

# Marketing service relationships: the role of commitment

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## Central role of commitment

### Introduction

As competition intensifies, products and services become more homogeneous, and markets become mature, it is becoming increasingly harder for companies in both manufacturing and service industries to differentiate themselves from other organizations. Merely providing customers with technical solutions to problems does not suffice anymore to be competitive and gain and retain market share. Various value-added services, which start before the actual transaction and go far beyond it, have to be delivered in order to stay competitive and create customer loyalty. Research and business practices have shown that keeping customers through value-added services costs less than acquiring new ones (Anderson and Fornell, 1994; Reichheld and Sasser, 1990). In addition, loyal customers will generate more revenues in the long run. Therefore, the concept of relationship marketing was introduced in the (services) marketing literature and incorporated in models of the service delivery processes.

In the relationship marketing literature the concept of commitment plays a central role, as it is a major characteristic of relationship marketing models (Scanzoni, 1979). Commitment refers to an implicit or explicit pledge of the continuity of a relationship between exchange partners. This paper should be viewed as a preliminary attempt to integrate concepts from the service quality/satisfaction area with concepts from the relationship marketing area. Service quality and satisfaction will be treated as antecedents of commitment in addition to the concepts of trust and dependence. Moreover, the consequences of commitment will also be examined. A model which incorporates antecedents and consequences of commitment in a comprehensive framework will be tested.

Our paper is structured as follows. First, we will discuss the concept of relationship marketing in services and pay attention to the relationship life cycle, a process through which relationships develop. Subsequently, the concept of commitment in business relationships will be discussed in more detail, because of its importance in relationship marketing. Several antecedents and consequences of commitment will be identified and discussed and hypotheses regarding these constructs will be formulated. These hypotheses will be graphically summarized in a conceptual model in

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We would like to thank Klaas Fleischmann for his efforts during data collection for this study.

## Close relationships with customers

which service quality, satisfaction, commitment and other related concepts will be incorporated. Next, we will discuss the results of a study designed to investigate the applicability of this conceptual model. This study was conducted in a business-to-business setting, in which the relationships of business customers with service engineers of a major Dutch office equipment manufacturer were being studied. We conclude the paper with a discussion of our results and of a number of theoretical and managerial implications following from these results.

### **Relationship marketing in services**

The service business originally evolved around keeping close relationships with customers. However, because of the increasing number of customers and the stressing of the marketing mix paradigm, the relationship with customers moved to the background during the 1960s and the 1970s (Grönroos, 1995). It was not until the early 1980s that relationship marketing reemerged again in service practices (Berry, 1995). This was due to the maturing of service marketing with an emphasis on quality, increased recognition of potential benefits for companies and the customer, and technological advances. Another factor was that the marketing mix paradigm did not fit service company's customer relations very well, which led to the development of service marketing as a discipline in its own right (Grönroos, 1990).

How can relationships in services marketing be conceptualized? Berry (1983, p. 25) defined relationship marketing as "attracting, maintaining and – in multi-service organizations – enhancing customer relationships". Morgan and Hunt (1994) propose that relationship marketing refers to all marketing activities directed towards establishing, developing and maintaining successful relational exchanges. They argue that in fact there are no buyers and sellers or providers and customers in relational exchanges but partners exchanging resources. Relational exchange differs from discrete transaction on several dimensions (Dwyer *et al.*, 1987). First, relational exchanges may decrease over time as this may be beneficial to one or both partners. Second, relational exchange partners can be expected to derive complex, personal, non-economic satisfactions and engage in social exchange. Third, because obligations and activities may be relatively complex and take place during an extended time period, partners may engage in carefully planning and controlling items of exchange. Finally, third parties may be called in to arbitrate and additional mechanisms for collaboration and resolving conflict may have to be designed. Relational exchange can provide a competitive advantage to the extent that it contributes to product and/or service differentiation and creates barriers to switching (Dwyer *et al.*, 1987).

## Five phases

Relationships between partners do not just emerge or exist, they evolve through a process over time. This process is characterized by five general phases (Scanzoni, 1979). The first phase in this relationship life-cycle is called awareness and refers to the recognition that some second partner is a feasible exchange partner. There is no interaction between the parties, they only try to position themselves in the best possible way increase the attraction toward other companies. After awareness comes exploration, which is the search and trial phase in relational exchange. In this phase potential exchange partners first consider obligations, benefits and burdens and, the possibility of exchange. The third phase is called expansion, which refers to the continual increase in benefits obtained by exchange partners and

their increasing interdependence. The main distinction between this phase and the previous phase of exploration is that now the partners trust each other to a greater extent and are satisfied with the relationship which leads to increased risk taking in the dyad. If relationships develop then commitment is formed between the two business partners. Commitment is the most desirable aspect of relationships and refers to an implicit or explicit pledge of relational continuity between exchange partners (Dwyer *et al.*, 1987). Now the exchange partners have achieved a level of satisfaction from the exchange process that virtually precludes other primary exchange partners who could provide similar benefits. Commitment is established on the basis of two important assumptions. The first is that partners provide relatively high levels of inputs to the association. The second assumption pertains to durability, i.e. the common belief of effectiveness of future exchange, also referred to as continuation.

