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Sumário

Editorial

SOBRE AS PERSPECTIVAS DA RESI E O CONTEÚDO DESTA EDIÇÃO
Alexandre Reis Graeml

Foco nas organizações

MITIGAÇÃO DE RISCO NA TERCEIRIZAÇÃO DA TECNOLOGIA DE INFORMAÇÃO
Edmir Parada Vasques Prado

CRITICAL ENTERPRISE SOFTWARE CONTRACTING ISSUES: RIGHTS, ASSURANCES AND RESPONSIBILITIES
Jacques Verville, Ned Kock, Nazim Taskin

DESENVOLVIMENTO DE UM CONJUNTO DE PROCESSOS DE GOVERNANÇA DE TECNOLOGIA DE INFORMAÇÃO PARA UMA INSTITUIÇÃO HOSPITALAR
Antonio Marcos Prestes, Angela Freitag Brodbeck

EDUCAÇÃO CORPORATIVA EM PEQUENAS E MÉDIAS EMPRESAS DO SETOR DE SOFTWARE: UM ESTUDO EXPLORATÓRIO
Lisângela da Silva Antonini, Amarolinda Zanela Saccol

Foco na tecnologia

CATEGORIZAÇÃO AUTOMÁTICA DE MENSAGENS DE CALL-FOR-PAPERS
Daniela Corumba, Hendrik Macedo

TOWARD EASING THE INSTANTIATION OF APPLICATIONS USING GRENJ FRAMEWORK BY MEANS OF A DOMAIN SPECIFIC LANGUAGE
Vinicius Humberto Serapilha Durelli, Simone de Sousa Borges, Rafael Serapilha Durelli, Rosana Teresinha Vaccare Braga

SWfPS: PROPOSIÇÃO DE UM SISTEMA DE PROVENIÊNCIA DE DADOS E PROCESSOS NO DOMÍNIO DE WORKFLOWS CIENTÍFICOS
Wander Antunes Gaspar, Regina Maria Maciel Braga, Fernanda Claudia Alves Campos

Tomada de decisão

UMA ABORDAGEM MULTICRITÉRIO PARA A SELEÇÃO DE FERRAMENTAS DE BUSINESS INTELLIGENCE
Luiz Flavio Autran Monteiro Gomes, Valter de Assis Moreno Jr., Bernardo Barbosa Chaves Woitowicz, Solange Maria Fortuna Lucas

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Esta revista é (e sempre foi) eletrônica para ajudar a proteger o meio ambiente, mas, caso deseje imprimir esse artigo, saiba que ele foi editorado com uma fonte mais ecológica, a *Eco Sans*, que gasta menos tinta.

CRITICAL ENTERPRISE SOFTWARE CONTRACTING ISSUES: RIGHTS, ASSURANCES AND RESPONSIBILITIES

QUESTÕES ASSOCIADAS À CONTRATAÇÃO DE SOFTWARE EMPRESARIAL CRÍTICO: DIREITOS, GARANTIAS E RESPONSABILIDADES

(paper submitted in September 2010)

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ABSTRACT

Unfavorable contractual agreements can be detrimental to the well-being of an organization. The objective of this paper is to examine the acquisition of enterprise software and the perceived importance of various key/critical contractual issues by IT managers within both the manufacturing and service industries. Often software contracts are written to favor the vendor and their terminology is vague and in a high-level language that can make organizations vulnerable. Among all IT applications, enterprise software is particularly critical due to integrating various critical business processes. In addition, ES implementations are among the most expensive types of IT implementations. Thus, enterprise software contracting mistakes can be particularly costly for organizations. Our results through exploratory analysis indicate that rights (right to assign and re-assign, or port the software license), contractual assurance, and responsibilities, indemnities and warranties are among the most important issues while purchasing enterprise software.

Key-words: enterprise software; contract issues; rights, assurances, responsibilities, warranties.

