dominant personalities. Qualitative research, of which the Delphi studies is an example, usually appears as weak or poor regarding its generalisation capacity, but the truth is that, using the Delphi method, panellists have access to the interpretations of researchers who, in turn, can endorse the credibility of the panellists' interpretations, thus confirming the results of the research (Lin, Tan and Chang, 2008).

In this paper, we apply a normative Delphi method with two rounds:

First round: During this stage, we sent a 26-item questionnaire⁵⁵ about IS outsourcing to the IS managers of the largest Spanish firms (ordered according to sales/turnover). Although the total number

⁵⁴ Results of the first round are analysed more deeply in other publications (Gonzalez, Gasco and Llopis, 2007, 2008a, 2008b). We only provide here a summary of this first round.

⁵⁵ The questionnaire items dealt with a wide range of issues about IS outsourcing in Spain, and the answers were subject to analysis in several publications, to which panellists had access in the second round.

of questionnaires sent by post was 4,107, the number of valid answers only amounted to 329 (8%; sampling error 5%)⁵⁶.

Second round: Following Dhaliwal and Tung (2000), and after collecting the interviewees' answers, the Delphi coordinator edits, clarifies, integrates and summarises the data. For this reason, in the present study, unlike what happens in others, the second round did not consist in sending the initial questionnaire with the mean and the standard deviation corresponding to the results obtained during the first round. Instead, we carried out a summary of those results which led to 11 reflections on IS outsourcing about which we asked the interviewees to give their opinion. In this round, and following recommendations made in previous studies (Bradley and Steward, 2002-2003; Ventura Fernández, 2003), we e-mailed the questionnaire to 60 IS managers who had shown their willingness to collaborate in later stages of our study. Only 18 (30%) of them answered during this second round; their answers arrived between July and October of 2008. The number of answers seems acceptable, since the ideal final number of experts in a Delphi panel is between 10 and 18, according to the literature (Okoli and Pawloski, 2004). Furthermore, although it would be desirable to carry out three or four rounds, we should not forget that the number of rounds is flexible in this method (Hayne and Polland, 2000), to which one could add that panel members may lose their interest if they have to go through many rounds or the study takes too long (Loo, 2002).

3 RESULTS

		1 st round		2 nd round	
		N	%	N	%
<i>Staff</i>	0-50	28	8.5	1	5.5
	51-500	218	66.2	8	44.5
	More than 500	76	23.1	9	50.0
	Lost	7	2.1	0	0.0
<i>Sales (millions of €)</i>	Up to 30	31	9.4	3	16.6
	Between 31 and 60	146	44.3	4	22.2
	Between 61 and 300	129	39.2	8	44.5
	More than 300	16	4.9	3	16.6
	Lost	7	2.1	0	0.0
<i>Sector</i>	Industry	189	57.4	9	50.0
	Services	102	31.0	6	33.3
	Intensive IT Services	38	11.6	3	16.7
<i>IS Department Staff</i>	1-10 employees	250	76.0	13	72.2
	11-100 employees	66	20.1	4	22.2
	101-250 employees	6	1.8	1	5.5
	Lost	7	2.1	0	0.0
<i>Budget percentage allocated to IS</i>	0-4	138	41.9	9	50.0
	5-10	56	17.0	3	16.6
	11-56	13	4.0	0	0.0
	Lost	122	37.1	6	33.3
<i>IS manager's length of service</i>	Mean	8.43		9.11	
	Median	6.0		7	
	Minimum	0.5		0	
	Maximum	35.0		25	
<i>IS Manager's</i>	Mean	42.3		43.5	

⁵⁶ The directory "Las 5.000 mayores empresas" (The 5,000 largest firms) of the *Actualidad Económica* magazine, collated with the Duns and Bradstreet's database "50.000 Principales Empresas Españolas" (The 50,000 most important Spanish firms) served to decide which IS managers should receive the questionnaire. We selected the managers working for the firms with the highest sales (turnover). As the addresses and telephone numbers of different firms very often coincided, we assumed that they belonged to the same group, which led us to reduce the initial database from 5,000 to 4,107 enterprises.

<i>age</i>	Median	42.0		42.5	
	Minimum	27.0		31	
	Maximum	62.0		57	
<i>IS manager's gender</i>	Male	293	89.0	17	94.4
	Female	27	8.2	1	5.6
	Lost	9	2.7	0	0.0
<i>Working post of the IS manager's immediate superior</i>	Chief Executive Officer	194	59.0	9	50.0
	Finance/accounting	82	24.9	8	44.5
	IS manager of the corporation	30	9.1	1	5.5
	Organisation/Planning/Engineering	4	1.2	0	0.0
	Lost	19	5.8	0	0.0

Table 49 Characteristics of firms and IS Departments in both rounds

This section will present the most important results obtained. Table 1 shows the general characteristics of the enterprises and the IS departments where the interviewees of both rounds develop their professional activity.