## Dissolution

The final phase of the relationship development process is dissolution. This phase begins with an intrapsychic stage in which one partner privately evaluates his or her dissatisfaction with the other party, concluding that the costs of modification or continuation outweigh the disadvantages of the relationship. Afterwards, the relationship enters an interactive phase in which the parties negotiate their unbonding. Dissolution is then presented publicly.

It should be clear that of these five phases, the fourth phase of commitment, is the most desirable one in the development of an ongoing relationship between a buyer and a seller. If the parties are not committed to their relationship, it will end at a rapid pace. Therefore, the concept of commitment should play a central role in the development of a model that introduces relational exchanges to the marketing of services. However, as a result of the paradigm shift toward relationships, researchers are facing the challenge of conceptualizing and operationalizing heterogeneous, overlapping and equivocal constructs. With respect to the central concept of commitment, Morrow (1983, p. 486) accentuates this challenge by stating that “the growth of commitment-related concepts has not been accompanied by a careful segmentation of commitment’s theoretical domain”. Therefore, we shall direct our attention to the conceptualization of commitment in the next section.

### **Conceptualization of commitment**

#### *Commitment in more detail*

## Benefits

As mentioned before, commitment plays a central role in relationships. As Scanzoni (1979) stated “commitment is the most advanced phase of partners’ interdependence”. In marketing-practice and research it is agreed that mutual commitment among partners in business relationships produces significant benefits for companies. Manufacturers can obtain improved product developments, increased margins and market shares. Distributors gain deeper market penetration and higher customer satisfaction. The conceptualization of commitment stems from industrial/organizational psychology and has been viewed as an intention to continue a course of action or activity, such as maintaining a relationship with a business partner (Fehr, 1988). As mentioned in the introduction, commitment in the buyer-seller relationship literature is defined as an implicit or explicit pledge of relational continuity between exchange partners (Dwyer *et al.*, 1987). Parties identify commitment among exchange partners as key to achieving valuable outcomes for themselves, and they endeavor to develop and maintain this

**Commitment is an affective state of mind**

precious attribute in their relationship (Morgan and Hunt, 1994). Commitment is seen as a sentiment that is critically important in the development of long-term channel relationships or as a favorable affective reaction (Kumar *et al.*, 1995). Therefore, commitment is a psychological sentiment of the mind through which an attitude concerning continuation of a relationship with a business partner is formed.

In the literature two views of organizational commitment have dominated. According to one view, commitment is an affective state of mind an individual or partner has toward a relationship with another individual or partner. This kind of commitment is called affective commitment. Affective commitment is brought about by a person sharing, identifying with, or internalizing the values of the organization (Morgan and Hunt, 1994). Affective commitment is based on a sense of liking and emotional attachment to the partnership. The other view sees commitment as being more behavioral than affective. This form is referred to as calculative commitment and stems from a cognitive evaluation of the instrumental worth of a continued relationship with the organization. All gains and losses, pluses and minuses or rewards and punishments are added up (Morgan and Hunt, 1994). Geyskens *et al.* (1996, p. 304) define commitment as the perceived need to “maintain a relationship given the significant anticipated termination or switching costs associated with leaving”. This view stems from the side-bet theory of Becker (1960), which links extraneous interests with a consistent line of activity. Calculative commitment is based on inputs like investments and allocation of resources specifically for the relationship between two business partners (Williamson, 1985). After these inputs have been made, they may reduce the number of alternative alliances a company may have with other partners, or lead to redirecting costs (Williamson, 1983, 1984). Williamson (1975, 1979) provides an economic argument for cooperative interorganizational relationships between firms on the basis of transaction cost analysis. On the one hand there is the internal cost of carrying out an activity within the firm, while on the other hand there is the cost of an external supplier or potential partner. Transaction cost then represents the cost of establishing a relationship as well as costs associated with balancing dependence in the relationship and prohibiting opportunistic behavior by the exchange partner. Calculative commitment holds when internal costs are less than the external costs.

**Affective commitment**

Research suggests that of these two forms of commitment affective commitment is the most effective for developing and maintaining mutually beneficial relationships between partners (Kumar *et al.*, 1994). Affective commitment has strong positive influences on:

- (1) intention to stay in a relationship;
- (2) desire to stay in a relationship;
- (3) performance; and
- (4) willingness to invest in a relationship.

Furthermore, it was found that it has strong negative influences on:

- (5) development of alternatives for a relationship; and
- (6) opportunistic behavior.

Calculative commitment in contrast has positive influences on (5) development of alternatives, and (6) opportunism. Therefore, this latter form of commitment ultimately has a negative impact on relationships.

Crucial importance of service quality

#### *Antecedents of commitment*

Owing to the importance of commitment in the development of relationships, information on the factors that influence commitment is essential. First, service quality and satisfaction, the two key constructs in the services marketing area, will be related to commitment. Subsequently, two additional factors will be related to commitment: trust and dependence. Various studies in the relationship marketing area have shown that these two factors seem to be crucial in influencing commitment (Anderson and Narus, 1990; Anderson and Weitz, 1989; Ganasan, 1994; Geyskens and Steenkamp, 1995; Kumar *et al.*, 1995; Morgan and Hunt, 1994). As we discuss these constructs, hypotheses for our study will be formulated.

