Model of the Institutional Elements of the Strategic Partnership in Information Technology Outsourcing: The Case of a Multinational Banking ERP System

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Resumo
O principal objetivo deste artigo é o desenvolvimento de um modelo conceitual com os elementos institucionais do processo de formação de uma parceria estratégica cliente-fornecedor na terceirização da TI, envolvendo a contratação de um sistema ERP. Para o desenvolvimento do modelo foi adotada a estratégia de estudo de caso em um banco transnacional brasileiro, onde foi explorado o processo de contratação de um sistema ERP para as agências internacionais. Dados coletados de entrevistas, documentos e observações foram analisados através da técnica de análise de conteúdo. Os resultados mostram a importância do uso da perspectiva institucional multidimensional para a identificação de elementos reguladores, normativos e cognitivos da parceria estratégica cliente-fornecedor.
Palavras chave: terceirização da TI, parceria estratégica, sistema ERP, perspectiva institucional multidimensional.

Resumé
L´étude a comme objectif le développement d'un modèle conceptuel avec les éléments institutionnels du processus de formation d'un partenariat stratégique client-fournisseur, dans la sous-traitance TI. La stratégie de recherche adoptée a été l'étude de cas unique sur le processus de formation d'un partenariat stratégique d'une banque transnationale avec un nouveau fournisseur de système ERP pour toutes ses agences internationales, y compris les européennes. Les éléments identifiés ont permis le développement d'un modèle contenant des éléments de succès pour ce partenariat stratégique. Les données obtenues par entretiens, observations et documents ont été analysées par la technique d'analyse de contenu. Les résultats ont mis en évidence l´importance d'une perspective multidimensionnelle institutionnelle pour l'identification des éléments du succès du partenariat stratégique dans la sous-traitance en TI.
Mots clé : externalisation des TI, partenariat stratégique, système ERP, perspective institutionnelle.

Abstract
The main purpose of this paper is to describe a conceptual model, including the institutional elements for the formation of a client-supplier strategic partnership for IT outsourcing, through contracting of an ERP system. To develop the model, a case study of a Brazilian transnational bank was performed, in which the process of hiring a banking ERP system for the international branches is explored. Data collected from interviews, documents, and observations were analyzed through the technique of qualitative content analysis. The results show the importance of the institutional multidimensional perspective in the identification of regulative, normative, and cognitive elements of the client-supplier strategic partnership.
Keywords: IT outsourcing, strategic partnership, ERP system, institutional theory.

INTRODUCTION

The outsourcing of information technology (IT) refers to the transfer of part of the internal IT services of an organization (client) to another entity (supplier), by means of a contract. The process usually includes the transfer of decision-making rights involving production factors (people, facilities, equipment, technology and other assets) related to these services (Hirschheim and Lacity, 2000). In exchange, for a given period, the supplier is paid for the management of the assets and provision of IT services to the client (Loh and Venkatraman, 1992).

The IT-outsourcing implementation model of particular interest to this study is the contracting of an ERP - *Enterprise Resource Planning* system. The ERP is seen as "a comprehensive body of activities sustained by several modules of application software [IS] which help the industrialist or another business manager to manage important parts of his/her business…" (FOLDOC, 2007). This is an example of the information system (IS) for banking automation, which manages several business procedures of a branch, involving not only product and service modules but also accountancy, customer relations management, and so on.

The outsourcing of IT by means hiring ERP systems has shown a rate of failure above 60% (Rockford, 2007). Lee and Kim (1999) have pointed out that organizations (clients) have experienced difficulties in the formation and management of the relationship with their suppliers when the relationship is based only on a contract orientated towards a partnership. Partnership is considered as a cooperating alternative for the relationship (Tomlinson, 2005), mainly when the focus is the quality of the services or products (Collins, 1997).

Klepper (1995), through the examination of relationship dynamics of a client-supplier strategic partnership for IT outsourcing, suggests the integration of elements of several theories to understand and manage this phenomenon.

Kern and Willcocks (2002) suggest further investigation of the institutionalization of the client-supplier relationship in IT outsourcing, when using the interaction model (Hakansson, 1982), in an exploratory survey of this relationship in 12 organizations (clients). The adoption of the institutional perspective contributes to theoretical aspects of economic, political, and social orders (DiMaggio and Powell, 1991). Moreover, IT governance is about institutionalized practices as processes (ITGI, 2005). So, the focus of this survey to ask: *What are the institutional elements for success in the formation of the client-supplier strategic partnership in IT outsourcing, involving the contracting of an ERP system?* To answer this question, the strategy of a single case study in a transnational Brazilian bank is adopted.

The following sections of this study are: 1) strategic partnership in IT outsourcing, in which the partnership is characterized, the commitment-trust theory is presented, the institutional elements are reviewed, control and trust are seen as coordinating mechanisms, and the client trust is treated as being multidimensional; 2) methodology of the survey that discusses the strategy and purpose, the context of accomplishment, procedures for data collection, data analyses, and research reliability; 3) results and analyses that presents the model of the institutional elements of the strategic partnership in the IT outsourcing from the client perspective, in the context of an international banking ERP system; and 4) final considerations, in which the survey question is answered, the integrated model of institutional elements of the strategic partnership is presented, the strengths and limitations of the research are discussed, and new opportunities for future are proposed.

