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Fit between IT Outsourcing Supplier Sourcing Capabilities and Organizational Structure: A Conceptual Model

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ABSTRACT

Thus far, relatively few studies have focused on the IT supplier side of IS/IT outsourcing arrangements. Existing research identifies two recurring problems: (1) a lack of sustainability with regard to service performance, and (2) a poor fit between the heterogeneous context of clients and homogenous provider solutions. The objective of this theoretical paper is to relate sourcing capabilities and organizational structure of IT suppliers to sourcing performance, taking the dynamics that clients have to deal with into account. To that end, we develop a conceptual model that connects the interaction between developments in the client domain to the sourcing capabilities and organizational structure of suppliers. To be more exact, we hypothesize that realizing a fit between the necessary sourcing capabilities and organizational structure on the IT supplier side will result in a sustainable sourcing performance.

Keywords

IT outsourcing, supply-side, capabilities, organizational structure, performance

INTRODUCTION

Because a growing number of firms outsource their IS/IT services, the IT landscape is becoming more varied, with different outsourcing arrangements. Most research in this area focuses on customer-related aspects, for instance with regard to relationship models (Kern and Willcocks, 2001), contract management, success/failure scenarios and hidden costs (Barthelemy, 2001). However, few studies include the point of view of suppliers (Currie and Seltsikas, 2001). Recent literature reviews (Gonzalez, Gasco, Llopis, 2006) show that only 16% of the 205 reviewed articles focus on the supplier side. The articles that do can be divided into three categories: articles that discuss the role of Application Service Provider (Curry and Seltsikas, 2001), articles that focus on global outsourcing or off-shoring and articles on suppliers in general (Levina and Ross, 2003).

Suppliers of IT outsourcing face serious challenges in their relationship with clients. Outsourcing arrangements are dependent on the capabilities of IT suppliers (Lacity and Willcocks, 2000a). Access to these capabilities is one of the main reasons why firms outsource (Gurbaxani 1996; Quinn 1999; Poppo and Zenger, 1998). IT service provider capabilities are considered to be the most critical success factor (DiRomualdo et al. 1998; McFarlan et al1995). However, Feeny, Lacity and Willcocks (2004) have identified two recurring problems: (1) a lack of sustainability in service performance and (2) a poor fit between the heterogeneous contexts of clients and the homogeneous solutions offered by providers. The first problem has to do with the sourcing capabilities of IT suppliers and the way in which these capabilities are organized, whereas the second problem is related to the continuously changing developments with which clients have to deal, and the sourcing capabilities IT suppliers are able to provide. IT suppliers have to differentiate their outsourcing services in such a way so as to support their clients most effectively.

We argue that IT outsourcing suppliers who manage to establish a fit between sourcing capabilities and their own organizational structure are less susceptible to changes in their clients' developments. Finding this fit has a positive effect on a supplier's performance. IT suppliers who monitor their client's developments will be able to adapt to changing client circumstances and realize a sustainable performance. The fit between sourcing capabilities and organizational structure on the one hand, and the impact on sourcing performance on the other, has not been investigated before. In this paper, we pose the

following research question: Will a fit between sourcing capabilities and organizational structure result in a sustainable sourcing performance, robust enough to support the developments on the part of clients?

This paper is organized as follows. In the following section, we provide a brief outline of the various theories and concepts with regard to IS/IT outsourcing arrangements. We describe and explain core constructs, i.e. client developments, supplier sourcing capabilities, structure and performance, and their interaction. We introduce a model that identifies the relationships between the core constructs. Finally, we discuss the theoretical relevance, practical implications (e.g. for IT suppliers) and directions for further research.

LITERATURE REVIEW

Because our research focuses on establishing a 'fit' between supplier sourcing capabilities and organizational structure, it is this fit that forms the starting point in our attempt to identify appropriate theories. We focus on firm-specific motivation with regard to establishing a fit. Lee and Kim (1999) have argued that theories that deal with this subject can be divided into three categories: strategic, economic and social/organizational (see Figure 1).

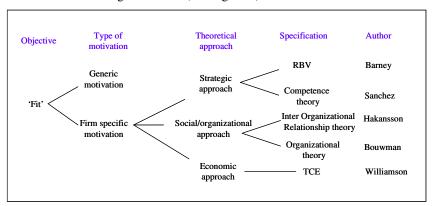


Figure 1. Relationship between research objective and relevant theories

We begin by taking a look at the Resource-Based View (RBV), to discuss the capabilities and competences of an organization, after which we discuss organizational theories and the Inter Organizational Relation (IOR) theory, and finally the Transaction Cost Economics (TCE).

