TOWARDS A DESIGN THEORY FOR CUSTOMER SATISFACTION-ORIENTED IT VENDOR MANAGEMENT

Completed Research Paper

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Abstract

IT vendor management (ITVM) plays an increasingly relevant role for IT organizations; many companies already spend more than half their IT budgets on services from external providers. These providers are often in direct contact with internal IT and business staff, thus significantly impacting their satisfaction. Although recent studies reveal that companies are often dissatisfied with external IT suppliers, the ITVM literature does not propose practices that directly address customer satisfaction. We extend the ITVM literature by developing a design theory for customer satisfaction-oriented ITVM. To answer our research question, we have been conducting an action research study at a professional service company. Our work makes a twofold contribution. First, we present generalized design principles (DP) for implementing customer satisfaction-oriented ITVM. Second, we explain why these DPs should be considered by organizations seeking to enhance customer satisfaction and how these DPs should be implemented.

Keywords

IT vendor management, IT customer satisfaction, design theory, action research.

Introduction

External vendors play a key role in relation to IT organizations; many companies already spend more than half their IT budgets on products and services from external vendors (Gartner 2009) and are looking to raise the IT budget amount dedicated to external IT procurement (Kurzlechner 2010). Organizations expect several benefits from purchasing IT products and services from external vendors, including cost reductions, quality increases, access to lacking skills and capabilities, and avoidance of resource bottlenecks (e.g. DiRomauldo and Gurbaxani 1998; Fan 2000). Furthermore, technological innovations such as cloud computing contribute to reducing technical barriers to the integration of vendors in the IT value chain. External vendors' role for IT organizations have evolved over the past decades; in addition to providing traditional IT products such as hardware, software, and services, IT organizations now increasingly outsource complete processes such as application development and integration or data center operations (e.g. Michell and Fitzgerald 1997). As a result, steering IT vendors requires an increasingly strong involvement by IT departments. In this paper, we define IT vendor management (ITVM) as the client firm's capability to steer the relationships with its IT vendors. It speaks into the client firm's ability to plan, control, coordinate, and maintain vendor relationships (Balaji and Brown 2005). In line with IT vendors' importance for organizations, there is a large body of knowledge dealing with ITVM that provides prescriptions on how to deal with external IT vendors, especially in the context of IT outsourcing (e.g. Barthélemy 2003; Feeny and Willcocks 1998; Kern and Willcocks 2000; Lacity and Willcocks 1998; Urbach and Würz 2012). Despite the abundant prescriptive literature on ITVM, studies reveal that companies are often dissatisfied with the deliverables supplied by external IT vendors (e.g. Jones 2012; Kakabadse and Kakabadse 2002). Indeed, many organizations strongly focus on cost savings, which

demotivates IT vendors, and thus often leads to higher costs and lower customer satisfaction (Dail 2005; Lee and Kim 1999; Willcocks and Kern 1998).

The problem of low satisfaction with procured IT products and services is gaining relevance for IT organizations owing to the increased involvement of vendors in the modern IT value chain; increasingly, vendors and their staff are in direct contact with both internal IT personnel and business users. Unsurprisingly, vendors significantly impact these parties' satisfaction. However, despite the importance of a high IT customer satisfaction level for IT organizations, the ITVM literature focuses mainly on enhancing the quality of deliverables and makes no recommendations on how to directly enhance customer satisfaction (e.g. Feeny and Willcocks 1998; Gewald and Helbig 2006; Urbach and Würz 2012). In fact, service good quality and customer satisfaction are not synonymous. Although high service quality is an antecedent of customer satisfaction, customer satisfaction also depends on subjective factors such as customer expectations and perceptions (e.g. Caceres and Paparoidamis 2007; De Ruyter et al. 1997). Accordingly, neglecting 'soft' customer satisfaction factors in requirement definition, contract design, vendor selection, and vendor steering can – besides strong cost orientation (Dail 2005; Willcocks and Kern 1998) – be a reason for low customer satisfaction with IT products and services, because these factors play an important role in defining a customer's experiences with an IT product or service (McCarthy and Wright 2004). Thus, designing ITVM practices that address the soft factors of customer satisfaction and seek to establish win-win situations between customers and IT vendors may well enhance customer satisfaction.

