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IT & IS Outsourcing Decisions – Advantages & Risks
A Study of ISPs in Tehran

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Abstract

Managers in developed countries are increasingly interested in outsourcing as a potential source of competitiveness and value creation. One of the most useful outsourcing activities in service sector is information system/technology outsourcing. This paper is trying to determine the ISP managers' perceived risks and benefits of IT/IS outsourcing and also the rate of awareness about potential of IT/IS outsourcing. Design/methodology/approach - In order to achieve those aims, we first review the previous literature on this topic and later analyze the results of a survey carried out from 30 ISPs managers in Tehran using the structured interview method.

Findings: According to the ISPs under analysis, the main advantage of IT outsourcing is reducing/controlling the general cost while the main risk is the excessive dependence on the provider. Nevertheless, some characteristics of the ISPs (e.g. their size and outsourcing level) can determine to some extent what risks and benefits are more relevant.

Originality /value: The conclusions explains that total IT/IS outsourcing can turn out to be a very dangerous strategy, mainly due to the dependence it creates. However, it can enable the ISP managers to reduce and/or control the general cost of building a new IT/IS service. The paper investigates the advantages, risks and some dimensions of IT/IS outsourcing decisions in ISPs of Tehran which can potentially develop the services in-house. Therefore, the "make-or-buy" decision for managers of ISPs requires even more attention to these aspects of IT/IS outsourcing (advantages, risks and decision criteria) than other service companies.

Keywords: Information technology, Outsourcing, Risk management, Outsourcing advantages

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Introduction

The momentum for IT outsourcing is becoming almost unstoppable, and the stakes are high. This appears to be an inevitable trend as user firms are increasingly viewing IT not so much as a direct competitive weapon but rather a mere tool for enabling and supporting core business activities. A successful IT outsourcing relationship can help the outsourcing customer to achieve major benefits such as cost-savings, increased flexibility, better quality of services and access to new technology. On the other hand, a poorly assembled arrangement may turn out to be very costly to the outsourcing customer in terms of higher than expected outsourcing bills, loss of control over quality and level of services, compromised information security and poor staff morale. The potential dangers are particularly acute for long-term outsourcing contracts. As the outsourcing contract represents a key mechanism for ensuring a successful contractual relationship between the vendor and the customer, it is important for management to be aware of the main issues involved. Issues such as service level, transfer of assets, staffing, pricing and payment, warranty and liability, dispute resolution mechanism, termination, intellectual property matters, information security together with customers' perceived risks and advantages of IT outsourcing help up to gain a better understanding of these contractual relationship issues. (Lee, 1996)

The rise of information systems/technology outsourcing

Information systems (IS) outsourcing can be defined as the significant contribution made by external providers of physical and/or human resources, associated either with all components or with IT infrastructure specific components in the user's organization (Loh and Venkatraman, 1992). Such a contribution is confined to a contractual agreement that can even entail the assumption of managerial responsibilities linked with the provision of information technology (IT) services by the supplier (Clark et al., 1995). [Using IT infrastructure as an inseparable part of the most recent IS outsourcing contracts, has guided us to use the concepts of IS outsourcing and IT outsourcing interchangeably].

IS/IT outsourcing has experienced a considerable growth in recent years, so much so that some authors suggest we find ourselves in the outsourcing era (King, 2001).

- Judging by the forecast figures offered by some computer market analysts, this growth also seems to be guaranteed at least in the near future (The Yankee Group, 2003).

Customers often lack experience in the signature of outsourcing contracts. This is not the case for providers (Ketler and Walstrom, 1993). Due to this information asymmetry, providers can favour their own position much better.

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For this reason, and despite the growth of IS/IT outsourcing and the multiple reasons justifying it, this trend is still the object of strong criticism sometimes (Gonzales et al., 2005). This is why, this research seeks to identify the risks and benefits perceived to be the most relevant in IS/IT outsourcing in the sector of Iranian internet service providers (ISPs) –while simultaneously evaluating the rate of awareness about a/m advantages, from the customer's point of view.

The originality and value of the paper is investigating the advantages, risks and some dimensions of IT/IS outsourcing decisions in ISPs of Tehran. Another consideration for the current research is the point that - at the time of conducting this study and even up to now – there has been no similar works concentrating on this field particularly for ISPs in Iran.

Literature Review

General Outsourcing Advantages

A characteristic of corporate strategy in developed countries in the last 20 years has been an increasing interest in outsourcing as a potential source of competitiveness and value creation. The earliest outsourcing strategies were largely driven by the desire to lower costs in the face of intensifying global competition, typically by moving low-skilled, labor-intensive, activities offshore to South-East Asia and other low cost locations. In more recent years, there has been a growing awareness of the potential of outsourcing to support a range of strategies beyond that of lower cost. Corporate strategists may not be fully familiar with four of the most promising opportunities for using outsourcing strategies - focus, scale without mass, disruptive innovation, and strategic repositioning (Leavy, 2004):

- **Focus**: The strategy of focusing corporate resources mainly on those activities where clear differentiation can be developed and outsourcing much of the rest, has also served many other companies well. The key often lies in knowing which of the main value drivers to concentrate on - customer intimacy, product leadership or operational excellence. All three are the keys to delivering value to customers, but the organizational capabilities and cultures that promote them are not the same, and often tend to pull in different directions (Traeacy, M. and Wiersema, F., 1993). So, for example, Nike has tended to focus primarily on product leadership and Dell on operational excellence and customer relationship management, and both rely on the competencies of others to help them deliver value in other areas. (Leavy, 2004)
- **Scale without mass**: Another attractive feature of outsourcing is that it offers companies the opportunity to grow in market presence without a corresponding expansion in organizational size or

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bureaucracy. Strategic outsourcing can help a rapidly growing company avoid a premature internal transition from its informal entrepreneurial phase to a more bureaucratic mode of operation. In this way, outsourcing allows firms to retain their entrepreneurial speed and agility, which they would otherwise sacrifice in order to become efficient as they greatly expanded (Leavy, 2004).

- **Disruptive innovation:** The primary aim of most disruptive innovation is to create a whole new segment at a price point below the bottom of the current market and then to dominate this segment as it grows. This usually requires the development of an innovative business model capable of producing overall returns at least as good as those of the leading incumbents, but doing it at significantly lower cost through much higher asset productivity (Christensen, C.M. and Raynor, M.E., 2003). IKEA, Canon and Ryanair were all late entrants into their respective industries, but all succeeded in building substantial market positions through such a strategy, and outsourcing was a common element in the development of a distinctive lower-cost/higher-asset-productivity formula in all three cases (Leavy, 2004).