Resource-based view (RBV)

The field of strategic management focuses on the reasons that firms have for making different strategic choices and, subsequently, the effect that these choices have on their performance. Some studies focus on how external and internal factors influence a firm's strategic choices, while others look at how strategic choices affect the performance of firms. Research regarding firm performance is based on resource-based reasoning (Barney, 1986; Wernerfelt, 1984). The Resource Based View (RBV) offers a useful complement to Porter's (1980) perspective on strategy. RBV shifts the emphasis from the firm's competitive environment towards its resources and the relevance of a firm's capabilities with regard to the execution of its strategy. RBV focuses on concepts like organizational structures, managerial competence, technological capabilities, core competences and firm performance. The organizational structure and competences are a combination of tangible and intangible assets and, according to Barney (1991), will help improve a firm's performance. In the Resource-based view, a firm's resources are seen as strategically more important than its attempts to adapt to changes in the environment, as proposed by Porter. Barney (1991) argues that a sustained competitive advantage is derived from a firm's resources and capabilities that are valuable, rare, and hard to imitate or substitute. The resources and capabilities can be viewed as bundles of tangible and intangible assets, including firm management skills, competences, organizational processes and routines, and the information and knowledge that a firm controls. Numerous studies (Robins and Wiersema, 1995; Hendersen and Cockburn, 1994; Barney and Arikan, 2001) have attempted to measure the resources and capabilities of firms and to relate them to firm performance. Research in general indicates that firms that build their strategies on path-dependent, causally ambiguous, socially complex and intangible assets outperform firms that build their strategies on tangible assets only (Barney, 2001), which means that it makes sense to assume that there is a relationship between a firm's capabilities and sustainable performance. However, it is important then to determine which resources and capabilities are relevant. To do so, we take a look at competence theory.

Competence theory

In the 1990s, a reorientation took place with regard to core competencies and competence-based competition (Sanchez, 1997). Competence theory starts with the assumption that to realize organizational competences, an effective integration of internal and external competitive dynamics is needed. Competence theory characterizes a firm as an open system of tangible and intangible (e.g. competences) assets, stocks and flows (Dierickx and Cool, 1989). IS literature suggests that a firm's competences are positively related to its performance (King and Zeithaml, 2001; Carmeli and Tishler, 2004).

The distinction between the capabilities that are discussed in the RBV on the one hand, and core competences on the other, is that, although core competences include organizational capabilities, organizational capabilities are not necessarily core competences. Many authors have pointed out that, in order to become a competence, a capability must be unique in the market place and collective in nature.

Organizational theory

Formal organizational structure and the roles that people play, including the competences and responsibilities involved have been investigated extensively in organizational literature (Dalton et al, 1980). An organization is a unit of formal positions, usually occupied by individuals, with explicit objectives, tasks, processes and assets (Bouwman et al., 2006). The term structure refers to an organization's internal pattern of relationships, authority and communication (Thompson, 1967). Information and communication technology is a core element of organizations, and it is directly related to organizational structure, process architecture and information management (Versteeg & Bouwman, 2006). Most organizations, including IT outsourcing suppliers, divide their organization into various levels, like top management, staff, middle management and the work floor. Firms that rely on the division of labor can only stay in business when they are able to organize the internal transaction of services more efficiently than other firms.

Existing literature suggests that the nature of organizational structure in industrial versus post-industrial firms can be regarded as mechanistic (inorganic) versus organic (Daft, 1995; Lawrence and Lorsch, 1967; Zammuto and O'Conner, 1992). Daft (1995) argues that the mechanistic paradigm is effective when environments have a high degree of certainty, technologies tend to be routine, organizations are designed to handle handling large volumes (e.g. products or services) and employees are treated as just another resource. Internal forms tend to be vertical, functional and bureaucratic. The organic paradigm, on the other hand, is characterized by an unstable, even chaotic nature of the external environment. Typical features of these types of organizations are teamwork, face-to-face interactions, learning and innovation. Organizations that operate with a high degree of environmental uncertainty may decentralize their decision-making process (Ruekert et al, 1985) and flatten their hierarchies (Walton, 1985). The organizational structure of a firm is related to its external environment. In the case of IT sourcing suppliers, the external environment is defined by the client organization and by market dynamics (Hakansson, 1982; Lawrence and Lorsch, 1967; Bourgeois et al, 1978). The assumption is that, in light of this external environment, the organizational structure of some IT suppliers provides a better match with the client's environment than others. In that sense, the organizational structure of IT suppliers can be seen as conditional to the relationship between the developments on the part of the client, and the supplier's sourcing capabilities that are designed to support these developments.