#### *Service quality and satisfaction*

During the past decade substantial research has been devoted to the quality of services and the measurement of service quality. Similarly, in marketing practice, service quality has been recognized as being of crucial importance. Satisfaction has been defined as a consumer's evaluative judgment related to the pleasurable level of consumption-related fulfillment (Oliver, 1996). Similarly, perceived service quality has been conceptualized as the comparison of service expectations with actual performance expectations. Especially in recent years, the relationship between service quality and customer satisfaction has received a lot of attention. A focal point of discussion is the causal ordering between service quality and satisfaction. Also there is considerable debate about the conceptual distinctness of these two concepts. The predominant view is that quality influences satisfaction. "Quality is the logical predecessor to satisfaction" (Iacobucci *et al.*, 1996). Cronin and Taylor (1992) find empirical support that "service quality is an antecedent of consumer satisfaction".

According to Grönroos (1990), quality can be classified into two categories. First, there is technical quality which relates to the quality of the result or outcome of the service, i.e. what the customer is actually receiving from the service. Second, functional quality relates to the manner in or process by which a service is provided, i.e. how the service is delivered.

Positive relationships

In literature, there is no conceptual or empirical evidence for the relationship between service quality, satisfaction and commitment. However, as commitment can be viewed and indeed has been operationalized as a proxy for loyalty (Assael (1987) defines loyalty as commitment toward a certain brand) and because strong positive associations between service quality, service satisfaction and loyalty have been reported extensively in the services marketing area, we posit that there will be positive relationships between technical and functional service quality, satisfaction and affective and calculative commitment:

*H1:* There will be a positive relation between satisfaction and affective commitment.

*H2:* There will be a positive relation between satisfaction and calculative commitment.

*H3:* There will be a positive relation between technical quality and affective commitment.

*H4:* There will be a positive relation between functional quality and affective commitment.

*H5:* There will be a positive relation between technical quality and calculative commitment.

Reliability is key to trust

*H6:* There will be a positive relation between functional quality and calculative commitment.

*H7:* There will be a positive relation between technical quality and satisfaction.

*H8:* There will be a positive relation between functional quality and satisfaction.

#### *Trust*

Trust is defined as one party's belief that its needs will be fulfilled in the future by actions undertaken by the other party (Anderson and Weitz, 1989). Trust exists when one party has confidence in the reliability and integrity of the exchange partner (Morgan and Hunt, 1994). In social psychology a consensus emerges that trust consists of two essential elements, trust in the partner's honesty and trust in the partner's benevolence. Honesty is the belief that one's partner stands by its word. Benevolence is the belief that one's partner is interested in the company's welfare and will not take unexpected actions which will negatively impact the company (Geyskens and Steenkamp, 1995). When a distinction is made between affective and calculative commitment, it was found that trust, consisting of honesty as well as benevolence, has a positive influence on affective commitment (Anderson and Narus, 1990; Anderson and Weitz, 1989; Morgan and Hunt, 1994; Geyskens and Steenkamp, 1995). Calculative commitment was negatively influenced by trust (Geyskens and Steenkamp, 1995). It seems that if partners in a relationship trust each other more they are more emotionally involved and less consciously weighing the benefits against the costs of that relationship. Commitment in this sense is conceptualized as the amount of effort put in the process of calculating costs and benefits of a relationship. Therefore, we expect that both types of trust will be positively related to affective commitment and negatively to calculative commitment:

*H9:* There will be a positive relation between trust (benevolence) and affective commitment.

*H10:* There will be a negative relation between trust (benevolence) and calculative commitment.

*H11:* There will be a positive relation between trust (honesty) and affective commitment.

*H12:* There will be a negative relation between trust (honesty) and calculative commitment.

#### *Dependence*

Dependence to achieve goals?

Dependence is referred to as asymmetry in a relationship between two partners. A company's dependence on a partner traditionally has been defined in channels as the company's need to maintain a relationship with the partner to achieve its goals (Kumar *et al.*, 1995). In other words, the higher the dependence between two parties, the more one party needs the other party to benefit from the relationship. It was found that dependence in relationships has a negative impact on affective commitment (Anderson and Weitz, 1989; Kumar *et al.*, 1995) and a positive influence on calculative commitment (Ganasan, 1994; Geyskens and Steenkamp, 1995). If parties feel that they are more dependent on some other party they are less emotionally involved in the relationship and more in comparing the costs with the benefits. It has been argued that dependence and the potential consequent fear of exploitation, reduces the motivation to continue the relationship on affective grounds

## Continuance of commitment

(Anderson and Weitz, 1989). If a potential relationship with another party seems more favorable in terms of more equality between the partners, then the current relationship is easily terminated. A different picture emerges for calculative commitment. As dependence increases, the dependent partner will find itself in an increasingly vulnerable position. Hence, it could be argued that the dependent firm is more likely to continue the relationship because it seems necessary given the switching costs involved in terminating the partnership. Alternatively, increased dependence will force a partner to weigh the benefits more heavily. Therefore, we expect that higher dependence between partners will lead to less affective commitment and more calculative commitment:

*H13:* There will be a negative relation between dependence and affective commitment.

*H14:* There will be a positive relation between dependence and calculative commitment.