1 INTRODUCTION

Just as the wrong enterprise software (ES) acquisition can be detrimental to an organization's survival, so can an unfavorable contractual agreement. Often software contracts are written to favor the vendor. Their terminology is vague and jargon-ridden, which can make organizations vulnerable to additional fees or restrictions that the buyer does not anticipate (DISBROW, 2005). Further complicating the acquisition of ES is a global competitive environment that adds additional layers of complexity to the overall process, with mergers and acquisitions within the ES industry itself. In the past few years, several companies have either merged or have been acquired by others. Prime examples of these are the merger of PeopleSoft and J.D. Edwards and later on the acquisition of PeopleSoft by Oracle.

These added dimensions of the acquisition process for ES technologies have created a level of uncertainty and/or complexity beyond the technology itself. It is, therefore, critical that organizations approach ES contractual negotiations with utmost care. To ensure that ES contracts meet the needs and requirements of the organization, contractual negotiations cannot exist in a vacuum. These must be part of the overall acquisition process for an ES.

Consideration must be taken to ensure that ES contracts are multi-dimensional in nature and involve legal, economic, managerial, and technological issues. In the past decade, acquiring ES has become an alternative to in-house development. Information technology (IT) managers have been faced with the need to understand the various issues of ES contracting for them to better manage the acquisition of these technologies. The technological revolution of the past decades has created a volatile and complex systems environment.

The objective of this study is to examine the acquisition of ES from the contract and contractor perspective. Therefore, we analyzed data about the perceived importance of various key/critical contractual issues by IT managers. The participants of this study have been randomly chosen within the industries in which ES are commonly used.

2 ENTERPRISE SOFTWARE CONTRACTS

From the perspective of contract law and contract theory, contractual issues set the foundation for the type of relationship between the buyer and the vendor. They provide the directives and the completeness (or lack thereof) of the contract. The contract can be "an integral part of an organization's strategy, including its risk management strategy, by circumscribing relationships among interdependent parties seeking to create projects jointly around a multiplicity of diverse purposes" (GILBERT, 1993). It can be viewed as a dynamic obligation which results from agreements that are structured to allow consensual changes in the obligations imposed in order to fulfill the ES contract in uncertain

conditions (SALBU, 1997). As such, a contract, as a dynamic obligation, allows the organization and the vendor to mutually adjust commitments while maintaining a shared perception of reciprocal responsibility (SMITH, 1991).

Contractual issues are important for the establishment of the relationship between an organization and the vendor of an ES. Within the context of ES acquisition, each of the parties involved in the contractual agreement determines, during the decision-making phase, how their baseline activities prior to entering the relationship should be altered to achieve relational gains, the results of which are the rights and conditions of both parties. All parties then institute any chosen adjustments that in turn, may affect the consensual alterations "by forging a binding agreement" (SALBU, 1997). In ES acquisition, this can be construed as a "give and take" between all parties.

Within the realm of contract theory, there are two distinct types of agreements or contracts: complete and incomplete. Complete contracts are defined by the time allocated to write the contract wherein all contingencies are addressed (GIFFORD, 1999; WILLIAMSON, 1975). Complete contracts are rare in IT (RICHMOND, SEIDMANN & WHINSTON, 1992); incomplete or relational contracts are more the norm. For example, in complex acquisitions such as for ES, it is difficult to anticipate every outcome, problem or action and thereby include every possible contingency in a contract. This, in turn, leads to the incompleteness of the contract. This incompleteness, however, provides the opportunity for repeated interaction between the vendor and the buying organization and hence sets the framework for the evolving relationship.

According to Gifford (1999), when transactions warrant repeated interaction over time, the acquisition is governed by a "relational contract". This type of contract is "intentionally incomplete because of a desire to be flexible in response to future contingencies rather than to stipulate responses to all future contingencies in the initial contract (Gifford, 1999). Relational contracts "are those which the trading parties feel deserve periodic attention for the purpose of supervision, monitoring, consultation, and renegotiation" (GIFFORD, 1999, p. 470). In some cases, the complexity of the acquisition's contractual environment opens the way for establishing the foundation for a long-term relationship between the buying organization and the vendor. Relational contracting frames the relationship where all parties concerned agree "on goals and objectives, on general provisions that are broadly applicable, on the criteria used in deciding what to do when unforeseen contingencies arise, on who has what power to act and the bounds limiting the range of actions that can be taken, and on dispute resolution mechanisms to be used if disagreement occurs" (MILGROM & ROBERTS, 1992, p. 131).