Inter-Organizational Relationship theory (IOR)

Although some studies have investigated the IT outsourcing relationships between IT suppliers and their sourcing clients (Klepper, 1994; McFarlan and Nolan, 1995; Kern and Willcocks, 2000, 2001; Alborz et al., 2003), the scope of these studies has been limited, due to the fact that the context within which the two parties involved have to operate is neglected. The Inter Organizational Relationship (IOR) theory examines the conditions under which a dyadic inter-firm relationship develops (Kern and Willcocks, 2001). The IOR is particularly valuable in analyzing inter-organizational coordination and co-operation (Bensaou and Venkatraman, 1996; Cunningham and Tynan, 1993), and it focuses on interactions between parties that are geared towards the joint accomplishment of individual objectives. However, there are a number of dimensions that are not covered by IOR. Based on a literature review on IT outsourcing relationships, Hakansson (1982) developed an 'interaction approach' that has been derived from IOR. The 'interaction approach' focuses in particular on the interaction, structure and context of relationships (Kern and Willcocks, 2002). It has received empirical validation in literature regarding marketing (Hakansson, 1982) as well as IT (Cunningham and Tynan, 1993; Leek et al., 2000). The interaction approach can help identify which types of client-related developments are relevant, and how these developments affect the capabilities of

suppliers.

Transaction Cost Theory

In addition to strategic and organizational considerations, economic considerations play an important role as well. Because most outsourcing-related decisions that are made in the early phase of the IT outsourcing process involve a make-or-buy scenario, transaction cost economics (TCE) have often been applied in the decision-making process of IT outsourcing. The objective of TCE is to explain why firms exist and how firm boundaries are determined (Coase, 1937; Williamson, 1979). Transaction costs can be defined as costs associated with an economic exchange that varies independently of the competitive market price of the goods or services being exchanged. Costs include not only costs related to production, capital, labor and material, but also costs related to transactions. This means that organizations, and with them the decision-makers, have to take all the costs (production costs plus transaction costs) into account when deciding to produce service in-house or to outsource them.

Watjatrakul (2005) has examined the determinants of IS sourcing decisions from a TCE perspective. Aubert et al. (2004) used TCE to determine how the characteristics of IT operations influence the level of outsourcing. For a number of reasons, TCE is used as a framework by academics and practitioners alike. First of all, from a strategic point of view, TCE is applied within firms to decide whether or not to outsource IT services. Secondly, TCE is based on the assumption that organizations make decisions based on some economic rationale. Other researchers have approached this area from a cost-related point of view, looking at the complexity of outsourcing contracts and ex-post transaction costs. However, research indicates that there are some limitations as well. Internal resources are neglected, in particular the influence of an organization's core competences. To some extent, this is due to the fact that TCE focuses more on economic considerations than on organizational arguments. In developing an efficient organizational structure, IT suppliers attempt to minimize their transaction cost, which means that suppliers need to build an organizational structure that meets the needs of their clients.

The insights from these theoretical approaches are summarized in Figure 2.

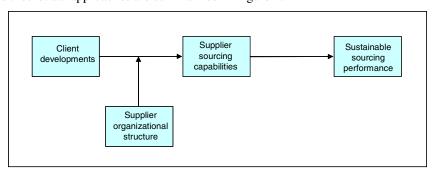


Figure 2. Initial Research Framework

In the next section we elaborate on the core concepts and propose a number of hypotheses in which the core concepts are related to each other.

RESEARCH DOMAIN

We begin by identifying relevant client-related developments in relation to supplier capabilities. Secondly, we discuss IT supplier sourcing capabilities and the moderating role of organizational structure. After explaining the construct of firm sourcing performance, we propose a more refined conceptual model.

Client developments

We begin by focusing on client-related developments in relation to IT supplier sourcing capabilities. Based on a literature review, Hakansson's interaction approach was used as a starting point to create a comprehensive view on IT outsourcing relationships. The literature review was also the basis for an empirical research to gather qualitative information. We have analyzed five client organizations in five different sectors in the Dutch business community. All of the selected client organizations are market leaders in their specific market sector and operate in an intense and dynamic environment. The client organizations have at least four years of experience in managing the relationship with their suppliers. From an IT

perspective, outsourced IT activities include: office automation, business applications, software development and IT infrastructure.

