INFORMATION SYSTEMS OFFSHORE OUTSOURCING: A DESCRIPTIVE ANALYSIS[1]

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ABSTRACT

Purpose The present paper has as its aim to deepen in the study of Information Systems Offshore Outsourcing, proposing three essential steps to make this decision: weighing up the advantages and risks of Offshore Outsourcing; analysing the taxonomy of this phenomenon; and determining its current geography.

Design/Methodology/Approach With that objective in mind, it was decided to base the research work on the literature about this topic and the review of reports and statistics coming from different sources (consultants, the press, public institutions, etc.).

Findings Offshore Outsourcing has grown vertiginously in recent years. Its advantages exceed even those of onshore outsourcing, though it also involves greater risks derived from the (cultural and physical) distance existing between customer and provider. Various types of services and customer-provider relationships hide under the umbrella of Offshore Outsourcing; i.e. it is not a homogeneous phenomenon. The main Offshore Outsourcing customers can be found in the USA and Europe, mainly in the UK but also in other countries such as Germany and France. As for provider firms, most of them are located in Asia −outstandingly in India but also in China and Russia. At present, there are important providers scattered in other continents as well.

Originality/Value The conclusions suggest that the range of potential Offshore Outsourcing destinations must be widened and that the search for a provider cannot be based exclusively on cost savings; other considerations such as quality, security and proximity of the provider must also be taken into consideration. That is precisely the reason why the study of new countries like Spain as Offshore Outsourcing destinations is proposed.

Keywords Information Systems, Offshore Outsourcing, Advantages, Risks, Taxonomy

Paper Type General Review

INTRODUCTION: OFFSHORE OUTSOURCING

Information Systems (IS) outsourcing has experienced a considerable growth in the last few years, to such an extent that this market moved over 185 billion € all over the world in 2005 (IDATE Foundation, 2005). Within this trend, it is necessary to highlight specifically the growth of Offshore Outsourcing (OffOut), sometimes referred to as *Global Outsourcing*, because global has less negative connotations than the term *offshore* (Carmel and Agarwal, 2002), normally associated with the loss of jobs in the country which outsources its services. IS OffOut implies contracting all or part of an enterprise's Information Technology (IT) functions with a provider located in a foreign country (Rao, 2004) that will help the customer through the provision of tangible or intangible, human or non-human resources (Kumar and Palvia, 2002).

TAKE IN TABLE I

The factors which explain the emergence and growth of IS OffOut in recent years are very varied and mutually interrelated:

- Economic and market globalisation is one of them (Beulen, Van Fenema and Currie, 2005; Bobek and Korez Vide, 2005). During the last 30 years, firms in the textile, automobile and steel industries amongst others have outsourced work to foreign countries. OffOut can be seen as one more aspect within this globalisation and delocalisation process (Kliem, 2004).
- The cost savings offered by this type of outsourcing are another determining factor, in fact one of the most relevant ones. For example, a programmer who can earn up to 100,000 $ in California will earn 30,000 $ or less in India (Menon, 2005).
- The shortage of qualified labour in the USA and even in Europe was directly related to the emergence of OffOut (Erber and Sayed-Ahmed, 2005; Tafti, 2005). That shortage was partly caused by the technological boom of the late 1990s and the need for technicians for the new e-businesses. To that was added

the adjustment of computer programs for the 2000 effect (2YK), which made IT staff salaries grow and led to a shortage of that staff (Chen and Lin, 1998; Carmel and Nicholson, 2005). In Europe, programs also had to be adjusted to the new European currency -the euro- which, combined with the 2000 effect, contributed to the shortage of professionals.

- The need to shorten the development time cycle of IS projects is another factor to be considered (Sobol and Apte, 1995). IT products and services have an increasingly short life cycle; a circumstance which has significantly increased the demand for more flexibility for IT enterprises, which do not have enough time to create and maintain adequately trained human resources that can cope with the volatility of the demand and the heterogeneity of its projects. Immediate access to these offshore resources is another growth factor.
- Finally, the development of telecommunications and the generalisation of the Internet are other facilitating factors that must be taken into account.

As OffOut has evolved and acquired more importance, the literature on this issue has grown too, which leads us to think that this is a suitable moment to reflect on it. The present paper seeks to deepen in the analysis of OffOut, proposing three essential steps in the adoption of this decision: weighing out the advantages and risks associated with OffOut; analysing its taxonomy; and determining its current geography, that is, the location of the enterprises which supply these services. In relation to the latter, we will especially focus on Spain as an OffOut service provider, since this country has so far not been taken into consideration in the literature dedicated to this topic.

OFFSHORE OUTSOURCING ADVANTAGES VS RISKS

Table II proposes a list of the advantages offered by OffOut as opposed to the risks associated with it. Some of these advantages have already been identified as factors triggering OffOut.

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Cost savings: This is one of the essential motivations for IS outsourcing in general (Gottschalk and Solli-Sæther, 2005 & 2006; Udo, 2000) and, of course, for OffOut as well. In this case, cost savings derive not only from the provider's economies of scale that are passed on to the customer through more economical prices (Grover, Cheon and Teng, 1994) but also and mainly from the difference in salaries between the staff in the country of the customer firm and the staff working for the firm which supplies the outsourced services. It must be remembered, for example, that in the development of systems or even in simpler tasks related to IT such as data entry or call-centres, salaries are the most important cost (Ravichandran and Ahmed, 1993) and they are lower in the main OffOut destinations.