To address the problem of dissatisfaction with IT products and services delivered by external vendors, we investigate current ITVM practices and identify improvement areas for these practices. Since there are abundant prescriptions on how to design ITVM in the IS literature, we provide detailed recommendations on how to extend current ITVM practices so as to enhance customer satisfaction. We follow the design science paradigm in information systems (IS) research (March and Smith 1995; March and Storey 2008; Nunamaker et al. 1990), which is a problem-solving (Hevner et al. 2004) and prescription-driven paradigm (van Aken 2004) that seeks to create new things that serve human purposes (March and Smith 1995) and provide solutions to management problems (Gregor and Jones 2007). The results can be of both technical and – as is the case in our study – organizational-methodological in nature (Boland 2004; van Aken 2007). Our goal is to extend the ITVM literature by developing a design theory for customer satisfaction-oriented ITVM (Gregor and Jones 2007; Walls et al. 1992). Specifically, we aim to (1) derive a generalized set of metarequirements (i.e. generalized requirements) on the ITVM practices to be developed to enhance customer satisfaction, (2) to explain why these metarequirements are met by a generalized set of ITVM design principles (DP) (i.e. generalized design prescriptions), and (3) to deliver blueprints for the implementation of DPs (Baskerville and Pries-Heje 2010; Gregor and Jones 2007). We strive for a high level of abstraction in order to be able to generalize our design theory (Baskerville and Pries-Heje 2010). To capture the de facto state of ITVM practices and to identify grounds for improvement, we review the prescriptive literature on ITVM. We also examine the general vendor management literature (with a non-IT focus) in order to identify practices that can be relevant for ITVM's further improvement. To answer our research question, we chose an action research approach, as specified by Susman and Evered (1978), since this method, with its iterative hypothesis development and testing cycles, is particularly suitable for developing prescriptive knowledge (Lindgren et al. 2004; Walls et al. 1992). More specific, we conducted an action research study at a large professional service company.

Research Method

Research Approach

We seek to further improve current ITVM practices and to develop a design theory for customer satisfaction-oriented ITVM. A design theory aims to build prescriptive knowledge that is actionable, communicable, and can be jointly developed (Gregor and Jones 2007). In other words, a design theory explains how to best construct an artifact that seeks to solve a concrete problem (in our case, low satisfaction with supplied IT products and services) (Walls et al. 1992). Here, we rely on the definition of design theory proposed by Gregor and Jones (2007) that specifies six sufficient components of a design theory: (1) The *purpose and scope* of a design theory is defined by its metarequirements. (2) *Constructs* are representations of the entities of interests in the design theory (e.g. customer satisfaction, roles, and

processes). (3) *Principles of form and function* are the design theory's DPs and represent the design theory's essence; they represent an abstract conceptualization of a specific artifact aiming to solve a class of problems. (4) *Artifact mutability* discusses the anticipated changes to the artifact encompassed by the design theory. (5) *Testable propositions* are truth statements about the design theory. Finally, (6) *justificatory knowledge* represents the theories and the evidence-based knowledge that explain a design decision.

Our unit of analysis is the client-vendor relationship. To develop our design theory, we opted for the action research approach (Baskerville 1999), which seeks to develop knowledge that is useful to both research and practice (Lindgren et al. 2004) and is particularly suited to develop prescriptive knowledge owing to its interventionist character (Baskerville 1999). Action research thus allows researchers to test working hypotheses about the investigated phenomenon (in our case, how ITVM practices enhance customer satisfaction) by directly implementing new practices and assessing change in a real-world setting (Baskerville 1999). Many varieties of action research approaches available to researchers (Baskerville 1999). In this paper, we follow a canonical action research approach, as specified by Susman and Evered (1978), which is one of the most popular approaches (Davison et al. 2004). We conduct our action research at a large international professional service company (named AuditServ for confidentiality reasons), which invited the researchers to support a project aiming to further improve its ITVM management practices. To establish a clear research environment (Susman and Evered 1978), an agreement was signed that specified the responsibilities of both the researchers and AuditServ. During the project, the researchers were assisted by an IT controller from AuditServ and had to regularly report to the CIO on progress.

Research Process

Initiation

The initial step in our research process was the development of the ITVM's theoretical framework based on prior research. The theoretical framework guides the diagnosis phase and is the basis for prescription and recommendation in the action planning phase (Baskerville 1999). To develop our theoretical framework, we scanned the literature databases *AISeL, EBSCO, JSTOR,* and *ScienceDirect* as well as the search engine Google Scholar using the keywords "vendor management," "outsourcing management," "outsourcing governance," "supplier management," and "procurement management." Thus, we identified a first set of research papers, and extended it with relevant papers we came across during the analysis of the papers' references. In the later phases of the framework development, when we had already created a preliminary list of ITVM practices, we searched literature related directly to these practices. We adopted a concept-centric approach to structure the literature (Webster and Watson 2002). The practices recommended by the ITVM literature led us to the following IT vendor lifecycle process:

- *Requirements definition* (Urbach and Würz 2012): In this step, business and technical requirements are collected, defined, and prioritized to guide further vendor-related decisions.