- **Strategic repositioning:** Strategic repositioning is rarely easy, especially when you are a long-time industry leader like IBM. Yet, one of the biggest strategic bets that Lou Gerstner made as part of the turnaround at IBM in the mid-1990s was that services, not technology, would be the major growth area going forward, particularly in the corporate computing market. As he saw it then: "If customers were going to look to an integrator to help them envision, design, and build end-to-end solutions, then the companies playing that role would exert tremendous influence over the full range of technology decisions - from architecture and applications to hardware and software choices (Gerstner, L.V., 2003)." Traditionally, IBM's strategy had always stressed service as a distinguishing feature of its value proposition, but this was service tied to products. What Gerstner had in mind was consultancy and solutions integration services as a major business driver in its own right. In 1992, service was a $9.2 billion business at IBM - within ten years IBM Global Services had grown into a $30 billion business, employing half the corporation's human resources. Recently, IBM has intensified its commitment to this strategic repositioning, as part of CEO Sam Palmisano's e-business "on-demand" vision (Leavy, 2004).

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Outsourcing Risks in IT/IS Literature

IS/IT outsourcing is a managerial decision that entails various risks and problems, so much so that numerous authors have identified an associated risk for each advantage suggested. Firstly, we can face problems derived from the dependence this service generates. The dependence results from the fact that, in practice, firms find it difficult to quantify and define the information services they need, and besides, those services tend to evolve over time. Therefore, if these services had not been agreed in the original contract, they would have to be charged with an additional rate, thus increasing the total costs (Fowler and Jeffs, 1998); or internal improvements in the customer firm's IS/IT might be neglected (Glass, 1996). This is why, Lacity and Hirschheim (1993) state that external providers are not strategic partners, as the interest in profits is not shared. In other words, when the customer's costs increase, the provider's profits increase, too. Along the same lines, Guterl (1996) suggests that providers would prefer customers have more additional costs, not fewer. The loss of critical skills and competences is another relevant problem. When a service is outsourced, the customer loses his understanding of the service over time. Even though the provider supplies innovative services to the customer, a large part of the new knowledge required remains in the hands of the provider and cannot be transferred to the customer. Worse than that, the firm can lose its capacity to be up to date with technological breakthroughs (Clark et al., 1995). Therefore, the customer needs to retain certain know-how and internal capacities in both technical and managerial areas if he wants to handle the outsourcing relationship properly (Willcocks and Lacity, 1999). Retaining these capacities is the best way to identify and evaluate potential outsourcing risks and also to perform practices that can mitigate those risks (Willcocks et al., 1999, Gonzales et al., 2005).

An additional difficulty is the qualification of the provider's staff. Although in theory, outsourcing provides access to technical knowledge and IS/IT specialists' expertise, what very often happens in practice, is that, the outsourcing firm is supported by the same staff as before (Fowler and Jeffs, 1998; Glass, 1996), as these staff have been transferred from the customer firm to the service-providing firm. Lacity and Hirschheim (1993) warn that many of the outsourcing firms feel they have suffered losses in business knowledge and experience because providers send their most qualified workers to get new customers from other firms in the sector once they have achieved the contract. Besides, providers hardly ever take the initiative when it comes to business strategies; they prefer to follow specific instructions instead (Gonzales et al., 2005).

The provider's lack of compliance with the contract is another possible risk. This problem

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is inherent to any contract: whenever an agent performs tasks for a principal, the principal always runs the risk of the agent not completing the task as expected or of being less vigilant than the principal would be (Clark et al., 1995). Besides, in the case of IS/IT outsourcing, customers' needs may not be properly met, and an inadequate task priority may be established, above all because the provider does not fully understand what the business is all about (Martinsons, 1993; Glass, 1996).

What is more, an unclear cost-benefit relationship might exist within IS/IT outsourcing; after all, performing a cost/benefit analysis for outsourcing is no an easy task. Taking into account all relevant factors and translating them into monetary values is not easy either. For example, some issues include determining how to compare and translate the potentially better service of an outsourcing vendor with the service provided by the internal IS/IT department, and deciding how to measure in economic terms the consequences of an outsourcing vendor failing to deliver products or delivering unacceptable products (Gupta and Gupta, 1992). Before these difficulties, many firms admit that their decision to outsource is only based on the costs of outsourcing, and not on its benefits (Clark et al., 1995), seeing as costs exclusively those fixed in the contract (Gonzales et al., 2005).

Although one of the main theoretical objectives of outsourcing is to control IS/IT costs or flexibilise them by making them become variable, outsourcing may have hidden costs, such as those derived from dismissing or transferring staff, the transfer of licenses by software vendors, etc. These costs are mainly due to ambiguities in the contract, e.g. failing to define present and future IT requirements; applying poor recruitment practices; not allowing providers to obtain reasonable profits and being unable to create mechanisms that protect prices in contingency cases (Willcocks et al., 1995). Summing up, the hidden costs of outsourcing could be the following (Barthe´lemy, 2001):

- Vendor search and contracting – many enterprises underestimate the expense associated with identifying and evaluating suitable IT vendors, selecting a finalist, and negotiating as well as drafting the contract;
- Transitioning to the vendor – it can take months before the vendor knows as much as the internal IT department;
- Costs related to provider management – which imply, amongst other things, verifying that IT vendors fulfill their contractual obligations, bargaining with them, and finally, negotiating any contract changes required; and
- Transition costs after outsourcing – these costs come from switching vendors or resuming IT activities internally.

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We should mention possible security issues, above all when a provider has to serve several direct competitors, which means having to keep confidentiality about the information corresponding to all of them (Grover et al., 1994; Lacity and Hirschheim, 1993). The security of the IS/IT services outsourced will depend on the providing firm, which is why policies and procedures must be negotiated during the outsourcing contract signature process to ensure that IS/IT security objectives (effectiveness, efficiency, adequacy, integrity, validity, authorization, privacy) continue to be fulfilled (Fink, 1994).

Another risk is the often-mentioned irreversibility of the outsourcing decision (Fink, 1994), especially if the user has got rid of the technical and human infrastructure needed to reconstruct his IS/IT in house (Barthe´lemy, 2001; Fowler and Jeffs, 1998). There are three main reasons for this irreversibility: the high costs involved in reconstructing the IS/IT department, the difficulty to attract the necessary staff, and the amount of time required (Clark et al., 1995, Gonzales et al., 2005).