The data collection was generated by conducting in-depth interviews with key informants in each client organization, including IT executives (e.g. Chief Information Officer), sourcing managers, information managers, and delivery managers. As a result of our empirical research we have identified seven developments that are relevant to a supplier's capabilities. There are four external factors (globalization, market dynamics, legislation and technological and other innovations) and three factors that are related to internal responses to external dynamics (sourcing strategy, business architecture consideration and the required level of flexibility). To create an approach that is consistent with the other research constructs, we have decided to focus on client-related developments that are based on organizational aspects, and not to include market-related and technological aspects. As a result, we have included sourcing strategy, innovation and required flexibility.

Sourcing strategy, the first issue to be addressed, consists of variables like selective sourcing (a single plot), strategic sourcing (multiple plots) and value-based sourcing (shared risk and reward). The choice in favour of a specific sourcing strategy influences the sourcing capabilities of an IT supplier, taking into account the fact that the type of strategy can change over time. The second issue refers to the level of process-related and technological innovation with which IT suppliers have to deal. Clients rely on IT suppliers and expect them to be able to improve processes and technologies constantly, which will improve their effectiveness. The third issue refers to the required flexibility of an IT supplier. Variables that are relevant in this respect are pro-activity and adaptability. Clients that operate in a dynamic market require a high degree of flexibility, which means that suppliers need to have a pro-active attitude.

Supplier competences

Literature on IT supplier sourcing capabilities is limited. Only two articles have been published in the last five years that describe the role and importance of IT supplier competences and capabilities. The first article is based on research by Kern and Willcocks (2001), who argue that IT suppliers need to have three types of organizational competences to support their relational advantage: customer awareness, business skills and service delivery. The second article refers to a study by Feeny et al. (2004), based on earlier research by Kern and Willcocks (2001), describing twelve supplier capabilities that are related to three organizational competences: delivery, transformation and relationship (see Table 1). The first organizational competence, delivery, determines the extent to which a supplier is able to react to a customer's day-to-day needs with regard to operational services, and it includes topics like business management, domain expertise, behavior management and sourcing. The second organizational competence is related to the area of transformation. Relevant topics in this area are technology exploitation, process improvement, program management and customer development. The third and perhaps most important organizational competence focuses on the relationship between supplier and customer, including topics like planning and contracting, organizational design, governance and leadership. It is interesting to note that, during the acquisition phase of many outsourcing arrangements, only a limited number of customers are interested in the available and actual competences of their supplier. Instead, they focus on the amount of resources a supplier is able to provide.

Sourcing capabilities of an IT Supplier		
Domain Expertise Capability	Supplier's capability to apply and retain sufficient professional knowledge	
	of the target process domain to meet user requirements.	
2. Business Management Capability	Supplier's capability to consistently deliver against both customer service	
	level agreements and its own required business plans.	
3. Behaviour Management Capability	Supplier's capability to motivate and manage people to deliver service with	
	a 'front office' culture.	
4. Sourcing Capability	Supplier's capability to access whatever resources are required to deliver	
	service targets.	
5. Technology Exploitation Capability	The ability to swiftly and effectively deploy technology in support of	
	critical service improvement targets.	
6. Process Improvement Capability	The ability to design and implement changes to the service process to meet	
	improvement targets.	
7. Customer Development Capability	The ability to transition users of an internally provided service to customers	
	who make informed choices about service level, functionality and the costs	
	they incur.	
8. Planning and Contracting Capability	The capacity to develop and contract for business plans which deliver	
	'win/win' results for customer and supplier over time.	
Organizational Design Capability	The capability needed to deliver the necessary resources, wherever and	
	whenever they are needed to achieve the business plan.	
10. Governance Capability	The ability to define and agree, to track and assess, the performance of	
	service over time.	
11. Program Management Capability	The capacity to prioritize, coordinate, ready to organization, and deliver	
	across a series of inter-related change projects.	
12. Leadership Capability	The capacity to identify, communicate, and deliver the balance of activities	
	required to achieve present and future success for both client and provider.	