3.1 Results of the First Round

As said above, the questionnaire used for the first round had 26 items, 16 of which appear in this paper. 7 of these questions refer to the business environment where the outsourcing of the firms under examination has taken place; in other words, they refer to size (number of workers and sales volume), to industrial sectors, to the characteristics of IS departments and their heads, and to the degree of involvement of the Top Management in the firm's IS. The remaining 9 questions focus more strictly on the reality of outsourcing, that is, they assess the outsourcing level, refer to the main reasons and fears of IS managers in relation to outsourcing, refer to the problems of global or offshore outsourcing and also to the success obtained with these services, and describe how outsourcing can affect the work performed by the systems manager and what the future of outsourcing is likely to be. We have already mentioned that the IS manager of 329 large firms answered the questionnaire during the first round. The results obtained appear both in Table 1 and in Table 3 (Appendix).

3.2 Results of the Second Round

After the joint analysis of the answers given by the 18 experts participating in the second round to each one of the 11 questions posed, it became visible that in most cases, one could group interviewees' answers around certain patterns, which is why Table 2 shows a summary of the answers for each question.

Questions	Answers	No.	%
The context of IS Outsourcing			
1. Most of the IS or computer departments in the firms interviewed have between 1 and 10 employees. Do you think this is an adequate number considering that we are talking about large firms? Give your opinion.	Adequate	3	16.7
	Inadequate, low	10	55.5
	It depends	5	27.8
2. Most IS departments receive a percentage of 0 to 4% of the firm's total budget. Do you consider this percentage adequate for such large firms? Give your opinion.	Adequate	10	55.5
	Inadequate, low	3	16.7
	It depends	5	27.8
3. 25% of the firms interviewed have an IS manager who must report to Finance and/or Administration. Does this hierarchical dependence seem appropriate to you? Give your opinion.	Adequate	1	5.5
	Inadequate	16	88.9
	It depends	1	5.5

4. The Top Management's involvement in IS has increased and their opinion about IS has improved in recent years in the firms under study. Could you give your opinion about this?	I agree	18	100
The situation of IS Outsourcing			
5. Out of 329 valid questionnaires received, 53 reveal that the firm in question has not outsourced any IS services. What do you think about this figure?	Adequate	1	
	Inadequate, low	16	5.5
	It depends	1	
6. Firms resort to outsourcing for strategic and improvement reasons rather than for economic ones. What would you say about this statement?	I agree	16	88.9
	I disagree	2	5.5
7. A great number of firms have a negative opinion about their outsourcing providers. Firms have doubts about providers' qualifications and about their possible lack of compliance with the contract, and these doubts are stronger than those raised by aspects such as dependence on the provider or the potential loss of IT skills and knowledge as a result of outsourcing. What do you think about this conclusion?	Heterogeneous answers		
8. Firms are more concerned about cultural, political, linguistic and legal issues in offshore outsourcing (when the provider is in a foreign country) than about the provider's quality or infrastructures. We would like to know your opinion about this.	I agree	17	94.4
	No answer	1	5.5
9. The conclusion reached is that IS outsourcing does not modify or, if anything, improves the IS manager's job, but we cannot say it is detrimental to this job. What do you think about this conclusion?	I agree	16	88.9
	I disagree	2	11.1
10. The firms are generally satisfied with outsourcing and consider that they have achieved more strategic and technological benefits than economic ones. How do you value these statements?	I agree	16	88.9
	I disagree	2	11.1
11. According to the firms examined, outsourcing will not diminish in the future, and IT outsourcing to national providers is definitely going to grow—but not offshore outsourcing. What is your opinion about this forecast?	I agree	17	94.4
	No answer	1	5.5

Table 2. Summary of Results in the second round

3.2.1 The context of IS outsourcing

In this respect, we have examined the answers to questions 1 to 4 (Table 2), which refer to the human and economic resources assigned to IS departments, the position of the IS manager within the enterprise's hierarchy, along with the relationship between the Top Management and the IS.

Human resources in IS departments. When asked about the number of employees in IS departments, which in the large enterprises under study ranged between 1 and 10, the vast majority (55.5%) thought that this figure was inadequate and low. Some interviewees suggested suitable figures for the staff volume, which according to some of them was 3% of the total staff, "3% of the staff would be fair. With a staff of 500 employees, at least 15 should be IT employees." Others proposed "between 3 and 5% of the total number of information systems users, trying to keep the core knowledge in-house." There was even someone who suggested a higher figure: "the number of IT members should be at least 10% of the total staff."

It is also true, though, that some interviewees considered the number of IS employees appropriate, "as long as the outsourcing model is solid and the internal management capabilities regarding clients, services, projects and providers are properly developed." Other interviewees pointed out that not only the size of a firm is essential to determine the IS staff size, more factors deserve attention, namely: the business sector, the number of key users, the geographical diversity, the volume of processes and systems (hardware and software) used, the number of new developments open, and the level of outsourcing achieved by the firm.