- *Vendor selection* (Feeny and Willcocks 1998): This step consists of choosing the adequate vendor based on selection criteria and gathering information for this decision.

- *Contract design* (Barthélemy 2003; Feeny and Willcocks 1998; Urbach and Würz 2012): The aim of this step is to define a contractual agreement between customer and vendor.

- *Vendor steering* (Feeny and Willcocks 1998; Urbach and Würz 2012): In this step, vendor performance as well as the fit between deliverables and contractual agreements are assessed. Service improvement opportunities are also identified.

The ITVM literature also suggests the definition of a governance structure for the vendor lifecycle process. *ITVM governance* encompasses defining roles, decision structures, and internal reporting mechanisms (e.g. Gewald and Helbig 2006), developing customer-vendor communication channels and guidelines for relationships with vendors (DiRomauldo and Gurbaxani 1998; Gewald and Helbig 2006; Urbach and Würz 2012), and managing vendor-related risks (e.g. Urbach and Würz 2012). Furthermore, ITVM literature covers the goals that companies want to reach by implementing ITVM practices. The main goals discussed in the literature are reducing risk, enhancing the quality of deliverables, better strategy

realization, business-IT alignment, and reducing vendor opportunism (e.g. DiRomauldo and Gurbaxani 1998; Gewald and Helbig 2006; Urbach and Würz 2012). General management literature proposes similar vendor management practices and implementation rationales, such as vendor governance (Cao and Wang 2007; Matook et al. 2009) and vendor steering (Greer et al. 1999). In addition, general vendor management literature notes the importance of advanced vendor selection activities such as the definition of sourcing strategy and vendor categorization (Day et al. 2010; Kraljic 1983).

Diagnosis

In line with the recommendations of action research literature, we used a qualitative and interpretative approach to assess the current state of ITVM at AuditServ and to identify opportunities for improvement related to customer satisfaction (Baskerville 1999). We collected qualitative data for the identification of customer satisfaction-related ITVM challenges and the construction of causal relationships between ITVM practices and their (expected) impacts on customer satisfaction. Based on our ITVM theoretical framework, we developed a two-part interview guideline. Part 1 contains open questions concerning actual ITVM challenges, ITVM practices that have already been or should still be implemented, and the requirements that such practices should fulfill. Part 2 contains questions related to the building blocks of the ITVM's theoretical framework. We selected interviewees based on the extent of their involvement in the company's ITVM processes. The selection of informants from the vendor side was limited to the seven vendors AuditServ ranked as strategic partners, since these vendors deliver the IT products and services that are the most relevant in terms of customer satisfaction. These strategic vendors have different sizes and offer diverse products and services (see Table 1). Through interviewing informants from various organizations, we gained different perspectives on AuditServ's ITVM and performed source triangulation (Lincoln and Guba 1985).

Company	Employees	Total revenues	Products offered	Number of interviews
AuditServ	~ 7,000	~ €1 billion	Auditing services and consulting services	23
Vendor 1	~ 18,000	~ €3 billion	Telephony, call center technology, and network services	2
Vendor 2	~ 10,000	~ €2 billion	Supply, implementation, support, and management of IT systems	2
Vendor 3	~ 6,000	~ €0.6 billion	Accounting software	2
Vendor 4	~ 25,000	~ €25 billion	Computer hardware	1
Vendor 5	~ 80,000	~ €50 billion	Computer software, consulting services	1
Vendor 6	~ 46,000	~ €8 billion	IT services, consulting services, and IT outsourcing	1
Vendor 7	~ 120,000	~ €15 billion	Printing services	1

Table 1. Overview of Companies

In total, we carried out in-depth semi-structured interviews with 33 informants. We interviewed several internal stakeholders (e.g. the CIO, IT area managers, IT department managers, IT service managers, and business representatives) as well as representatives of all strategic IT vendors. All interviews were carried out by one – and in some cases two – researchers, recorded, and transcribed. We collected approximately 350 pages of interview transcripts and an additional 200 pages of field notes and documents. The interview transcripts, documents, and interviewer notes were analyzed and interpreted during data collection. Data analysis was structured into three steps: *open coding*, *axial coding*, and *selective coding* (Strauss and Corbin 1990). This data analysis approach has proved successful for analyzing data in the diagnosis phase of action research (Lindgren et al. 2004). We used the *open coding* process to identify,

uncover, and label key concepts hidden within the qualitative data. These codes were then grouped into categories or *constructs* for DPs' development. During the *axial coding* process, we grouped the identified constructs into *synthesizing categories*: *ITVM principles* are the methods, processes, and guidelines used to steer relationships with IT vendors (e.g. monitor service delivery). *Design requirements* are the purposes of the implementation of an ITVM practice (e.g. reducing vendor opportunism). Finally, an *ITVM's objective* is enhanced customer satisfaction. We added this category to be able to code the text fragments that indicate why the fulfillment of a design requirement leads to a better customer satisfaction level. Subsequent coding employed the *selective coding* approach, for which we used the theoretical sampling procedure to selectively sample new data and reconcile emergent codes with the working hypotheses set (i.e. the causal relationships between DP implementation, the fulfillment of metarequirements for customer satisfaction-oriented ITVM, and the realization of higher customer satisfaction).