Outsourcing generates various staff-related problems. Therefore, the customer firm will face the possible opposition of the IS/IT staff, who see outsourcing as a threat to their working positions. IS/IT staff may find themselves before a dismissal, a retraining period, or a transfer to the service-providing firm (Grover et al., 1994). This uncertain situation creates anxiety and a feeling of insecurity that may lead to a decrease in employee productivity during the period prior to the signature of the contract or even after the contract has been signed (Palvia, 1995, Gonzales et al., 2005).

When only some staff members are transferred from the customer firm to the provider firm, it has been checked that problems related to lack of motivation arise among those staying in the customer firm. These professionals probably feel offended because they think they are not good enough to belong to a specialist firm like the computer service provider (Willcocks and Fitzgerald, 1996). On the other hand, those who are transferred from one firm to another may suffer various changes that can go from keeping their seniority or any other favourable condition to the need to adapt to a new corporate culture. The status of the IT executives who remain in the customer firm usually improves (Martinsons, 1993), but they must reorient their competence (Corbett, 1994), focusing on external relationships management and dedicating much less time to operations management (Gonzales et al., 2005).

Another type of IT outsourcing risk lies in Application Service Providers (ASPs). Some critics of the ASP model claim that ASP vendors cannot deliver customized, high quality and secured service (HRFocus, 2000). While

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this statement may not be true for all ASP vendors, it does caution IS managers to evaluate carefully the viability of using ASP as an outsourcing method, especially for the mission-critical IT functions. While each organization may have its own list of criteria for making the make or buy decision, the critical function-specific criteria include production cost advantages, transaction costs, asset specificity, internal expertise, maturity/newness of technology, and application media fit (Chen and Soliman, 2002).

Finally, we can refer to the inability to adapt to new technologies. In theory, access to leading-edge technology is a persuasive argument in support of IS/IT outsourcing, as a firm can enjoy the latest technology without the lead time that is customarily required for in-house development (Palvia, 1995). Outsourcing vendors can quickly adapt to machine upgrades and new software releases (Lacity and Hirschheim, 1993). In practice, though, if providers do not find benefits in the adoption of new technologies, they could become reluctant to adopt them, in an attempt to make the service they offer as profitable as possible. What is more, if the outsourcing contract does not include a clause relative to the future technological evolution, then that evolution will not be completed (Glass, 1996).

Gonzalez, Gasco and Liopid (2005) believe that the main activities related to IS or IT departments which may be outsourced are: Application analysis, Support to end users, Staff and/or user training, Systems implementation, Hardware maintenance, Software maintenance, Systems Operation, Programming, Network Security, Network service and E-business solutions (EC, CRM, SCM, etc).

Based of a/m literature the main advantages (benefits) of IS/IT outsourcing are: Reducing/Controlling the General Cost, Shortened time – to – market (Flexibility), Overcoming lack of internal expertise, Achieving to needed scalability without mass, General risk reduction, Focus on core competence, Disruptive innovation and Strategic repositioning.

We also found that the possible risky conditions which customers may encounter include: Hidden costs in the contract, Qualification of provider's staff, Not achieving desired customization, A great dependence on the provider, The provider's unreliability, The provider does not comply with the contract, The provider's inability to quickly adapt to new technology, Irreversibility of the outsourcing decision, Loss of critical skills and competences, Unclear cost-benefit relationship, A possible opposition/resistance of IT/IS staff and Security issues.

Research Methodology

After identifying IT/IS outsourcing risks & advantages in the literature, we will explore how

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they apply to the ISPs of Tehran. There were two reasons for forming the study by ISPs:

- ISPs can offer different online new services such as ADSL, dial up internet connections, VOIP, etc. Therefore, clarifying the outsourcing decisions can be applied as a solution for decreasing the complexity of New E-service Development Process.
- The target population had to be familiar with the concept of IT/IS services and outsourcing contracts. While ISPs are a sort of IT companies, it was important to analyze to what extent they face with this dilemma: "building the IT/IS service in house ***or*** entering a new partnership (outsourcing)." So, we found ISP companies as a reasonable population for this study.

To provide the consistency of judgment about IT outsourcing advantages & risks, we decided to select the "structured interview" as the best method for data collection. Since interviewing from a big sample of Iranian ISPs population was too costly and time consuming, we focused on ISPs of Tehran. There were 190 authorized ISPs in Tehran at the time of data gathering. The selected sampling method was simple random.

Sample Size

Basically, when we want to estimate a proportion and we don't have a pre-estimation of $\overline{P}$, we can use the formula 1 with the following assumptions:

- ❖ Sample selection method is simple random
- ❖ Standard deviation of population was determined by performing a pilot test.

With due consideration to above, the sample size has been determined with a precision rate of 0.5% and confidence level of 95%, based on the following calculation:

$$n = \frac{Z^2_{\alpha/2}\sigma^2}{E^2} \qquad \text{Formula (1)}$$

In which:

n = Sample size;

Z = is read from normal distribution table at a given confidence level which is 1.96 for 95% CL.

σ = Since we did not have a pre-estimation of Standard deviation of our population, we used the pilot test feed back (5 records) for the variable "Outsourcing Level" for estimating the Std. deviation. For this small sample of 5 records, the Std. deviation was approximately 0.32.

E = Maximum error (which was considered as 0.1 in this study)

Hence, the sample size is:

$$n = \frac{(1.96)^2 (0.32)^2}{(0.1)^2} = 39.34 \approx 40$$

Hence, the selected sample size equaled to 40.

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The study was conducted by a structured interview. The developed sample questionnaire of the study is enclosed in appendix A. The structure and almost ¾ of the questions is adapted from the main reference in the literature (Gonzales et al., 200). From the chosen sample, 8 of the service customers (who were ISP managers in our study) were reluctant to participate in the interview and 2 of the interview questionnaires were partly answered and discarded from the study. 30 records were applied for the research analysis.

For our statistical analysis, we had to use some techniques to investigate the relationship between variables. Since the customers' perceived risks and benefits include some nominal and binary (yes, no) variables, the main applicable hypothesis is "chi-square" model.

The information obtained in the questionnaires was later elaborated using the statistical programs SPSS and Minitab for windows treated with univariant and multivariant statistical methods. Table 1 shows the study specifications.

Table 1 Study Technical Specifications

Scope	Islamic Republic of Iran
Population	190 Internet Service Providers of Tehran
Sample size	40
Response rate	75% (30 questionnaires)
Survey date	October , 2005

Results

We will now present the result of empirical work; firstly, we are going to show some general features of the firms, such as their outsourcing level size and annual sales. Then we will be able to check the risks and benefits involved in outsourcing decision and whether these risks and benefits are influenced by above-mentioned specifications. We will finally provide a typology of the ISPs, according to which risks and benefits are the most important for outsourcing.