Economic resources in IS departments. Regarding the economic allocation received by IS departments (question 2), most interviewees seem to agree that the proportion of the budget that large firms dedicate to IT is appropriate. This is the opinion expressed by 55.5% of the interviewees. Only 3 of the panellists consider the allocation inadequate. This is how the majority justifies their stance: *“according to common belief, an annual budget of 2 to 3% of the total turnover allows the firm to maintain the technological level required to make proper progress.”* Instead, in the opinion of those who consider the allocation insufficient, *“there is a tendency toward a slow but unstoppable growth of the budget, toward an unavoidable change of mentality; organisations are gradually assuming that information is an asset which, despite being difficult to value, provides a strategic benefit.”* There were also three interviewees who claimed that the determination of the adequate budget should depend on a set of factors, including the number of R&D processes open, the activity sector and the type of systems used.

Hierarchical position of the IS managers. As for the third question, nearly all panellists (88.9%) find it difficult to understand why one fourth of the largest Spanish firms still have IS managers who depend on Administration and Finance. However, this result should not surprise anybody; in fact, it is much more positive than the results obtained in previous research works (Jones and Arnett, 1993). Furthermore, authors like King (2008) state that only one third of the large enterprises truly rely on their CIOs when it comes to strategic decision-making. Panellists criticise this situation of subordination faced by many IS managers, since *“that dependence indicates an excessively administrative conception of the function that prevents more far-reaching actions in the context of the firm as a whole”*. According to the interviewees, the reason why many firms still show this dependence is *“a heritage that dates back to the origins of this area which, due to the economic cost of the investments/expenses it implied, occupied this place within the organisation,”* to which they add that *“the first processes to become mechanised-computerised were those concerned with accounting and sales,”*. Instead, at present, *“IS provide a transversal service; it [this department] acts ‘de facto’ as the operational connection between all the areas; it can even modify processes, assuming in each project the responsibility for change within the organisation, taking part in every initiative, since all of them have implications in systems, etc.. Its link is much more direct and coherent with the first level of organisation, firm strategy and business processes.”* That is why the interviewees argue that *“though information services may not be the firm’s core business ... IT should be dependent on the Chief Executive Officer.”* What these panellists say actually summarises what Peppard (2007) calls the ‘conundrum’ of IT management: *“how to generate value through IT without having access to or authority over the necessary resources or knowledge”*. Only one interviewee disagrees with this opinion, while another argues that one could justify the dependence on Administration or Finance only when IS have an in-house orientation.

Top management’s involvement in IS. The productivity paradox (Solow, 1987) made it clear that IT could be visible in any area of the firm, except in the statistics for productivity and results. Is this the image the Top Management has of IS today? The answers to the fourth question point in the opposite direction. 100% of the interviewees agree that there is an increasingly high involvement of the Top Management in IS, and also that these top managers’ opinion about IT has improved in recent years, to such an extent that they are now much more involved in IT issues, a fact that had also emerged in previous studies (Peslak, 2008). Furthermore, in the interviewees’ opinion, this improvement has to do with various factors: on the one hand, *“the computer training associated with Top Management positions is being improved,”* and on the other hand *“the Top Management is already a user of IS, has a better understanding and generally sees the value that properly-managed IS can provide.”* In short, *“the Top Management has started to understand the importance of IT and the need to align them with the business”*, although as someone says, *“there is still a long way to go.”* These statements confirm the conclusions of previous studies, according to which a higher level of knowledge and involvement in IS/IT by the Top Management would have a positive effect on IT investments, would improve these managers’ opinion about IS and would permit the participation of CIOs in business strategic decisions (Kearns and Sabherwal, 2006-2007).

3.2.2 The situation of IS outsourcing

Degree of outsourcing. In relation to the reality of IS outsourcing, the vast majority of experts interviewed state that firms should outsource certain IS activities more often (question 5). They find it surprising that 16% of the enterprises interviewed in the first round declared not having done any IS outsourcing, a ratio that really seems high considering how widespread this practice is all over the world (Heath, 2008). According to the panellists, more firms should outsource since it *“is complicated to have available in-house all the staff specialised in each one of the different elements that form an IS,”* and moreover *“limiting all the technological capacity to the firm’s own resources is something that not even leaders in technology can afford.”* For the interviewees, the firms not implementing IT outsourcing are probably those in which IS departments *“only dedicate their time to IT, paying no attention to the business or to its improvement”*, something that can only happen in *“sectors with very little dynamism.”* Just one panellist provided arguments against outsourcing: *“outsourcing is a selling option for consultants and not necessarily the best solution for firms.”*