Action Planning and Action Taking

Based on the metarequirements developed in the diagnosis phase, the researchers proposed a list of ITVM DPs to be implemented in order to enhance customer satisfaction at AuditServ (Baskerville 1999). This list contains DPs proposed by the informants in the diagnosis steps, as well as theoretically grounded DPs proposed by the researchers to solve observed problems. This list had been consolidated by means of different feedback cycles between the project's core team members (i.e. the researchers, the CIO, and the IT controller allocated to the project). After consent had been reached within the core team, AuditServ's IT management (about 30 employees) were invited to a workshop to evaluate and prioritize the developed DPs using the web-based real-time collaboration software ThinkTank®. The workshop results were considered to refine our DPs and to develop an ITVM action plan for the DPs' implementation. In fact, at AuditServ, the core team implements the DPs: for each DP, the researchers made proposals for processes, role models, methods, and tools. These proposals were discussed and refined with the IT controller and then approved by the CIO. Once approved, the IT controller, supported by the CIO and assisted by the researchers, was in charge of implementing and monitoring the changes in the organization.

Findings from the First Action Research Cycle

Diagnosis

In this section, we provide the highlights of our detailed assessment of ITVM at AuditServ. This company has more than 7,000 employees and total revenues of more than €1 billion. It offers auditing and consultancy services. At AuditServ, information technology (IT) plays an important role, because auditors and consultants are knowledge workers that largely depend on IT services in the execution of their daily tasks. Furthermore, most employees have an intense need for achievement and are not willing to accept services that do not fit their particular needs or interfere with established work routines. ITVM is particularly relevant for AuditServ, because vendors cover the entire IT value chain and are involved in the delivery of almost all offered IT services. Unsurprisingly, ITVM topped the agenda of the CIO, who initiated the ITVM project with the aim of enhancing customer satisfaction. The CIO's primary concerns were opportunistic vendor behavior (e.g. vendors do not provide what they promised) and a lack of understanding of AuditServ's needs by vendors. He was backed up by the CFO, who shared the opinion that vendor performance was low. Vendor opportunism was a prominent issue in the interviews with AuditServ informants. The vast majority of AuditServ's informants claim that IT vendors tend to promise much but do not deliver what they promise. In addition, some vendors deliberately communicate wrong information about their products and capabilities in order to get selected. Overall, AuditServ's IT representatives are not totally satisfied with vendor service quality; there is a high turnover among IT vendors, with new employees being assigned to each new AuditServ project. As a result, external employees needed some time to understand AuditServ's specificities in each project. In addition, informants perceive the vendor's ability to advise as unsatisfactory, and claim that vendors seldom make suggestions on how to optimize the company's IT processes. However, informants notice the risk of low-price contracts and claim that these contracts lead to vendor opportunism (i.e. low quality, unwillingness to cooperate), with high follow-up costs.

Vendor selection is the central procurement department's responsibility. Overall, the relationship between procurement and IT is characterized by goal conflicts: While central procurement mainly seeks to minimize prices, the IT department seeks to maximize customer satisfaction. This goal conflict is accentuated by the absence of clear vendor selection rationales. Once the contracts are approved by the customer and the vendor, the quality of the delivered IT products and services should be monitored. While service level agreements (SLA) are defined for each service, and IT employees are well aware of the business's quality expectations and the importance of customer satisfaction, service manager roles and accountabilities are – however – not clearly defined. In addition, the service managers' business understandings are considered insufficient. Furthermore, many informants insisted on the importance of an incentive model for strategic vendors, including rewards for good performance and not only penalties for underperformance. In addition, informants stated that a vendor is able to deliver good quality only if he or she is working under good conditions. Furthermore, informants from both AuditServ and from vendors claim that the processes for an alignment of expectations during projects are ineffective, and regret the lack of regular meetings with vendors, where expectations could be exchanged and customer satisfaction levels could be communicated. AuditServ's CIO realized the difference between the quality of the delivered services and customer satisfaction. For instance, he states that factors such as vendor staff friendliness and customers' expectations of benefits play important roles in quality perceptions and customer satisfaction.