### *Consequences of commitment*

Ultimately, any firm interested in exchange relationships with its customers would have an interest in the continuance of commitment. This has been called the temporal dimension of commitment (Gundlach *et al.*, 1995). The manifestation of this temporal dimension can be found in partners' intentions to continue the relationship in the future. In modeling terms, intention to stay would be the variable that one would like to be able to explain. We expect positive relationships between the two types of commitment and the intention to stay in the relationship. Furthermore, we expect that customer satisfaction is positively related to the intention to stay in the relationship:

*H15:* There will be a positive relation between satisfaction and intention to stay in the relationship.

*H16:* There will be a positive relation between affective commitment and intention to stay in the relationship.

*H17:* There will be a positive relation between calculative commitment and intention to stay in the relationship.

In the next section a framework for relationship marketing in the services sector will be developed.

## A conceptual framework

### *Development of a conceptual framework*

To study relational commitment and its relationship with various antecedents and consequences, it is necessary to develop a conceptual framework. The theoretical as well as managerial relevance of an investigation of relationship marketing, in which commitment plays a central role, is based on the identification of a number of antecedents of this type of marketing. These antecedents were discussed in the previous sections of this paper. With affective commitment as primary focal construct and calculative commitment as secondary focal construct five independent antecedents are identified:

- (1) technical quality;
- (2) functional quality;
- (3) trust (benevolence);
- (4) trust (honesty); and
- (5) "dependence".

Satisfaction is dependent on service quality but also influences affective and calculative commitment. Therefore, this concept also will be a direct antecedent of commitment. Finally, we expect that a relationship with high levels of satisfaction and commitment will lead to a high level of loyalty of the customer toward the selling organization. This behavioral consequence, an intention to stay in the relationship, will therefore be the outcome of our framework of relationship marketing. The hypotheses we formulated can be summarized graphically by the following conceptual framework, rendered in Figure 1.

Tested in three phases

The conceptual model of the service delivery process, as shown in Figure 1, is tested empirically in three phases. The first phase relates the concepts of perceived service quality (divided into technical and functional quality), satisfaction and affective and calculative commitment with each other. In this phase hypotheses 1 through 8 will be tested. The second phase tests the relationships between commitment, trust and dependence. This phase involves the testing of hypotheses 9 through 14. Finally, the behavioral consequence of the service delivery process is investigated. This will be done by testing hypotheses 15 through 17. In the next section we will report on a test of aforementioned hypotheses.

Mail survey

### An empirical study

#### Research setting and sampling

The relationships that were at central focus in this study were the relationships between a major Dutch office equipment manufacturer and its industrial customers. The hypotheses were tested empirically using a stratified random sample of customers of this office equipment manufacturer. A mail questionnaire was designed that consisted of multiple items that formed an operationalization of our conceptual framework. A total of 1,988 questionnaires, accompanied with personalized cover letters, were mailed. Addresses were randomly selected from the customer database of the office equipment manufacturer. In total 572 usable questionnaires were received from customers, which is a response rate of 28.8 percent. Customers who were not willing to participate in the mail survey were asked to answer an abbreviated

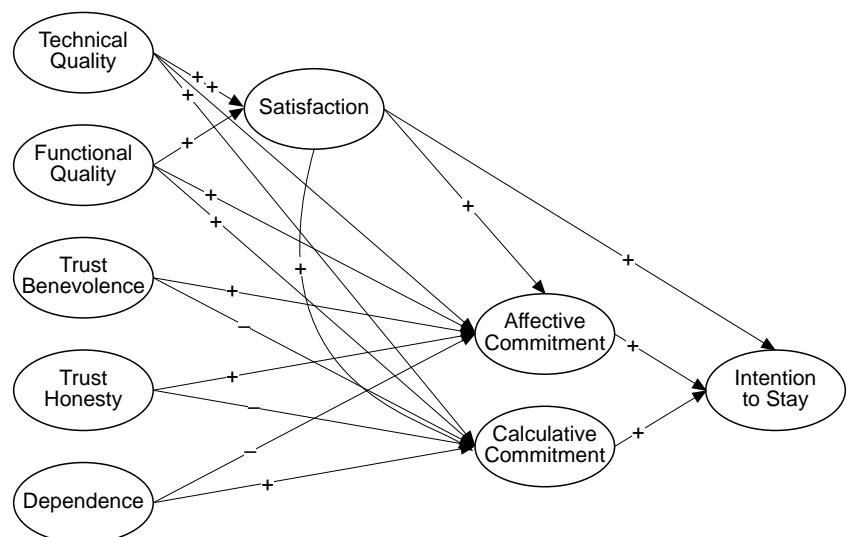


Figure 1. Conceptual model



## A time trend extrapolation test

telephone survey in order to obtain insight into non-response bias. No significant differences between respondents and non-respondents regarding characteristics and attitudes were discovered. Furthermore, a time trend extrapolation test was carried out. The assumption of such a test is that respondents who respond less readily, are more like non-respondents (Armstrong and Overton, 1977). Only a negligible number of variables (less than 5 percent) used in the questionnaire showed a significant difference between early and late respondents. However, this number of variables was distributed among all items of the questionnaire and no consistent pattern could be discerned. Therefore, we may conclude that our data set did not exhibit response-related problems. In comparison with the internal customer database, our sample could be considered representative of the total population. Customers from various industries were included in the sample: educational institutions (31 percent), services in general (22 percent), reprographic industries (16 percent), financial services (10 percent), trade (8 percent), health care (5 percent), manufacturing industries in general (5 percent) and governmental institutions (3 percent). Our respondents had the following positions within their companies: manager reprographic unit (22 percent), facility manager (22 percent), employee reprographic unit (20 percent), buying manager (11 percent), general manager (9 percent) and various (15 percent). Most relationships with customers have been established between five and ten years (46 percent of the respondents).