Hidden costs: The other side of the coin is the hidden costs associated with outsourcing (Barthélemy, 2001). These costs are still higher in the case of OffOut; coordination costs soar (Gonzalez, Gasco and Llopis, 2005) due to the need to know not only the providers but also the legislation, the labour culture and, in general, the country where those providers are located, all of which implies expenses related to trips and even to lawyers and advisors, who can help to make better decisions in this field (Carmel and Nicholson, 2005). One must additionally consider the cost involved in the transfer of knowledge and know-how from the country of origin to that of the provider as well as the subsequent costs related to data transfer, which can sometimes mean extra expenses, for example, to have an additional bandwidth or reinforce security measures (Erber and Sayed-Ahmed, 2005). Similarly, one should take into account the possible costs linked to staff layoffs that may be generated in the customer firm. Furthermore, the control over an OffOut relationship turns out to be complicated due to the distance (Khan, Currie, Weerakkody and Desai, 2003), which can lead to a certain degree of opportunism on the part of the provider. For instance, the provider may decide to outsource to third parties (that could even be located in another country), seeking greater profits, without its customer knowing. Finally, the uncertainty about the potential fluctuations affecting the exchange rates of currencies should also be

considered in these costs, since the initially agreed contract prices may vary as a result of those fluctuations (Lee, 1996).

Technical feasibility: This already-mentioned key OffOut facilitating factor refers to the excess of bandwidth built during the technological boom of the late 1990s and the resulting drop in prices that has led to the availability of fast Internet connections through practically the whole world (Menon, 2005). Progress in technology (in terms of security, storage, etc.) makes OffOut easier (Misra, 2004).

Poor infrastructures: However, many developing countries to which are directed numerous OffOut projects are precisely characterised by the shortage of telecommunication infrastructures, and by their weakness even in the most basic infrastructures, which materialises, for example, in constant electrical breakdowns or power supply cuts (Ravichandram and Ahmed, 1993). In the case of India, industries passed from a very low quality land infrastructure in the 1980s to the use of satellite technology to establish connections with their foreign customers (Carmel, 2003), which is one of India's essential success factors. In this respect, the support of the government is important as it helps to build fast, safe infrastructures, for example, through the promotion of technological parks, where most of the enterprises offering IS and telecommunication services are concentrated[2], and so is the assistance of non-government associations (RusSoft[3], for instance) which can improve the conditions in the IS industry.

Flexibility, Speed: Being able to develop new products more flexibly becomes a critical factor within a sector like the IS industry, which runs a race against obsolescence every day. If one bears in mind that most of the OffOut customer firms are located in the USA and Western Europe and that a large number of

[2]Like the Singapore Science Park, founded in 1980 on the initiative of Singapore's government, which has become a reference R&D and technology centre for the whole of Asia. http://www.sciencepark.com

[3] RusSoft is a software development business partnership with members from Russia, Belarus and the Ukraine. http://www.russoft.org

provider firms are located in Asian countries, it can be checked that a project may be developing (at least in theory) nearly 24 hours a day, thus reducing the total development time to nearly a half. Due to the time difference between customer and provider, errors in the system can be solved during the night and be ready the following day (Khan, Currie, Weerakkody and Desai, 2003).

Different Time Zones: The previous advantage can be seen as a disadvantage if one considers that when time zones are very different, there is a risk that only very few working hours will overlap between customer and provider. This could make it difficult for them to communicate with each other unless they use asynchronous media such as the e-mail. Although it may seem a minor problem, it is not, as shown by the fact that many enterprises look for providers in closer time zones because this allows the remote members of a project to work simultaneously (Rao, 2004).

More Quality: Customers not only pursue cost savings; they also want a quality service. Some authors suggest that, in the case of US enterprises, OffOut improves quality because the high staff turnover rate they experience is not as common as that of the firms providing these services (Ravichandran and Ahmed; 1993). What is more, all the leading OffOut enterprises in India have a maximum quality level accredited through the CMM certificate[4].

Deficient Quality: On the other hand, one of the most outstanding risks is the potential lack of quality in the outsourced activity. This may happen if the provider does not have human resources with adequate training: here belong the problems derived from a poor knowledge of the language (speaking a language is not the same as understanding it perfectly) which can make the communication between

[4] CMM stands for Capability Maturity Model for Software. It is the most internationally recognised standard for measuring the quality achieved by the organisations which develop IS and was created by the Carnegie Mellon University. http://www.sei.cmu.edu/cmm/

customer and provider more difficult as well as the problems related to the lack of knowledge, not technical but managerial knowledge, which is detected in some offshore providers. For example, the Ukraine is an emergent country in the OffOut market with human resources that show advanced skills in mathematics and physics but have a limited knowledge of business, marketing and management (Zatolyuk and Allgood, 2004).

Advantage derived from Entering the Market: No doubt many enterprises decide to outsource their IT services as a way to approach potential foreign markets (Ravichandran and Ahmed, 1993; Sobol and Apte, 1995), above all if one takes into account that many offshore providers are in developing countries with very high economic growth rates expected for the next few years. Countries such as China or Russia, for instance, not only benefit from the advantage of a low salary cost but also from their potential as large markets due to their population size.