STRATEGIC PARTNERSHIP IN IT OUTSOURCING

Anderson and Narus (1990) state that the quality of the relationship is "a focal consequence of a work partnership [between client and supplier]". In the IT outsourcing context, Grover et al. (1996) define "partnership" as the interactive relationships of long standing, which come to

influence the success of the client-supplier relationship. The essential characteristic of a strategic partnership is the cooperation of the partners (Das and Teng, 1998; Tomlinson, 2005). Morgan and Hunt (1994) say that "cooperation promotes the success of the relationship [client-supplier]".
The cooperation of the partners can be defined as the "business partner wish to pursue mutual compatible interests in the alliance, instead of acting in an opportunistic way" (Das and Teng, 1998, p. 492). Opportunism is associated with egotistical behavior, in bad faith (Williamson, 1975, p. 26-27). Thus, in the client-supplier cooperation there must be incentives to inhibit opportunism and promote an environment of trust in their relationship (Collins, 1997). To Blumberg (2001, p. 828), "commitments can reduce the motivations to opportunism while establishing additional costs to such behavior".
Commitment means the goodwill to exert maximum effort towards the continuation of the long-standing partnership (Wilson, 2000, p. 250). Trust can be defined as the "expectation that one can depend on the promises of the other and that, in unforeseen circumstances, the other will act in a cooperative spirit towards the one who trusted him" (Hagen and Choe, 1998, p. 589-590). Ring and Van de Ven (1992) sustain the need for strong trust in strategic partnerships.

Commitment-Trust Theory

In the context of the commitment-trust theory, Morgan and Hunt (1994) consider that "commitment and trust lead directly to cooperative behaviors, which are pointers of the success of the partnership [in the long run]". They point to the reduction of opportunism in the generation of trust, which is also influenced by quality in communication and by the shared values between client and supplier. Such shared values are also a factor that generates commitment in the partnership. One partner will be committed only to whom he or she trusts, explaining the positive influence of trust on commitment. Coercive power, when one part imposes itself upon the dependent one, results from the costs of change and of the benefits generated by the partnership, and is seen as a destructive factor for both commitment and trust.
To Grover et al. (1996), the benefits to client from IT outsourcing may be of an economic (cost reduction), strategic (access to distinctive competencies, competitive advantage, etc.), and/or technological (access to latest technology) nature. The costs of change are the costs of termination of the partnership (Morgan and Hunt, 1994). Communication, although associated with the exchange of information between the sides (Mohr and Spekman, 1994), happens through the formal and informal sharing of significant information (technical, strategic or operational), contributing to the framework of trust between the partners (Lewicki and Bunker, 1996).

Model of the Institutional Elements

The commitment-trust theory does not explore the perspective of either of the partners in depth, since commitment and trust are seen in an indiscriminate way both in relation to the client and the supplier. Thus, the model of the institutional elements, according to figure 1, is developed with the aim of outlining the client view of the client-supplier relationship. Under the institutional theoretical perspective, the regulative, normative and cognitive elements interact in a continuous form and contribute to an "interdependent and mutual form to a strong [and directional] social picture" in the institutionalization process (Scott, 2001, p. 51).

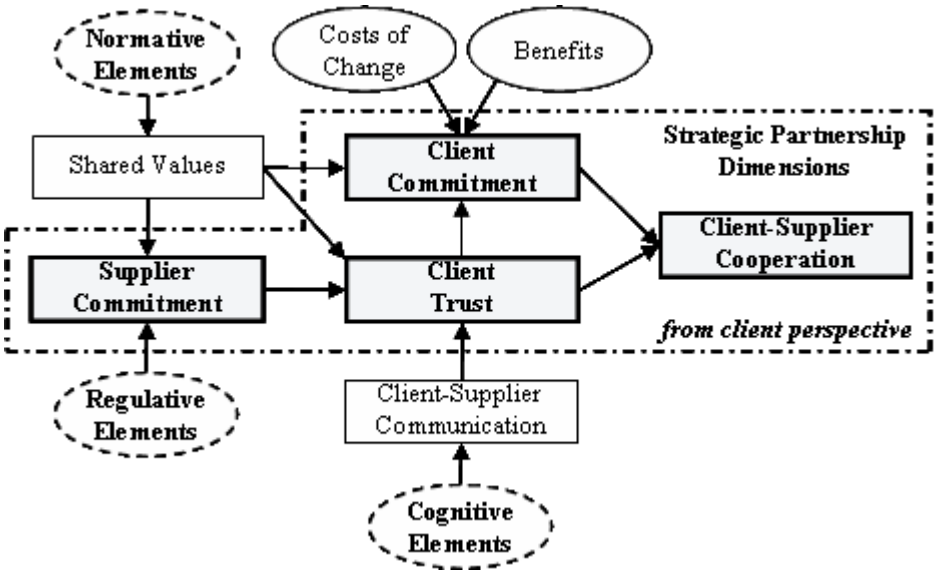

Figure 1 – Model of the institutional elements of the strategic partnership

In this paper, the reduced opportunism of the supplier is seen as represented by its commitment to the partnership. Figure 1 illustrates in a simplified manner the direct positive influence of the regulative elements on the supplier commitment. This commitment exerts a positive influence on the client trust (calculative trust), there being neither the need for the consideration of opportunism, with its negative influence on the client trust, nor the regulative elements that mitigate its existence. Nor is the coercive power considered, since the model outlines the relationship between the partners and the commitment-trust theory itself treats its influence as a non-assessed hypothesis.