Another perspective on contracting comes from contract law whose primary concern is coordination and control, i.e., "minimizing disputes among market transactions and resolving disputes when they arise"

(SALBU, 1997, p. 329). When organizations are threatened with legal recourse, the parties in question are encouraged to fulfill their contractual obligations with the minimum of fuss. Thus, contracts operate as a means of control. However, according to Salbu (1997, p. 330), modern day relationships are better served by "management forms that sacrifice control in favor of flexible coordination". In this light, contracts can be viewed as mechanisms for flexible coordination and control. As for ES, contractual relationships (relational contracts) are the basis for the long-term cooperation and coordination of all parties, helping to create a less adversarial environment which benefits all parties.

In the establishment of a relationship between the organization and the vendor, each party would like to assume some type of control within the relationship. This produces two possible scenarios: conflict or compromise/concession; the latter being essentially a give and take. In the second scenario the organization acquiring the ES finds it is relinquishing control of the technological environment within the organization. Since ES systems are considered critical systems, the organization would like to assume some type of control over the systems (VERVILLE, 2000; VERVILLE, 2001). To do so, certain issues within the contract would allow them to perceive an aspect of control. For example, IT managers would request the right to establish the acceptance procedure for the software. To maintain harmony within the relationship, the vendor could accept this condition as part of the contractual agreement. In return, the vendor might request to retain ownership of the source code or to place it in escrow. This creates a "give and take" where each issue is negotiated. To do so or to facilitate this allows for the negotiability of rights which in turn reduces the risks (SALBU, 1997).

The question that requires answering, however, is about which contract issues are critical to the establishment of the relationship. The organization has the choice to accept, modify or reject fundamental issues within the contract. These issues may become the focal point or baseline for the relationship between the vendor and buyer. For instance, the organization has the choice to accept the standard ES solution or decide to customize/tailor the ES package to better fit the organization's overall objectives and needs. Thus, the right to customize the ES to meet the organization's overall objectives is most likely a critical issue for the establishment of the relationship (VERVILLE, 2001).

Since most ES solutions are "one size fits all", they do not meet the precise needs of an organization and often lack key components needed by the organization to fully utilize the software's capabilities (HARRIS, 2000). Some organizations may want to customize the technology to fit their needs or to enhance the system in its capabilities to meet overall organizational objectives. As such, it may be more important or even critical for certain organizations/industries to have the ability to customize the technology to meet their needs, but less important for others.

Another issue that might be perceived as more important or even critical is the ability for the organization to port the technology to any platform supported by the vendor. In this age of global competition, certain industry sectors such as manufacturing might perceive the portability of the technology as an important issue. The ability to port the technology to any platform supported by the vendor would allow manufacturing firms that desire to re-locate their manufacturing facilities either domestically or overseas, the flexibility, upon setup of the new site, to continue with the existing/known technological environment (VERVILLE, 2001).

ES software is licensed with warranties and guarantees. Warranties and guarantees, expressed or implied, are important issues in the majority of ES acquisitions and are often negotiated. The contract issues pertain to warranties and the expectation of what the organization is acquiring, in other words, what they are expecting to get. More often than not, vendors want to make sure the contract does not find the vendor giving a warranty to a product that is not within its power to control. In the instance of software acquisition, the Uniform Commercial Code (UCC) provides warranty guidelines for the majority of software transactions to which United States law applies. The UCC's guidelines establish warranty conditions necessary for being able to make the deal, i.e., to grant the license; through an affirmation of fact or promise made by the vendor to the acquiring organization and or, any description of the product. Under the Uniform Computer Information Transactions Act (UCITA) the express warranty pertains to specific computer information transactions.

3 RESEARCH METHODS AND DESIGN

The most appropriate strategy based on objectives, and foreseen analysis, is the quantitative data analysis in which data was collected through questionnaire surveys. In this instance, survey research is the appropriate method for collecting primary data pertaining to "describe, compare, or explain individual and societal knowledge, feelings, values, preferences, and behavior" (FINK, 2008, p. 1; FINK 2002). The objective of the survey is "to find out what percentage of some population has a particular attribute or opinion" (SALANT AND DILLMAN, 1994, p. 9).