General characteristics of the ISPs

Table 2 shows the outsourcing levels of the target ISPs along with some of their general specifications. The variable "outsourcing" reflects the sum of the outsourcing percentages of each IS/IT activity: if sum equals zero, then there is no outsourcing; on the contrary, if the result of this sum is more than zero, then outsourcing exists. While about 93.3% of the respondents were aware about at least one advantage of IT outsourcing, Table 2 shows that 96.67 percent of the sample companies had

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outsourced to some extent and only 3.33 percent had not outsourced any IT activities. The variable "outsourcing level" helps us to determine whether ISPs' higher or lower outsourcing level restricts the risks and benefits they consider.

Table 2 General Characteristics of the ISPs

	n= 30	%
Awareness		
No	2	6.67
Yes	28	93.33
Outsourcing		
No	1	3.33
Yes	29	96.67
Outsourcing level		
Below the mean	16	53.33
Above the mean	14	46.67
Staff		
0-5	7	23.33
6-10	4	13.33
11-20	4	13.33
21-50	7	23.33
More than 50	8	26.67
Sales (millions of Rials)		
until 50	7	23.33
More than 50 and less than 100	4	13.33
More than 100 and less than 500	4	13.33
More than 500 and less than 1000	3	10.00
More than 1000	12	40.00

The ranking of the outsourcing activities in the studied ISPs is given in Table 3.

Table 3 shows that e-business solutions is the main outsourcing activity. Programming comes next and system operation is the least important activity for outsourcing.

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Table 3 Summery of Outsourcing IT Activities Analysis

IT Activity	Total	Mean % of outsourcing	Rank
E-business solutions	1270	42.33	1
Programming	1095	36.50	2
Other activities (webpage design, e-advertising, etc)	630	21.00	3
Systems implementation	505	16.83	4
Support to end users	390	13.00	5
Software maintenance	385	12.83	6
Staff and/or user training	380	12.67	7
Network service	330	11.00	8
Hardware maintenance	265	8.83	9
Application analysis	195	6.50	10
Network security	150	5.00	11
Systems operation	50	1.67	12

Outsourcing advantages & risks

Tables 4 and 5 show the benefits and risks of IS/IT outsourcing contracts. The list of advantages & risks are based on the literature and a pilot test carried out by five primary interviews form ISP managers to assure the validity and reliability of the questionnaire. The resulting variables were consequently dichotomical, with a zero value when a specific advantage or risk was not mentioned, and a one value when it is. *n* in the table stands for the number of times interviewees mentioned a particular risk or advantage in response.

Table 4 shows that the "Reducing/ controlling the general cost of IT services" is the main advantage of IT outsourcing. "Overcoming lack of internal expertise", "Shortened time to market", "Focus on core competence", "General risk reduction" and "Improving service quality" come next.

Table 5 shows that the main risk of any IT/IS outsourcing contract is "A great dependence on the provider" for ISPs of Tehran. The next major risks are "Security issues", "Strategic alliance failure", "Hidden costs in the contracts" and "Not achieving to desired customization". A very surprising result is that the "provider does not comply with the contract" perceived the least risk, even though the lack of contract compliance may put the managers in a dangerous situations and result in an unreliable solution.

We then carried out other series of test to determine whether the variables such as "outsourcing level, size, annual sales and age" can condition the selection of IT outsourcing benefits and risks.

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Tables 6-13 show the summary of chi-square tests between some characteristics of the firms (X: outsourcing level, size, annual sales and age) and Y: of IT outsourcing advantages & risks.

The general hypothesis is as follows:

H_0: Variable x and y are independent

H_1: Variable x and y are dependent.

From the statistical point of view the smaller the P-value, the more confident we can reject the null hypothesis.

Failing to accept the null hypothesis leads to accepting the alternative hypothesis. Based on the contingency tables of chi-square test, we can define the type of relationship between the variables.

Table 4 Ranking of IT Outsourcing Benefits Based on Selection Frequencies

Advantages	n	% valid	Rank
Reducing/Controlling the general cost	30	100.00	1
Overcoming lack of internal expertise	24	80.00	2
Shortened time to market (Flexibility)	23	76.67	3
Focus on core competence	22	73.33	4
General risk reduction	20	66.67	5
Improving service quality	18	60.00	6
Strategic repositioning	16	53.33	7
Achieving to needed scalability without mass	10	33.33	8
Increasing the productivity	8	26.67	9
Disruptive innovation	5	16.67	10
Others (e.g. dealing with legal limitations)	5	16.67	11

Table 5 Ranking of IT Outsourcing Risks Based on Selection Frequencies

Risks	N	% valid	Rank
A great dependence on the provider	26	86.67	1
Security issues	22	73.33	2
Strategic alliance failure	20	66.67	3
Hidden costs in the contract	19	63.33	4
Not achieving to desired customization	17	56.67	5
Qualification of the provider's staff	13	43.33	6
The provider's inability to quickly adapt to new technology	13	43.33	7
Irreversibility of the outsourcing decision	13	43.33	8
Unclear cost-benefit relationship	13	43.33	9
Other risks (e.g. customer bypassing)	13	43.33	10
A Possible opposition/resistance of IT/IS staff	11	36.67	11
The provider's unreliability	11	36.67	12
Loss of critical skills and competences	11	36.67	13
The provider does not comply with the contract	9	30.00	14

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Table6 Relationship between Outsourcing Level and Outsourcing Perceived Benefits.

Outsourcing level → / Outsourcing perceived benefits ↓		Below the mean %	Above the mean %	Chi-square	P-value
Shortened time to market (Flexibility)	Yes	52.17	47.83	0.053	0.818
	No	57.14	42.86		
Overcoming lack of internal capacity	Yes	45.83	54.17	2.712	0.1
	No	83.33	16.67		
Achieving needed scalability without mass	**Yes**	**90.00**	**10.00**	**8.103**	**0.004**
	No	**35.00**	**65.00**		
General risk reduction	Yes	50.00	50.00	0.268	0.605
	No	60.00	40.00		
Focus on core competence	Yes	54.55	45.45	0.049	0.825
	No	50.00	50.00		
Disruptive innovation	Yes	80.00	20.00	1.714	0.19
	No	48.00	52.00		
Strategic repositioning	**Yes**	**87.50**	**12.50**	**16.081**	**0**
	No	**14.29**	**85.71**		
Improving service quality	Yes	50.00	50.00	0.201	0.654
	No	58.33	41.67		
Increasing the productivity	Yes	50.00	50.00	0.049	0.825
	No	54.55	45.45		
Others	**Yes**	**100.00**	**0.00**	**5.25**	**0.022**
	No	**44.00**	**56.00**		

Results of chi-square analysis

The result of chi-square analysis for determining the relationship between the outsourcing levels and perceived benefits is given in Table 6. It shows that there are significant associations between outsourcing level and "Achieving needed scalability without mass", "Strategic repositioning" and "other advantages" at 95% confidence level. The table also clarifies that:

- The ISPs which outsource their IT activities less than average care more about the "Achieving to needed scalability without mass", "strategic repositioning" and "other benefits (e.g. legal limitations".

