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Factors Contributing to the Information Technology Vendor–Client Relationship

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Abstract:

This paper examines the relationship between IT vendors and the clients who use their products and services. The last fifteen years have seen a large increase in the amount of spending on purchased software as opposed to internally developed software. The dynamic of these relationships has not been a focus of current IS research and, as such, remains largely unexplored. The paper identifies the factors that influence the success of information technology vendor–client relationships. Qualitative interview data is analyzed using grounded theory to create a list of factors that describe both good and bad relationships as perceived by experienced IT professionals. Using these factors, a model of information technology vendor–client relationships is presented. Future research directions are suggested as well as implications for research and practice.

Keywords: Vendor–client relationship, information technology, grounded theory

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INTRODUCTION

Forrester estimates the information technology global spending figure to be about \$1.55 trillion. This figure has been growing by about 4 percent for most of the last ten years. This includes infrastructure, software, consulting, and telecom purchases made by global organizations (Bielski 2007). By choosing to enter into a purchase agreement for these services or technologies, firms now have to deal with outside vendors as opposed to internal resources. The choice to purchase information technology, as opposed to developing the technology in-house, has led to a greater need to focus on vendor–management activities. The focus on vendor–management activities represents a different skill set for information technology professionals, since now the focus is more on interpersonal skills and less on technical competencies.

Studying the domain of vendor–client relationships has predominantly come from the marketing and operations research disciplines. Research has produced models for predicting successful relationships (Moorman, Deshpande, et al. 1993) and included a variety of variables that influenced these exchange relationships. However, there has been a disagreement on both what constructs should be included in a model and how the success of the relationship should be measured. Some studies have measured success from an economic standpoint, while others have used behavioral variables like commitment or general satisfaction. There has also been no empirical investigation into the application of these theories to information technology vendor–client relationships. The inconsistency among existing models of general exchange relationships and the fact that they have not been empirically tested on information technology vendors present an opportunity for a gap in the literature to be closed.

In this paper we define vendor–client relationships as the total of all activities directed toward establishing, developing, and maintaining successful relational exchanges between technology vendors and their clients. As such, the core research question is: What are the critical factors that influence the success of information technology vendor–client relationships? In answering this question, the paper is organized as follows. First is an overview on vendor–client relationships as they have been described in previous research. Second is a description of the research method employed as part of this study. Next is a description of the empirical findings that emerged from a grounded theory study of twenty-four information technology relationships. The findings of the study are then developed into a theoretical model that conceptualizes the information technology vendor–client relationship. Future research directions, limitations, and implications for practitioners and researchers are also discussed.

VENDOR–CLIENT RELATIONSHIPS IN PREVIOUS LITERATURE

One focus of prior research has been a description of vendor–client relationships based on the stages of the relationship's development. In what has become a seminal work, Dwyer, Schurr, and Oh (1987) explained some of the main drivers behind the development of the buyer–seller relationship. They shifted the focus of research away from a transaction view of marketing research and toward a view of the relationship being built from all the exchange interactions between buyer and seller. They expanded a five-step development process for the creation of a buyer–seller relationship (Dwyer, Schurr, et al. 1987). One other thing that Dwyer et al. established was that the relationship was not just about one business relating to another. Instead, it is a dynamic between two (or more) individuals who represent those companies, e.g., the purchasing agent and the salesperson. Many research articles have

CONTRIBUTION

There are many ways this research contributes to the IS community. This study provides a description of the factors influencing both positive and negative information technology vendor–client relationships. Using these identified factors, a model of information technology vendor–client relationships is presented. With this model practitioners can focus efforts on improving those factors within their organization that need improvement and preserving those that appear to be fine.

The understanding of these relationships is important for firms to continue to receive the goods and services they need on an ongoing basis from technology vendors. Interruptions of service and diminished quality can have a detrimental impact on a company's bottom line and performance. Getting a maximum return from technology investments can be achieved by clients paying attention to the factors identified in this study.

This research is of interest to both academics and practitioners who want to study the dynamics of the vendor–client relationship. Subsequent research can utilize the identified list of factors to measure how each factor impacts the overall vendor rating and relationship.



referred to this as something akin to a marriage (Moon and Bonney 2007). As such, there are factors that contribute to maintaining the relationship and factors that contribute to abandoning the relationship.

An example of a stage model of vendor–client relationships in IS research was Yao and Murphy's state–transition approach used to model application service provider relationships (2005). Drawing on outsourcing and marketing literature, Yao and Murphy proposed that credibility, capability, communication, trust, dependence, and conflict resolution affect the decision to shift commitment to an application service provider from short- to long-term. This work represents a theoretical contribution to the literature and was not empirically tested.

There have been a number of models proposed in previous literature that seek to explain vendor–client relationships. Morgan and Hunt (1994) proposed a model of relationship marketing that used commitment and trust as mediating variables between five antecedent variables and five outcome variables. Using a sample of tire dealers, Morgan and Hunt found support for their model. However, no overall measure of relationship satisfaction was used. Another example of a theoretical model that included an overall satisfaction measure was Moon and Bonney's investment model (2007). Their theoretical model contrasted buyers' and sellers' commitment to a relationship based on the individual's evaluation of interpersonal interactions that took place during the relationship exchange processes.

Bitner, Booms, and Tetreault (1990) looked into the determinants of favorable and unfavorable encounters in a service relationship. They studied more than 700 exchanges from hotel, airline, and restaurant service interactions—a type of buyer–seller relationship. They found that it often was not the service itself that determined the impression of the encounter but the service employee who handled the incident and the relationship. They cite failure examples, such as hotel overbooking, that employees try to correct. The act of trying to correct the problems lead customers to find the incident to be a positive experience. Our study seeks to follow a similar research procedure, focusing on favorable and unfavorable information technology relationships.

In a study of long-term orientation of buyer and seller relationships, Ganesan (1994) suggested that the buyer–seller relationship was built on mutual dependence and trust. He further found that dependence and trust were related to environmental uncertainty, transaction specific investments, reputation, and satisfaction in a buyer–seller relationship. The study looks to evaluate established technology relationships that have a long history of interaction between two firms. Having this history of interaction gives a rich picture of the complex dynamic of the information technology relationship.

Studies have focused on a specific aspect of the information technology vendor–client relationship. Brereton (2004) put forth a very generic description of the software customer–supplier relationship with a simple model. The description was not claimed to be all-encompassing. Wang and Head (2007) looked at customer relationships as they related to online e-tailing.

However, very few studies have focused exclusively on the information technology vendor–client relationship and validated their findings with empirical evidence. By focusing on this relationship, our study seeks to expand our understanding of the information technology vendor–client relationship through the analysis of a broad array of qualitative data obtained from structured interviews using a grounded theory approach. The results are then used to create a formal model of information technology vendor–client relationships. The next section describes the research methodology used in this study.

RESEARCH METHODOLOGY

The research method employed for this study was based on grounded theory, with the aim of generating a theoretical model that described and explained successful information technology vendor–client relationships. Glaser and Strauss (1967) proposed grounded theory as a practical method for conducting qualitative research. Grounded theory has a focus on the interpretive process social actors use to produce meaning and concepts in actual settings. From this, theory can be extracted. They argued that new theory could be developed or extended by paying careful attention to the contrast between what was going on and how the actors within that context interpreted the realities around them. Grounded theory has been an established research methodology for information technology research (Webb and Mallon 2007) as well as management research in general (Suddaby 2006). A good example of grounded theory in IS was Orlikowski's use of grounded theory to describe organizational changes associated with CASE tools use and adoption (1993).