Regulatives

The regulative elements aim at controlling the behavior, which is considered rational and moved by the interests of the parts themselves. This happens through the establishment of rules which monitor, and punish or reward activities (incentives and penalties). The power that characterizes the regulative dimension must be legitimized based on a "normative frame that both restricts and supports the use of power" (Scott, 2001, p. 53), which makes the regulative and normative dimensions interdependent.

The transaction cost economic theory indicates some safeguards, or regulative elements for consideration, capable of minimizing transaction costs in the client-supplier relationship (Williamson, 1985, p. 60, 62, 167; Williamson, 1996, p. 124): *multiple sourcing* (or *alternative suppliers*); *reciprocal exposition when investing in assets* (or *hostage*); *periodic contract renewal*; and *reputation*. The mechanism of multiple sourcing puts the suppliers in a competitive environment for the supply of the service to the client, both as relates to the quality of the goods and the service of the transaction (Williamson, 1985, p. 61).

The reciprocal exposition of the partners when investing in assets, or *hostage*, points to the actual commitment of both to the future of the exchanges, since the possible loss of value of the assets will be shared, one not being exposed to the opportunism of the other. The supplier can invest in material assets, new facilities, and personnel training (Bahli and Rivard, 2003). Economy at the transaction cost level is also achieved between client and supplier if the contract is adapted to face unforeseen events, and agreements are reached allowing for *periodical reviews* of the contract (Williamson, 1985, p. 62).

In addition to this, depending on the idiosyncrasy of the assets involved in the contracted services, the *long-term duration* of the contract indicates the importance attributed to the relationship, as is foreseen in the game theory as applied to political science (Axelrod, 1984).

The development of IS is considered as an idiosyncratic service (Aubert et al., 2004). The hiring of an ERP system involves outsourcing IS development.
The *reputation* effect for the partners happens when one of them does not fulfill what is provided for in the agreement, having a negative effect on the present and future businesses of the given partner (Williamson, 1985, p. 395). But, for this, the breach of fulfillment must be open to public knowledge, the consequences of said breach might be proved, and the party that suffers the lack of fulfillment of the agreement penalizes the responsible partner.
The agency theory strives to identify the form of contract which is most efficient to the agency relationship, in a situation of potential divergence of interests between principal and agent, which potentiates the conditions of the outcome of opportunism and uncertainty as to the fulfillment of the expected results (Eisenhardt, 1985). Thus the "control system [about the behavior and/or results] evaluates and pays [based on performance], motivates behavior [as in the focus of the economic theory on the cost of transaction] and also alters the standard of risk sharing" (p. 137), which becomes more balanced between the principal and the agent and, in this way, motivates cooperating efforts in the relationship. The *pricing model* must fit these aspects.
Furthermore, regarding the pricing model, the use of *service level agreements* is common in the client-supplier relationship in IT outsourcing. This corresponds to the acceptance by the supplier of the obligation to reach certain levels of performance, as well as supplying rights and solutions to the client (Click and Duening, 2005, p. 119).

Normatives

The prescriptive concept of the institutions derives from Emile Durkheim and Talcott Parsons sociological studies, as seen in their focus on family groups, social classes, religious systems and voluntary associations, where beliefs and common values are more often than not present (Scott, 2001, p. 55). The standards of reference emphasize the "normative rules that introduce a prescriptive, evaluative and obligatory dimension to social life" involving both values as norms (p. 54). Durkheim (1933, p. 28-29) postulates that the order component of social solidarity is the authority of the legal rules, as defined either formally or by common usage.
These rules carry a positive contribution, or better said, a cooperative contribution, deriving essentially from work division (p. 77). Law, however, is not the only existing form of regulation of cooperation between the parties. There is another element, derived from moral aspects (p. 162). While the contractual relationship lasts, both parties are expected to respect the rules either in a direct or indirect way. These rules, whose order is social (as is that of the law), even if not being sanctioned by a legal code, also carry a binding character, although in a diffuse way.
Legal rules, thus, are followed by rules of a purely moral character, or, by collective practices under the protection of public opinion. These rules of moral order compel the individuals to act according to ends which are not their own, implying mutual allowances, agreeing to commitments and considering the interest of the others as superior to ones own (p. 173). In other words, imposing flexibility on ones own interests (p. 174). Macneil (1980) characterizes these rules as relational norms. They involve behavioral expectations which "occur in relations, must occur in relations if the relations are expected to last and so, must occur as long as this continuation is prized [by the parties]" (p. 64).
Parsons (1964, p. 118-119), already having knowledge generated by cognitive psychology, refers to *value* as the orientation element common to social interaction. Values are 'normative standards' which describe a desired social system, while norms contextualize these standards to specific situations and members, defining the desired expectations and the rewards or penalties to be applied (Parsons, 1951, p. 124). The norms, nomenclature adopted in this paper (*legal norms and relational norms*) have the power to reduce the political manipulation

by the individual in his own interest, binding him not only to the laws but also to the description of jobs, procedures to the activity performances, standards of quality, etc. (Scott, 2001, p. 55).

Cognitives

The cognitive dimension of the institutions exploit "the central role performed by the construction socially mediated by a common referential frame of meanings" (Scott, 2001, p. 58), while the cognitive elements refer to the "shared assumptions which constitute the nature of social reality and the frames through which the meaning is built". Hence, emphasis is given to "the cognitive dimensions of human existence" (p. 57), where the relationship between culture and cognition arises from the fact that the internal interpretative processes of the individuals are modeled by their external cultural environment.