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Table 7 Relationship Between Outsourcing Level and Outsourcing Perceived Risks

Outsourcing level → / Outsourcing perceived Risks ↓		Below the mean %	Above the mean %	Chi-square	P-value
Hidden costs in the contract	**Yes**	**68.42**	**31.58**	**4.739**	**0.029**
	No	**27.27**	**72.73**		
Qualification of provider's staff	Yes	53.85	46.15	0.002	0.961
	No	52.94	47.06		
Not achieving desired customization	Yes	52.94	47.06	0.002	0.961
	No	53.85	46.15		
A great dependence on the provider	Yes	50.00	50.00	0.871	0.351
	No	75.00	25.00		
The provider unreliability	Yes	54.55	45.45	0.01	0.919
	No	52.63	47.37		
The provider does not comply with the contract	Yes	66.67	33.33	0.918	0.338
	No	47.62	52.38		
Provider's inability to quickly adapt to new Tech.	**Yes**	**15.38**	**84.62**	**13.274**	**0**
	No	**82.35**	**17.65**		
Irreversibility of outsourcing decision	**Yes**	**84.62**	**15.38**	**9.02**	**0.003**
	No	**29.41**	**70.59**		
Loss of critical skills and competences	Yes	36.36	63.64	2	0.156
	No	63.16	36.84		
Unclear cost-benefit relationship	Yes	38.46	61.54	2.039	0.153
	No	64.71	35.29		
Strategic alliance failure	Yes	63.16	36.84	0.889	0.346
	No	45.45	54.55		
Security issues	**Yes**	**40.91**	**59.09**	**5.117**	**0.024**
	No	**87.50**	**12.50**		
A possible opposition/resistance of IT/IS staff	Yes	36.36	63.64	2.01	0.156
	No	63.16	36.84		
Other risks	Yes	46.15	53.85	0.475	0.491
	No	58.82	41.18		

Table 7 shows that there are significant associations between outsourcing level and "hidden costs in the contract", "provider's inability to quickly adapt to new technology", "irreversibility of outsourcing decision" and "security issues" at 95% confidence level. The table also clarifies that:

- The ISPs which outsource less than average fear more from "hidden costs in the contracts" and "irreversibility of outsourcing decision" risks.
- The ISPs which outsource more than average fear more from "provider's inability to quickly adapt to new technology", "security issues", and "possible IT/IS staff resistance".

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

Table 8 Chi-Square Test for Staff and Outsourcing Perceived Benefits

Staff → / Outsourcing perceived benefits ↓		Very small %	Small %	Average %	Large %	Very large %	Chi-square	P-value
Shortened time to market (Flexibility)	**Yes**	**13.33**	**10.00**	**3.33**	**23.33**	**26.67**	**12.032**	
	No	**10.00**	**3.33**	**10.00**	**0.00**	**0.00**		
Overcoming lack of internal capacity	Yes	13.33	6.67	13.33	23.33	23.33	7.567	
	No	10.00	6.67	0.00	0.00	3.33		
Achieving to needed scalability without mass	**Yes**	**6.67**	**3.33**	**0.00**	**0.00**	**23.33**	**16.259**	**0.003**
	No	**16.67**	**10.00**	**13.33**	**23.33**	**3.33**		
General risk reduction	Yes	16.67	10.00	13.33	13.33	13.33	3.482	0.481
	No	6.67	3.33	0.00	10.00	13.33		
Focus on core competence	Yes	20.00	10.00	6.67	20.00	16.67	2.697	0.61
	No	3.33	3.33	6.67	3.33	10.00		
Disruptive innovation	**Yes**	**3.33**	**0.00**	**0.00**	**0.00**	**13.33**	**9.429**	
	No	**20.00**	**13.33**	**13.33**	**23.33**	**13.33**		
Strategic repositioning	**Yes**	**16.67**	**10.00**	**0.00**	**3.33**	**23.33**	**14.287**	**0.006**
	No	**6.67**	**3.33**	**13.33**	**20.00**	**3.33**		
Improving service quality	**Yes**	**6.67**	**6.67**	**13.33**	**6.67**	**26.67**	**13.929**	**0.008**
	No	**16.67**	**6.67**	**0.00**	**16.67**	**0.00**		
Increasing the productivity	Yes	3.33	3.33	0.00	6.67	13.33	4.249	0.373
	No	20.00	10.00	13.33	16.67	13.33		
Others	**Yes**	**0.00**	**0.00**	**0.00**	**0.00**	**16.67**	**16.50**	
	No	**23.33**	**13.33**	**13.33**	**23.33**	**10.00**		

Table 8 shows that there are significant associations between staff and "shortened time to market", "achieving to needed scalability without mass", "disruptive innovation", "strategic repositioning", " improving service quality" and "other benefits" at 95% confidence level. The table also clarifies that:

- The large Iranian ISPs care more about "shortened time to market", "Achieving to needed scalability", "disruptive innovation", "Improving service quality", and "other" risks.
- The small Iranian ISPs care more about "strategic repositioning".