Outsourcing motivations. Question number 6 refers to the reasons for outsourcing. The conclusion reached during the first round was that large Spanish firms mainly applied systems outsourcing for strategic reasons and as a way to improve their IS, economic motivations being less relevant. This idea had already emerged in previous studies (Hsu and Wu, 2006; Willcocks, Feeny and Olson, 2006). In the second round, the interviewees endorsed the aforementioned conclusion, with only two exceptions. As someone advocating this stance explained *“an evolution has taken place in outsourcing processes. At first, outsourcing was clearly due to a radical cost reduction policy. Now, strategic reasons are prevailing, such as seeking better service quality and providing quick solutions for a sector that is evolving at a vertiginous speed.”* One of the interviewees explains why outsourcing generates this improvement: *“in practice, outsourcing helps to formalise needs, to professionalise the service, to make costs emerge, etc. In any case, from my point of view, the use of outsourcing as the change lever represents a sign of maturity in the systems function.”* Others argue that strategic reasons and cost savings are not mutually exclusive, as *“strategic reasons usually combine with medium/long-term economic reasons; enterprises cannot adopt such a far-reaching decision considering exclusively short-term economic reasons.”*

Outsourcing risks. Regarding the risks generated by outsourcing (question 7), the conclusion after the first round was that outsourcing clients have a negative opinion about their information systems providers, showing doubts both about their lack of qualification and about their potential failure to comply with contracts (Taylor, 2006). Other risks mentioned to a much lesser extent are the possible dependence on the provider and the loss of knowledge that could result from outsourcing IS/IT. During the second round, panellists expressed a set of opinions which, though heterogeneous, can help to understand the reasons for all these doubts and distrust, offering ways to avoid the risks associated with outsourcing as well. Below is a summary of these answers:

Regarding lack of qualification (Tafti, 2005), a considerable number of interviewees think it is due to the fact that *“the entry barriers to become an information services enterprise are very low, and this has paved the way to many providers, as a result of which the outsourcing supply has grown and some providers with a limited capacity have been able to enter this market.”* If we add to this the *“important and rapidly implemented innovations”* before which a lot of providers have no response and the widespread practice of *‘chain subcontracting’*, the perception of risk on the part of clients should not surprise us.

The interviewees also mention the need to monitor the contract to ensure total compliance with it, thus preventing the client from losing anything in the services received, *“control over outsourcing must be very strict in order to avoid this situation; for that purpose firms should use some of the IT department*

resources to the monitoring of contracts and to the compliance of SLAs⁵⁷- Service Level Agreement- with providers. This practice prevents loss of confidence in outsourcing providers." "One cannot outsource a service without periodically monitoring how it is working; outsourcing does not mean taking no interest." "Furthermore, the SLAs signed must be convenient for both parties (client and provider), in a win-win relationship from which they both benefit". If an agreement signed seems too beneficial to the client, total compliance is most unlikely. Therefore, clients must have realistic expectations—and not lack of moderation—about projects; otherwise they will never be satisfied with them (Taylor, 2006).

In relation to the loss of knowledge (Willcocks, Lacity and Kern, 1999), the interviewees argued that "it is something that should never happen since the firm's IT staff should be involved in a permanent training and updating process." This would remove the feeling of dependence with respect to the provider. Furthermore, firms should not outsource excessively. Instead, they should opt for selective outsourcing in order to minimise dependence. Thus, the idea would be not to outsource the systems and applications categorised as strategic, otherwise "we tend to resemble the others, losing what is the essence of the firm and the features that differentiate it from others in its sector". "Periodically refreshing the contract and including new clauses which reflect the constant changes that occur in the service" is the last measure equally necessary to reduce dependence and keep the contract alive.

Offshore Outsourcing. As for IS offshore outsourcing (question 8), which takes place when the service provider and the client find themselves in different countries (Rottman and Lacity, 2006), the results after the first round revealed that Spanish enterprises usually associate the greatest risks with cultural, political, linguistic, and even legal problems, and not so much with the lack of infrastructures or quality of these foreign providers. These conclusions are in keeping with previous works which highlight the importance that the cultural context has in outsourcing projects (Samaddar and Kadiyala, 2006). During the second round, all the interviewees but one, who did not clarify his opinion, supported this conclusion, arguing that "the client's needs are more difficult to understand from another country." Furthermore, "there is prejudice about the unknown; going abroad means moving in a market different from the usual one, with the fears and distrust that this generates". An interviewee offers an example from his enterprise, which has outsourced to India: "the most difficult problem faced by our outsourcing project in India was the cultural aspect and had nothing to do with technical knowledge, management skills or working capacity. We had to impart cultural knowledge seminars both for the Indian workers of the outsourcer and for our own workers so that they could understand each other."