## Established scales

### *Questionnaire development*

To measure the various constructs in the conceptual model of the service delivery process established scales were used. All items were measured on nine-point Likert-type scales, except for the measurement of satisfaction with the manufacturer's service, for which we used a ten-point scale. All items were "double-back" translated (Brislin, 1980) into Dutch by a qualified translator. Affective and calculative commitment were each measured by four items based on the construct definitions and scales of Kumar *et al.* (1994). As mentioned before, trust in a partner consists of honesty and benevolence of that partner. Trust in the honesty of the manufacturer was measured by five items based on the construct definitions and scales of Kumar *et al.* (1995). Trust in benevolence of the partner was also measured by five items based on construct definitions and scales of Kumar *et al.* (1995). The dependence on the manufacturer was measured by three items based on the definitions also by Kumar *et al.* (1995). Overall perceived service quality, divided into technical and functional quality, was measured using the disconfirmation method, that is customers were asked to give a direct comparison of their perceptions to their expectations on 21 service items (Cronin and Taylor, 1992). The reference point for their expectations was the service an excellent company should offer. These 21 items were customized in wording and subject to the specific service setting of this study, as Carman (1990) proposes. For measuring the overall satisfaction with the manufacturer's service a single item was used. As already mentioned, customers were asked to grade the service of the partner on a ten-point scale. Finally, the behavioral consequence, the intention to stay in the relationship was measured by three items. These items are based on the "expectation of continuity" construct provided by Kumar *et al.* (1995).

The questionnaire consisted of the items mentioned above and was pre-tested in two stages. First, marketing research students were asked to fill in

## Structural equation modeling

## A high degree of reliability

the questionnaire and to detect biases. Second, employees of the office equipment manufacturer were asked to do the same. After each stage the questionnaire was modified and refined. Sample items are included in the Appendix.

### *Construct validation*

To validate the constructs in our study we used structural equation modeling (Bagozzi and Philips, 1991; Bollen, 1989; Gerbing and Anderson, 1988; Steenkamp and van Trijp, 1991). As the numbers of items adversely affects the acceptance of structural equation models, we split the constructs in our study into two subsets. The first model contains technical and functional quality. The second model is concerned with affective commitment, calculative commitment, trust (benevolence), trust (honesty), dependence and intention to stay. This method has recently been recommended for construct validation. PRELIS and LISREL 7 were used to obtain maximum likelihood estimates for the parameters in the confirmatory factor analysis (Jöreskog and Sörbom, 1989)[1].

In model 1 we initially obtained an unacceptable fit. However, after an iterative process, in which we inspected the normalized residuals and the modification indices, ten quality items were deleted and we obtained a good fit:  $\chi^2 = 160.41$  ( $p < 0.001$ ); GFI = 0.94; AGFI = 0.90; RMSR = 0.05; NFI = 0.95; TLI = 0.95 (Bagozzi and Yi, 1988; Bollen, 1989; Hoelter, 1983; Steenkamp and van Trijp, 1991). Although the significant  $\chi^2$  indicates that the model does not fit the data adequately, we have to realize that the large sample size affects the  $\chi^2$ -test (Bearden *et al.*, 1982; Bentler and Bonnett, 1980; Hoelter, 1983; Marsh *et al.*, 1988). Therefore, we used additional measures such as GFI, AGFI, NFI and TLI to assess the fit of our model. For further analyses there remained three items for technical quality and eight items for functional quality. The results for model 1 are summarized in Table I. Initially, model 2 showed an inadequate model fit as well. Therefore we omitted two items from the model using normalized residuals and modification indices. The items that did not fit the structure were the third item of the dependence construct and the first of trust in the partner's honesty. These two items were subsequently left out in further analyses. Consequently model fit proved to be good:  $\chi^2 = 594.91$  ( $p < 0.001$ ); GFI = 0.90; AGFI = 0.86; RMSR = 0.05; NFI = 0.92; TLI = 0.93 (see Table I).

Additionally, the reliability of the constructs, using composite reliability and variance extracted measures was evaluated (Fornell and Larcker, 1981). From Table I it can be concluded that the constructs exhibited a high degree of reliability in terms of composite reliability, all values exceeded the recommended value of 0.7, and variance extracted, for which all values exceeded 0.5.