The cultural-cognitive perspective arises from the studies in cognitive science developed at the Carnegie School (USA) by Herbert Simon and James March (DiMaggio and Powell, 1991, p. 18), as well as of the studies in ethnomethodology of Harold Garfinkel, a student of Parsons (p. 19) who based his work on the studies of Alfred Schultz on the subject of phenomenology (Garfinkel, 1967, p. 76). In ethnomethodology, Garfinkel (1967, p. 76) considers that the bases of social life are made of "descriptions from the point of view of the interests of the collectivity members in the management of their practical affairs". These descriptions are the knowledge that is shared and used by the collectivity members to communicate with each other (p. 77), Giddens (1984, p. 29) mentions communication as one of the dimensions of the structuring of social interaction from a shared cognitive perspective.

Hakansson (1982) focuses on the importance of communication in the institutionalization of the client-supplier relationship of long standing. In an interdependency relationship between the parties, typical of a strategic partnership, Sheppard and Sherman (1998) consider as essential the capacity to exchange information. Sharing meanings and interpretations, or cognitive sharing, allows communication of a better quality (Lander et al., 2004) and contributes to a framework of trust between the parties (Lewicki and Bunker, 1996, p. 121). It provides "the necessary basis to a non-opportunistic behavior", while avoiding the development of asymmetric power (Hardy et al., 1998, p. 69). Willcocks et al. (1999) mention the risks of the development of power asymmetry favoring the supplier in the post-transitional phase of IT outsourcing.

This paper emphasizes the sharing of the system requirements for client-supplier communication in IT outsourcing, involving the contracting of an ERP system. The requirements of the system are the criteria by which those who develop SI and the respective client assess the quality of the software [or IS] to be built (Pressman, 1995, p. 232). These are the client needs, or, the "*what"* that the system must supply (Leffingwell and Widrig, 2000, p. 231), being subdivided into *functionals* and *non functionals* (p. 229).

The *functional requirements* are the inputs, outputs and details of treatment (system functions), referring to "how the system must behave when faced with certain inputs or conditions" (p. 238). The system inputs and outputs refer not only to the contents of the entry and outflow of data, respectively, but also to the devices (equipment), format and protocols used; while the functions of the system refers to the treatment of the data input (Davis, 1999). Leffingwell and Widrig (2000) consider as *non functional requirements* the *system attributes* and the *environmental attributes* of the system, held as subcategories in this paper.

The system attributes are non-behavioral requirements such as usability, or the easy use of the IS by users; flexibility, or the easy modification of the IS to run in other applications or processing environments; interoperability, or the ability of two or more IS, components or modules to exchange information between them; scalability, or the easy modification of the IS to suit a requirement, such as an increase in the processing volume, number of users, etc.;

reusability, or the ability of a module to be used by another from the same or different IS; portability, or the ability of the IS to run in different types of computers; maintainability, or the easy modification of the IS to receive corrections and/or improvements; performance, or the response time of the IS to the user requests; and reliability, or the level at which the IS must respond in an acceptable way (availability, tolerance to faults) to users (SEI, 2007). The environmental attributes of the system, also non-behavioral requirements, refer to the ability of the system to be used in specific operational conditions, such as operational systems, computers, database management systems, etc. (Davis, 1999).

RESEARCH METHOD

The strategy adopted for the explorative purpose of this paper is the single case study, considering the fact that the phenomenon under study is contemporary and not easily dissociable from its existing context, besides being characterized as a "technically unique situation in which there might be many more interest variables than data points" (Yin, 2001, p. 32). The case study "contributes in a unique way for the understanding of individual, social and political phenomena" (p. 21), including the organizational processes.

Place and Unit of Analysis

The following criteria from Miles and Huberman (1994, p. 34) were chosen for the case selection: a) *a politically important case*, because of its characteristics of relevance to the moment; b) *a timely case*, when the aim is the one of investigating new trends or unexpected events; and c) *a convenient case*, considering the aspects of less time, cost and effort.

The Brazilian banking system is relevant to the present survey because it is characterized by the intense usage of IT as a form of distribution of their products and services, as well as being applied to their internal affairs. According to Febraban (2008), the total amount forecast as bank expenses in IT for 2007 was US$ 2.66 billion. Investment in the acquisition of software and applications from third parties represented US$ 980 million, a growth of 15% in relation to the previous year.

The Brazilian bank under study, identified in this paper as 'BANK', is included amongst the five largest Brazilian banks in terms asset volume; has a working staff above 80 thousand; had net profits above US$ 3 billion in 2008; and has more than 10 thousand locations with electronic banking tellers (all services and operations are made in real time). That level of automation characterizes the BANK as the one which invests most highly in IT, having invested about US$ 650 million in 2007, that is, approximately a quarter of the volume forecast by the Brazilian banking sector for 2007 (US$ 2.66 billion).

The unit of analysis – the case – is the *formation process of the client-supplier strategic partnership in the IT outsourcing*, in the context of the BANK (client) hiring a banking ERP system from a supplier. This system will be used in the automation of the BANK's international branches. The process of hiring the system is driven by a specific project of the BANK, identified in this paper as SYSINTBRAN – System for the Automation of the International Branches. The acquisition and implementation costs of the system, including hardware and telecommunication infrastructure, will be above US$ 20 million.