Problems of a National Nature: On the other hand, there are many problems which depend on the specificity of the country supplying OffOut. These problems can be *cultural, geopolitical and legal*. Because not only different corporate cultures but also national cultures clash, *cultural problems* between customer and provider definitely become very important in OffOut (Kim, Meso and Kim, 2005). The lack of cultural congruence between customer and provider can generate communication problems even worse than those caused by the language barrier. Culture has an effect on the way in which individuals interact with their employees, perceive the importance of harmony within the group and respond to questions about gender (male or female) or handle concepts related to quality of life (Rao, 2004). For example, the advantage offered by the proximity, not only physical but also cultural, has made Canada or Mexico become the favourite outsourcing destinations for the USA (Palvia, 2004). As for *geopolitical problems*, some countries supplying OffOut are characterised by their uncertainty or political

instability (Chen y Lin, 1998), which represents an important hindrance when it comes to maintaining contracts and stable investments. Additionally, one should take into account the anti-US or anti-West feelings that may exist among the population of those countries (Hemphill, 2004). The *differences in laws and regulations*, due to which the OffOut relationship can become complex and risky, constitute another factor to be considered here. These differences must be taken into account when the time comes to develop certain applications which have to comply with the legislation in force, e.g. applications for payrolls, banking or accounting applications, etc. (Ravichandran and Ahmed, 1993). One should also remember the legislation about computer security, above all in relation to the confidentiality of the information used, the persecution of piracy and the protection of intellectual property. Nevertheless, some countries considered to be OffOut leaders, such as China, do not even have laws that protect intellectual property (Menon, 2005).

On a Macroeconomic level: A more efficient Market. This last advantage does no longer affect directly OffOut customer enterprises; it is felt at a macroeconomic level. At least in theory, customers will try to outsource to the place which offers them the best cost-benefit ratio. In short, the IS market will become more efficient and even better-paid jobs can be generated in the long run (Misra, 2004).

On a Macroeconomic level: More unemployment? The workers from the most developed economies feel that OffOut represents a stronger competition for the working position they occupy which puts at risk first their salary level and then their job itself. However, there are no conclusive statistical results about this. In the USA, the job losses due to outsourcing during the first three months of 2004 amounted to less than 2% of the total number of layoffs, while in Germany, one of the European countries that uses outsourcing more often, the loss of jobs derived from OffOut represented only 0.2% of the country's workforce between 1990 and 2001 (OIT, 2005).

A TAXONOMY OF OFFSHORE OUTSOURCING

The term OffOut includes various types of relationships between the customer and the IT service provider. One must be aware of the different existing possibilities before adopting such a relevant decision. For this purpose, a proposal is made in this paper to classify OffOut relationships according to different criteria which are not mutually exclusive and can actually be complementary to one another:

According to the customer's sector. The customer of these services can belong to any (non-IT) sector but, sometimes, it is an IT-sector enterprise which outsources part of its internal operations, or even part of the work, which is subsequently sold by that enterprise to its own customers. For instance, in 2005, the firm Unisys planned to outsource hardware manufacturing and send some IT work to China, India and Eastern Europe.

According to property relationships. Three types of OffOut relationships can be identified in this respect: firstly, *Conventional OffOut*, i.e. when the customer outsources all or part of its IT operations without having any property relationship with the provider firm; secondly, the *establishment of a subsidiary* in a low-cost country and the transfer of all or part of the IT activities to that country. This is what some authors call *quasioutsourcing* (Barthélemy and Geyer, 2005). In this second case, the basic idea consists in transforming an internal department into an associated entity which can behave as an external provider that simultaneously supplies services to the parent company and manages to attract its own customers. Thus, provider firms such as IBM, EDS, CSC, Hewlett Packard and Oracle also have their own subsidiaries in offshore countries like India, China and Russia (Palvia, 2003). In the third case, the aim is to establish a *Joint Venture* with a firm based on the country toward which outsourcing is oriented and jointly create an organisation in a low-cost country, which implies sharing risks and rewards rather than a simple transactional agreement. Both the firm based on the outsourcing

country and the one which receives the joint venture win something: one achieves lower costs; the other finds a way to attract foreign customers. This is why the multinational Microsoft and the Indian software industry Tata Consultancy Services have joined forces to create an outsourcing centre in China. This joint venture has as its aim to supply software development services both to Chinese companies and to Western multinationals (McDougall, 2005).

According to the presence or absence of an agent in the relationship. Very often, there is no agent that can help the customer to find a provider to outsource its IT services to; this is referred to as *Direct OffOut* (Khan and Fitzgerald, 2004). In this case, it is very important for the customer firm to take its time to do some research about the characteristics of the providers, their confidentiality, security and solvency and the potential problems that may arise such as the cultural or legal conflicts already mentioned in the preceding section. However, one can opt for *OffOut through an agent*, where a third firm acts as a mediator between customer and provider, with the advantage for the former that there is no need to look for a provider and investigate it. This also reduces the costs linked to the coordination between them but it has the drawback that since the contact with the project is lost, one can obtain an unwanted output (Khan, Currie, Weerakkody and Desai, 2003).

According to the service contracted. On this occasion, a reference is made to the fact that one or even all the IT-related activities of a firm can be contracted, or one can contract hours of work of one or several professionals. This second option is known as 'staff increase' or *Body Shopping* -a term coined by Lacity and Hirschheim (1993)- and consists in hiring IT consultants or experts freelance or through intermediary firms dedicated to staff recruitment services (Rajkumar and Mani, 2001). It is an option which usually arises from the need to increase the staff on a short-term and non-permanent basis.