The survey questionnaire was developed based on a previous research project on ES acquisition practices (VERVILLE, 2000), a study of software contracting by the Society of Information Management (SIM, 1995), The Software Legal Book, and a literature review in the area of contract law and theory.

The survey instrument comprised two major sections.

The first section focused on measuring the perceived importance of each featured ES contracting issue and was comprised one question and 36 items/issues. Each respondent was asked the following question: In your opinion, how important are the following contracting issues in the

purchase of enterprise software (i.e., ERP, CRM, SCM, KM, etc.)?Items perceived as important were measured using a seven-point Likert scale range from 1 (Not Very Important) to 7 (Very Important).

The second section focused on demographic information such as the type of industry, size of the organization in terms of number of employees, job title and area of responsibility, type of ES acquired and from which vendor.

4 DATA COLLECTION AND ANALYSIS

In order to uncover the perspective of managers (i.e., contract and contractor) the data was collected via a mailed survey instrument sent to IT executives in charge of ES contracting and/or negotiations. A small pilot study (N = 30) was used to pre-test the instrument and to identify any ambiguities and other problems with the questions.

A total of 279 completed questionnaires were received. Approximately 50.2% of the respondents were from the manufacturing sector, and 49.8% from the service sector. In terms of size, based on number of employees, 38.4% of the organizations had less than 1,000 employees; 46.2% had between 1,000 and 9,999 employees; 10.4% had between 10,000 and 49,999 employees; and 5% had more than 50,000 employees. In terms of types of ES acquired, 48.7% of the organizations had acquired enterprise resource planning systems; 39.4% had acquired a customer relationship management, supply chain management, or other type of ES; and 23.9% had acquired more than one type of ES. In terms of the ES vendors, in 18.6% of the cases it was from SAP; 25% from Oracle; 5.4% from BAAN; 41.6% from other vendors; and 9.3% from more than one vendor. Table 1 shows the sample distribution of job titles for our sample.

Table 1: Sample distribution for the job title

	Category	Frequency	Percentage
Job Title	*CIO*	*70*	*25.1*
	IT Management	*45*	*16.1*
	Purchasing	*36*	*12.9*
	Legal	*5*	*1.8*
	User	*59*	*21.1*
	Other	*64*	*22.9*

4.1 CRITICAL CONTRACT ISSUES: RIGHTS, ASSURANCES AND RESPONSIBILITIES

The Survey results (see Table 2) were analyzed using non-confirmatory (exploratory) factor analysis. Loadings (within the shaded cells) obtained by the non-confirmatory factor analysis are shown in Table 2 in the columns labeled “Right To” (RT), “Contractual Assurance” (CA) and “Responsibilities, Indemnities and Warranty” (RIW). In this non-

confirmatory factor analysis the extraction method used was principal component analysis, and the rotation method was Varimax with Kaiser Normalization. To interpret and ensure significance of the loadings, a cut-off value of 0.50 was set.

With respect to the measurement reliability, the most widely used measure is Cronbach's Alpha. It is generally agreed upon that the lower limit for Cronbach's alpha is 0.70, with 0.60 being marginally acceptable. For our study, Cronbach's alpha were 0.691 for rights, 0.829 for contractual assurance, and responsibilities, indemnities, and warranties; which are acceptable (HAIR et al. 2006).

Further tests were conducted to confirm the reliability of our measurement. We tested composite reliabilities of the constructs (FORNELL AND LARCKER, 1981; NUNNALY, 1978). All composite reliability values are above the threshold value of 0.7 (0.801 for "Right To"; 0.888 for "Contractual Assurance"; and 0.838 for "Responsibilities, Indemnities, and Warranties") and indicating an acceptable reliability for the measurement model.