The ERP system will have a great impact on the businesses of the international branches of the BANK and on the way the BANK manages them. It will reduce costs with regard to the actual replicated structures of IT; automate the businesses of the BANK's international branches; redesign the management processes of these branches, which will be centralized in the BANK's headquarters, in Brazil; standardize the different routines used by the international branches; integrate the international branches with the current processes of the BANK, including not only its legacy systems, but also its management practices (accounting, auditing, customer relations, and policies for products and services); and mitigate the

operational risks from the deficiencies of the current three ERP systems used by the international branches. These systems do not provide strategic, economic, or technological benefits to the BANK.

Procedures for Data Collection, Analysis and Reliability

The collection of data was performed through documents, observation and interviews. The documents used were from the BANK IT policy for its international branches, minutes of the meetings of the BANK with the suppliers of the ERP under analyses, notes about the projects' progress, system requirements and documents from the SISREDINT project, and the software license agreement, which is in the final phase of negotiation between the BANK and one of the suppliers. Observation was carried out through the participation of the researcher between October 12th, 2007 and February 15th, 2008, in BANK meetings with ERP system suppliers, as well as in a *workshop* for the presentation of the ERP system by the supplier that signed the contract with the BANK, in August, 2008.
In total, 20 BANK employees with direct or indirect relationships with the SYSINTBRAN project were interviewed. The interviews were tape-recorded with the employees' authorization and later transcribed for analysis purposes. Table 1 shows the profile of the employees by management departments, as well the date, duration and the form of the interview (i.e., whether the researcher was personally present or in contact through Internet/Skype™ phone calls.
Since the begnining of the SYSINTBRAN project (November, 2005), three project managers were assigned to it. One of them was not interviewed, but his perceptions were evaluated through the researcher's observations in project meetings. One of the project managers and the project leader, responsible for the IT tasks of the project, were interviewed together ; as were some European branch managers. The IT manager in Europe, responsible for the automation of the European branches, was interviewed twice.

Table 1 – Details of the interviews

Departments	Employee Profile	Date	Duration	Form
International Businesses	01 business manager	29.09.2006	31min44sec	In person
	01 project manager	29.09.2006	1h03min51sec	In person
	01 project manager	30.04.2007	1h40min12sec	In person
Information Technology	01 project leader			
	02 IT consultants	29.04.2007	40min29sec	In person
	01 IT manager (in Europe)	09.12.2005	35min19sec	In person
		13.12.2005	25min55sec	In person
Organizational Strategy	01 project consultant	29.04.2007	8min43sec	In person
	01 project consultant	30.04.2007	14min05sec	In person
International Branches (in Europe)	01 manager	15.12.2005	33min40sec	In person
	01 manager	16.12.2005	24min30sec	In person
	03 managers	13.12.2005	22min30sec	In person
	02 managers	16.01.2006	16min	Internet/Skype™
	01 manager	21.12.2005	43min	In person
	02 managers	27.12.2005	28min35sec	In person
	01 manager	13.01.2006	16min15sec	Internet/Skype™

On analysis of the data collected from the documents, interviews and researcher observation, the technique of qualitative content analysis was applied through categorical analysis (Bardin, 1977, p. 153). The significance unit, or register, was *themes* (thematic analysis). In this way, the categorization criteria were semantic and non syntactic (aggregating verbs, adjectives, pronouns, etc.) or lexical (aggregating by the sense of the words) (p. 118). The themes are clippings of units with variable length extensions, including several sentences.

For the categorization of the themes a category system was designed, even though not sufficiently exhaustive to restrict the analysis (Miles and Huberman, 1994, p. 85), which would jeopardize the perception of unusual data having important significance to the research (Marshall and Rossman, 1995). The category system is formed by regulative, normative and cognitive institutional elements, according to those already developed in this paper.
These elements resulted from previous interviews with the managers of the international branches and with the IT manager, during which the causes of their dissatisfaction with an actual ERP system used in the European branches were explored. The category system was applied as a protocol for the interviews, observations and documents related to the SYSINTBRAN project.

The regulative elements of the category system were: *alternative suppliers* (Williamson, 1985; Hagen and Choe, 1998), hostage (Williamson, 1985), *periodic contract renewal* (Williamson, 1985; Bahli and Rivard, 2003), *reputation* (Williamson, 1985), *long-term contract* (Axelrod, 1984), *pricing* (Lacity and Willcocks, 2001, p. 168) and *service level agreements* (Cullen and Willcocks, 2003, p. 73). The normative elements were: *legal norms* (Durkheim, 1933) and *relational norms* (Macneil, 1980). The cognitive elements were: *functional requirements* and *non-functional requirements* (Leffingwell and Widrig, 2000, p. 231).
The reliability of the study derives from the usage of several sources of evidence, allowing for data triangulation (Yin, 2001, p. 119-128). Moreover, it derives from the following criteria recommended by Tashakkori and Teddlie (1998, p. 92): a) *referential adequacy*, which reviews the analysis at a later time of the research, from the stored data; b) *precise description* of the data sources, procedures for data collection, methods of analysis, and protocols; and c) *member verification*, or the verification of the results by the respondents to the research, considered the most important criterion for the reliability of a study with a quantitative emphasis.

RESULTS AND ANALYSIS

Figure 2 illustrates the model of the institutional elements of the strategic partnership in the IT outsourcing from the client BANK perspective, identified through the results and analysis of this research.

The results and analyses are segmented into the regulative, normative and cognitive institutional elements, seen in the present paper as the elements required for the establishment of the BANK strategic partnership with their future supplier of an ERP system ("... *in a philosophical view, what we are going to search is a partnership relationship where I open a market for an enterprise and it brings me a good solution and helps me to build things which I will need along the time…* " – a quotation from the project manager).