According to the greater or lesser proximity between customer and provider. The distance between outsorcing service customer and provider has led to the emergence of a set of concepts which are shown graphically in Figure I.

TAKE IN FIGURE I

Onshore means outsourcing within the borders of a country. This is the first era of outsourcing initiated by Eastman Kodak in 1989. The term *Offshore* is reserved for the outsourcing of services in a foreign country located far from the customer firm. An associated characteristic is that the offshore service implies low costs (IDC, 2005), without which the customer would not run the risk of sending its work to a remote place. Many leading OffOut firms located in low-cost countries -e.g. Wipro or Tata Consultancy Services- have opened sales offices in *customer* countries, such as the USA or the UK, with the aim of improving the relationships with customers and mitigating the problems associated with distance. Some authors reserve the term *Offshore* for the outsourcing to countries which are distant but have a similar culture and economic status (as Ireland could be from the US perspective). If the distance, both physical and cultural and even in terms of economic status, is greater, these authors prefer to use the term *farshore* (Palvia, 2004), much less widespread than *offshore*.

Nearshore describes the outsourcing to a country that, though alien to the customer firm, is located near it. This proximity helps to mitigate certain problems such as time differences and even the cultural differences and communication problems typically associated with offshore (Rao, 2004). However, compared to offshore, the cost savings provided by nearshore are moderate. Examples of nearshore can be found in the UK enterprises which outsource to Ireland or the German ones which outsource to Eastern Europe.

Both *offshore* and *nearshore* are terms used to refer to the outsourcing of an activity seen from the customer's perspective, but if one focuses on the target country to which processes are outsourced, then the term *inshore* appears. Inshore

consequently refers to the attraction of processes which have been outsourced to a foreign country from the provider's point of view. Finally, *insourcing* means that the enterprise which had outsourced a service (no matter if it is onshore, offshore or nearshore) decides to reintegrate it into its value chain and supply it on its own.

THE GEOGRAPHY OF OFFSHORE OUTSOURCING

The USA is undoubtedly the customer of OffOut services par excellence. According to IDC, the IT OffOut market in the USA will have an annual growth rate of 14.4% and will nearly double the current 14.7 billion dollars in 2009 (RTTS, 2005). In Western Europe, the UK is the most important and most mature customer with 35% of the total European OffOut market, while Germany, Switzerland and Austria account for 22.8% and France for another 12.8% (Gartner, 2004). The question is, though, where are these IS services being outsourced to?

A Global Analysis

By continents, ***Asia*** stands out as the most popular destination for OffOut projects, with India at the top of the ranking, followed at a distance by China and other South-East Asian countries such as Malaysia, the Philippines and Thailand. *India* is unarguably the leading country in OffOut (Gartner, 2004; RTTS, 2005) and even the country which has *invented* the current OffOut industry (Palvia, 2004). According to Soota (1994), as a result of the strong political and economic protectionism that dominated life in India in the early 1980s, which materialised amongst other things in the strong restrictions for imports, a number of enterprises arose which did practically everything in the IS industry. After the economic liberalisation of the late 1980s, these firms developed a strong exporting orientation which was the origin of the status that India has achieved in this sector at present. Other factors have helped India to become the leader in this market: it currently has very professional service firms such as Tata Consultancy Services, Infosys, Wipro and Satyam. All the top Indian salesmen are certified with CMM level 5, the highest level, which is why the Software Engineering Institute

estimates that nearly 40% of the higher-level software companies are located in India (King, 2005). It is the second most populated country in the world (with over a billion inhabitants) with a potential large market where salary costs are well below those in the USA and Western Europe. Additionally, it has advantages like the mastery of English (the language of teaching and business in India) and a very rigorous technical and quantitative training (Kearney, 2005). The Indian IT industry also benefits from the experience accumulated in the already long-lasting relationship with its Western customers. The support given by the authorities to this industry along with the existence of private organisms like NASSCOM[5], which also back this sector, are factors to be considered too. Before the threat posed by the emergence of new competitors in the offshore markets with costs even lower than those in India, such as China or even Russia, Indian enterprises have reacted offering increasingly complex services, with more added value and opening sales offices in the countries of origin of customer firms, in an attempt to establish closer relationships with them (King, 2005).

China is the other Asian giant. It enjoys the advantage of having costs still lower than those in India and a potential huge labour market. In fact, it is the second most attractive OffOut destination after India (Kearney, 2005). Another positive factor lies in the proximity to Japan. This is interesting not only because China is the natural Nearshore destination for Japan, but also because any firm which sets up subsidiaries in China can have a more direct access to the Japanese market. The 2008 Beijing Olympic Games and the 2010 Shanghai World Fair are two events that China can exploit to globalise its economy even more and, more specifically, to consolidate its position in the OffOut market. Nevertheless, China still has to face important obstacles: a limited mastery of the English language by workers; the sharp cultural differences between this country and its potential Western customers (Chen and Lin, 1998); the lack of managerial knowledge (Carmel and

[5] NASSCOM stands for National Association of Software & Service Companies. http://www.nasscom.org/

Agarwal, 2002); and the problems related to intellectual property laws (that China does not enforce) (Carmel and Nicholson, 2005).