The aim of grounded theory is to derive theory from data rather than to gather data in order to test a theory or hypothesis (Strauss and Corbin 1998). A researcher then develops theory through an iterative analysis of the data that takes place concurrent with its collection. In this way, theory established through data is more likely to resemble reality than theory derived from concepts or through speculation alone (Strauss and Corbin 1990). Grounded

theories, because they are drawn from data, are likely to offer enhanced understanding and insight. It is also important that the evaluation of data draw on critical and creative thinking processes (Strauss and Corbin 1998).

Grounded theory was originally described as a method for the study of social behavior from a sociological point of view. From these beginnings, grounded theory has been used in many studies and in various disciplinary contexts, including the social sciences, psychology, and management information systems (Oza, Hall, et al. 2006). Examples of grounded theory being used in the IS field include Oza, Hall, Rainer, and Grey's (2006) use of grounded theory to describe how trust fits into software outsourcing relationships; Zahedi, Pelt, and Srite's (2006) examination of culture in web documents; and Scott and Kaind's (2000) exploration of enhancement requests for ERP software.

Data Sources

The method described by Glaser and Strauss (1967) is built on two key concepts: constant comparison and theoretical sampling. Constant comparison is the requirement that both collecting data and engaging in data analysis occur at the same time. Theoretical sampling requires using the emerging theory to determine which data should be collected next. To facilitate the concept of constant comparison, two examples of information technology vendor–client relationships were solicited from different interview subjects: one a good example of a relationship and one a bad example of a relationship. This allowed for a direct comparison of an ideal and a challenging example of a relationship as perceived by the same person. Following the concept of theoretical sampling, interview subjects were solicited based on theoretical relevance and purpose. Thus, interview subjects chosen had direct experience with the vendors (one good and one bad) in question and had been a part of the technology's selection, implementation, and maintenance within the organization. Interview subjects were in a position to make judgments about the vendor based on a history of interactions with the vendor across multiple stages of the relationship. Analysis of the data from the subjects was examined as they were transcribed, and the addition of new subjects ceased once no additional concepts and attributes were uncovered and the themes of the descriptions were repeated from previous vendor relationship descriptions.

Data Collection Using Standardized Open-Ended Interviews

This study used standardized open-ended interviews to collect qualitative data. Patton (1980) explains that the standardized interview consists of a set of questions carefully worded and arranged with the intention of taking each respondent through the same sequence and asking each respondent the same questions with essentially the same words. The benefit of the approach is that it allows the respondents to clearly express themselves in their own words but does so in a systematic way. This is also a way to clearly determine a respondent's level of expertise and avoid format effects from questions (Foddy 1993).

The interview questions in this study focused on three main topics. The first was the general characteristics of the technology. This included questions on a description of the technology, versions used, costs, length used, and number of users. The next set of questions focused on product quality and included questions about maintenance, upgrades, implementation, and any technical problems with the technology. The third set of questions focused on the vendor–client relationship and dealt with support procedures, communication, primary contact, and escalation. The last question asked for specific reasons or actions for which the respondents qualified the relationship and was left open-ended so the respondents could clearly articulate their reasons for classifying a vendor as good or bad. Respondents were asked the same set of questions twice, once for a good relationship example and once for a bad or challenging relationship example.

Grounded Theory Data Analysis

Data collected through the qualitative interviews are analyzed through the grounded theory approach. According to the grounded theory method, coding is the central mode of analysis for transforming data into theory. Coding is defined as the analytic process through which data is fractured, sorted, and conceptualized into various categories for comparative analysis. Its goal is to identify, relate, and develop concepts found in the data into blocks that can be used to build theory. Concepts should be viewed as a representation of an object, event, or action that a researcher identifies as being significant in the data. Categories and subcategories emerge when similarities are discovered in concepts found in the data and they are applied to the properties of the categories. Strauss and Corbin (1998) suggest that categories are grounded in the sense that they are formed from evidence in the research situation. Strauss and Corbin (1998) also stress that interpretation of the data by the researcher influences the naming of categories.

This study gathered data through interviews that were transcribed in order to do formal data analysis. Each transcript was coded using the open-coding methodology described by Strauss and Corbin (1998). Following the open-coding technique, the transcripts were broken into discrete parts, closely examined, and compared for similarities and differences. The descriptions of events, happenings, and actions that were found to be similar in nature or related in meaning were grouped into categories (Strauss and Corbin 1998). This grouping of similar



categories or concepts is known as axial coding and it relies on a human driven analysis of the data to make connections between concepts. The final step in the grounded theory data analysis is known as selective coding and is the process of integrating the findings of the data to refine and extend theory to explain the phenomena studied. For this study the extension of theory is the creation of a theoretical model of information technology vendor–client relationships based on the data obtained from the twenty-four relationships described by the subjects. This theory looks at how interactions that take place at the individual, technology, and organizational level impact a client's perspective of the vendor–client relationship. The next section describes the research procedure in more detail.

Research Procedure

Prior to the interviews discussed in the study, a pilot interview was done to validate the questions and the measures. The questions were asked to an information technology professional working for a research institution. Based on the feedback from this interview, the questions were modified to be more easily understood and flow together. The pilot interview was also used to develop better interviewing skills. The pilot interview results are not included in the analysis of the study.

The interviews for this study took place between May and July of 2007. The first author undertook all of the interviews. Interviews were conducted over the phone and were audio recorded. No other person was present during the interviews. Each interview lasted between 20 and 45 minutes. Interviewees were not given the questions in advance in order to avoid prejudging the interview. Interviewees were assured of data confidentiality before the interview began, and their permission to record the interview was requested and granted by the respondents. All interviews were transcribed by the first author for analysis.

RESEARCH RESULTS

The critical factors that influence information technology vendor–client relationships were coded into two high-level categories. The two categories were the result of a classification of the relationship by the interviewees and are proposed as the high-level classification of the critical factors that influence the exchange process between technology vendors and their clients. For this part of the study, the high-level categories were:

- Good Relationships—critical factors that influence a relationship to be perceived as a good vendor–client relationship
- Bad Relationships—critical factors that influence a relationship to be perceived as a bad or challenging vendor–client relationship

In the following sections, each of the high-level categories are described in more detail based on the concepts that emerged from the qualitative data analysis. Before those concepts are discussed in detail, some general demographics and an overview of the results are presented.

Demographics

Table 1 shows the demographics of the respondents analyzed in this study. Nine of the twelve respondents had ten or more years of experience in information technology; the rest had at least five years experience. The majority (nine of twelve) also had at least a bachelor's degree. The majority of the respondents did not have any formal vendor relationship training.

Overview

Each of the high-level categories is described separately in terms of the factors discovered in the data. Altogether, twenty-four relationships are described in the study, twelve good and twelve bad. A summary of the respondents' answers to the interview questions for the good and bad relationships are shown in Tables 2a, 2b, 3a, and 3b. Overall it was found that bad relationships, in comparison to good relationships, cost about 70 percent more, took three times as long to implement, required three times the maintenance, had three times the users, and required about twice as many interactions with the vendor a year. Bad relationships were also characterized by poor customer service, poor communication, poor support, and had a significant level of dishonesty. Conversely, good relationship vendors were cheaper, easier to implement, easier to maintain, had fewer users, and required fewer interactions a year. It also appeared that bad relationships tended to involve more complex technologies. Again, this is somewhat derived from the fact that they cost more, had more users, took longer to implement, used more time in terms of maintenance, and required more interactions compared to the good relationships.