Action Planning

The diagnosis phase revealed the importance of positive customer experience with supplied IT products and services for high customer satisfaction. Customer experience refers to customers' perceptions and feelings toward a product, system, or service as a result of direct interaction (McCarthy and Wright 2004). Research claims that customer experience is influenced by subjective antecedents such as sensual factors, emotional factors, customer expectations, customer perceptions and past experiences, and product or service quality (Bitner 1990; Brady and Cronin Jr 2001; Hui and Bateson 1991; McCarthy and Wright 2004). It also states that positive customer experience directly influences satisfaction with offered products and services (e.g. Bitner 1990). Thus, to address customer satisfaction challenges related to ITVM, in the action planning phase, the researchers developed – jointly with the involved AuditServ employees – a vendor experience management system (VEMS). Our VEMS is a comprehensive set of ITVM DPs that seek to enhance customer satisfaction by addressing customer experience.

Metarequirements for a VEMS

The diagnosis phase revealed a list of six metarequirements (MR) for our VEMS (see Table 2).

Label	Metarequirement	ITVM challenges addressed
MR1	A VEMS should make customer experience and customer satisfaction manageable	• Customer experience and customer satisfaction are concepts that are hard to grasp • Classical SLAs are not enough to steer the "soft" factors of customer experience and customer satisfaction • IT organization is not used to think in terms of "soft factors" for customer experience and customer satisfaction • Customer experience and customer satisfaction are perceived to be too intangible
MR2	A VEMS should avoid/reduce/stop opportunistic behavior by vendors	• Vendors often do not deliver what they promised • Vendors do only the bare minimum • Vendor make no extra efforts • Vendors concentrate on fulfillment of hard SLA criteria and neglect "soft" customer satisfaction factors • Vendors show no proactive behavior • Vendors do not provide advice for optimizing IT processes

MR3	A VEMS should contribute towards a customer-oriented culture in the IT organization	• The IT organization is technology-oriented rather than business-oriented • Business employees are not satisfied with merely a running IT, but seek optimal support of their work processes • IT's low customer orientation
MR4	A VEMS should allow for a stepwise development of various capabilities	• IT organization has little experience of customer experience measurement and steering • Organization cannot draw on established practices • External know-how is expensive or simply not available
MR5	A VEMS should be scalable across the organization	• It is not enough to have a VEMS for one vendor and/or vendor-related project • The VEMS should allow for establishing customer experience and customer satisfaction-orientation across the entire vendor portfolio and the entire IT organization
MR6	A VEMS should not negatively impact the vendor relationship	• A positive vendor relationship is beneficial • A VEMS should help strengthen rather than weaken vendor relationships

Table 2. Metarequirements for a Customer Satisfaction-Oriented ITVM

In the following, owing to space limitations, we present only the first MR in detail: *A VEMS should make customer experience and customer satisfaction manageable* (MR1). In spite of individual differences, research claims that customer experience is definable, can be modeled in a comprehensive, abstract way, and can thus be assessed, analyzed, steered, and improved (Tseng et al. 1999). However, the diagnosis phase reveals the limits of classical requirements' management in assessing the "soft factors" that influence customer experience (e.g. service employees' dress code) and confirms the relevance of these factors for high customer satisfaction. Furthermore, the informants claim that the soft factors of customer experience can hardly be addressed by classical SLAs. They also stress that the concepts of customer experience and customer satisfaction are difficult to grasp owing to their intangible natures. In addition, AuditServ's IT organization seems unaccustomed to thinking in terms of customer experience and customer satisfaction. Indeed, the notion of customer experience was not familiar to most of our informants, and there were only rudimentary tools available to assess customer satisfaction (e.g. user feedback button in the helpdesk and ticketing system). Hence, the VEMS should address the definition, assessment, development, and monitoring of customer experience and customer satisfaction.

Design Principles for a VEMS

We developed seven VEMS DPs to fulfill the revealed MRs (Table 3).