IS manager's job. After the first round of our study, we concluded that the influence of outsourcing on the job of IS managers was either non-existent or positive but, above all, that it was generally not detrimental to the job. During the second round (question 9), most of the panellists (16) ratified this conclusion, and only two of them disagreed. Those who support this conclusion point out that "outsourcing can help them (managers) to achieve their goals," "it contributes to improve their work if it frees time for them to perform management functions", "it has meant a change: the job has passed from a very technical profile to a new one much more oriented toward negotiation and supervision," "outsourcing makes it necessary to define needs accurately, to value all costs and to manage services and providers instead of people and equipment, outsourcing makes it necessary to implement a more solid management model," "outsourcing low-added-value services properly liberates time in favour of areas which are more valuable for the business." Some of these opinions coincide with previous studies, according to which the demand for softer types of knowledge such as communication, negotiation and the knowledge about the business and the industry will gradually increase among IS workers with the growth of outsourcing, this meaning no real threat to their jobs (Simon, Kaiser, Beath, Goles and Gallagher, 2007).

Degree of satisfaction. Regarding the firms' degree of satisfaction (Seddon, Cullen and Willcocks, 2007) with IS outsourcing (question 10), the conclusion resulting from the first round was that most

⁵⁷ Service Level Agreement. It refers to the part of the outsourcing contract which specifies the *Agreements on the Level of Service*.

enterprises were indeed satisfied and, especially, that their strategic and technological expectations—though not so much the economic ones—had come true. 88.9% of our interviewees supported this conclusion in the second round. They argued that *“internally, we do not work with the same level of exigency, quality, statistics, data and control as when we must control third parties and demand things from them, and this leads to a better service.”* What is more, in these services *“both the provider and the client have an almost infinite capacity to provoke mutual and continuous improvements in the service, working in a coordinated way and aligned with the objectives. On the other hand, after achieving a certain activity volume, the advantages of outsourcing in terms of flexibility and response agility become unquestionable.”* We should bear in mind that *“the speed with which technologies evolve and the agility of the everyday work makes it impossible to recycle internal staff quickly, which means that outsourcing is the only option to ‘keep up to date’ or to embark on new projects.”* In short, the satisfaction provided by these services lies in the fact that *“outsourcing permits to acquire skills faster and to be able to provide more client-oriented services using internal resources. The economic profit will depend on the cost structure of each firm. But, in general, firms make the mistake of not entering all the internal costs when they compare them with the external ones (about which we usually have a more demanding attitude).”*

Outsourcing future. Finally, the interviewees think that the trend shows a growth of IS outsourcing services in Spain, though not of offshore outsourcing⁵⁸ (question 11). As explained by panellists, *“the tendency to increase subcontracting is unavoidable, but not to the extreme of outsourcing the service,”* *“Spanish firms do not have a global mentality and will not go abroad if there is a mature group of providers nationally.”* In short, *“it is complicated to know whether providers will be domestic or foreign, but outsourcing is a rising trend.”* One of the interviewees gave the key for the growth of this type of services, when he said that *“outsourcing must be specialised; there are neither key-in-hand projects nor enterprises which do anything. I can see more and more professionalism and transparency with respect to these issues and that is the key for growth. What matters most is the contact between individuals (client and provider).”*

4 CONCLUSIONS

This paper has used the normative Delphi method to check how the IS managers of large Spanish firms value IS outsourcing. The results obtained in the first round largely found confirmation in the second round. Furthermore, the Delphi has permitted to know the reasons underlying our first conclusions, since the actual words of the interviewees allow us to have a better understanding of the results obtained.

This study presents some implications, especially for IS Managers:

- Outsourcing is a way to improve the IS services because it helps to formalise needs, to professionalise the service and to enter costs, which is why achieving joint strategic and economic advantages is far from unusual. These advantages should be taken in mind by Spanish firms specially, so they should consider to increase their outsourcing level in the future, in a selective way.
- There are several ways to minimise or avoid outsourcing risks, for instance, to carry out a periodical monitoring of the outsourced functions, to seek SLAs that prove convenient for both the client and the provider, to refresh the contract with new clauses that could adapt to changes in the business, not to neglect the training of the internal staff and not to outsource in excess, opting instead for selective outsourcing.
- The specialisation of providers and their fluent contact with clients are the ultimate keys to IS outsourcing success.

⁵⁸ Spanish firms are usually reluctant to have IT providers abroad. However, the Spanish enterprises which provide IT services are positioning themselves as a possible destination of Offshore or Nearshore services for European or North American clients (Cinco Días, 2008).

One should consider the previous conclusions and implications taking into account the limitations faced in this study. On the one hand, it is a basically descriptive paper though it provides quantitative information. This raises a problem in terms of result generalisation, but has the advantage that *in the panellists' words*, we understand and interpret the results obtained, which means that we can largely ratify the results drawn from the first questionnaire elaborated. Furthermore, it refers exclusively to the context of large Spanish firms. Nonetheless, in our view, it is worth studying the Spanish outsourcing model, which is less developed and has received much less attention from researchers than that of other Western countries. The objective of this paper is very wide, as it has covered a range of issues about IS outsourcing in Spain (the outsourcing environment, outsourcing motivations, outsourcing risks, etc.). Different studies should analyse more deeply each one of these topics in Spain in the future. Also, this study is concentrated in the client's perspective but a future avenue for research is analysing outsourcing from the provider's point of view in Spain. All in all, we hope the present study will help to know the situation of IS outsourcing in our country and to consider its convenience, in the case of those enterprises which have not aligned themselves with this trend yet.