Table 1: Demographics of Respondents

Interview	Industry	Age	Years Experience in Information Technology	Educational Attainment	Position in the Company	Vendor Relationship Training
Int 1	Education	47	7	Master's	Software Licensing Manager	Yes
Int 2	Manufacturing	31	5	Master's	Systems Analyst	Yes
Int 3	Insurance	39	22	Bachelor's	Technology Services Manager	No
Int 4	Consulting	31	12	Associate's	Senior Analyst	No
Int 5	Manufacturing	36	11	Bachelor's	Network Engineer	No
Int 6	Government	52	15	Bachelor's	Director of Technology Services	No
Int 7	Manufacturing	30	8	Associate's	Senior Business Analyst	No
Int 8	Health Care	50	10	Bachelor's	Data Analyst Specialist	Yes
Int 9	Non-Profit	43	10	Master's	Technical Services Manager	No
Int 10	Publishing	47	26	Associate's	Manager of IT Project Management	Yes
Int 11	Nonprofit	52	24	Bachelor's	Director of Information and Electronic Systems	No
Int 12	Nonprofit	33	10	Bachelor's	IS Manager	No
Average		40.92	13.33			
Total Count				3 Master's, 6 Bachelor's, 3 Associate's		8 No, 4 Yes

Table 2a - Summary Good Relationship

Interview	1	2	3	4	5	6	7	8
Number of users	6700	350	350	800	1000	600	50	50
Current version (months)	12	24	18	5	60	4	24	84
Any version (months)	72	36	60	60	60	180	60	120
Cost	\$60,000	\$20,000	\$600,000	\$100,000	\$80,000	\$150,000	\$90,000	\$150,000
Worth cost and effort	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Upgrade experience	Positive	Positive	Positive	Positive	N/A	Positive	N/A	Positive
Effort to implement (days)	120	5	1	120	10	45	60	1
Effort to maintenance (hours/month)	40	1	150	25	5	65	5	1
Upgrades released	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Technical problems	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Primary contact changed	No	No	No	No	No	Yes	No	Yes
Support procedure	V.Adequate	V.Adequate	Adequate	V.Adequate	V.Adequate	Adequate	V.Adequate	Adequate
Had to escalate issue	No	No	Yes	No	No	No	No	No
Vender make false promises	No	No	No	No	No	No	No	No
Interact outside renewal (per year)	4	4	12	24	4	24	4	24

Table 2b - Summary Good Relationship

Interview	9	10	11	12	Average	Total Count
Number of users	100	900	250	150	941.67	
Current version (months)	3	30	72	48	32.00	
Any version (months)	36	72	72	48	73.00	
Cost	\$20,000	\$1,500,000	\$625,000	\$112,000	\$292,250	
Worth cost and effort	Yes	Yes	Yes	Yes		12 Yes
Upgrade experience	Positive	Positive	Positive	Positive		10 Positive, 2 N/A
Effort to implement (days)	30	210	30	3	52.92	
Effort to maintenance (hours/month)	1	166	33	10	41.83	
Upgrades released	Yes	Yes	Yes	Yes		12 Yes
Technical problems	No	Yes	Yes	Yes		10 Yes, 2 No
Primary contact changed	No	Yes	No	No		9 No, 3 Yes
Support procedure	V.Adequate	Adequate	Adequate	Adequate		6 Very Adequate, 6 Adequate
Had to escalate issue	No	Yes	Yes	No		3 Yes, 9 No
Vender make false promises	No	Yes	No	No		11 No, 1 Yes
Interact outside renewal (per year)	4	52	4	65	18.75	

Table 3a - Summary Bad Relationship

Interview	1	2	3	4	5	6	7	8
Number of users	30000	800	200	800	1000	25	3000	10
Current version (months)	48	24	12	6	60	96	18	84
Any version (months)	180	60	108	24	60	96	60	84
Cost	\$1,000,000	\$100,000	\$300,000	\$50,000	\$60,000	\$30,000	\$300,000	\$150,000
Worth cost and effort	Yes	Yes	Yes	No	No	No	Yes	No
Upgrade experience	Negative	Negative	Negative	Negative	N/A	Negative	Negative	N/A
Effort to implement (days)	180	210	2	90	23	420	270	60
Effort to maintenance (hours/month)	200	15	600	15	2	27	40	10
Upgrades released	Yes	Yes	No	No	Yes	No	Yes	No
Technical problems	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Primary contact changed	Yes	Yes	Yes	No	No	Yes	Yes	No
Support procedure	None	Poor	Adequate	N.Adequate	N.Adequate	N.Adequate	N.Adequate	N.Adequate
Had to escalate issue	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vender make false promises	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interact outside renewal (per year)	12	4	180	12	1	4	1	4

Table 3b - Summary Bad Relationship

Interview	9	10	11	12	Average	Count
Number of users	100	900	40	150	3085.42	
Current version (months)	1	20	1	36	33.83	
Any version (months)	50	20	30	48	68.33	
Cost	\$115,000	\$2,500,000	\$250,000	\$200,000	\$421,250	
Worth cost and effort	Yes	No	Yes	Yes		7 Yes, 5 No
Upgrade experience	Negative	Negative	Negative	Negative		10 Negative, 2 NA
Effort to implement (days)	90	810	90	2	187.25	
Effort to maintenance (hours/month)	20	500	40	20	124.08	
Upgrades released	Yes	No	Yes	Yes		7 Yes, 5 No
Technical problems	Yes	Yes	Yes	Yes		11 Yes, 1 No
Primary contact changed	Yes	Yes	Yes	Yes		9 Yes, 3 No
Support procedure	N.Adequate	N.Adequate	N.Adequate	N.Adequate		10 N. Adequate, 1Adequate, 1None
Had to escalate issue	Yes	Yes	Yes	Yes		12 Yes
Vender make false promises	Yes	Yes	Yes	No		10 Yes, 2 No
Interact outside renewal (per year)	24	52	24	12	27.50	

There were three similarities among the good and bad relationships described in this study. The majority of respondents indicated that they experienced some technical problems with the software (ten of the positive and eleven of the negative relationships). Respondents also indicated a version of the technology had been in use almost the same amount of time. The average was 73 months for the good relationships and 68 months for the bad relationships. The current version of the software was also used for roughly the same amount of time for each client. The average was 32 months for the good relationships and 34 months for the bad relationships.

Good Relationship Factors

Figure 1 presents the critical factors and concepts that contribute to a positive relationship. The number on the line connecting each factor to the center box is the number of times it was reported in the interviews. Tables 2a and 2b summarizes the other information captured about the technology relationships. Some general trends can be seen from Tables 2a and 2b. The majority said that upgrades were a positive experience and they were released in a timely manner. Support procedures were adequate or very adequate for the technologies. Vendors kept their promises and all respondents thought the technology was worth the cost and effort. What follows is a more detailed explanation of the concepts derived from the data.

Customer Service

All interviews indicated that good customer service was a factor in perceiving a vendor–client relationship as positive. In some interviews it was simply stated as being relevant, while in other interviews the respondents elaborated on what determined good customer service. This included excellent response times to any request, clearly meeting the client's needs, and not trying to push anything on the clients. One respondent summed it up very nicely:

"First thing is their excellent turnaround time. They have a very good customer service mindset. . . we requested custom reports or custom analysis in addition to the product that they have and they are able to provide the extras that we need to feed our higher level administration. So they are able to do something easier and quicker than you doing it yourself. And they are willing to do that. So they go above and beyond what is expected of them. They are customer service minded" (Int8).

Communication

All interviews also indicated that good communication was a factor in their choice of a positive relationship vendor. Sometimes this was as simple as the vendor's willingness to listen to suggestions or as complex as holding user conferences. One respondent said:

"I will either have a conversation with them, a question about something we are trying to do with it, or getting some direction on some type of user support or something like that. So by interaction it is usually a positive interaction We have great open communication" (Int4).