Label	Design principle	Description	MR addressed
DP1	Define and measure customer experience and customer satisfaction	• Qualitatively describe the required customer satisfaction level • Analyze the "soft" factors of customer experience that drive customer satisfaction • Model cause-effect chains from customer experience to customer satisfaction • Develop metrics to measure customer experience and customer satisfaction • Organize measurement of customer experience and customer satisfaction	MR1 MR3 MR4 MR5

DP2	Steer vendors based on customer experience and customer satisfaction-related targets	• Define target values for customer experience and customer satisfaction for vendors • Define target values for customer experience and customer satisfaction for counterparts in the customer organization • Use targets during personal performance review meetings	MR1 MR2 MR3 MR5 MR6
DP3	Establish a benefits sharing model	• Develop incentives for vendors to improve customer experience and ultimately customer satisfaction • Define rewards for positive development of customer experience and customer satisfaction • Define rewards for proactive vendor behavior	MR2 MR3 MR5 MR6
DP4	Establish dedicated and joint customer experience planning and implementation	• Align expectations between vendor and customer • Jointly plan customer experience and customer satisfaction improvement initiatives • Jointly implement these initiatives • Use dedicated planning and controlling processes for this purpose	MR1 MR2 MR6
DP5	Define accountabilities, monitoring, and escalation procedures	• Define accountabilities for customer experience and customer satisfaction on the customer side • Define accountabilities (contact partners) for customer experience and customer satisfaction on the vendor side • Define monitoring procedures (e.g. reporting) and escalation processes	MR1
DP6	Implement a vendor selection process and vendor portfolio management that considers customer experience and customer satisfaction	• Define new customer experience and customer satisfaction-oriented selection criteria • Define required levels of customer experience and customer satisfaction orientation/success for becoming a preferred or strategic vendor • Define minimum levels of customer experience and customer satisfaction orientation/success	MR2 MR3 MR5
DP7	Implement continuous improvement for customer experience and customer satisfaction measurement and monitoring	• Customer experience-related drivers of customer satisfaction should regularly be reviewed, refined, and revised • Organization should develop customer experience and customer satisfaction identification and measurement capabilities • Set up a database with metrics for ongoing use	MR4

Table 3. Design Principles for a Customer Satisfaction-oriented ITVM

We also suggest testable propositions (TPs) for each DP. Owing to limited space, we discuss only *DP1, DP2*, and *DP3* in more detail.

DP1: Define and measure customer experience and customer satisfaction

To make customer experience and customer satisfaction manageable (MR1), a specific definition and measurement tool should be developed for these concepts. The first step is to qualitatively describe the required levels of customer experience and customer satisfaction with each supplied IT product and service (MR5) (e.g. we seek high customer satisfaction with the products supplied by vendor X and

medium customer satisfaction with vendor Y's products). This description should reflect the customer satisfaction level that can be realized given the available capabilities. The description can be revised when the IT organization is more familiar with the VEMS (MR4). With this description in mind, the "soft" factors of customer experience that drive customer satisfaction (e.g. vendor employee dress code, the vendor employee friendliness, the service atmosphere) should be analyzed in order to model the cause-effect chains that connect these customer experience factors to customer satisfaction. This is expected to make these causal relationships transparent and, hence, create awareness in the IT organization about the relevance of positive customer experience (MR3). The subsequent step is to develop metrics to measure customer experience, customer satisfaction, and the de facto measurement of both these parameters (MR1). These measurements form the basis for vendor steering.

We suggest the following TPs for DP1:

TP1a: Measurable customer experience and customer satisfaction are manageable.

TP1b: Managing customer experience and customer satisfaction leads to a better customer satisfaction with supplied IT products and services.

TP1c: Revealing the causal relationships between the soft factors of customer experience and customer satisfaction increases awareness of the importance of these factors in the IT organization.

DP2: Steer vendors based on customer experience and customer satisfaction-related targets

To realize the defined customer satisfaction targets, IT organizations should develop vendor steering practices that consider these targets (MR1) for all relevant IT products and services (MR5). In agency theory terms (Eisenhardt 1989), the customer (i.e. principal) should propose an outcomes-based contract to the vendor (i.e. agent) that evaluates the vendor's performance by considering the realized customer satisfaction level. Such contracts are expected to align the goals of clients and vendors (and thus curb vendor opportunism) (MR2), and are only applicable if the customer satisfaction outcomes are measurable (DP1) (Eisenhardt 1989). IT vendors are expected to cooperate and offer defined customer experience target levels, because high levels of customer satisfaction and service customization would guarantee a sustainable competitive advantage for them (i.e. customer lock-in) (Bettencourt and Gwinner 1996). In practical terms, the client organization should define target values for customer experience and customer satisfaction for the vendors and should steer them accordingly (e.g. by including them in the SLA). However, since our informants stress the importance of good working conditions for good vendor performance (MR6), target values for vendor experiences and satisfaction should be defined for vendors' counterparts in the customer organization. These counterparts act as an agent for IT management (which is interested in strong vendor relationships, as revealed in the diagnosis phase). Thus, such measures can also be seen as outcomes-based contracts that align the goals of IT management and the counterparts of internal vendors (Eisenhardt 1989). The target values for vendors and vendors' counterparts should be used for performance review. This is expected to anchor the importance of customer experience and customer satisfaction in the IT organization (MR3). We suggest following TPs for DP2:

TP2a: Proposing outcomes-based contracts to IT vendors, based on the achieved levels of customer experience and customer satisfaction, reduces vendor opportunism.