As far as ***Eastern Europe*** is concerned, Russia is first in the ranking, followed at quite a distance by other countries such as the Czech Republic, Poland, Hungary and the Ukraine. Eastern Europe as a whole shows cultural similarities, attractive costs, a good knowledge of languages, solid technical skills and minimum regulatory problems for Western European enterprises. It is acquiring a growing interest as a nearshore destination particularly for German firms (Kearney, 2005). *Russia* boasts human resources with low salaries and a solid scientific and technical training - the inheritance of the former USSR - but also with hindrances such as the limited knowledge of marketing and project management, the poor level of English and the small number of qualified executives (Palvia, 2004).

Canada and Mexico stand out in ***America*** and lagging far behind them can be found other Latin American countries such as Argentina, Chile, Brasil and Costa Rica. From the US point of view, Canada and Mexico are the nearshore countries par excellence. Outsourcing to Canada is probably the least risky option, as this country is situated in the same time zone as the US; its most important cities are located near the largest US cities; English is the main language there; and the business culture and practices are also similar to those in the US. This country has become especially attractive to Indian companies which want to set up subsidiaries near the USA; Cognizant or Satyam, for example, have establishments in Canada. As for Mexico, in addition to its proximity to the US market, it offers qualified staff at a low cost as well as access to the Latin American market. The proximity additionally implies that many firms have experience working together in both countries, which makes US enterprises feel at ease because the business cultures on both sides of the border are similar. Both Canada and Mexico, along with the

USA, form the NAFTA[6], which has among its main objectives to protect intellectual property rights, an issue that is of paramount importance in OffOut.

In the case of ***Western Europe***, one must highlight the special importance that Ireland has as a nearshore destination as well as the potential importance corresponding to Spain. *Ireland* is considered one of the OffOut leading countries (Zatolyuk and Allgood, 2004) and can be regarded as a nearshore destination for the UK and even for the USA, because it shares the language, the culture and many overlapped working hours with them. Ireland's leadership is proved by the fact that Ireland exported 14.4 billion dollars worth of IT services in 2003 (RTTS, 2005). All the large IT companies - including IBM, Microsoft and Intel - have establishments in Ireland, which additionally offers a safe business environment and an English-speaking human resources with experience. However, some inconveniences exist too, namely the relatively high costs and a limited workforce (Kearney, 2005).

Spain as an Offshore Outsourcing Destination

The decision to analyse the case of Spain was due to the fact that no papers could be found in the literature which focused on this country and its position regarding OffOut. Outsourcing accounts for 26.6% of the Spanish consultancy market. Although outsourcing has grown to some extent in recent years, Spanish enterprises outsource less than their European counterparts (Steria, 2005).

If Spain's role in the outsourcing market is shy, it should not come as a surprise to check that the same happens in OffOut. In fact, Spanish enterprises try to find other lower-cost domestic locations before moving abroad. In 2005, less than 1% of IT services were supplied outside Spain, although there are growth prospects for the next few years. Nevertheless, Spain does seem likely to become an OffOut destination, or more precisely a nearshore destination, as is pointed out by IDC

[6] NAFTA stands for North American Free Trade Agreement.
http://www.nafta-sec-alena.org/DefaultSite/index_e.aspx?DetailID=78

consultants (2005). The Kearney report (2005) places Spain among the top 25 Offshore destinations, in the twenty-second position to be precise. Some factors facilitate Spain's consolidation as an OffOut destination:

Costs. According to a study carried out by SEDISI (2005) a Spanish IS executive has an annual salary of 80,000 €; a junior analyst is paid 29,209 €; a webpage designer receives 20,995 €; and finally, an Internet Systems Technician earns 25,439 €. If one considers the salary cost per employee in the Spanish IS industry, the average costs in 2004 were 33,655 € according to Spain's *Instituto Nacional de Estadística*[7]. Although these costs are not competitive if compared to those existing in India, China or Russia, they are indeed competitive in comparison with those found in other European countries such as Germany, France or the UK, these being the ones which have adopted OffOut more often so far. According to the Kearney report (2005), Spain is additionally the fifth most attractive country for OffOut if staff knowledge and availability are measured. Only India, Canada, Australia and Ireland outperform it.

Physical and Cultural Proximity. This is one of Spain's main appeals as it is located in South Western Europe, is accessible to all European countries willing to outsource offshore and has the added advantage of the free circulation of professionals inside the EU without the need for a visa or any other requirements. Thanks to this proximity, the time difference problem that is so typical in OffOut disappears. In addition to that, Spain has a high living standard and a tourist and cultural appeal that must equally be taken into account when it comes to looking for an offshore destination (Carmel, 2003).

[7] INE (*Instituto Nacional de Estadística* - National Statistics Institute). http://www.ine.es/inebase/cgi/axi

Political stability. Spain is a democracy ruled by a Parliamentary Monarchy since 1978 which enjoys great political and economic stability and has been a member of the former EEC, currently EU, since 1986.

Legislation. The *Ley de Servicios de la Sociedad de la Información y de Comercio Electrónico* (LSSI) - Information Society and Electronic Commerce Services Act - (Act 34/2002 dated July 11), the *Ley de Propiedad Intelectual* (LPI) - Intellectual Property Act – (approved by Royal Decree 1/1996, April 12) and the *Ley Orgánica de Protección de Datos de Carácter Personal* - Organic Law about the Protection of Personal Data - (Organic Law 15/1999 dated December 13) were enacted in Spain with the aim of giving an impulse to the Information Society, protecting intellectual property and improving confidence in the security and privacy of the information transferred through IT. In addition to this, new crimes related to IT have been typified in the Spanish Penal Code (Law 0009 of the New Penal Code[8]).