Table 2: Results of the factor analysis

	RT	CA	RIW	Cronbach's Alpha	Composite Reliability
RT1	*.810*	*.114*	*.093*	*0.691*	*0.801*
RT2	*.844*	*.046*	*.218*		
RT3	*.892*	*.131*	*.215*		
RT4	*.823*	*.291*	*.246*		
RT5	*.605*	*.105*	*.245*		
CA1	*.012*	*.667*	*.282*	*0.829*	*0.888*
CA2	*.331*	*.769*	*.156*		
CA3	*.281*	*.774*	*.181*		
CA4	*.123*	*.745*	*.069*		
RIW1	*.042*	*.395*	*.579*	*0.700*	*0.838*
RIW2	*.255*	*.043*	*.844*		
RIW3	*.244*	*.250*	*.797*		

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

From our initial thirty-six (36) issues, twelve (12) issues (see Table 3) were retained and are classified in three categories (factors), "Right To" (RT), "Contractual Assurance" (CA) and "Responsibilities, Indemnities and Warranty" (RIW). The first category, "RT", is related to the 'right' of the organization to assign, re-assign, define, establish and port the ES. The second category, "CA" is related to 'contractual definition and assurance' and pertains to the forward compatibility of the software. Finally, the third

category, “RIW” is related to ‘responsibilities, indemnities and warranties’ pertaining to the software.

Table 3: Critical Contracting Issues

The Right To...(RT)
RT1:The right to assign the software license to a new corporate entity resulting from a merger, consolidation, acquisition or divestiture
RT2:The right to re-assign software licenses within the corporate entity
RT3:The right to define software acceptance as occurring only upon your written notice
RT4:The right to establish acceptance procedures
RT5:The right to port the software to any platform supported by the vendor at no or minimum charge
Contractual Assurance (CA)
CA1:Contractually defined difference(s) between (1) enhancements, releases, versions, etc., that you receive by subscribing to software support, and (2) those the vendor insists are a new product requiring new license
CA2:Contractual Assurance regarding forward compatibility of the software with changes in operating systems
CA3:Contractual assurance regarding forward compatibility of the software with changes in hardware
CA4:Contractual assurance regarding forward compatibility of the software with changes in other software from the same vendor
Responsibilities, Indemnities & Warranties (RIW)
RIW1:Vendor’s responsibility to meet the cost of procuring alternative third-party support if the vendor fails to provide adequate and timely service
RIW2:The vendor accepts to indemnify the organization for all losses, damages, or liabilities arising from the infringement or alleged infringement of such patents, trademarks, trade secrets, copyrights, or any other pertaining to intellectual property
RIW3:The vendor warrants that the services provided to the organization shall not infringe upon any patent, trademark, trade secret, copyright, or any other right relating to intellectual property: rights are in force, recorded, or recognized

Table 4 shows the bivariate correlations between the constructs. Rights are positively and significantly ($p<0.01$) correlated with contractual assurance (0.527), and responsibilities, indemnities, and warranties (0.422), which is also positively and significantly correlated ($p<0.01$) with contractual assurance (0.549). In addition, in order to measure discriminant validity, average variance extracted (AVE) values can be used (shown in diagonal, in parentheses). Practically, the square roots of AVE values should be greater than the correlations below of it and on the left side of the item. The AVE value for Right To (RT) is 0.672; Contractual Assurance (CA) is 0.816; and finally Responsibilities, Indemnities & Warranties (RIW) is 0.796. These values indicate good discriminant validity for the study.

Table 4: Bivariate correlation

	RT	CA	RIW
Right To (RT)	*(0.672)*		
Contractual Assurance (CA)	*0.527***	*(0.816)*	
Responsibilities, Indemnities & Warranties (RIW)	*0.422***	*0.549***	*(0.79)*

**. Correlation is significant at the 0.01 level (2-tailed).

These factors revolve around the need for the organization to feel secure, in control and at ease with their acquisition. If the organization deems that ES is a critical and strategic system for its overall organizational competitiveness in the global market place, then its value is relative to the importance of the technology, and the extent to which the organization requires it for continued operations and survival. It is important for the organization to have as much control over the technology as possible. This issue of control is linked to another important factor that of dependence, which reveals the level of dependency of the organization has on the technology. More often than not, in ES acquisition organizations feel that they are relinquishing control of their systems when they adopt enterprise-wide software systems from the vendors. Thus, it is important that the organization maintain a semblance of control over the technology by factoring in or embedding in the contract terms that give them the sense of control.