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

Table 9 Chi-Square Test for Staff and Outsourcing Perceived Risks

Staff → / Outsourcing perceived risks ↓		Very small %	Small %	Average %	Large %	Very large %	Chi-square	P-value
Hidden costs in the contract	**Yes**	**13.33**	**10.00**	**13.33**	**0.00**	**26.67**	**19.388**	**0.001**
	No	**10.00**	**3.33**	**0.00**	**23.33**	**0.00**		
Qualification of provider's staff	Yes	6.67	3.33	0.00	13.33	20.00	8.736	0.068
	No	16.67	10.00	13.33	6.67	6.67		
Not achieving desired customization	**Yes**	**16.67**	**6.67**	**13.33**	**13.33**	**3.33**	**9.839**	**0.043**
	No	**6.67**	**6.67**	**0.00**	**10.00**	**23.33**		
A great dependence on the provider	Yes	23.33	13.33	13.33	23.33	10.00	**14.583**	
	No	0.00	0.00	0.00	0.00	13.33		
The provider unreliability	Yes	6.67	3.33	0.00	13.33	13.33	4.624	0.328
	No	16.67	10.00	13.33	10.00	13.33		
The provider does not comply with the contract	Yes	6.67	6.67	6.67	0.00	13.33	5.141	0.273
	No	16.67	6.67	6.67	23.33	16.67		
Provider's inability to quickly adapt to new Tech.	**Yes**	**3.33**	**3.33**	**13.33**	**23.33**	**0.00**	**23.455**	**0.00**
	No	**20.00**	**10.00**	**0.00**	**0.00**	**26.67**		
Irreversibility of the outsourcing decision	Yes	**13.33**	**13.33**	**0.00**	**0.00**	**16.67**	**15.383**	**0.004**
	No	**10.00**	**0.00**	**13.33**	**23.33**	**10.00**		
Loss of critical skills and competences	**Yes**	**6.67**	**0.00**	**13.33**	**3.33**	**13.33**	**11.545**	**0.021**
	No	**16.67**	**13.33**	**0.00**	**20.00**	**13.33**		
Unclear cost-benefit relationship	Yes	3.33	6.67	13.33	13.33	6.67	9.347	0.053
	No	20.00	6.67	0.00	10.00	20.00		
Strategic alliance failure	**Yes**	**20.00**	**10.00**	**0.00**	**16.67**	**20.00**	**9.589**	**0.048**
	No	**3.33**	**3.33**	**13.33**	**6.67**	**6.67**		
Security issues	Yes	16.67	6.67	13.33	20.00	16.67	3.610	0.461
	No	6.67	6.67	0.00	3.33	10.00		
A possible opposition/resistance of IT/IS staff	**Yes**	**0.00**	**0.00**	**3.33**	**16.67**	**16.67**	**12.544**	**0.014**
	No	**23.33**	**13.33**	**10.00**	**6.67**	**10.00**		
Other risks	Yes	3.33	3.33	3.33	13.33	16.67	5.223	0.265
	No	20.00	10.00	10.00	10.00	10.00		

Table 9 shows that there are significant associations between staff and "hidden costs in the contract", "not achieving to desired customization", "a great dependence on the provider", "provider's inability to quickly adapt to new technology", "irreversibility of outsourcing decision", "loss of critical skills and competences", "strategic alliance failure" and "a possible opposition/resistance of IT/IS staff" at 90% confidence level. The table also clarifies that:

- The bigger Iranian ISPs fear more from "the provider's inability to quickly adapt to new technology", "loss of critical skills and competences", "Strategic alliance

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

failure" and "A possible opposition/ resistance of IT/IS staff".

- The Smaller Iranian ISPs fear more from "hidden costs in the contracts", "not achieving to desired customization", "irreversibility of outsourcing decisions" and "a great dependence to the provider".

Table 10 Chi-Square Test for Sales and Outsourcing Perceived Benefits

Sales → / Outsourcing perceived benefits ↓		Very Poor %	Poor %	Medium %	Rich %	Very Rich %	Chi-square	P-value
Shortened time – to – market	Yes	16.67	6.67	10.00	6.67	36.67	3.381	
	No	6.67	6.67	3.33	3.33	3.33		
Overcoming lack of internal expertise & capacity	**Yes**	**16.67**	**3.33**	**13.33**	**10.00**	**36.67**	**10.655**	
	No	**6.67**	**10.00**	**0.00**	**0.00**	**3.33**		
Achieving to needed scalability without mass	Yes	10.00	0.00	3.33	3.33	16.67	2.786	0.594
	No	13.33	13.33	10.00	6.67	23.33		
General risk reduction	Yes	20.00	6.67	6.67	6.67	26.67	2.143	0.710
	No	3.33	6.67	6.67	3.33	13.33		
Focus on core competence	Yes	20.00	10.00	6.67	6.67	30.00	1.753	
	No	3.33	3.33	6.67	3.33	10.00		
Disruptive innovation	Yes	3.33	0.00	0.00	3.33	10.00	2.829	
	No	20.00	13.33	13.33	6.67	30.00		
Strategic repositioning	Yes	23.33	3.33	6.67	3.33	16.67	8.571	0.073
	No	0.00	10.00	6.67	6.67	23.33		
Improving service quality	Yes	6.67	6.67	10.00	6.67	26.67	3.481	0.481
	No	16.67	6.67	3.33	3.33	13.33		
Increasing the productivity	Yes	3.33	3.33	3.33	0.00	16.67	3.032	
	No	20.00	10.00	10.00	10.00	23.33		
Other	Yes	0.00	0.00	3.33	0.00	13.33	5.400	
	No	23.33	13.33	10.00	10.00	26.67		

Table 10 shows that there are significant associations between sales and "overcoming lack of internal expertise & capacity" at 95% confidence level. The table also clarifies that:

- The Iranian ISPs which sell more than average care more about "overcoming lack of internal expertise & capacity".

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

Table 11 Chi-Square Test for Sales and Outsourcing Perceived Risks

Sales → / Outsourcing perceived risks ↓		Very poor %	Poor %	Medium %	Rich %	Very Rich %	Chi-square	P-value
Hidden costs in the contract	Yes	13.33	10.00	6.67	6.67	23.33	0.635	0.959
	No	10.00	3.33	6.67	3.33	16.67		
Qualification of provider's staff	Yes	10.00	0.00	6.67	3.33	23.33	3.847	0.427
	No	13.33	13.33	6.67	6.67	20.00		
Not achieving desired customization	Yes	23.33	3.33	6.67	3.33	20.00	7.941	0.094
	No	0.00	10.00	6.67	6.67	20.00		
A great dependence on the provider	Yes	23.33	13.33	10.00	10.00	30.00	4.038	
	No	0.00	0.00	3.33	0.00	10.00		
The provider unreliability	Yes	10.00	0.00	6.67	0.00	20.00	5.393	0.249
	No	13.33	13.33	6.67	10.00	20.00		
The provider does not comply with the contract	Yes	10.00	3.33	3.33	6.67	6.67	3.583	
	No	13.33	10.00	10.00	3.33	33.33		
Provider's inability to quickly adapt to new Tech.	Yes	3.33	3.33	10.00	6.67	20.00	5.469	0.242
	No	20.00	10.00	3.33	3.33	20.00		
Irreversibility of the outsourcing decision	Yes	13.33	13.33	3.33	0.00	13.33	9.105	0.059
	No	10.00	0.00	10.00	10.00	26.67		
Loss of critical skills and competences	Yes	3.33	3.33	6.67	6.67	16.67	3.342	0.502
	No	20.00	10.00	6.67	3.33	23.33		
Unclear cost-benefit relationship	Yes	3.33	6.67	6.67	3.33	23.33	3.772	0.438
	No	20.00	6.67	6.67	6.67	16.67		
Strategic alliance failure	Yes	23.33	6.67	10.00	3.33	23.33	6.000	0.199
	No	0.00	6.67	3.33	6.67	16.67		
Security issues	Yes	16.67	6.67	13.33	10.00	20.00	3.718	0.445
	No	6.67	6.67	0.00	6.67	20.00		
A possible opposition/resistance of IT/IS staff	**Yes**	**0.00**	**0.00**	**10.00**	**3.33**	**23.33**	**9.832**	
	No	**23.33**	**6.67**	**3.33**	**6.67**	**16.67**		
Other risks	**Yes**	**0.00**	**10.00**	**6.67**	**3.33**	**20.00**	**11.884**	**0.018**
	No	**23.33**	**3.33**	**6.67**	**6.67**	**3.33**		