### *Hypothesis testing*

In order to test the hypotheses we formulated we used path analysis with observable variables using PRELIS and LISREL 7 (Jöreskog and Sörbom, 1989). We used LISREL to obtain maximum likelihood estimates of the path coefficients. It can be concluded that the fit of this model is good:  $\chi^2 = 12.82$ ,  $df = 10$  ( $p = 0.23$ ); GFI = 0.99; AGFI = 0.97; RMSR = 0.04; NFI = 0.99; TLI = 0.99;  $R^2 = 0.72$ . All measures well exceed the recommended cut-off values (Bagozzi and Yi, 1988; Jöreskog and Sörbom, 1989). Furthermore, the values of the  $\chi^2/df$  ratio also indicates a good fit of the

| Model fit | $\chi^2$           | df  | GFI  | AGFI | RMSR | NFI <sup>a</sup> | TLI <sup>a</sup> | R <sup>2</sup> |
|-----------|--------------------|-----|------|------|------|------------------|------------------|----------------|
| Model 1   | 160.41 (p < 0.001) | 43  | 0.94 | 0.90 | 0.05 | 0.95             | 0.95             | 0.98           |
| Model 2   | 594.91 (p < 0.001) | 194 | 0.90 | 0.86 | 0.05 | 0.92             | 0.93             | 0.99           |

| Reliability of measures | Construct              | Reliability | Variance extracted |
|-------------------------|------------------------|-------------|--------------------|
| Model 1                 | Technical quality      | 0.84        | 0.64               |
|                         | Functional quality     | 0.90        | 0.53               |
| Model 2                 | Affective commitment   | 0.95        | 0.83               |
|                         | Calculative commitment | 0.87        | 0.64               |
|                         | Trust benevolence      | 0.92        | 0.70               |
|                         | Trust honesty          | 0.80        | 0.51               |
|                         | Dependence             | 0.80        | 0.53               |
|                         | Intention to stay      | 0.77        | 0.53               |

**Note:** <sup>a</sup>The null model assumes no underlying factors

*Table I. Model reliability of the constructs*

data to the hypothesized model (Bagozzi and Yi, 1988; Hoelter, 1983). Inspection of the standardized residuals showed that none of these exceeded the absolute value of 2.58, the cut-off value suggested by Jöreskog and Sörbom (1989). Finally the Q-plot clearly showed a linear trend through the plotted values indicating a good fit (Bagozzi and Yi, 1988; Jöreskog and Sörbom, 1989).

#### Positive relationship

Inspection of the path coefficients allows us to test our hypothesis (see Table II). To begin with, the relationships between service quality, satisfaction and affective and calculative commitment were tested. We fail to reject hypothesis 1 on the basis of a significant positive relationship between satisfaction and affective commitment (standardized path coefficient = 0.19; *t*-value = 4.95). More satisfied customers will be more affectively committed to the supplier. Furthermore, we also found a significant relationship between satisfaction and calculative commitment, and therefore fail to reject hypothesis 2 commitment (standardized path coefficient = 0.09; *t*-value = 1.94). More satisfied customers will be more calculatively committed to the supplier. A significant positive relationship between technical quality and affective commitment means we fail to reject hypothesis 3 (standardized path coefficient = 0.16; *t*-value = 4.31). Higher quality of the service outcome will result in more affective commitment of customers to the supplier. In our study we found no support for hypothesis 4; there is no significant relationship between the functional quality of a service, that is the quality of the service process, and affective commitment of customers. Also hypotheses 5 and 6 are not supported by our study: both technical and functional quality are not significantly related to calculative commitment. Hypothesis 7, however, a positive relation between technical quality and satisfaction, is supported by our findings (standardized path coefficient = 0.33; *t*-value = 8.07). In other words, higher levels of outcome quality will lead to higher levels of customer satisfaction. The same applies to functional quality; higher quality of the service process will result in more satisfaction (standardized path coefficient = 0.16; *t*-value = 4.05). This is in support of hypothesis 8.

**Commitment, trust and dependence**

| Relationships | Hypothesis      | Standardized path coefficient <sup>b</sup> | Hypothesis testing |
|---------------|-----------------|--|--------------------|
| SAT → AC      | H <sub>1</sub>  | 0.19 (4.95)                                | Failed to reject   |
| SAT → CC      | H <sub>2</sub>  | 0.09 (1.94)                                | Failed to reject   |
| TQ → AC       | H <sub>3</sub>  | 0.16 (4.31)                                | Failed to reject   |
| FQ → AC       | H <sub>4</sub>  | n.s.                                       | Rejected           |
| TQ → CC       | H <sub>5</sub>  | n.s.                                       | Rejected           |
| FQ → CC       | H <sub>6</sub>  | n.s.                                       | Rejected           |
| TQ → SAT      | H <sub>7</sub>  | 0.33 (8.07)                                | Failed to reject   |
| FQ → SAT      | H <sub>8</sub>  | 0.16 (4.05)                                | Failed to reject   |
| TB → AC       | H <sub>9</sub>  | 0.28 (6.99)                                | Failed to reject   |
| TB → CC       | H <sub>10</sub> | 0.40 (7.65)                                | Rejected           |
| TH → AC       | H <sub>11</sub> | 0.33 (8.38)                                | Failed to reject   |
| TH → CC       | H <sub>12</sub> | -0.23 (-4.26)                              | Failed to reject   |
| DEP → AC      | H <sub>13</sub> | n.s.                                       | Rejected           |
| DEP → CC      | H <sub>14</sub> | 0.30 (7.29)                                | Failed to reject   |
| SAT → ItS     | H <sub>15</sub> | n.s.                                       | Rejected           |
| AC → ItS      | H <sub>16</sub> | 0.39 (8.51)                                | Failed to reject   |
| CC → ItS      | H <sub>17</sub> | 0.14 (3.68)                                | Failed to reject   |

<sup>a</sup> SAT = satisfaction; TQ = technical quality; FQ = functional quality; TB = trust benevolence; TH = trust honesty; DEP = dependence; AC = affective commitment; CC = calculative commitment; ItS = intention to stay