TP2b: Reduced vendor opportunism leads to better customer experience and customer satisfaction.

TP2c: Defining target values for vendor experiences and satisfaction for vendors' counterparts leads to stronger relationships with IT vendors.

DP3: Establish a benefits sharing model

Our AuditServ informants confirm that proposing low prices to vendors enhances vendor opportunism and their risk-taking propensity in order to maximize their profits. They also affirm that low prices limit a vendor's willingness to process new requirements, and thus affect customer satisfaction with the deliverables. This observation is in line with studies that confirm that unbalanced contracts that favor the client are not necessarily beneficial to the client (Kern et al. 2002) and stress the benefits of win-win situations (Saunders et al. 1997). In fact, the CIO was willing to establish a benefits sharing model with IT vendors based on customer satisfaction-dependent rewards. The aim of benefits sharing is to establish a win-win situation between the vendor and the customer that builds the basis for a long-term relationship

(MR6). This means a shift from cost savings-oriented ITVM to customer satisfaction-oriented ITVM (MR3). The literature suggests that benefits sharing as a form of outcomes-based rewards enhances vendor commitment (i.e. the vendor's willingness to cooperate) (Shi et al. 2005) and aligns the goals of the client and the vendor (Eisenhardt 1989), thus reducing vendor opportunism (MR2). Having defined the desired levels of customer experience and customer satisfaction, as well as the rewards that the client is willing to pay the vendor for reaching these levels, a benefits sharing model is applicable to each client-vendor relationship (MR5). Specifically, such a benefits sharing model should specify incentives for vendors to improve customer experience and, ultimately, customer satisfaction (e.g. a bonus for higher customer satisfaction). In this context, one of the IT office managers states that *"We need a bonus system or maybe an incentive system for our strategic vendors." In addition, the CIO states: "It's important for the vendor to establish an effective incentives system for the key account managers and to understand what factors motivate them. [...] The customer satisfaction component in the key account managers' incentive models is considered not enough."* In addition, such a benefits sharing model should define rewards for the positive development of customer experience and customer satisfaction. The model should also define rewards for proactive vendor behavior (e.g. sharing the cost savings resulting from a vendor's process optimization advice).

We suggest the following TPs for DP3:

TP3a: Incentives for vendors based on customer experience and customer satisfaction reduce their opportunism.

TP3b: Establishing a benefits sharing model strengthens relationships with IT vendors.

Action Taking

To communicate and describe our design theory to AuditServ (Gregor and Jones 2007), we developed a conceptual map representing the main constructs of our design theory (see Figure 1) that sums up our major assumptions, defines the roles and accountabilities for implementing the new ITVM practices, and integrates them in the actual ITVM and IT processes. For implementing our design theory, it is important to consider that the IT departments of different companies can strive for different customer satisfaction levels and can have different IT planning, implementation, and steering processes, as well as different governance structures (i.e. artifact mutability) (Gregor and Jones 2007). The implementation of our DPs is still ongoing. In the following, we report the current realization state of the DP.