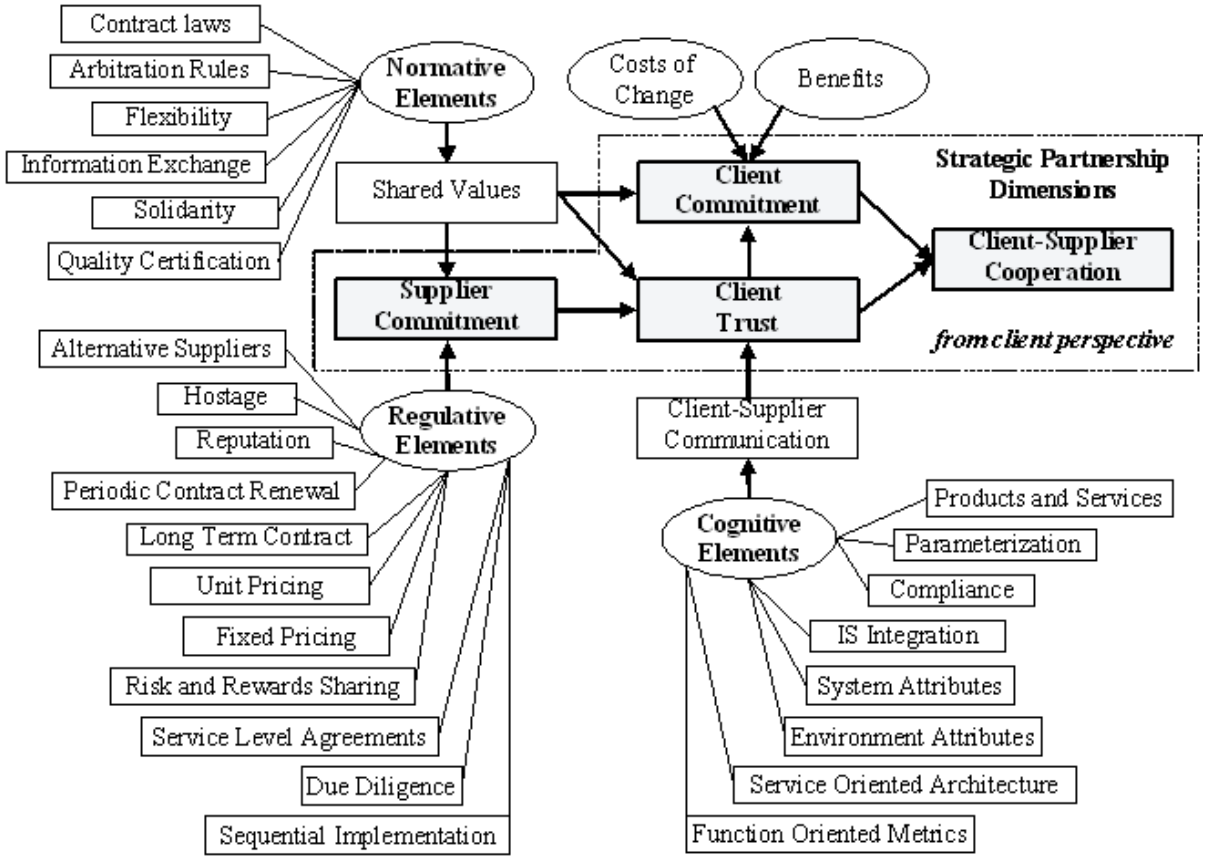

Figure 2 – Model of the institutional elements of the strategic partnership in the IT outsourcing

Regulative Categories

The regulative elements *alternative suppliers*, *hostage* (*investment exhibition*), *reputation, periodic contract renewal, long-term contract, pricing,* and *service level agreements* were confirmed, all of them pertaining to the categorization system. Although *periodic contract renewal* category was confirmed, it is specific for maintenance services ("… *error-corrections, procedural questions, recovery and backup information, and general consultation exists...*" – maintenance clause of the contract), not for the software license survival, which will be perpetual. Thus, both client and supplier consider the importance of the relationship's future.

The exploration of the *pricing* category foreseen in the categorization system allowed the identification of three subcategories (Click and Duening, p. 122-123): a) *fixed pricing,* established for the duration of the contract it allows the client to know exactly what the supplier price will be in the future, but requires defining the scope of the service and designing effective metrics before signing the contract; b) *unit pricing*, by which the client assumes a predetermined rate established by the supplier for a particular level of service; and c) *risk and reward sharing*, as client and supplier each have an amount of money at risk and each stands to gain a percentage of the profits, if the service provider's performance is optimal and achieves the organization's business objective. This last form of pricing is typical of the strategic partnership in the IT outsourcing (Lacity and Willcocks, 2001, p. 168).

There are four forms of pricing in the contract being negotiated between the BANK and the selected supplier: a) license fee, that entitles the BANK to use the system pursuant to the contract and as per the scope defined, based on a limit of concurrent users, customer accounts, and Internet subscribers (customers accessing Internet Banking through the system); b)

maintenance charges, a percentage (22%) over the license fee that must be paid annually; and c) customization charges, that the BANK must pay for any customization of the system to adapt it to its needs. If concurrent users, customer accounts, or Internet subscribers increase or decrease to certain levels established in the contract, the BANK pays an additional license fee or receives a discount, respectively. This paper considers license fee and annual maintenance charges in the *fixed pricing* subcategory; customization charges in the *unit pricing* subcategory; and the possibility of the BANK paying more or receiving discounts over the license fee (levels of concurrent users, customer accounts, and Internet subscribers) in the *risk and reward sharing* subcategory.