<sup>b</sup> Corresponding *t*-value in parentheses

*Table II. Estimated path coefficients<sup>a</sup>*

Next, the relationships between commitment, trust and dependence were studied. We fail to reject hypothesis 9 on the basis of a significant positive relationship between trust (benevolence) and affective commitment (standardized path coefficient = 0.28; *t*-value = 6.99). The more a customer believes that its supplier is interested in its welfare and that the supplier will not take any unexpected actions which negatively impacts the customer, the higher the level of affective commitment of the customer in the relationship. The negative relation between trust in the supplier's benevolence and calculative commitment, as stated by hypothesis 10, is not supported. A significant positive relationship between these two constructs is found (standardized path coefficient = 0.40; *t*-value = 7.65). Apparently, more trust in the partner's benevolence leads to increased calculative commitment of a customer. Both hypotheses 11 and 12 on trust in the partner's honesty are supported (i.e. fail to reject). The higher the belief of the customer that the supplier will stand by its word, the higher the affective commitment of the customer in the relationship (standardized path coefficient = 0.33; *t*-value = 8.38) and the lower the calculative commitment (standardized path coefficient = -0.23; *t*-value = -4.26). Dependence on the supplier was not found to be significantly related to affective commitment, which is in conflict with hypothesis 13. However, it is positively related to calculative commitment (standardized path coefficient = 0.30, *t*-value = 7.29). The more a customer depends on its supplier, the higher its calculative commitment in the relationship with that partner and therefore, the more it will be balancing gains and losses of that relationship. This is in accordance with hypothesis 14.

Finally, the consequences of satisfaction and commitment in a relationship marketing context were tested. First, no significant relation between customer satisfaction and the intention to stay in the relationship was found. This leads to rejection of hypothesis 15. However, it can be concluded that both types of commitment do influence the intention to stay. More

Trust in a partner's  
benevolence and honesty

affectively committed customers intend to stay longer in the relationship with the supplier (standardized path coefficient = 0.39;  $t$ -value = 8.51) and also more calculatively committed customers have a higher intention to continue that relationship (standardized path coefficient = 0.14;  $t$ -value = 3.68). Therefore, we cannot reject hypotheses 16 and 17. Table II summarizes the results of our hypotheses testing.

Inspection of the modification indices suggested three additional relationships in our model (Jöreskog and Sörbom, 1989). In addition to the relations mentioned above, it could be concluded that trust in the partner's benevolence and honesty also have a direct positive effect on customer satisfaction with the service (standardized path coefficient = 0.1;  $t$ -value = 2.15 and standardized path coefficient = 0.28,  $t$ -value = 6.34 respectively). Moreover, trust in benevolence was also found to be directly influencing the intention to stay in a positive way (standardized path coefficient = 0.26;  $t$ -value = 5.49). Since we left the realm of confirmatory analyses by adding these three paths to our model, our final model needs to be cross-validated using additional samples (Cudeck and Brown, 1983; MacCallum, 1986).

## Conclusion

### *Discussion*

Our study indicates that for the establishment of affective commitment in a supplier-customer relationship, it is very important that a customer has a lot of trust in the supplier's benevolence and honesty. If a customer believes that the supplier is benevolent, which means that he/she is interested in the customer's welfare and will not take any unexpected actions which will negatively influence the company, then also more affective commitment will emerge. This similarly applies for honesty. Also by paying attention to service outcome and constantly improving this technical quality, customers will be not only more affectively committed in the relationship, but also more satisfied. In turn, this higher satisfaction also contributes to more affectively committed customers. Other ways of increasing customer satisfaction is by improving the functional quality of the service, that is the quality of the service process and developing trust in the supplier's benevolence and honesty.

Importance of service  
outcome

Our study also shows that affective commitment is not significantly influenced by functional quality and by the level of dependence between two parties. Apparently, the quality of the service outcome is more important in establishing affective commitment than the quality of the service process. Furthermore, it has to be kept in mind that in this specific research setting (office equipment) technical service is often considered most important by people who frequently have a technical background. However, as mentioned, functional quality results in higher levels of satisfaction, which in turn leads to affective commitment. Therefore, functional quality is an indirect antecedent of affective commitment. Furthermore, asymmetry in a relationship between supplier and customer does not automatically imply that a customer will be less affectively committed to the relationship.

Calculative commitment is not affected directly by quality. However, as both technical and functional quality are related to satisfaction, quality indirectly affects calculative commitment. Trust in the supplier's benevolence positively affects calculative commitment, whereas trust in the supplier's honesty reduces calculative commitment. Furthermore, we find that dependence shows a positive impact on calculative commitment.

Customers' intentions to continue the relationship

The importance of affective commitment in business relationships is stressed by its strong relationship with customers' intentions to continue a relationship. More affectively committed partners show a stronger intention to stay than customers who feel more calculative commitment. This latter type of commitment is weakly positively related to the intention to stay. Moreover, trust in benevolence significantly influences the intention to stay in the relationship. More trust in benevolence of a supplier leads to a stronger intention of customers to continue the relationship with that supplier. Surprisingly, this intention of continuation is not significantly influenced by customer satisfaction. Satisfaction is apparently not a differentiator in this specific research setting. This might be a consequence of the fact that all major players in the market for office equipment put a high emphasis on customer satisfaction or because the company has reported relatively high satisfaction ratings that have been fairly consistent over the past five years. However, because satisfaction leads to higher affective commitment, which in turn has the strongest influence on the intention to stay, it has an indirect effect on intention to stay in the relationship.