Institutional impulse. Spanish Public Institutions have taken important steps to favour the development of OffOut from this country. Thus, the Ministry of Industry, Tourism and Commerce (2005) proposed the *Plan Avanza* ('Go-Ahead Plan') in 2005. The objective of this Plan was to help Spain join the Information Society. It covers the 2006-2010 period and, amongst other measures, suggests the creation of software factories: "*with a Nearshore approach, especially in regions without an industrial fabric in the sector but with other appeals: human capital, competitive costs, etc., in tune with the initiatives undertaken thanks to the collaboration of the Autonomous (Regional) Governments and business agents, as in the case of Galicia, Asturias, Murcia or Castilla La Mancha*".

Additionally, the Spanish institutions have signed international cooperation agreements in the field of technology to encourage OffOut. For instance, the Spanish and Chinese governments have signed a technological cooperation

[8] http://www.onnet.es/le0009.htm

agreement, co-financed by both countries, for the joint development of products that will later be sold in international markets. According to a note released by the Ministry of Industry, the agreement has been signed by the *Centro de Desarrollo Tecnológico Industrial (CDTI)* - Industrial-Technological Development Centre - and its Chinese counterpart, TORCH - High Technology Industry Development Centre. The priority areas in this program include Information and Communication Technologies as well as the creation of new technology-based firms.

Some examples. The company Accenture owns establishments in Madrid and Málaga (Spain) from which it supplies services to such important customers as the London Stock Exchange, Carrefour, Vodafone or EADS. The enterprise Softtek, the parent company of which is located in Mexico to supply (nearshore) services above all to the US market, opened its Global Development Centre for the whole of Europe at the beginning of 2004 in A Coruña (Spain), with the collaboration of Caixa Galicia. Another case which deserves a special mention is that of HP, which has been operating in Sant Cugat del Vallés (province of Barcelona) for more than two decades and has recently inaugurated new premises from which OffOut activities will be carried out for customers such as Gillette or Procter & Gamble. HP digitises about 90,000 Procter & Gamble invoices from Sant Cugat and a similar centre in Bangalore (India) is in charge of validation and payments to suppliers. HP's link to Barcelona is intense as shown by the fact that an HP Chair was created in one of Barcelona's universities in 2003[9].

Anyway, there are some inhibitors that Spain should overcome to be a firm candidate in the OffOut scene. Spanish enterprises outsource less than the European firms in general, as we have mention before. So this is a disadvantage from the demand point of view, as this represents a lack of experience in outsourcing, if we compare with other countries. The language is another problem; althought new generations are speaking english more and better than in the past.

[9] http://www.catedrahp.upc.es

But the most important burden is the necesity for Spain to forge an image of a country developed technologically. The efforts of Public Institutions and many private firms to minimise these inhibitors produce a positive balance for Spain as an OffOut destination, in our opinion.

CONCLUSIONS

Firms in many countries, above all the USA and Europe, already take into account OffOut as an alternative way of managing their IT. This is yet another example of the economic globalisation we are immersed in. Before considering this option, the enterprise must carry out an in-depth analysis of the advantages and risks it involves, consider what OffOut modality is going to be chosen and study the possible countries where the firms which can supply these services are located. These have many managerial implications:

- First of all, it is risky to consider exclusively the cost savings that OffOut can bring, as many hidden or unforeseen costs may arise that reduce the quality of the service received. In other words, managers must take into account the technical infrastructure and the quality of the provider's human resources as well as the cultural congruence between provider and customer, before taking this decision. It is also essential to determine whether the service to be outsourced requires very frequent communication between them. If that is the case, there should preferably not be much distance between customer and provider, as this would make real-time communication impossible due to the different time zones. However, it must be remembered that asynchronous media such as the e-mail may be of great help to improve communication.

- Secondly, certain problems associated with OffOut can be solved with the corresponding investments: training in languages, in business culture (both for the customer and for the provider firm) and external advice are some of the

investments needed to adopt this decision sensibly. So, all the costs that these investments generate must be added to the total cost of outsourcing.

- Thirdly, managers taking this decision must additionally examine the potential country in order to have enough security in the outsourced activities (focusing mainly on the legislation about intellectual property and information confidentiality). So, if the activity to be outsourced is highly sensitive to security matters, nearshore could be a wiser decision than offshore.

- Finally, the present paper includes a country that has so far not been treated in the OffOut literature: Spain. In our opinion, researchers as well as enterprises must widen the typical range of countries to which outsourcing can be oriented, bearing in mind not only considerations related to cost savings but a larger and more complex number of pros and cons before making this decision.

BIBLIOGRAPHY

Barthélemy, J. (2001) "The Hidden Cost of IT Outsourcing", MIT Sloan Management Review, Vol. 42
No. 3, pp. 60-69.

Barthélemy, J. and Geyer, D. (2005) "An empirical investigation of IT outsourcing versus quasi-outsourcing in France and Germany", Information & Management, Vol. 42 No. 4, pp. 533-542.

Beulen, E.; Van Fenema, P. and Currie, W. (2005) "From Application Outsourcing to Infrastructure Management: Extending the Offshore Outsourcing Service Portfolio", European Management Journal, Vol. 23 No. 2, pp. 133-144.