The category of *due diligence* was added, meaning the inspection or audits of the information afforded by the supplier (Click and Duening, 2005, p. 94-109). In this paper this encompasses the BANK's visits to the supplier's clients; the presentation by the supplier of the functionalities and technical architecture of the ERP system, by means of a *workshop*, so that the BANK should be able to identify gaps in fulfillment of its needs; and ERP performance tests by specialized companies. A final regulative category is the *sequential implementation* of the ERP system. This manner of implementation is adequate when the ERP system is not uniform in the several places where it will be used (Madapusi and D'Souza, 2005), as the situation of the BANK international branches will be. Furthermore, it allows a controlled implementation, tied to following financial expenditure by the BANK, as well as the interruption of the system of hiring in case of BANK dissatisfaction.

Normative Categories

The categories of *legal norms* and *relational norms*, which are part of the categorization system, were confirmed. The exploration of these categories, however, allowed for the identification of the subcategories of *contract laws* and *arbitration rules*, linked to the legal norms; and *flexibility*, *information exchange* and *solidarity*, bound to the relational norms. The *contract laws* enforce the contract credibility. Besides the British law, the contract considers the German, American, and Indian laws in regulating its long-term duration.

In a different way from the German law, the British law does not give adequate support to client-supplier relationships (Deakin et al., 1997, p. 111). *Arbitration rules*, related to all disputes, controversies and differences of opinion arising out of or in connection with the contract, are governed by the International Chamber of Commerce, according to the contract (software license agreement). The *contract laws* and *arbitration rules* provide the legal norms for client-supplier solidarity.

On the implementation of Macneil (1980) relational norms, Heide and John (1992) identify three elements: a) *flexibility*, defining the bilateral expectation of willingness in making adaptations according to circumstantial changes; b) *information exchanges*, defining the bilateral expectation that the parties will proactively supply useful information among themselves and c) *solidarity*, defining the bilateral expectation that the relationship is of high importance, prescribing behaviors directly related to its continuation.

Scott (2001, p. 52) mentions certification as a normative element in the institutionalization, which is supported by moral recognition. Thus, the norms of quality certification may be seen as "standards through which structures or behaviors can be compared and valued" (p. 54-55) or "the understanding of fair practices in business" (p. 55). Thus, the category *quality certification* is added as a normative element, since the BANK considers the importance of the suppliers having ISO 9001 and CMM-I certifications, which guarantee the quality of their processes for system development.

Cognitive Categories

The categories *functional requirements* and *non functional requirements* were confirmed. In relation to the second, the subcategories *system attributes* and *environmental attributes* of the system were also confirmed.
Exploring the category *functional requirements* has allowed for the identification of the subcategories *products and services*; *parameterization*; *IS integration*, each with the legacy of the BANK (client databases, accounting, etc.) as those from third parties (payments and clearing networks, central banks, credit card enterprises, etc.).; and *compliance*, or the adherence to the laws, rules and contractual arrangements to which the business processes are subjected to, being a criterion both externally imposed and resulting from the internal policies of the organization (ITGI, 2005, p. 11).
The compliance to the norms is the focus of the Basel Agreement II. The Basel agreements are related to the agreements on banking supervision which serve as recommendations to the banking laws and regulations established by the Basel Committee on Banking Supervision (BCBS), a committee composed of banking supervision authorities (BCBS, 2004). Also related to banking supervision are the norms of payments and clearing systems (CHIPS, or Clearing House Interbank Payments System, in the USA; SEPA, or Single Euro Payments Area, in Europe; and SIBS, or Sociedade Interbancária de Bancos S. A., in Portugal; etc.) from the central banks, whose aim is to create solidarity among the banks in the management of their customer payments and in the inter-banking financial transfers.
Two more categories identified in this work are of special relevance for mitigating the abusive power of the supplier over the client in IT software outsourcing: *service oriented architecture* and *function-oriented metrics*. They are considered cognitive elements as they are "practices and procedures defined by rationalized concepts over the way the work must be done and that are institutionalized in society" (Meyer and Rowan, 1991, p. 41, 44). These are institutionalized rules (p. 41, 42) developed through specialized knowledge in universities and professional networks, serving as a shared view for communication as well as an isomorphism instrument (DiMaggio and Powell, 1991, p. 67-71).

Service Oriented Architecture

The development of a system must be based on the definition of an architecture through which are identified the system elements able to cater for the data processing needs, in relation to the electronic input, output, treatment and storage (Pressman, 1995, p. 214-215) – the system requirements. The system elements are the modules that are integrated to attend to the requirements (p. 427). The system requirements are the *what* that the system must cater for (Leffingwell and Widrig, 2000, p. 231); while its architecture is the *how* that the system caters for these requirements (p. 232-235).
The ERP system architecture is considered to be a restriction to the project described in this paper. Leffingwell and Widrig (2000, p. 245) consider this restriction as pertaining to the class of the requirements, but at the same level as the *functional* and *non-functional requirements*. That is justified if the project restriction is "elevated to a level of technical, political or business legitimacy importance, when it caters for the definition of requirement as something needed to satisfy a contract, standard, specification or other documentation formally imposed" (p. 245).
Thus, the *service oriented architecture* was added, due to its importance to the power-dependency relationship between the client (BANK) and the ERP system supplier, since this architecture provides more independence to the BANK to integrate the ERP system with other systems, either their own or from third parties, as well as the infra-structure of the hardware and software needed for its processing. ("*We want an open solution so that we can have the possibility, before any needs, after the supplier is hired, to develop here inside, if it suits our*

needs, or even hire third parties [other suppliers]..." – quotation from the project manager). The SOA standard – Service-Oriented Architecture – is the one adopted by the BANK, whose end is striving for the maximization of the IT alignment to the business needs, through the interoperability of several IS systems (Mackenzie et al., 2006).