Preliminary findings

*Theoretical implications*

Certain limitations should be kept in mind when interpreting the preliminary findings reported in this paper. First, the constructs that were studied represent very complex phenomena. Future studies will have to determine which conceptualizations will be needed to yield most reliable and best explanations. Second, important questions remain as to the complexity of the antecedents of commitment. In this paper only a limited number were reported. Additional research is needed as to other variables that lead to relationship commitment. Potential variables include the nature and frequency of interaction between exchange partners, the quality of communications, uncertainty in the competitive environment, perceived risk, the services portfolio, etc. Third, all concepts were measured at one point in time. More insight is needed as to how the concepts develop over time. Finally, the effects were estimated with regards to intentions. Actual behavior such as repeat "buying" behavior and word-of-mouth were not included in this study. However, they should be studied in order to complete the picture.

Focal point

*Managerial implications*

There are several factors management of service providers can use to improve their specific service delivery process and to establish long-lasting relationships with their customers. Most important is the creation of affective commitment of customers in their relationship with the supplier. Affective commitment has the strongest effect on intention to stay in the relationship, and thus on future revenues. This affective commitment is positively influenced by higher levels of satisfaction of customers, and by the improvement of the technical quality of the service and trust in the supplier. The creation of trust in the relationship should be a focal point of attention for managers. It was shown that trust not only has a positive effect on affective commitment, but also on satisfaction and the intention to stay in the relationship. Trust arises if the manufacturer is honest and benevolent with the customer. Fair treatment, open bi-lateral communication and information exchange, a cooperative orientation as well as sound economic results are factors that have been shown to be building blocks of trust (Berry, 1995; Geyskens *et al.*, 1996). Opening communication lines can be achieved by installing a customer contact program in which the company takes the

### Demanding higher standards

initiative to keep in touch with its customers. Also, inviting customers to product and service information meetings and seminars in regional and local markets might be another communication initiative that managers may use to establish trust as well as affective commitment. Delivering service to customers through a team of cross-functional customer contact employees ensures that customers can get a higher level of personalized service for a wide range of services, as they keep meeting the same employees for every service call. Service guarantees are also efficient instruments in establishing trustworthy relationships with business-to-business customers. To these customers service guarantees are signs of a company's customer commitment and form an attribute through which companies can distinguish themselves from competitors. Moreover, companies could experiment with other reward systems that encourage personnel to maintain affective relationships with customers instead of focusing almost solely on sales figures. Customer contact personnel view themselves as relationship managers.

Finally, trust and affective commitment can be promoted by implementing and demanding higher standards of conduct from their personnel. As Berry and Parasuraman (1991, p. 145) state: "they must be willing to ask not only 'Is it legal?' but also 'Is it right?'"

As mentioned, trust has a positive effect not only on affective commitment, but also on customer satisfaction. Satisfaction in turn has, through affective commitment, an indirect positive effect on intention to stay in the relationship. Management should try to avoid business relationships in which the partner only feels calculative commitment. Given the choice between developing closeness to the service provider through attraction or obligation, it is clear that management should cultivate the former over the latter.

Finally, acknowledgment of the importance of customer commitment may provide input for developing alternative segmentation strategies for firms operating in business-to-business markets (Van der Walt *et al.*, 1994). Instead of traditional customer criteria, such as client size and type of industry, clients could also be segmented on the basis of commitment characteristics. These client segments would require different relationship management tactics and strategies.

### Dependence symmetry

For instance, our study indicates that calculative committed customers have a much weaker intention to stay than affective committed customers. As soon as alternative suppliers emerge they probably will switch service providers. The way to avoid high calculative commitment is to strive for dependence symmetry and honesty toward the customer. A balanced and honest relationship will result in less calculatively and more affectively committed customers, more satisfied customers, and therefore in a long-lasting profitable relationship for both parties.

In markets for business services in which a high emphasis is placed on integrated networks between suppliers and customers, commitment and commitment-related issues are likely to play a crucial role. It is hoped that our study provides a small contribution to a better understanding of these issues.

#### Note

1. Satisfaction was not included in our analysis as it was operationalized as a single-item measure.

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#### Appendix: Measures

| Construct          | Sample item   |
|--------------------|---|
| Technical quality  | The mean time between failure of company X equipment (plus disconfirmation scale).  |
| Functional quality | The understanding of your needs by company X staff (plus disconfirmation scale).  |
| Trust benevolence  | Though circumstances may change, we believe that the supplier will be ready and willing to offer us assistance and support. |

|                        |  |
|------------------------|--|
| Trust honesty          | We can count on this firm to be sincere.   |
| Dependence             | There is really no alternative for this firm.  |
| Satisfaction           | Please indicate how satisfied you are with the overall service of company X.                             |
| Affective commitment   | We want to remain a customer of this firm because we genuinely enjoy our relationship with them.         |
| Calculative commitment | There is just too much time, energy and expense involved in terminating our relationship with this firm. |
| Intention to stay      | We expect our relationship with the supplier to continue for a long time.                                |