References

- Bradley, L. and Stewart, K. (2002). "A Delphi study of the drivers and inhibitors of Internet banking". *International Journal of Bank Marketing*. 20(6), 250-260.
- Bradley, L. and Stewart, K. (2003). "A Delphi study of Internet banking". *Marketing Intelligence and Planning*. 21(5), 272-281.
- Buckley, Ch. (1995). "Delphi: a methodology for preferences more than predictions". *Library Management*. 16(7), 16-19.
- CINCO DÍAS (2008). "Industria y AEC promocionan el 'outsourcing' tecnológico español". Internet Document. http://www.cincodias.com/articulo/empresas/Industria-AEC-promocionan-outsourcing-tecnologico-espanol/20081023cdscdiemp_22/cdsemp/
- Clark, T.D., Zmud, R.W. and McCray, G.E. (1995). "The Outsourcing of Information Services: Transforming the Nature of Business in the Information Industry". *Journal of Information Technology*. Vol. 10, pp. 221-237.
- Dekleva, S. and Zupancic, J. (1996). "Key issues in information systems management: a Delphi study in Slovenia". *Information & Management*. Vol. 31, No. 1, pp. 1-11.
- Dexter, A.S. Janson, M.A., Kiudorf, E. and Laast-Laas, J. (1993). "Key Information Technology Issues in Estonia". *Journal of Strategic Information Systems*. Vol. 12, No. 2, pp. 139-152.
- Dhaliwal, J.S. and Tung, L.L. (2000). "Using group support systems for developing a knowledge-based explanation facility". *International Journal of Information Management*. 20(2), pp. 131-149.
- Gonzalez, R.; Gasco, J and Llopis, J. (2007). "Outsourcing Influences Over the Chief Information Officers". *Management International Conference 2007*, Portoroz, Slovenia.
- Gonzalez, R.; Gasco, J and Llopis, J. (2008a). "A Descriptive Analysis of IT Outsourcing Configuration". *International Journal of Management and Enterprise Development*. Vol. 5, No. 6, pp. 656-672.
- Gonzalez, R.; Gasco, J and Llopis, J. (2008b): "Information Systems Outsourcing Success Factors in Spain". *Mediterranean Conference on Information Systems 2008*, Hammamet, Tunisia.
- Gutiérrez, O. (1989). "Experimental Techniques for Information Requirements Analysis". *Information & Management*. 16(1), pp. 31-43.
- Hayne, S.C. and Polland, C.E. (2000). "A comparative analysis of critical issues facing Canadian information systems personnel: a national and global perspective". *Information & Management*. 38(2), pp. 73-86.
- Heat, N. (2008). "Outsourcing growth expected in 2008". Internet document. <http://services.silicom.com/bpo/0,3800004865,39169615,00.htm>
- Hsu, Ch.Ch. and Wu, Ch.H. (2006). "The Evaluation of the Outsourcing of Information Systems: A Survey of Large Enterprises". *International Journal of Management*. 23(4), pp. 817-830.