Table 11 shows that there are significant associations between sales and "a possible opposition/resistance of IT/IS staff" and "other risks" at 90% confidence level. The table also clarifies that:

- The Iranian ISPs which sell less than average fear more from "other risks" (e.g. vendor bypassing by customer).
- The Iranian ISPs which sell more than average fear more from "a possible opposition/resistance of IT/IS staff (Decreasing the loyalty)".

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

Table 12 Relationship Between Age and Outsourcing Perceived Benefits

Age → Outsourcing perceived benefits ↓		Below the mean %	Above the mean %	Chi-square	P-value
Shortened time – to – market	Yes	33.33	43.33	1.677	0.195
	No	16.67	6.67		
Overcoming lack of internal expertise & capacity	Yes	33.33	46.67	3.333	0.068
	No	16.67	3.33		
Achieving to needed scalability without mass	Yes	20.00	13.33	0.600	0.439
	No	30.00	36.67		
General risk reduction	Yes	33.33	33.33	0.000	1.000
	No	16.67	16.67		
Focus on core competence	Yes	40.00	33.33	0.682	0.409
	No	10.00	16.67		
Disruptive innovation	Yes	3.33	13.33	2.160	0.142
	No	46.67	36.67		
Strategic repositioning	**Yes**	**36.67**	**16.67**	**4.821**	**0.028**
	No	**13.33**	**33.33**		
Improving service quality	Yes	26.67	33.33	0.556	0.456
	No	23.33	16.67		
Increasing the productivity	Yes	6.67	20.00	2.727	0.099
	No	43.33	30.00		
Other Benefits	Yes	10.00	6.67	0.240	0.624
	No	40.00	43.33	1.677	0.195

Table 12 shows that there are significant associations between age and "strategic repositioning" at 95% confidence level. The table also clarifies that:

- The younger Iranian ISPs care more about "Strategic repositioning".

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

Table 13 Relationship between Age and Outsourcing Perceived Risks

Age → / Outsourcing perceived Risks ↓		Below the mean %	Above the mean %	Chi-square	P-value
Hidden costs in the contract	Yes	40.00	23.33	3.589	0.058
	No	10.00	26.67		
Qualification of provider's staff	Yes	20.00	23.33	0.136	0.713
	No	30.00	26.67		
Not achieving desired customization	Yes	30.00	26.67	0.136	0.713
	No	20.00	23.33		
A great dependence on the provider	Yes	40.00	46.67	1.154	0.283
	No	10.00	3.33		
The provider unreliability	Yes	20.00	16.67	0.144	0.705
	No	30.00	33.33		
The provider does not comply with the contract	Yes	16.67	13.33	0.159	0.690
	No	33.33	36.67		
Provider's inability to quickly adapt to new Tech.	**Yes**	**10.00**	**33.33**	**6.652**	**0.010**
	No	**40.00**	**16.67**		
Irreversibility of the outsourcing decision	**Yes**	**36.67**	**6.67**	**10.995**	**0.001**
	No	**13.33**	**43.33**		
Loss of critical skills and competences	Yes	16.67	16.67	0.000	1.000
	No	33.33	33.33		
Unclear cost-benefit relationship	Yes	16.67	26.67	1.222	0.269
	No	33.33	23.33		
Strategic alliance failure	Yes	36.67	30.00	0.600	0.439
	No	13.33	20.00		
Security issues	Yes	33.33	40.00	0.682	0.409
	No	16.67	10.00		
A possible opposition/resistance of IT/IS staff	Yes	13.33	23.33	1.292	0.256
	No	36.67	26.67		
Other risks	Yes	20.00	23.33	0.136	0.713
	No	30.00	26.67		

Table 13 shows that there are significant associations between "age" and "provider's inability to quickly adapt to new technology" and "irreversibility of outsourcing decision" at 95% confidence level. The table also clarifies that:

- The older Iranian ISPs fear more from "the provider's inability to quickly adapt to new technology".
- The younger Iranian ISPs fear more from "irreversibility of the outsourcing decision" and "irreversibility of outsourcing decision".

Summary of the Results

The key findings of the study are summarized in Tables 14-17:

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

Table 14 Outsourcing Level and Outsourcing Perceived Benefits & Risks

	High outsourcing level	**Low outsourcing level**
Advantages:		**1- Achieving to needed scalability without mass** **2- Other benefits (e.g. ease of dealing with legal rules and authorities, tenders and customer expectations.**
Risks:	**1- Provider's inability to quickly adapt to new technology** **2- Security issues**	**1- Hidden costs in the contract** **2- Irreversibility of outsourcing decisions**

Table 15 Size of the company and outsourcing perceived benefits & risks

	Large ISPs	**Small to medium ISPs**
Advantages:	1- Shortened time to market (business process flexibility) 2- Achieving to needed scalability without mass 3- Disruptive innovation 4- Improving service quality 5- Other benefits	**strategic repositioning**
Risks:	**1- Provider's inability to quickly adapt to new technology** **2- Loss of critical skills & competences** **3- Strategic alliance failure** **4- A possible resistance of internal IT/IS staff**	**1- Hidden costs in the contracts** **2- Not achieving desired customization** **3- Irreversibility of outsourcing decision** **4- A great dependence to the provider**

Table 16 Sales and outsourcing perceived benefits & risks

	High annual sales	**Low annual sales**
Advantages:	Overcoming lack of internal expertise & resources	
Risks:	**A possible opposition/resistance of IT/IS staff (decreasing the loyalty)**	

Table 17 Age and outsourcing perceived benefits & risks

	Old establishments	**Recent establishments**
Advantages:		**Strategic repositioning**
Risks:	**The provider's inability to quickly adapt to new technology**	**Irreversibility of decision**

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

Conclusions

In summary, the study shows that, for an IT service provider manager who wants to sign a contract with a small ISP (in terms of Staff No.) in Tehran, he would better know that the ISP manager might fear from risks of "hidden costs in the contracts, not achieving desired customization, irreversibility of outsourcing decision and a great dependence to the provider" (Table 15). However, the "strategic repositioning" is the most important advantage for the ISP manager.