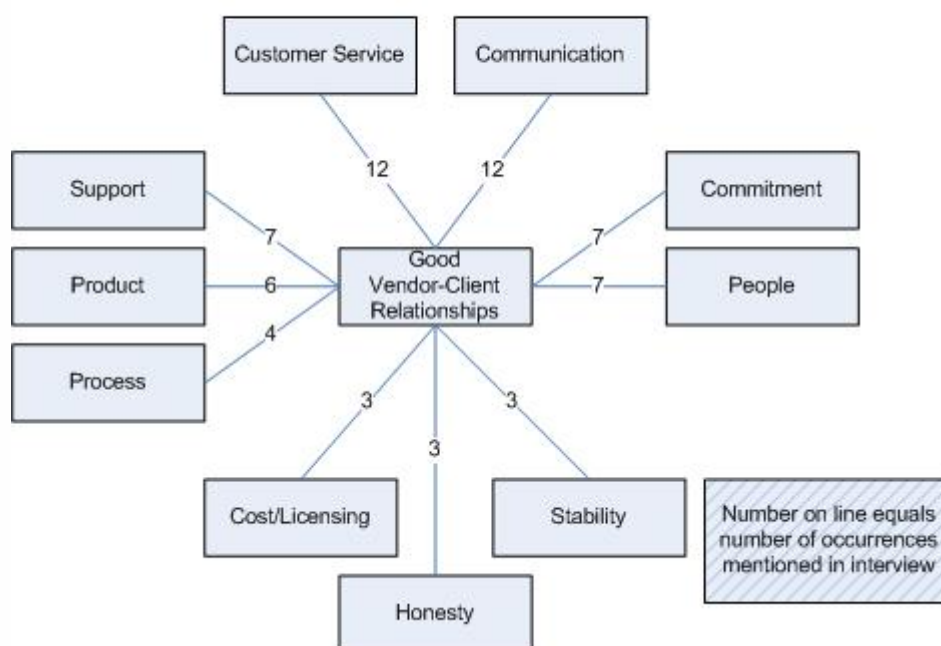


Figure 1: Good Relationship Factors

Commitment

Commitment was another important factor described in the interviews. This was the case in seven of the twelve interviews (not Int1, Int3, Int4, Int9, Int12). Commitment was evident through the dedication shown by the vendors to the relationship as well as the vendors following through on commitments once they had been made. One respondent explained:

"Some of the big things that differentiate the good and the bad is communication, is timeliness, and is doing what they say they are going to do. Or giving reasons for why we are going to do something differently. They escalate themselves. We were not forced to push them. They take ownership for the project. Whereas the other example, they were just in it for the money, so they could get paid. It was more of a focus on implementing the product successfully" (Int6).

One respondent described how a vendor provided great communication and took ownership of the solution. Clearly this showed support for all three of the previous factors identified: customer service, communication, and commitment. This respondent said:

"They were always open to discuss issues with us at any time. They took ownership for the solution. They have always given us excellent service. I could not sing their praises high enough, to be honest" (Int7).



People

Sometimes one or more people can make all the difference in the relationship. Seven of the twelve found this to be the case (not Int2, Int3, Int5, Int7, Int9). In some interviews this was the person's knowledge of the product, troubleshooting ability, communication skill, dedication, or their knowledge of the vendor's organization. One respondent said:

"Very adequate [support]. We had one customer support person who we deal with almost exclusively. Of course, if this person would ever get hit by a bus, ahh, you know, ask me again later and I might change my mind. I think it is our relationship with this one person who makes the whole relationship so good" (Int4).

Support

Support was a critical component of the relationship. It was typically an iterative communication with the vendor at a time when the client's needs were clear. This was found to be mentioned by seven of the twelve interviews when describing their positive relationships (not Int3, Int7, Int10, Int11, Int12). Clients were looking for quick turnaround time, effective answers, and a clear sense that the vendor wanted to solve their problems. Effective support was provided through the phone, e-mail, and site visits. In one good example, a vendor stopped by the client on his way to work to solve a problem (Int6). Another fixed a problem while he was making a sales call (Int5). All respondents claimed the support they received from the positive relationship vendors was adequate or very adequate. One respondent explained:

"We have a good support relationship, even though there has been some turnover at the organization. The secondary support works very closely all along the way. Just a phone call or an e-mail away. Their main support people lived in XX [city name removed for anonymity reasons] and would stop by on their way to work" (Int6).

Product

The quality and maturity of the vendor's technology and product also seemed to be of some significance for the positive relationships. Half of the interviews (Int2, Int3, Int4, Int8, Int9, Int12) described this as a factor in their decision to classify the relationship as positive. Delivering on the desired feature set, high overall quality of the releases, being easy to use, and being easy to maintain—all were cited in the interviews. One respondent summed it up nicely:

"They are designed to be a part of a library as opposed to a product that is just trying to sell you something to a library. They fit our situation very well. The product works, is the last part. A lot of products work, but theirs works really well; it does what they say it is going to do. And it does it really well" (Int9).

Process

Good processes were an important part of the positive relationship. Four of the twelve interviews included this in their description (Int3, Int5, Int6, Int8). The most striking example of this was the escalation process. The majority of the respondents claimed they did not have to escalate with the vendor because the vendor did it for them. One respondent explained:

"We have not [escalated] because the vendor or reseller escalated for us. We would call this expected behavior. And this is one of the reasons they are my good example" (Int6).

Cost/Licensing

Three of the respondents (Int1, Int2, Int7) identified fair price and clear licensing as a factor in their decision to select this vendor as a positive relationship example. This was further supported by the fact that all the respondents claim the technology is worth the cost and effort. One respondent explained:

"I guess it is good because it does not take a lot of my effort and it certainly is worth the cost. It is something that works well with minimal cost. When you talk to the vendor, you get a good response, and this makes a positive relationship with them" (Int2).

Honesty

Three of the respondents (Int5, Int9, Int10) identified honesty as a factor in their criteria of a positive vendor relationship. This included being treated fairly, always getting good information from the vendor, and not having to worry about licensing issues. One respondent explained: "I think they were very upfront with us from the beginning. I think they were very honest" (Int5).

Stability

Three of the respondents (Int8, Int11, Int12) reported that stability was a reason for their selection of the vendor as a good relationship example. Stability in some sense was related to people associated with the vendor. Stability of the primary contact and stability within the support organization both contribute favorably to the relationship classification. Nine of the twelve claimed the primary contact never changed during the course of the relationship. Of the three other cases where there was a change, one (Int8) changed seven years ago, so they still had the same contact for the last seven years, and the other two (Int6, Int10) listed the transition to the new contact as a positive experience. One respondent explained:

"I think also the stability that you mentioned earlier. They are stable resources that you get to know throughout the company. So I know who to go to to answer any of my questions because I have been stable here too. I know who to call with whatever trouble I may be running into at the time. That is really a positive thing. So their stability and customer service focus make us have a very good relationship" (Int8).

Bad Relationship Factors

Clearly some actions described in the interviews would fall under more than one category. For example, a quick response to a support request would be counted as an example of good support, good communication, and good customer service. The goal of this research is to identify the critical factors that influence information technology vendor–client relationships and use them to extend existing theory on the topic. Looking at examples of positive relationships and the factors that contributed to their rating was the beginning of our analysis. Following the guidelines of grounded theory for constant comparison, the following section describes the results for all the negative vendor–client relationships. It seeks to elaborate on the second high-level category of factors related to bad or challenging vendor–client relationships.