- Jones, M.C. and Arnett, K.P. (1993). "Current practices in Management Information Systems". *Information & Management*. 24(1), pp. 61-69.
- Kearns, G.S. and Sabherwal, R. (2006-7). "Strategic Alignment between Business and Information Technology: A Knowledge-Based View of Behaviors, Outcome, and Consequences". *Journal of Management Information Systems*. 23(3), pp. 129-162.
- King, W.R. (2008). "Including the CIO in Top Management". *Information Systems Management*. 25(2), pp. 188-189.
- Lee, J-N., Huynh, M.Q. and Hirschheim, R. (2008). "An integrative model of trust on IT outsourcing: Examining a bilateral perspective". *Information Systems Frontiers*. Vol. 10, No. 2 , pp. 145-163.
- Li, S; Davies, B.; Edwards, J.; Kinman, R. and Duan, Y. (2002). "Integrating group Delphi, fuzzy logic and expert systems for marketing strategy development: the hybridisation and its effectiveness". *Marketing Intelligence & Planning*. Vol. 20, No. 5, pp. 273-284.
- Lin, Ch.; Tan, B. and Chang, S. (2008). "An exploratory model of knowledge flow barriers within healthcare organizations". *Information & Management*. Vol. 45, No. 5, pp. 331-339.
- Loh, L. and Venkatraman, N. (1992) "Diffusion of information technology outsourcing: influence sources and the Kodak effect". *Information Systems Research*, 3(4), pp. 334-358.
- Loo, R. (2002). "The Delphi method: a powerful tool for strategic management". *Policing: an International Journal of Police Strategies & Management*. 25(4), 762-769.
- Okoli, C. and Pawlowski, S.D. (2004). "The Delphi method as a research tool: an example, design considerations and applications". *Information & Management*. 42(1), 15-29.
- Peppard, J. (2007). "The Conundrum of IT Management". *European Journal of Information Systems*. 16(4), 336-345.
- Pérez, V.L. and Schüler, R. (1982). "The Delphi method as a tool for Information Requirement Specifications". *Information & Management*. 5, 157-167.
- Peslak, A.R. (2008). "Organizational Information Systems. Rate Return and Influencing Variables as Viewed by Top Financial Executives". *Industrial Management & Data Systems*. 108(1), 43-59.
- Rottman, J.W. and Lacity, M.C. (2006). "Proven Practices for Effectively Offshoring IT Work". *MIT Sloan Management Review*. 47(3), 56-63.
- Samaddar, S. and Kadiyala, S. (2006). "Information systems outsourcing: Replicating an existing framework in a different cultural context". *Journal of Operations Management*. 24(6), 910-931.
- Seddon, P.B.; Cullen, S. and Willcocks, L.P. (2007). "Does Domberger's Theory of 'The Contracting Organization' explain Why Organizations Outsource IT and the Levels of Satisfaction Achieved?" *European Journal of Information Systems*. 16(3), 237-253.
- Shi, N. and Bennet, D. (2001). "Benchmarking for information systems management using issues framework studies: content and methodology". *Benchmarking: An international Journal*. Vol. 8, No. 5, pp. 358-375.
- Simon, J.C.; Kaiser, K.M.; Beath, C.; Goles, T. and Gallagher, K. (2007). "Information Technology Workforce Skills: Does Size Matter?" *Information Systems Management*. 24(4), 345-359.
- Solow, R. (1987). "We'd better watch out". *The New York Times*. July 12, 36.
- Steria (2005). "Outsourcing en España y Europa en el sector público y privado". *Sociedad de la Información*, June. Internet Document. <http://www.socinfo.info/contenidos/pdf16/p46-50steria.pdf>
- Tafti, M.H.A. (2005). "Risk factors associated with offshore IT outsourcing". *Industrial Management & Data Systems*. 105(5), 549-560.
- Taylor, H. (2006). "Critical risks in outsourced IT projects; the intractable and the unforeseen". *Communications of the ACM*, 49(11), 74-79.
- Teng, J.T.C.; Cheon, M.J. and Grover, V. (1995). "Decisions to outsource information systems functions: Testing a Strategy-Theoretic Discrepancy Model". *Decision Sciences*. 26(1), 1995, pp. 75-103.
- Ventura Fernández, R. (2003). "La utilización de la técnica Delphi en el diseño de escenarios. Aplicación en el negocio de la televisión por cable". *Revista Europea de Dirección y Economía de la Empresa*. 12(3), 177-202.

- Watjatrakul, B. (2005). "Determinants of IS sourcing decisions: A comparative study of the Transaction Cost Theory versus the Resource-Based View". *Journal of Strategic Information Systems*. Vol. 14, No. 4, pp. 389-415.
- Willcocks, L.; Feeny, D. and Olson, N. (2006). "Implementing Core IS Capabilities: Feeny-Willcocks IT Governance and Management Framework Revisited". *European Management Journal*. 24(1), 28-37.
- Willcocks, L.; Fitzgerald, G. and Feeny, D. (1995). "Outsourcing IT: The Strategic Implications". *Long Range Planning*. Vol. 28, No. 5, pp. 59-70.
- Willcocks, L.P., Lacity, M.C. and Kern, T. (1999). "Risk Mitigation in IT Outsourcing Strategy Revisited: Longitudinal Case Research at LISA". *Journal of Strategic Information Systems*, 8(3), 285-314.
- Yadav, V. and Gupta, R.K. (2008). "A Paradigmatic and Methodological Review of Research in Outsourcing". *Information Resources Management Journal*. Vol. 21, No. 1, pp. 27-43.