Bobek, V. and Korez Vide, R. (2005) "The signification and the feasibility of measuring globalization of economy", Industrial Management & Data Systems, Vol 105 No 5, pp. 596-612.

Carmel, E. (2003) "The New Software Exporting Nations: Success Factors", The Electronic Journal of Information Systems in Developing Countries, Vol 13 No 4, pp. 1-12.

Carmel, E. and Agarwal, R. (2002) "The maturation of offshore sourcing of Information Technology work", MIS Quarterly Executive, Vol. 1 No. 2, pp. 65-77.

Carmel, E. and Nicholson, B. (2005) "Small Firms and Offshore Software Outsourcing: High Transaction Cost and Their Migration", Journal of Global Information Management, Vol. 13 No. 3, pp. 33-54.

Chen, Q. and Lin, B. (1998), "Global Outsourcing and its Managerial Implications", Human Systems Management, Vol. 17 No. 2, pp. 109-114.

Erber, G. and Sayed-Ahmed, A. (2005) "Offshore Outsourcing. A global shift in the present IT Industry", Intereconomics, Vol 40 No 2, pp. 100-112.

Gartner (2004) "Outsourcing goes global in Difficult Market", Internet Document. Available at http://www.gartner.com/press_releases/asset_63079_11.html

Gonzalez, R.; Gasco, J. and Llopis, J. (2005) "Information systems outsourcing risks: a study of large firms", Industrial Management & Data Systems, Vol 105 No 1, pp. 45-62.
Gottschalk, P. and Solli-Sæther, H. (2005) "Critical success factors from IT outsourcing theories: an empirical study", Industrial Management & Data Systems, Vol 105 No 6, pp. 685-702.
Gottschalk, P. and Solli-Sæther, H. (2006) "Maturity model for IT outsourcing relationships", Industrial Management & Data Systems, Vol 106 No 2, pp. 200-212.
Grover, V.; Cheon, M.J. and Teng, T.C. (1994) "A Descriptive Study on the Outsourcing of Information Systems Functions", Information & Management, Vol. 27 No. 1, pp. 33-44.
Hemphill, T.A. (2004) "Global outsourcing: effective functional strategy or deficient corporate governance?", Corporate Governance, Vol. 4 No. 4, pp. 62-68.
IDATE Foundation (2005) "Digiworld 2005. Los retos del mundo digital" IDATE-ENTER, Montpellier, Francia. Available at http://enter.es/enter/file/espanol/texto/digiworld.2005.pdf
IDC (2005) "Estudio sobre el atractivo de España como destino del Nearshore". Internet Document unloaded 16 September 2005. Available at http://www.idc.com/spain/downloads/research/fs_nearshore.pdf
Kearney (2005) "Making offshore Decisions. A.T. Kearney's 2004 Offshore Location Atractiveness Index", Internet Document unloaded 13 February 2005. Available at http://www.atkearney.com/shared_res/pdf/Making_offshore_S.pdf
Khan, N.; Currie, W.; Weerakkody, V. and Desai, B. (2003) "Evaluating Offshore IT Outsourcing in India: Supplier and Customer Scenarios", Proceedings of the 36th Hawaii International Conference on Systems Sciences (HICSS'03).
Khan, N. and Fitzgerald, G. (2004) "Dimensions of Offshore Outsourcing Business Models", Journal of Information Technology Cases and Applications, Vol. 6 No. 3, pp. 35-50.
King, W.R. (2005) "Outsourcing becomes more complex", Information Systems Management, Vol. 22 No. 2, pp. 89-90.
Kim, J.W.; Meso, P. and Kim, D.-G. (2005) "Cultural effects on Offshore-outsourced Systems Development", 13th Annual Cross-Cultural Meeting in Information Systems, Las Vegas, December.
Kliem, R. (2004) "Managing the risk of offshore IT development projects", Information Systems Management, Vol. 21 No. 3, pp. 22-27.
Kumar, N. and Palvia, P. (2002) "A framework for Global II outsourcing management: key influence factors and strategies", Journal of Information Technology Cases and Applications, Q1, pp. 56-75.
Lacity, M and Hirschheim, R. (1993) "Implementing Information Systems Outsourcing: Key Issues and Experiences of an Early Adopter", Journal of General Management, Vol. 19 No. 1, pp. 17-31.
Lee, M.K.O. (1996) "IT outsourcing contracts: practical issues for management", Industrial Management & Data Systems, Vol 96 No 1, pp. 15-20.
McDougall, P. (2005) "Microsoft and Tata to open Outsourcing center in China", Information Week, 30 June, 2005.
Menon, M.K. (2005) "A Strategic Decisión Framework for offshoring IT Services", Journal of Global Business", Spring, pp. 89-95.
Ministerio de Industria, Turismo y Comercio (2005) "Plan Avanza. Plan 2006-2010 para el desarrollo de la Sociedad de la Información y de convergencia con Europa y entre Comunidades Autónomas y Ciudades Autónomas". Anexo I. Internet Document unload 2 November 2005. Available at http://www.planavanza.es/pdf/anexo/pdf
Misra, R. B. (2004) "Global IT Outsourcing: Metrics for Success of All Parties", Journal of Information Technologies Cases and Applications, Vol. 6 No. 3, pp. 21-34.
Palvia, S. (2003) "Global Outsourcing of IT and IT Enabled Services: Impact on US and Global Economy", Journal of Information Technology Cases and Applications, Vol. 5 No. 3, pp. 1-11.