Figure 2 presents the critical factors and concepts that contribute to a negative or challenging relationship. The factors are arrayed in the same order as in Figure 1, with the addition of one factor—effort. Again, the number on the line connecting the factor to the center box represents the number of times that factor was found in an interview. Tables 3a and 3b summarize other information captured about the vendor–client relationship. Some general trends can be seen from Tables 3a and 3b. The majority said that upgrades were a negative experience and they were not released in a timely manner. The majority of the technologies had technical problems, and all the respondents indicated that they had to escalate issues with the vendor at some point. Support procedures were not adequate for the technologies, and the vendors did not keep their promises. The factors are explained in more detail below.

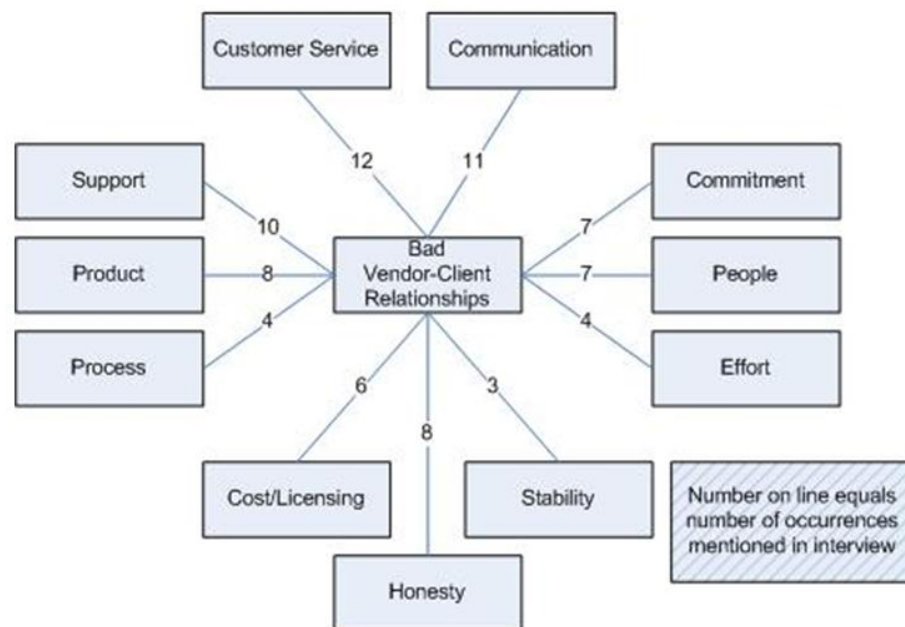


Figure 2: Bad Relationship Factors



Customer Service

As with the positive relationships, customer service was a significant factor (all twelve interviews) in the selection of a vendor as a negative relationship. However, in this case it was poor customer service. Actions described here included slow response times, avoiding contact altogether, being pushy, being antagonistic, not responding at all to client requests, and being very rigid in their services. One respondent summed it up nicely:

"We are trying to avoid contacting them. They do not resolve our issues even when we call them. They have not done anything to change that they are not customer friendly; they are not thinking of the end user. It is a different mindset. They are very, what would you call it, . . . very rigid in even the training. They will not come to your site and provide training. You will have to go there and pay all the costs for the training. The good vendor will come to you. They have the capabilities to do distance learning, but they do not deploy them. They are in it for the money and not in it for the customer. That is why they do not respond. It is easy to say this is a good vendor and this is a horrible vendor" (Int8).

Communication

Again, communication was a factor for the majority of the negative vendors, with eleven of the twelve interviews reporting this to be a problem (not Int7). Problems described in the interviews included not getting good information from the vendor, getting generic communications, not being able to contact them at all (no primary contact), having to shout to get their point across, and getting mixed signals from the vendor. One respondent described one of their relationships in this manner:

"It was a horrible relationship. They were based out of Australia. They exhibited a level of arrogance that was astonishing to us. Meaning you have to do this and you have to do that. And then immediately the two sides got their guard up . . . We made demands of the vendor that were not good at the time. And they, in turn, because of their personality, and every vendor has a personality, they were very . . . it was very antagonistic, to the point of shouting matches" (Int10).

Support

Inadequate support was another factor in the decision to label a relationship as challenging. This was reported in ten of the twelve interviews (not Int3, Int10). The described problems ranged from no response at all to support requests to getting poor or even cryptic answers to a request. Most simply described the support procedures offered by the vendors are inadequate. Some of the support models were a pay-as-you-go model. Some were through e-mail only, while others had no support at all. Ten of the twelve interviews indicated that the support they received from the vendor was inadequate. One respondent described support issues in the following way:

"And, ahh, for instance a perfect example is although this product has all kinds of support because it has all kinds of issues, the only way you can open up a support incident is by sending someone an e-mail and then waiting for someone to get back to you. It does not matter if it is what you would classify as a server down, "holy cow my house is on fire" kind of support call or a "get back to me when you can" type of support call. It doesn't matter. It's, ah, horrible. Also, when we have to deal with support, it is never cut-and-dry and never easy. You never get someone on the phone who can help you right away" (Int4).

Honesty

Similar to the way honesty worked in favor of a positive relationship, dishonesty had the opposite effect. Ten of the twelve interviews indicated that the poor relationship vendors broke their promises (Tables 3a and 3b). Dishonesty was described in general and in specific terms throughout the interviews. Sometimes this was in the form of limited information being provided, describing future functionality that never came to pass (vaporware), providing false or altered documents, and trying to bribe their way out of a poor relationship. This was described by one respondent in the following way:

"One of the biggest downsides to this vendor is the empty promises. If you know a system's limitations or if you know going in that this is what to expect and you made that decision with your eyes wide open. It is different than if someone lies to you or someone is not giving you all of the information. It is that bad faith. It is hard to get over that" (Int8).

Product

A poor quality or an immature product also contributed to respondents classifying the relationship as negative. Eight of the twelve interviews indicated this as a factor (not Int1, Int5, Int7, Int12). Ten of the twelve interviews described the upgrade process as a negative experience (Tables 3a and 3b). Actions described include frequent upgrades,

upgrades that did not fix certain errors, upgrades that caused different and unpredictable errors, delivery of a product without documented features, and an overall poor end-user experience. One respondent said:

"I mean, most of our unfavorable relationship has been because of the overall poor quality of the product. It causes problems. I mean, this is one that we have in no way customized. We have implemented it as it was designed to be implemented, and we have not used it to do what should have been its full potential, and yet we have nothing but problems, you know" (Int4).

Another respondent described their product problems in the following way:

"The biggest problem was a failure of the vendor to incorporate our desired features into the product. If you can think about features XXXX [company name removed] had to have in the software to meet business needs were not being implemented. So the relationship was ended when we bought the software package and then went to the model where we went to develop the software internally. They only wanted us for our money. If you were getting gouged every month and getting nothing to show for it, well actually it is another way of saying we were not getting the features that we wanted" (Int3).

Commitment

The lack of commitment by vendors was indicated by seven of the twelve respondents as a reason to classify them as a bad relationship (not Int3, Int5, Int7, Int10, Int11). This was described as a lack of a partnership between the two parties, a sense that the vendor was only in the relationship for the money, and a failure of the vendor to produce things requested by the client.

People

As shown in Figure 2, people also contributed to the reasons to classify a relationship as poor. This was described in seven of the twelve interviews (not Int2, Int3, Int6, Int8, Int11). This could be as simple as not having someone to go to in the relationship, having high turnover from the vendor in terms of staff, and having incompetent staff. Nine of the twelve interviews reported that the primary contact had changed since the relationship began; this can be seen in Tables 3a and 3b. One respondent described an incompetent (possibly dishonest) salesperson:

"And when the sales team goes out and talks about features and functionality of the product, they do not fully understand the limitations. So, therefore, when you ask some questions about whether or not the system does something, the answer is always yes. And that might not always be the case" (Int11).