In other words, the organization derives control from its ability to set terms or regulate the acquisition and from its ability to enforce the terms or regulations in it's of contractual agreements. In the case of ES acquisition, although the organization is relinquishing the development of the technology to a vendor, it does so without giving up control of its own objectives. This leads to a psychological effect on those involved in the acquisition in that it reduces the level of uncertainty and/or risk in the acquisition of an ES. In the case of the 'Right to...' assign and/or define contractual issues and/or assurances and/or warranties protect the organization forms a partial base for an ES contract against possible litigation in the future. This being said, ES contract management issues/activities are proactive in that they attempt to anticipate and deal with ES acquisition circumstances before they arise – here we could say that 'an ounce of prevention is worth a pound of cure'.

ANOVA results reveal that there is a significant difference between job titles regarding rights and responsibilities, indemnities, and warranties. However, there is no significant difference between job titles for contractual assurance. The results indicate that CIOs find the software rights most important, while attorneys and their direct reports find the software rights to be of lower importance when compared with other job types. In terms of responsibilities, indemnities, and warranties, while attorneys and direct reports find these concepts to be a relatively little

importance, IT managers and “Others” find these concepts to be most important. Table 5 shows the ANOVA results based on the job title.

Table 5: ANOVA results with job title

Independent variable	Dependent variable	Mean rank						F value	Sign.
		T1	T2	T3	T4	T5	T6		
Job title of the respondent	RT	*6.13*	*5.92*	*6.02*	*5.36*	*5.69*	*5.85*	*2.551*	***0.028***
	CA	*6.05*	*5.75*	*5.89*	*5.70*	*6.08*	*6.03*	*1.011*	*0.411*
	RIW	*5.69*	*6.03*	*5.98*	*5.13*	*6.01*	*6.12*	*2.703*	***0.021***

RT: Right To
CA: Contractual Assurance
RIW: Responsibilities, Indemnities & Warranties
T1: CIO
T2: IT Manager
T3: Purchasing
T4: Legal
T5: User
T6: Other

5 DISCUSSION

5.1 RIGHTS

This first factor pertains to the rights, in contractual terms, of the organization to either assign or re-assign the software licenses to either a new corporate entity or to other areas/departments within the existing corporate entity; the right to define the software acceptance procedure and to establish to said procedure; the right to port the software to any platform supported by the technology at minimal or no cost to the organization.

In this age of uncertainty, as it pertains to the dynamic global environment, the need for organizations to be able to assign or re-assign software licenses to other entities within organization and/or to port the ES to any platform is often critical to the organization’s overall competitive well-being. With the proliferation of corporate mergers, acquisitions and divestitures, the need for the organization to be able to do so with as few difficulties as possible is important.

Another important issue is the ability for the organization to define and establish acceptance procedures. In other words, this is to protect the organization when it feels that the ES does not meet its criteria for overall deployment within the organization. Defining and establishing acceptance procedures set the terms and conditions under which the software is accepted. As shown by the data, this is an important issue and should be negotiated ‘up front’ at the time of the contract. As shown in our results, upper- and mid-level management roles such as CIOs, IT managers, and

purchasing managers are among the ones who realize the importance of rights regarding ES.

5.2 ASSURANCES

The second factor pertains to contractual assurances. This involves contractually defining the difference(s) between enhancements, releases, versions and those changes the vendor insists are a new product. In addition, contractual assurance pertains to forward compatibility of the software as it pertains to changes in hardware and software.

To contractually define the differences between improvement, enhancements and releases of new versions of the software is an important issue. According to Hoffman (1992), improvements and enhancements are usually considered aspects of the software which either improve or extend the software capabilities. It is not unusual that vendors are unwilling to provide a blanket commitment to furnish future enhancements, improvements and versions of their technology; but rather insist on retaining control over which improvements, enhancements, and/or versions are 'given free' to the customer as part of a software warranty or in connection with a maintenance contract, and which are provided as options for an additional charge. Thus, it is important to the organization that the distinctions are made clear.