Function-Oriented Metrics

A last cognitive category added is related to the measurement of the process through which the software (or system) is developed, that is, the metrics of the productivity which allows the development of projections of the cost and of effort involved in the software (Pressman, 1995, p. 64, 105). Thus, knowledge sharing with regard to the dynamic between client and supplier in IS development, as in the services of new functionalities for the ERP system, allows the former a criterion for the evaluation of the real effort of the development process, avoiding situations when opportunism may be exerted by the latter. *Unit pricing* will be based on the metrics mentioned, being an example of the integration between regulative and cognitive elements.

The BANK already uses the *function point metrics*, which takes as a basis estimates about inputs, outputs, data files, consultations and external interfaces (p. 105). The usage of this metrics is shared by the ERP system supplier with whom the BANK is in final negotiation for contracting ("*We use the function point technique....*" – quotation of a supplier representative observed by the researcher). Thus, the category function oriented metrics (p. 64) is added as a cognitive element.

FINAL CONSIDERATIONS

This paper developed a model of the institutional elements of the client-supplier strategic partnership in IT outsourcing, through the process of contracting an ERP system. Those elements, studied from the perspective of the client (BANK), have the power to afford supplier commitment to the relationship as well as client trust in the supplier. In this sense, they are elements of a cooperative client-supplier relationship. Cooperation is a basis for a successful client-supplier relationship (Morgan and Hunt, 1994). Consequently, these institutional elements are seen in this work as key factors in the relationship's success.

client trust has three dimensions, according to the institutional elements: calculative, normative, and cognitive. The categories of *alternative suppliers*, *hostage*, *periodic contract renewal*, *reputation*, *long-term contract*, *pricing* (*fixed pricing*, *unit pricing*, and *risk and reward sharing*), *service level agreement*, *due diligence*, and *sequential implementation* were identified as regulative institutional elements that contribute to the supplier commitment to the relationship with the client. Supplier commitment is considered as the inductive factor for calculative trust of the client in the supplier.

The categories *legal norms* (*contract laws* and *arbitration rules*), *relational norms* (*flexibility*, *information exchange*, and *solidarity*) and *quality certification* were identified as normative institutional elements, which contribute to the normative trust of the client in the supplier. The categories of *functional requirements* (*products and services*, *parameterization*, *compliance*, and *IS integration*), *non functional requirements* (*system attributes* and *environment attributes*), *service oriented architecture*, and *function-oriented metrics* were identified as cognitive institutional elements. These elements contribute to the cognitive trust of the client in the supplier, as they are responsible for better quality in their communication, mitigating opportunism initiatives and the development of an asymmetric power on the behalf of the supplier.

Two cognitive elements are of special importance to the client-supplier relationship, from a client perspective. The *function-oriented metrics* permits the BANK to foresee the real costs of the supplier services. The *service oriented architecture* affords flexibility and

responsiveness in the evolution of the ERP system to support the business requirements of the BANK, or functional requirements. It has the potential to fulfill not only system attributes (performance, flexibility, maintenance, reuse, scalability, portability, usability, realiability, and interoperability), but also system environmental attributes. In the case of the BANK, these last attributes are the heart of the infrastructure – hardware, software, and people – needed for processing the eletronic transactions of the international branches, as well as the ability of the ERP system to fit the BANK's IT architecture.

The present paper contributes to the theory through the application of the multidimensional perspective of the institutional theory to the client-supplier relationship in IT outsourcing. In doing so, it identifies elements from several theories and integrates them as inducing factors of the supplier commitment and of the client trust, using as a basis the commitment-trust theory. The paper also contributes to organizational practice, since it explores a contemporary phenomenon and identifies elements, which serve as reference for the successful institutionalization of IT outsourcing. In this sense, the management processes of the client-supplier relationship in IT may be improved with the elements found in this work.

One of the limitations of this case study is the impossibility of generalizing its results, although it contributes to theoretical generalization (Yin, 2001). Another limitation refers to the qualitative content analysis. Bardin (1977, p. 115) calls to attention the fact that, although valid in the elaboration of specific deductions on a precise inference category, it is not valid in general inferences. The identified categories may be subject to question, since the content, as a whole, is not exhaustively treated (p. 115). But its potential remains precisely in exploring the reduced *corpus* of data and establishing more discriminating categories.

Finally, this paper suggests two opportunities for future research. The first, a quantitative research project with the model of the institutional elements here developed, or a part of them, through the use of confirmatory factor analysis. The model may require some modifications to assure its fitness for the observations collected through statistical significance. The second opportunity for future research is the development of a similar model from the supplier perspective, as this work explored only the client perspective. The results may indicate a more holistic model to explain the client-supplier relationship in IT outsourcing.

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