Cost/Licensing

Half of the interviews (Int1, Int2, Int3, Int4, Int8, Int11) pointed to the fact that costs or licensing changes contributed to their classifying the relationship as negative. One respondent described it in this manner:

"This is why I definitely classify them as a bad relationship. Because they change their licenses in mid-stream, their licenses are not worth the paper that they are printed on. Their product mix changes, which amounts to a change in license. Then over the course of time... two different product mixes have been changed. Products have been removed from the suite; they have been put back in, then removed again. It is just maddening to meaningfully plan from both a technical and a financial . . . budgeting perspective for those sorts of changes. That has really been a big problem" (Int1).

Effort

Four of the interviews (Int1, Int3, Int4, Int6) also mentioned that a large amount of effort was involved in challenging or troubled relationships. This effort was either in the form of time dedicated to maintenance, upgrades, getting information, or trying to resolve some conflict. One respondent said: "It is the maintenance and upkeep, this care and feeding, which is horrendous" (Int4).

Process

Sometimes poor processes accounted for the reasons a relationship was negative. This was the case in four of the twelve interviews (Int2, Int8, Int9, Int11). This would include a problem with escalation, not having proper decision authority, and sometimes not having a support process documented at all. One respondent said: "It is just that she does not have any authority to make any changes. She has to go to the parent [company] to make any changes" (Int8).

Stability

Finally, stability was listed as a problem in three of the interviews (Int5, Int6, Int12). This would include high turnover of the vendor's staff and getting new staff members up to speed on an organization's needs. One respondent said:

"Our primary contact changed at least twelve times in three years. The reps do not know anything about our organization. There is no one person to turn to when there is a problem" (Int12).

Model of Information Technology Vendor–Client Relationships

Using the concepts found in the data and extending the analysis using selective coding, the next part of the analysis of the data is the presentation of a model of information technology vendor–client relationships. The model was developed from the respondents' experiences and is depicted in Figure 3. The figure shows the categories and concepts that emerged from the data analysis as well as how they influenced a client's perception of the overall relationship. This study does not claim that the model is exhaustive, but it does serve to extend existing literature and present a theoretical model of information technology relationships. In this model, a client's perception of the relationship is influenced by interactions with the vendor at three levels: individual, technological, and organizational.

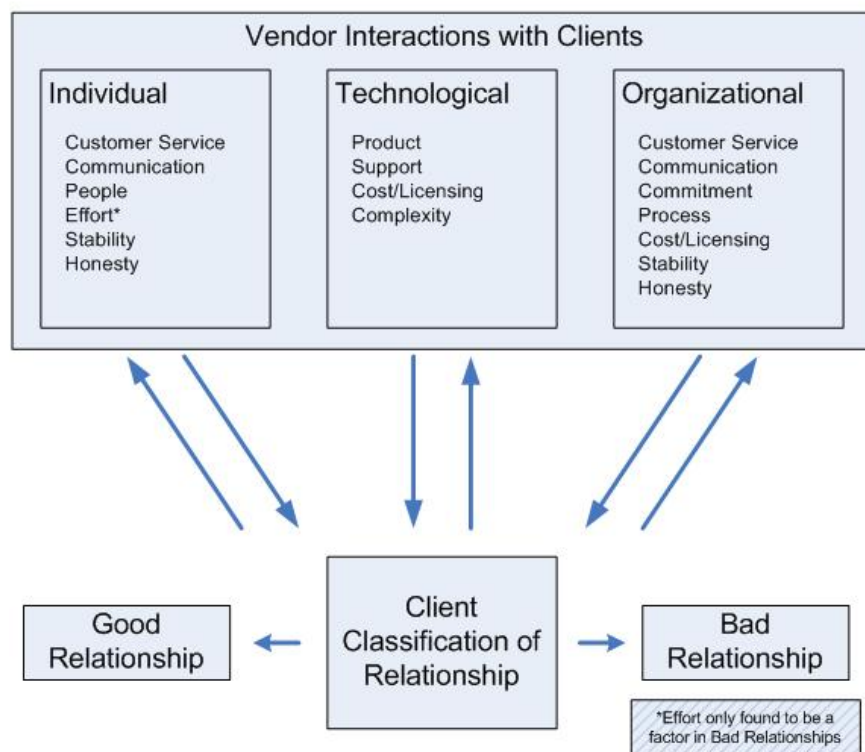


Figure 3: Model on Information Technology Vendor–Client Relationships

The individual level interactions in the model are a representation of the exchange actions that take place between individuals from both the client and the vendor. Examples of person-to-person level interactions include clear communication from vendor employees, whether the communication is through e-mail, phone conversations, or in person. To maximize the relationship's benefits, the vendor should encourage its employees to provide outstanding customer service and put forward a substantial effort to provide value to the client firms. Employees should strive for honesty in all of their interactions, even when that means being the bearer of bad news or telling the client they do not have all of the answers to their questions. It is also advisable for positions that have frequent interactions with clients to be stable and knowledgeable about both the client and their relationship history. Managing these individual level interactions will lead a client to perceive the relationship as more favorable.

The technological level interactions in the model are a representation of the exchanges between client employees and their use of the technology offered by the vendor. Interactions between the product and client employees represent the majority of the interactions that take place during the relationship. One outcome of this fact is that the product should meet the client's expectations and should be free of defects. Repeated calls to technical support should be avoided. If the technology being offered is complex, for example, an ERP software solution, documentation

should be up-to-date and easy to understand. Access to knowledgeable employees of the vendor firm should also be a priority for the client employees.

Organizational-level interactions are a representation of the firm-level exchange actions between the vendor company and employees of a client firm. Examples of communication at this level range from public press releases on new products to generic communication that presents little value to client contacts. Vendor organizations should create internal processes that support good customer service and prompt responses to technical problems. Vendors should show strong commitment to the clients and provide clients with access to vendor executives to facilitate escalation processes. Costs and licensing of the products and services should be consistent and straight forward. Licensing should not be changed once the initial agreement has been reached. Honesty should also be a key part of all the communications from the vendor organization. This implies that marketing material from the vendor organization should be truthful and minimize technical speak. Paying attention to these exchange encounters should lead to higher levels of satisfaction from clients of the vendor.

The model does show overlap of the factors across the three levels. Communication and customer service are factors that take place at both the organizational level and at the individual level. Clearly, the dynamic between each organization tends to be consistent across the different types of relationships described in this study. Which is to say that, for the most part, the factors that contribute to a positive relationship also are the ones that contribute to a negative or challenging one. As was stated before, the relationships tend to be defined by the clients based on the type of interaction they have had with the vendor at the individual, technological, and organizational levels. When the relationship was characterized as including poor communication, poor customer service, poor people, and poor processes, the relationship would obviously be classified as negative or challenging. Of course, the opposite was also true in terms of good relationship being built on the positive interactions between the client and the vendor.

SUPPORT FROM OTHER RESEARCH

Support for grounded theory conclusions is often explained after the results of the study have been described (Strauss and Corbin 1998). This is done to integrate our emerging theory with existing knowledge (Zahedi, Pelt, et al. 2006). The following section seeks to find support for the concepts discovered in the study from prior research on relationships.

Support for good customer service contributing to the vendor–client relationship abounds. Chakraborty, Srivastava, and Marshall (2007) pointed out various drivers of good customer service driving good relationships. In information systems research, Issac, Rajendran, and Anantharaman (2003) noted the importance of satisfying customers' expectations to the perception of software quality and cost. These expectations include more than just product expectations and also involve service and knowledgeable individuals.