Table 1. IT Supplier Sourcing Capabilities Overview (Source: Feeny et al, 2004)

Kern and Willcocks (2001) and Feeny et al. (2004) have described the organizational competences and capabilities of IT suppliers in a generic way, which leaves room for a more detailed study. In particular, there is a knowledge gap regarding sourcing capabilities and the way in which they are organized. The sourcing capabilities as described above will form the starting point for this research. Supplier sourcing capabilities have to be aligned with client requirements, which can be done in regular meetings between client and supplier. However, the value and content of capabilities being discussed will change over time. It is, therefore, valuable to analyze the relationships between the client-related developments that have been identified and their influence on supplier sourcing capabilities. We hypothesize:

- H 1. The client-related development 'sourcing strategy' has a strong effect on IT supplier sourcing capabilities.
- H 2. The client-related development 'innovation' has a strong effect on IT supplier sourcing capabilities.
- H 3. The client-related development 'required flexibility' has a strong effect on IT supplier sourcing capabilities.

The moderating role of organizational structure

The organizational structure of a firm is in line with its external environment, which in this study refers to the client's organization and market dynamics (Hakansson, 1982; Lawrence and Lorsch, 1967; Bourgeois et al., 1978). Because a client's situation is subject to change, the supporting organizational structure of the IT supplier may also vary. Mintzberg (1983) has described five coordinating mechanisms to explain the fundamental ways in which organizations coordinate their actions. Daft (1995) has elaborated on these mechanisms and investigated the level of formalization, specialization, standardization, hierarchy of authority, complexity, centralization, professionalism and personnel ratios. Germain (1996) focuses on specialization, decentralization and integration in describing the role of the context and form of organizations. Koufteros and Vonderembse (1998) emphasize centralization and formalization. Other researchers concentrate on the degree of centralization of the decision-making process, formalization of rules and procedures and structural differentiation in their research into environmental uncertainty and organizational form. In this paper, we use the five most important subdimensions, as described by Nahm et al. (2003) (Table 2).

Sub-dimension	Definition	Literature
Nature of formalization	The degree to which workers are provided with rules and procedures that deprive versus encourage creative, autonomous work and learning	Aiken and Hage(1971), Blau (1970), Damanpour (1991), Dewar and Werbel (1979), Evan and Black (1967), Koufteros and Vonerembse (1998), Miner (1982), Pierce and Delbecq (1977)
Number of layers in hierarchy	The degree to which an organization has many versus few levels of management	Burns and Stalker (1961), Damanpour (1991), Doll and Vonderembse (1991), Hull and Hage (1982), Walton (1985)
Level of horizontal integration	The degree to which departments and workers are functionally specialized versus integrated in their works, skills and training	Davenport and Nohria (1994), Doll and Vonderembse (1991), Gerwin and Kolodny (1992), MacDuffie (1995), Vonderembse et al (1997), Walton (1985)
Locus of decision-making	The degree to which decisions are made high versus low in the organizational hierarchy	Daft (1995), Damanpour (1991), Doll and Vonderembse (1991), Gerwin (1996), Germain et al (1994), Nemetz and Fry (1988), Ruekert et al (1985), Thompson (1965), Walton (1985), Zammuto and O'Conner (1992)
Level of communication	The degree to which vertical and horizontal communications are slow, difficult and limited versus fast, easy and abundant	Aiken and Hage (1971), Damanpour (1991), Doll and Vonderembse (1991), Walton (1985)

Table 2. Sub-dimensions for Organizational Structure (Adapted from Nahm et al., 2003)

The first sub-dimension, 'nature of formalization', relates to rules and procedures. Existing literature indicates that we can distinguish between a high and a low level of formalization. A high level of formalization is related to a mechanistic form, whereas a low level is related to an organic structure. Depending on its nature, formalization can either limit or support decentralization, flexibility and autonomy. The second sub-dimension, 'number of layers in hierarchy', refers to the number of management levels within an organization. In a more traditional command and control model, an expanding hierarchy is required due to a need to control behavior. In a commitment model, the management form tends to be flat, relying on shared goals for control and lateral coordination. Organic organizations have few layers, while mechanic organizations tend to have a more hierarchical structure. The third sub-dimension, 'level of horizontal integration', relates to generalization versus specialization. Service firms, like IT suppliers, will integrate the functionalities of various departments. The justification for this type of choices lies in an adequate response to the changing environment and client needs, which is why it is assumed to add value. The fourth sub-dimension, 'locus of decision-making', refers to the level in the organization were decisions are made. Firms that operate in an uncertain environment should delegate decisions to the level where employees are able to react quickly to changing circumstances. When the level of organizational uncertainty is high, the strategic decision-making authority may be centralized, while the operational decision-making authority should be decentralized. The lower the locus, the more decentralized the decision-making will be. The fifth sub-dimension, 'level of communication', refers to characteristics like speed, complexity and regularity. In a management model where control is leading, vertical and horizontal communication will be slow, difficult and limited in nature. Organizations that apply a management model based on commitment will find that the level of horizontal communication will increase and the nature of vertical communication will change.