Appendix

Top Management's vision of IS in the fulfilment of business objectives												
	Neutral	1	2	3	4	5	6	7	Very Important			
	Mean			Median			Mode					
	5.47			6			6					
Top management's involvement in IT use												
	They do not often use IT	1	2	3	4	5	6	7	They use IT very often			
	Mean			Median			Mode					
	5.23			6			6					
Top Management's role in IS-related decision-making												
	Inactive	1	2	3	4	5	6	7	They are the most important decision makers			
	Mean			Median			Mode					
	5.17			5			6					
IS Outsourcing Level (No. and %)												
National Outsourcing	No	54		16.4								
	Yes	275		83.6								
Offshore Outsourcing	No	275		83.6								
	Yes	54		16.4								
Outsourcing Reasons												
	Not important at all	1	2	3	4	5	6	7	Very Important			
	Mean			Median			Mode					
	Focusing on Strategic Issues			6.03			6.00			7		
	Increasing IS Department Flexibility			5.37			6.00			7		
	Improving IS Quality			5.11			5.00			7		
	Eliminating Troublesome, Everyday Problems			4.88			5.00			7		
	Increasing Access to Technology			4.78			5.00			6		
	Reducing the Risk of Obsolescence			4.66			5.00			7		
	Achieving Staff Cost Savings			4.34			5.00			6		
	Providing Alternatives to in-house IS			4.19			4.00			5		
	Achieving Technology Cost Savings			4.04			4.00			5		
	Following the Fashion			1.67			1.00			1		
Outsourcing Risks												
	Not important at all	1	2	3	4	5	6	7	Very Important			
	Mean			Median			Mode					
	Provider staff's qualification			6.56			7.00			7		
	Provider's failure to comply with the contract			6.27			7.00			7		
	An excessive dependence on the provider			5.45			6.00			6		
	Loss of critical skills and competences			4.93			5.00			6		
	Provider's inability to adapt to new technologies			4.67			5.00			5		
	Hidden costs in the contract			4.52			5.00			6		
	Unclear cost-benefit relationship			4.47			5.00			5		
	Security issues			4.08			4.00			4		
	Irreversibility of the outsourcing decision			3.68			3.00			2		
	Staff issues			2.55			2.00			2		

Possible IS staff opposition					2.48	1.00	1	
Offshore Outsourcing specific risks								
Not important at all	1	2	3	4	5	6	7	Very Important
					Mean	Median	Mode	
Cultural, Linguistic, Political and Legal Problems					5.78	6.00	7	
Different Time Zones					4.65	5.00	6	
Greater Hidden Costs					4.09	5.00	5	
Less Quality than Onshore					3.95	4.00	2	
Poor Infrastructures					3.77	4.00	4	
More Unemployment					2.29	2.00	3	
Influence of outsourcing on the amount of time dedicated to the IS manager's specific activities								
It has decreased	1	2	3	4	5	6	7	It has increased
					Mean	Median	Mode	
External relations management					5.00	5.00	5	
IS strategic planning					4.35	4.00	4	
Information architecture planning					4.31	4.00	4	
Operations management					4.25	4.00	4	
Systems development and project management					4.19	4.00	4	
Staff management					3.98	4.00	4	
Internal relations management					3.37	3.00	3	
Influence of outsourcing on the IS manager's job								
Very Negative	1	2	3	4	5	6	7	Very Positive
					Mean	Median	Mode	
Autonomy					4.69	5.00	5	
Authority					4.35	4.00	4	
Demand					4.57	4.00	4	
Prestige					4.32	4.00	4	
Satisfaction					5.62	6.00	7	
Added Value					5.84	6.00	7	
Influence of outsourcing on the IS manager's knowledge and skills								
Less Significant	1	2	3	4	5	6	7	More Significant
					Mean	Median	Mode	
Communication					5.90	6.00	7	
Staff management					4.54	5.00	5	
Finance					3.54	4.00	3	
Business management					4.58	5.00	5	
Project management					4.71	5.00	5	
Negotiation					5.87	6.00	7	
Information technology					4.93	5.00	6	
Success achieved through IS Outsourcing								
None	1	2	3	4	5	6	7	Total success
					Mean	Median	Mode	
Focusing on Strategic Issues					5.25	5.50	6	
Increasing IS Department Flexibility					5.13	5.00	5	
Improving IS Quality					5.05	5.00	6	
Eliminating Troublesome, Everyday Problems					5.02	6.00	6	
Providing Alternatives to in-house IS					4.77	5.00	6	
Reducing the Risk of Obsolescence					4.72	5.00	5	
Increasing Access to Technology					4.57	5.00	4	
Achieving Staff Cost Savings					3.99	4.00	3	
Achieving Technology Cost Savings					3.70	4.00	3	
Having Access to New International Markets					2.95	3.00	1	
Being Satisfied with IS Outsourcing in general					4.89	5.00	5	
Outsourcing Future (No. and %)								
						No.	%	
Elimination of internal services and increase of national outsourcing						52	20.5	
Elimination of internal services and increase of offshore outsourcing						15	5.9	
Reduction of internal services and increase of national outsourcing						78	30.7	
Reduction of internal services and increase of offshore outsourcing						19	7.5	
Continuity in the current internal-external services ratio						133	52.4	
Reduction of national outsourcing						24	9.4	
Reduction of offshore outsourcing						10	3.9	

Elimination of national outsourcing	5	2.0
Elimination of offshore outsourcing	4	1.6

Table 50. Results about the environment and outsourcing in the first round.