Commitment and honesty were found to be good components of the relationship process in Morgan and Hunt (1994) as well as in Schurr and Ozanne (1985). Related to honesty is the concept of unfulfilled promises from vendors. This is commonly referred to as *vaporware*. Garsombke and Garsombke (1998) established that reliable software, fulfilled promises, and timely delivery of software positively affected a software vendor's reputation and credibility. This ultimately contributed toward a positive relationship. This supports the factors of process, product, and honesty as contributing to a vendor client relationship.

Binbasioglu and Winston (2004) identified the importance of a good support system for the success of implementing packaged software in a small business. Lack of proper support processes led to longer implementation times and poor reputation of the software. This lends credibility to support as an important factor in the information technology vendor–client relationship. Arora, Caulkins, and Telang (2006) discussed the impact of frequent patching and the presence of software bugs on a user's perception of software quality. This lends credence for product as a determinant of a vendor's relationship rating. Krishnan, Kriebel, Kekre, and Mukhopadhyaya (2000) discussed the impact of product size, personnel capability, software processes, and initial investments on productivity and quality derived from purchased software products. Again, this supports product, people, and process as being important to a relationship.

Nelson, Nadkarni, Narayanan, and Ghods (2000) discussed support expertise as a function of personnel competencies and personnel motivation as important factors in successful support organizations. This further supports the fact that support, communication, and people contribute to the vendor–client relationship. Kekre, Krishnan, and Srinivasan (1995) looked at the determinants of customer satisfaction in software products. They identify product quality as the most important factor in customer satisfaction.

Hoxmeier (Hoxmeier 2000) looked at software vendor preannouncements and their impact on customers' perceptions and the vendor's reputation. According to Hoxmeier, as long as a vendor delivers the features and functionality

promised and it is largely free of errors, the other factors, such as delivery time, became less important to a vendor's reputation. This supports the idea that communication and product contribute to a vendor-client relationship.

Anderson and Weitz (1992) established the importance of commitment in distribution channels. They established that commitment is built on frequent communication between parties, each party's reputation for fairness, and the conflict history of the relationship. They found that members were more likely to commit to a relationship if it was characterized by an open sharing of information. This also lends support to stability being a factor, since the commitment should be stable and consistent. Ngwenyama, Guergachi, and McLaren (2007) looked at timing and frequency of software upgrades and tried to determine when to apply an upgrade for maximum productivity at a firm. This is another feature of a mature product offering and should lead to a more favorable relationship between a client and a vendor.

Brown and Peterson (1994) found that effort can contribute to greater sales performance and job satisfaction. This focus on effort can also have a positive impact on a client relationship. Plant and Willcocks (2007) found that vendor support and vendor partnership were extremely important to the successful implementation of an ERP solution. This focus on partnership and support can have a positive impact on a vendor relationship as well.

Table 4 summarizes the above support from other research. From this we find that each factor has been deemed to be important and found to be a component of a vendor-client relationship in multiple past studies. This study contributes to our understanding of the phenomenon by examining how these critical factors contribute to the relationship overall and by putting them together into a single model.

Table 4: Literature Support of Relationship Factors	
Commitment	Morgan and Hunt Schurr and Ozanne Anderson and Weitz
Communication	Nelson, Nadkarni, Narayanan, and Ghods Hoxmeier
Cost/Licensing	Issac, Rajendran, and Anantharaman
Customer Service	Chakraborty, Srivastava, and Marshall
Effort	Brown and Peterson
Honesty	Morgan and Hunt Schurr and Ozanne Garsombke and Garsombke
People	Krishnan, Kriebel, Kekre, and Mukhopadhyaya
Process	Garsombke and Garsombke Krishnan, Kriebel, Kekre, and Mukhopadhyaya
Product	Issac, Rajendran, and Anantharaman Garsombke and Garsombke Arora, Caulkins, and Telang Krishnan, Kriebel, Kekre, and Mukhopadhyaya Kekre, Krishnan, and Srinivasan Hoxmeier, Ngwenyama, Guergachi, and McLaren
Stability	Anderson and Weitz
Support	Binbasioglu and Winston Nelson, Nadkarni, Narayanan, and Ghods Plant and Willcocks

IMPLICATIONS FOR PRACTITIONERS AND RESEARCHERS

The results of this study contribute to the understanding of general vendor management activities as they relate to information technology suppliers. Given the current trend by firms of purchasing instead of building technology, this understanding is necessary in order to manage all technology offerings at a firm. Clearly, client firms want to benefit from the fact that vendors can produce something much better than the client firm could produce by itself. By purchasing technology, clients get a best-in-class piece of software at a cheaper price than if the firm built it themselves. The results of this study present the dynamics of this relationship and show how different factors contribute to both favorable and unfavorable vendor-client relationships.

The implications of the study for the practitioner are an identification of the critical factors that need to be managed by clients to ensure the success of a relationship with a technology vendor. By identifying and describing the factors that build and destroy a relationship, practitioners can focus efforts on improving those factors that need work and preserving those that appear to be working fine. Practitioners should make sure they receive good customer service and have open communication with all their vendors. By making sure the critical factors are good in a relationship, a client and vendor should find mutual success. From the vendor's perspective, it is important that the vendor realize that every interaction it makes with a client has the potential to impact their relationship, both positively and negatively. One interaction can, at times, make or break the relationship. Once a vendor has a poor reputation, it takes a lot of effort to change that perspective.

As an academic study of the relationship, the results of this study should be integrated into research that relates to purchased technology. With the proliferation of purchasing technology instead of building it, it makes sense that vendor relationships should become a more prevalent part of the IS discipline. It should become part of the classroom experience and a greater part of ongoing research.

FUTURE RESEARCH

Future research could look at the effects demographics have on each relationship. A question one might ask is: What is an optimal size for the participants in a good or bad relationship? An optimal size for a client or an optimal size for a vendor perhaps might be sought. Are experienced clients (ten plus years in the industry) better at dealing with a troubled relationship? It is possible to take any demographic and look at how it impacts the relationship. This study did not try to find a correlation between a factor's being reported and an attribute of the interview subject. For example, the study did not look to find if nonprofits would experience cost and licensing problems more frequently than a manufacturing company. Another direction of future research might be to focus on the vendors instead of the clients. A study might try to see how a vendor tries to establish and sustain a relationship with clients. Similarly, a study might examine pairs of vendors and clients to get a clearer picture of a relationship from both perspectives.

LIMITATIONS OF CURRENT STUDY

The current study did not try to determine the strength of one feeling in the determination of any of the factors. The study also did not try to determine if one factor was dominant over the others. Of course, the current study was limited to the interviews described. It is possible that the respondents' experiences were not representative of the general population. The study also relied on each interview subject to recall events about a relationship that spanned many years. It is possible that recent events might paint the relationship in a much different light.

Another limitation of the study is the simplification of the relationships as good and bad. The dynamics of the information technology vendor–client relationship are complex and might not be suited to our simple categorization of good and bad. Indeed, some of the respondents used the word *challenging* to describe the bad relationship and the word *ideal* to describe the good relationships. Even though the polarization is simplistic, none of the interview subjects indicated they had trouble identifying or describing either of the relationships as part of this study. A different study might look at comparing different relationships without including the classification as part of the structured interview.