We regard the organizational structure variable as a moderating variable, and expect it to act as a condition with regard to the influence a client's developments have on the sourcing capabilities of IT suppliers. We assume that a good fit between organizational structure and sourcing capabilities will strengthen the performance of the IT supplier. Vice versa, we believe that a poor fit between these two elements will weaken the performance of an IT supplier. This leads to the following hypothesis:

H 4. The influence of a client's developments on the sourcing capabilities of IT supplier's is strong when there is a good fit between organizational structure and sourcing capabilities. When there is a poor fit, the influence will be weak.

Firm performance

Sourcing arrangements ultimately have to lead to an improved performance of the IT supplier organization. Because there are many studies that focus on firm performance from the point of view of the RBV, we need to focus on a specific element of performance. In line with what we have done so far in this paper, we focus on organizational performance. Kaplan and Norton (1992) proposed the business scorecard (BSC) concept to measure a firm's performance. They argued that traditional measures need to be supplemented with non-financial perspectives that reflect customer satisfaction, internal business processes, and learning and growth perspectives. Kaplan and Norton's proposed solution is limited, because their approach focuses on individual firms, rather than on inter-organizational arrangements. Neely and Adams (2000) have designed and developed the Performance Prism, which is a three dimensional model that is based on five facets which together provide a comprehensive set of measurement tools. In essence, the Performance Prism looks at the interdependencies among

stakeholders, which is why the first element of the Prism consists of stakeholders (e.g. customers, internal departments, employees). The second element identifies the contributions of each stakeholder to the operations of the organization under study. The three other elements are strategies, processes and capabilities. After determining which strategies are necessary to achieve stakeholder satisfaction, the required process-related performance has to be measured. To support and enhance the processes, capabilities are required. Ultimately, using the Performance Prism framework to analyze the performance of IT supplier organizations allows us to identify and measure sourcing capabilities and organizational structures in relation to a firm's performance. We hypothesize that:

H 5. IT suppliers who create a good fit between their sourcing capabilities and organizational structure are better able to realize a sustainable sourcing performance.

The hypotheses are summarized in figure 3.

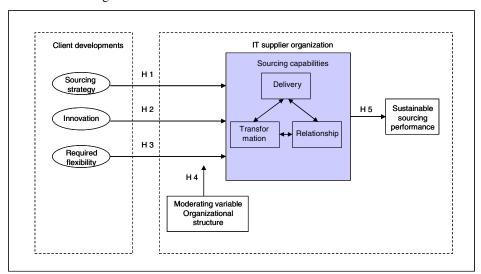


Figure 3. Conceptual Model

Proposed research methodology

We will conduct an exploratory multiple case study, using questionnaires and interview protocols. Empirical data will be used to test our hypotheses. Three IT suppliers are central in our cases. The questionnaire contains questions related to constructs like client developments, sourcing capabilities, organizational structure and sourcing performance. We will interview multiple management and employee representatives to avoid 'elite bias' and to deepen our understanding of the constructs. The interview method is based on a semi-structured interview protocol. The interviews will be recorded on tape, transcribed, submitted to the supplier representative for approval and subsequently coded. Finally we will apply in-depth case analysis as well as cross-case analysis.

CONCLUSIONS AND CONTRIBUTION

In this paper, we have presented a model that describes the relationship between the sourcing capabilities and organizational structure of an IT supplier organization. The conceptual model postulates that IT suppliers who create a fit between their sourcing capabilities and organizational structure are able to realize a sustainable performance. The model implies that a regular monitoring of a client's developments and a review of the fit between capabilities and organizational structure enables IT suppliers to adapt to changes in the client's needs. Based on the relationships we have identified, we introduced five hypotheses. We will subject the proposed conceptual model to rigorous empirical tests, using case studies as well as quantitative analysis. This paper contributes to existing literature by exploring the fit between the sourcing capabilities and organizational structures of IT supplier organizations. Thus far, this area has received relatively little attention. Moreover, the practical value of this paper to IT suppliers is that it increases their awareness of the relevance of finding a fit between their capabilities and organizational structure, and the different arrangements that enable a sustainable performance. IT suppliers will be able to improve their sourcing performance. Regular evaluations with regard to their clients' developments allow IT suppliers to adapt to changing business needs by focusing on the way capabilities are organized and made available.

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