Another factor that is deemed important under contract assurance is the forward compatibility of the software in terms of changes in hardware and software. Within the dynamic environment of technology, it is deemed important for the organization to be protected in the event of change to the technological environment which may render the recently acquired ES obsolete. The importance of this issue is to alleviate the uncertainty surrounding these types of acquisitions, uncertainty, arising from the concern over whether the organization is receiving the most recent product and whether this product can be easily or with minimal effort transferred to another technological environment. Although it is difficult to assess future trends in today's technological environment, it is not unreasonable for the organization to be contractually assured that the ES they are acquiring can be transposed to another environment as defined within the contract.

5.3 RESPONSIBILITIES

The third factor pertains to responsibilities, indemnities and warranties. This issue involves contractually defining the vendor's responsibilities, liabilities and warranties for the software. In terms of a vendor's responsibility it is important that the organization define it to include assurance of adequate and timely service. Other responsibilities that could be defined by the organization would be for the vendor to provide an alternative third-party support if the vendor fails to live up to the customer's expectations or if there are unacceptable delays during the implementation of the ES. These responsibilities need to be clearly thought

out by the organization and set forth in their contract. As for indemnities, the organization can define that the vendor accepts to indemnify the buyer for all losses, damages or liabilities arising from the infringement or alleged infringements of patents, trademarks, copyrights, trade secrets or any other pertaining to intellectual property. As for the warranties, the organization can contractually define that the vendor warrants that the services provided do not infringe on said patents, trademarks etc. In this day and age where the patent infringement law suits are a common thread within the industry, whether the law suits are frivolous or real, an organization has the obligation to protect itself from such litigation. Case in point, Microsoft has had numerous patent infringement lawsuits in the past several years. Patent, copyright, intellectual property infringement lawsuits and other similar suits have not only been the purview of distributors and/or vendors but they have also transcended to end-user companies. For example, SCO Group filed a copyright infringement lawsuit against AutoZone, a Tennessee-based auto parts chain with more than 3,000 stores nationwide. In the lawsuit, SCO alleges that AutoZone ran versions of Linux that "contain code, structure, sequence and/or organization from SCO's proprietary Unix System V code in violation of SCO's copyright". SCO seeks an injunction to stop AutoZone's use of Linux as well as an unspecified amount of damages. Red Hat named AutoZone as a customer. This is a case where an End-User company is being sued. According to Mark Radcliffe, an intellectual-property attorney not involved in the case, SCO needed to start legal actions against users, because the end-user companies will be the least inclined to spend money to defend against these types of litigation. The end-user companies are going to 'scream for their distributors to come and save them' (SHANKLAND, 2004).

6 CONCLUSION

In the current economic climate, most organizations struggle to maintain or enhance their competitive position (VERVILLE, 2001). As a consequence, ES has become a critical resource (BOYNTON, ZMUD and JACOBS, 1994; KOCK and VERVILLE, 2006; VERVILLE, 2000) which companies have learned to depend on for their survival. ES affects all levels of the organization, and a wrong decision can adversely affect the organization as a whole and even its profitability (VERVILLE and HALINGTEN, 2001). Therefore, the importance of understanding which contract issues are the most critical to the well-being of the organization is an important aspect of ES vendor negotiations.

IT managers entering into ES contracts on behalf of their organizations are advised to closely consider the issues discussed above in connection with rights, assurances, and responsibilities. In the dynamic environment of the business, companies may face unexpected situations such as merger, consolidation, acquisition, or divestiture. These events cause tremendous changes in organizations, and they usually have to deal

with several critical business issues. In addition, organizations may have to deal with critical IT issues because of these events.

Under these circumstances, management needs to know what rights they have regarding their ES, on which organizations usually spend millions of dollars. Management needs to know whether it has the right to re-assign software licenses, the steps regarding the acceptance procedure, forward compatibility of the software, issues regarding the current and future releases as well as support for the software, the warranties the company will get from the vendor under several conditions, etc.

Among all IT applications, ES are particularly critical due to integrating various mission-critical business processes of the organizations in which they are implemented. Compounding that, ES implementations are also among the most expensive types of IT implementations. Thus ES contracting mistakes can be particularly costly for organizations.

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