Regarding establishing a benefits sharing model, AuditServ is developing a model for strategic alliances with its strategic vendors based on the conceptions and expectations of the diagnosis phase's informants. AuditServ is (internally) preparing a first draft of the model that will be discussed with the researchers. After this model is finalized, a new contract outlining the new cooperation model will be developed and an vendor will be selected for a pilot phase. To align expectations concerning customer satisfaction with IT vendors, AuditServ seeks to establish regular feedback meetings with vendors to discuss customer satisfaction levels and other issues, as well as lessons learned and workshops relating to past experiences. To implement these measures, AuditServ will define a set of vendors suitable for a pilot phase, AuditServ participants, vendor participants, responsibilities for regular meetings with vendors, adequate meeting intervals, and develop a standardized agenda and protocol.
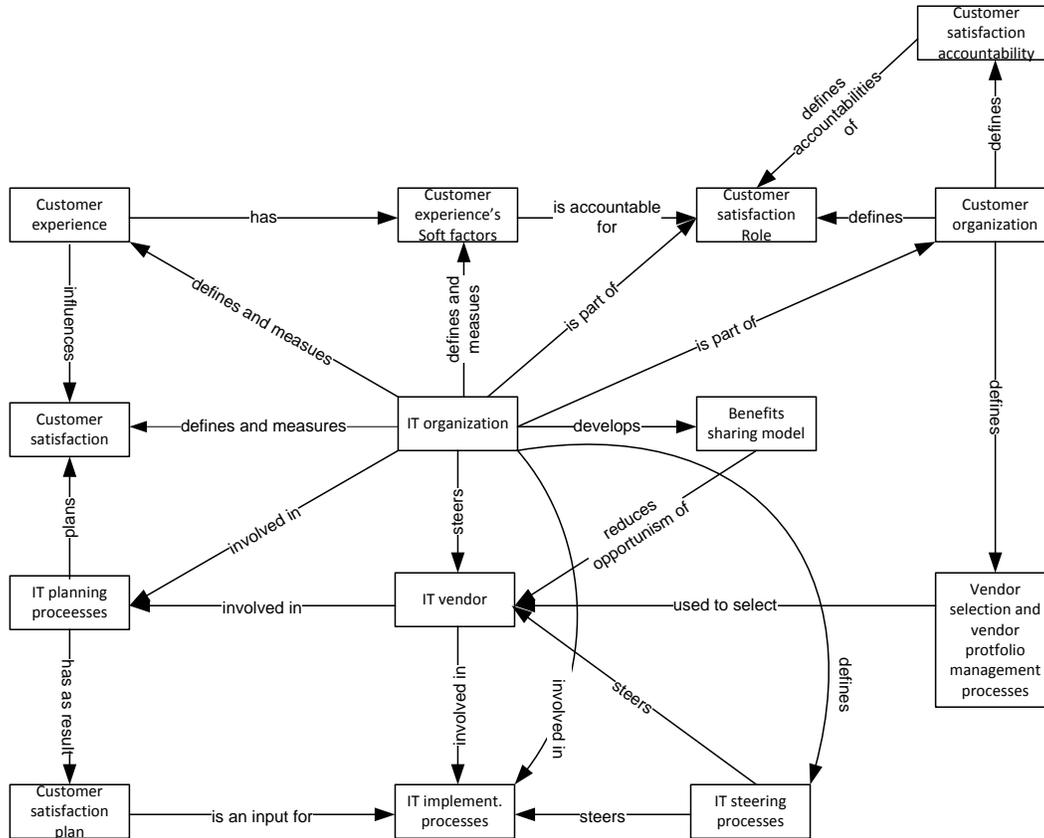
Figure 1. Conceptual Map

Discussion and Outlook

In this paper, we used an action research approach to investigate how to adapt current ITVM practices in order to enhance customer satisfaction. For each of our DPs, we theoretically explain and present preliminary empirical evidence of why the implementation of a particular DP is expected to lead to higher customer satisfaction. Our findings indicate that establishing benefits sharing and incentive models for IT vendors, as well as defining and steering customer experience, are the chief management practices that promise improved IT customer satisfaction. Our work's contribution is twofold: First, we present a generalized design theory for implementing customer satisfaction-oriented ITVM. Second, we develop a basic theoretical understanding of which DPs are needed to enhance customer satisfaction and of how these DPs contribute to reaching this goal. Formulating such DPs can be a first step towards a more general prescriptive research in the field of ITVM, which is dominated by studies on IT outsourcing management and governance. Our research results have immediate practical implications. After having exploited the potential of detailed contracts and strict enforcement of governance guidelines, our research suggests that companies can only reach the next level of ITVM by addressing the "soft" factors that influence customer satisfaction, and by establishing a trustful work atmosphere with IT vendors. In addition, explaining a DP's MRs is essential for organizations seeking to implement ITVM. This explanation allows companies to better judge whether a certain practice can lead to significant ITVM improvement in a particular organizational setting and to better measure the impact of an ITVM practice.

To corroborate the findings, we will supervise the whole DP implementation process at AuditServ and evaluate the outcomes of the implementations by means of qualitative methods (Baskerville 1999): We aim to interview the informants from the diagnosis phase to get their appraisal of the outcomes of the implementation of our DPs. We will use this feedback to start a second action research cycle and to refine our DPs. Nevertheless, our work has some limitations: The major limitation is action research at only one

site, which limits the generalizability of our findings (Lee and Baskerville 2003). However, having followed established qualitative data analysis guidelines, we are confident that we have achieved a high level of analytical generalizability with our findings (Strauss and Corbin 1990). Another limitation is the inability to state which DP is more relevant for enhancing customer satisfaction, since our findings do not reveal the magnitude of a DP's effect on customer satisfaction. Our research attempts to formalize a design theory of customer satisfaction-oriented ITVM. Future research can study general vendor management in other contexts in order to develop general customer satisfaction-oriented vendor management DPs.

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