Palvia, S. (2004) “Global Outsourcing of IT Enabled Services: A framework for choosing an (Outsourcee) country”, Journal of Information Technology Cases and Applications, Vol. 6 No. 3, pp. 1-20.

OIT (2005) “Informe sobre el empleo en el mundo 2004-2005. Empleo, productividad y reducción de la pobreza”, Organización Internacional del Trabajo. Ginebra. Internet Document. Available at http://www.ilo.org/public/english/employment/strat/wer2004.htm

Rajkumar, T.M. and Mani, R.V.S. (2001) “Offshore Software Development. The view from Indian Suppliers”, Information Systems Management, Spring, pp. 63-73.

Rao, M.T. (2004) “Key Issues for Global IT Sourcing: Country and Individual Factors”, Information Systems Management, Vol. 21 No. 3, pp. 16-21.

Ravichandran, R. and Ahmed, N. U. (1993) “Offshore systems development”. Information & Management, Vol. 24 No. 1, pp. 33-40.

RTTS (2005) “Statistics related to offshore Outsourcing”. Internet document unloaded 7 December 2005. Available at http//www.rttsweb.com/services/outsourcing/stats.cfm.

SEDISI (2005) “Estudio sobre Salarios y Política Laboral en el Sector Informático”. Internet Document unload 6 March 2006. Available at http://www.infoempleo.com/canales/asp/contenidos.asp?id_p=373&id_vertidal=7

Sobol, M.G. and Apte, U. (1995) “Domestic and global outsourcing practices of America’s most effective IS users”, Journal of Information Technology, Vol. 10, pp. 269-280.

Soota, A. (1994) “A partner on the other side of the globe”, IEEE Spectrum, March, pp 34-36.

Steria (2005) “Outsourcing en España y Europa en el sector público y privado”. Sociedad de la Información, June. Internet Document. Available at http://www.socinfo.info/contenidos/pdf16/p46-50steria.pdf

Tafti, M.H.A. (2005) “Risks factors associated with offshore IT outsourcing”, Industrial Management & Data Systems, Vol 105 No 5, pp. 549-560.

Udo, G.G. (2000) “Using analytic hierarchy process to analyze the Information Technology outsourcing decision”, Industrial Management & Data Systems, Vol 100 No 9, pp. 421-429.

UNCTAD (Conferencia de las Naciones Unidas sobre Comercio y Desarrollo) (2004) “Informe sobre las Inversiones en el Mundo 2004: El giro hacia los Servicios”. Naciones Unidas. (Document symbol: UNCTAD/WIR/2004/Overview). Internet document unloaded 1 March, 2006. Available at http://www.unctad.org/sp/docs/wir2004overview_sp.pdf

Zatolyuk, S. and Allgood, B. (2004) “Evaluating a Country for Offshore Outsourcing: Software Development Providers in the Ukraine”, Information Systems Management, Vol. 21 No. 3, pp. 28-33.

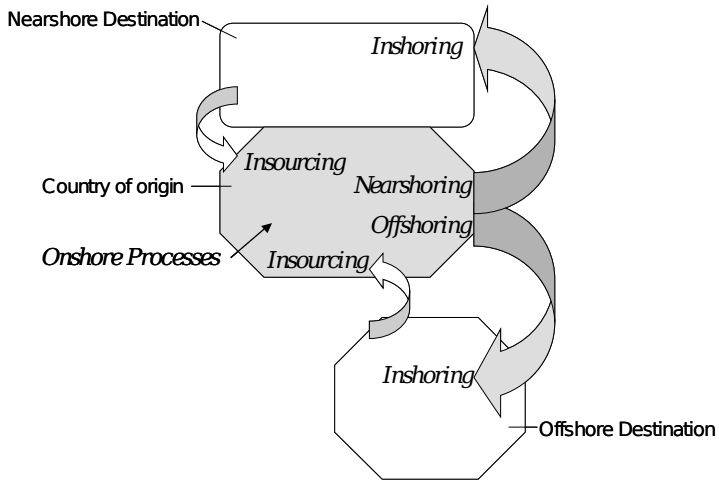
Table I: IS OffOut: Some Figures.

Gartner (2004)	*"As a result of the trend toward Global Outsourcing, Gartner predicts that up to 25% of the traditional IT work in many developed countries will be situated in emergent markets in 2010".*
King (2005)	*"The Software Engineering Institute estimates that nearly 40% of the higher-level software companies are located in India".*
Palvia (2003)	*"According to Forrester Research, at least 3.3 million white-collar jobs and 136 billion dollars worth of salaries will leave the USA and go to other low-cost countries in 2015. 14% of these 3.3 million will be related to IS work".*
UNCTAD (2004)	*"One cannot predict the magnitude that service delocalisation will reach; it is believed that the fastest growth will take place in the services facilitated by IT. Forecasts say that they will pass from one billion dollars in 2002 to 24 billion in 2007".*

Table II: OffOut Advantages vs Risks.

Advantage	***Vs***	***Risk***
Cost Savings		Hidden Costs
Technical Feasibility		Poor Infrastructures
Flexibility, Speed		Different Time Zones
More Quality		Deficient Quality
Advantage derived from entering the market		Problems of *a National Nature*
A more efficient market *(macroeconomic)*		More unemployment? *(macroeconomic)*

Figure I: OffOut Terminology.



Source: Adapted from Erber and Sayed-Ahmed (2005).