Table 2 shows that 93.33% of the Iranian ISP managers are aware of at least one IT outsourcing advantage in their business.

We also found that "e-business solutions", "programming" and "webpage design and e-advertising" are the main outsourcing activities from ISPs managers' point of view. (Table 3)

The "reducing/controlling the general cost of IT services", "overcoming lack of internal expertise", "shortened time to market", "focus on core competence", "general risk reduction" and "improving service quality" were respectively the main advantages of IT outsourcing.

However, the main risks of any IT/IS outsourcing contract were "a great dependence on the provider", "security issues", "strategic alliance failure", "hidden costs in the contracts" and "not achieving to desired customization" for ISPs of Tehran. (Table 5)

Further, this study shows that "a great dependence on the provider" is the major risk of IT outsourcing decisions and Iranian IT/IS managers should be aware of this key point in their contracting decisions. However, this result is consistent with the finding of the Gonzales et al. (2005) and confirms the idea that total IT/IS outsourcing can turn out to be a very dangerous strategy, mainly due to the dependence it creates. This is why ISP managers should consider other alternatives such as having multiple providers or resorting to selective outsourcing.

It becomes important in the IT/IS outsourcing contracts to make sure that customer-provider relationships are not only based on mutual trust and understanding (although they both are essential and cooperation scheme). The relationship must be additionally based on a well-structured contract, and the customer firm must be also permanently vigilant about the delivery of the outsourced services. In any case, ISPs must be aware of the need to retain some specific key knowledge in-house if they really want the outsourcing relationship to work satisfactory for the customer.

Further research opportunities

Although the main statistical technique used in this study is chi-square model, researchers have the choice of using some more novel techniques in analyzing tables (e.g. Table 6, 7 etc.) such as Logistic Regression Model to investigate the relationship between outsourcing level and customer perceived risks and befits. This will help the reliability of conducting similar studies in the future.

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Appendix A

Interview Questionnaire

IT Outsourcing – Benefits & Risks

Do you believe to any benefits (advantages) for IT *outsourcing*?

☐ Yes ☐ No If yes, could you mention any of them?

1. If the above answer is yes, then which of the following activities is carried out through *outsourcing up to now (or there is a significant tendency for outsourcing in near future)*?

Percentage		Percentage	
%	Application analysis	%	Systems Operation
%	Support to end users	%	Programming
%	Staff and/or user training	%	Network Security
%	Systems implementation	%	Network service
%	Hardware maintenance	%	E-business solutions (EC, CRM, SCM, BPR, etc)
%	Software maintenance	%	Others (Please indicate)

2. Now, considering the answer of first question put a star (*) on more relevant advantages of IT outsourcing in your business. Then select the most important advantage.

☐	Reducing/Controlling the General Cost	☐	Focus on core competence
☐	Shortened time – to – market (Flexibility)	☐	Disruptive innovation
☐	Overcoming lack of internal expertise & capacity	☐	Strategic repositioning
☐	Achieving to needed scalability without mass	☐	Improving service quality

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☐ General risk reduction

☐ Increasing the productivity

3. Put a star (*) on the more relevant causes for reservations (risks) in your business appearing when the time arrives to decide whether to outsource or not. Then select the most important risk.

☐ Hidden costs in the contract
☐ Qualification of provider's staff
☐ Not achieving desired customization
☐ A great dependence on the provider
☐ The provider unreliability
☐ The provider does not comply with the contract
☐ The provider's inability to quickly adapt to new technology
☐ Irreversibility of the outsourcing decision
☐ Loss of critical skills and competences
☐ Unclear cost-benefit relationship
☐ Strategic alliance failure
☐ Security issues
☐ A possible opposition/resistance of IT/IS staff (Decreasing the Loyalty)
☐ Other (Please indicate)

The organization's profile

4. The organization's size (year 2005) and its age.

Staff

☐ 0-5
☐ 6-10
☐ 11-20
☐ 21-50
☐ More than 50

Sales (millions of Rials)

☐ Until 50
☐ More than 50 and less than 100
☐ More than 100 and less than 500
☐ More than 500 and less than 1000
☐ More than 1000

Date of creation:

Total Investment:

[DOR: 20.1001.1.25382640.2009.16.1.2.1]

قراردادهای برون سپاری فناوری اطلاعات – مزایا و ریسکها

مطالعه ISP های تهران

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تاریخ دریافت:۱۳۸۵/۲/۵ تاریخ پذیرش:۱۳۸۷/۲/٤

امروزه مدیران سرتاسر دنیا به قراردادهای برون سپاری (outsourcing) به عنوان منبعی برای ایجاد مزیت رقابتی و ارزش افزوده علاقهای روزافزون نشان میدهند. از میان طیف وسیع قراردادهای برون سپاری در بخش خدمات، قراردادهای مربوط به برون سپاری تمام یا بخشی از فناوری (سیستم) اطلاعاتی شرکتها جزء رایجترین و مفیدترین نوع این نوع قراردادهاست. به منظور تجزیه و تحلیل رابطه بین پیمانکار و کارفرما در این قراردادها، تنگناهای مدیریتی بسیاری باید مورد موشکافی قرار گیرند. این مقاله تلاش میکند تا مزایا و ریسکهای برون سپاری سیستمهای اطلاعاتی را از دیدگاه مدیران ISP های تهران در مقام کارفرما – و نه پیمانکار- به خوانندگان عرضه نماید. ضمن آنکه نرخ آگاهی از مزایای این قراردادها نیز مورد بررسی قرار میگیرد.

یافتههای این تحقیق نشان میدهد که مهمترین مزیت برون سپاری فناوری اطلاعات از دید مدیران ISP ها "کنترل/کاهش هزینههای کلی ایجاد یک سرویس IT" و مهمترین ریسک آن "وابستگی زیاد به پیمانکاران سرویسهای IT" میباشد. همچنین ۹۳,۳ درصد از مدیران حداقل از یکی از مزایای این قراردادها مطلع میباشند. ضمن آنکه برخی از خصوصیات شرکتها همچون سایز، سطح برون سپاری و میزان فروش، در نوع مزایا و ریسکهای مورد نظر مدیران در قراردهای برون سپاری IT تعیین کننده میباشند.

واژگان کلیدی: فناوری اطلاعات، برون سپاری، مدیریت ریسک

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