The interviews came from a variety of industries, and the researchers made an effort to make sure a wide variety of industries were represented. However, not all industries were represented, and this might have an impact on the results. The study also did not try to focus on a particular technology, like database or ERP software. Instead, it was trying to find a general theory that described the relationship of any technology vendor–client relationship, not a particular one. Focusing on one particular vendor or market might reveal different results. This study also only asked for the opinion of the technology clients, not the opinion of the technology vendors. It is possible a very different list of factors would emerge if a similar set of questions were asked of the vendors providing the technology.

CONCLUSION

As more firms make the decision to purchase as oppose to build technologies, it is important that the firms manage these relationships for greater success. There are many reasons for an experienced information technology professional to qualify a relationship as good or bad. Sometimes one factor or action can make a great relationship or break it. For example, this research highlights the fact that one good or bad person can completely determine the kind of relationship that a client has with a vendor. Good relationship vendors fight through problems like turnover, or bad products, or processes and are committed to their clients. A vendor seeking to improve its relationship should focus on the total customer experience and seek to avoid bad interactions. Both parties, vendors and clients, should work to make each interaction contribute to the success of the relationship. The underlying premise is that satisfied clients will lead to a competitive advantage for both parties in the relationship.

REFERENCES

- Anderson, E., and B. Weitz, "The Use of Pledges to Build and Sustain Commitment in Distribution Channels," *Journal of Marketing Research*, 1992, 29:1, pp. 18–34.
- Arora, A., J.P. Caulkins, and R. Telang, "Research Note-Sell First, Fix Later: Impact of Patching on Software Quality," *Management Science*, March 2006, 52:3, pp. 465–471.
- Bielski, L., "2007: Why IT Spending Will Continue, Despite Economic Challenges," *American Bankers Association Banking Journal*, 99:1, January 2007, pp. 44–46.
- Binbasioglu, M. and E. Winston, "Systems Thinking for Identifying Unintended Consequences of IT: Packaged Software Implementation in Small Business," *The Journal of Computer Information Systems*, 2004, 45:1, pp. 86–93.
- Bitner, M.J., B.H. Booms, and M.S. Tetreault, "The Service Encounter: Diagnosing Favorable and Unfavorable Incidents," *Journal of Marketing*, 1990, 54:1, pp. 71–84.
- Brereton, P., "The Software Customer/Supplier Relationship," *Communications of the ACM*, 2004, 47:2, pp. 77–81.
- Brown, S., and R. Peterson, "The Effect of Effort on Sales Performance and Job Satisfaction," *Journal of Marketing*, 1994, 58:2, pp. 70–80.
- Chakraborty, G., P. Srivastava, and F. Marshall, "Are Drivers of Customer Satisfaction Different for Buyers/Users from Different Functional Areas?" *The Journal of Business & Industrial Marketing*, 2007, 22:1, pp 20–28.
- Dwyer, F.R., P.H. Schurr, and S. Oj, "Developing Buyer-Seller Relationships," *Journal of Marketing*, 1987, 51:2, pp. 11–27.
- Foddy, W. *Constructing Questions for Interviews and Questionnaires: Theory and Practice in Social Research*. Cambridge, UK: Cambridge University Press, 1993.
- Ganesan, S., "Determinants of Long-Term Orientation in Buyer-Seller Relationships," *Journal of Marketing*, 1994, 58:2, pp. 1–19.
- Garsombke, F.D., and H.P. Garsombke, "The Impact of Vaporware, Reliable Software, Vendor Dependence and Fulfilled Promises on Customers' Perceptions/Experiences and Vendor Reputation," *Software Quality Journal*, 1998, 7:2, pp. 149–173.
- Glaser, B.G., and A. Strauss. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago, IL: Aldine Publishing Company, 1967.
- Hoxmeier, J.A., "Software Preannouncements and their Impact on Customers' Perceptions and Vendor Reputation," *Journal of Management Information Systems*, 2000, 17:1, pp. 115–139.
- Issac, G., C. Rajendran, and R.N. Anantharaman, "Determinants of Software Quality: Customer's Perspective," *Total Quality Management & Business Excellence*, 2003, 14:9, pp. 1053–1070.
- Kekre, S., M.S. Krishnan, and K. Srinivasan, "Drivers of Customer Satisfaction for Software Products: Implications for Design and Service Support," *Management Science*, 1995, 41:9, pp. 1456–1470.
- Krishnan, M.S., C.H. Kriebel, S. Kekre, T. Mukhopadhyay, "An Empirical Analysis of Productivity and Quality in Software Products," *Management Science*, 2000, 46:6, pp. 745–759.
- Moon, M.A., and L. Bonney, "An Application of the Investment Model to Buyer-Seller Relationships: a Dyadic Perspective," *Journal of Marketing Theory and Practice*, 2007, 15:4, pp. 13–24.
- Moorman, C., R. Deshpande, and G. Zaltman, "Factors Affecting Trust in Market Research Relationship," *Journal of Marketing*, 1993, 57:1, pp. 81–101.
- Morgan, R.M., and S.D. Hunt, "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 1994, 58:3, pp. 20–38.

Nelson, K.M., S. Nadkarni, V.K. Narayanan and M. Ghods, "Understanding Software Operations Support Expertise: A Revealed Causal Mapping Approach," *MIS Quarterly*, 2000, 24:3, pp. 475–507.

Ngwenyama, O., A. Guergachi, and T. McLaren, "Using the Learning Curve to Maximize IT Productivity: A Decision Analysis Model for Timing Software Upgrades," *International Journal of Production Economics*, 2007, 105:2, pp. 524–535.

Orlikowski, W.J., "CASE Tools as Organizational Change: Investigating Incremental and Radical Changes in Systems Development," *MIS Quarterly*, 1993, 17:3, pp. 309-340.

Oza, N.V., T. Hall, A. Rainer, S. Grey, "Trust in Software Outsourcing Relationships: An Empirical Investigation of Indian Software Companies," *Information and Software Technology*, 2006, 48:5, pp. 345–354.

Patton, M.Q., *Qualitative Evaluation Methods*, Beverly Hills. CA: Sage Publications, 1980.

Plant, R., and L. Willcocks, "Critical Success Factors in International ERP Implementations: A Case Research Approach," *Journal of Computer Information Systems*, 2007, 47:3, pp. 60-70.

Schurr, P.H., and J.L. Ozanne, "Influences on Exchange Processes: Buyers Preconceptions of the Sellers Trustworthiness and Bargaining Toughness," *Journal of Consumer Research*, 1985, 11:4, pp. 939-953.

Scott, J.E., and L. Kaindl, "Enhancing Functionality in an Enterprise Software Package," *Information and Management*, 2000, 37:3, pp 111-122.

Strauss, A., and J.M. Corbin, *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*, Sage Publications, New Bury Park, CA, 1990.

Strauss, A., and J.M. Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, Sage Publications, Thousand Oaks, CA, 1998.

Suddaby, R., "From the Editors: What Grounded Theory is Not," *Academy of Management Journal*, 2006, 49:4, pp. 633-642.

Wang, F. and M. Head, "How Can the Web Help Build Customer Relationships? An Empirical Study on E-Tailing," *Information and Management*, 2007, 44:2, pp 115-129.

Webb, B. and B. Mallon, "A Method to Bridge the Gap between Breadth and Depth in IS Narrative Analysis," *Journal of the Association for Information Systems*, 2007, 8:7, pp. 368-381.

Yao, Y. and L. Murphy, "A State-Transition Approach to Application Service Provider Client–Vendor Relationship Development," *The DATA BASE for Advances in Information Systems*, 2005, 36:3, pp. 8-25.

Zahedi, F., W.V.V. Pelt, M. Srite, "Web Documents' Cultural Masculinity and Femininity," *Journal of Management Information Systems*, 2006, 23:1, pp. 87-128.



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