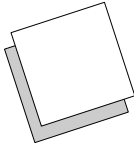


An executive summary for managers and executive readers can be found at the end of this issue



Customer perceived value: a substitute for satisfaction in business markets?

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Abstract *In recent years, there has been a resurgence of interest in the value construct among both marketing researchers and practitioners. Despite a growing body of research, it is still not clear how value interacts with related marketing constructs. Researchers have called for an investigation of the interrelationship between customer satisfaction and customer value to reduce the ambiguities surrounding both concepts. Investigates whether customer value and satisfaction represent two theoretically and empirically distinct concepts. Also addresses whether value is a better predictor of behavioral outcomes than satisfaction in a business marketing context. Two alternative models are developed and empirically tested in a cross-sectional survey with purchasing managers in Germany. The first model suggests a direct impact of perceived value on the purchasing managers' intentions. In the second model, perceived value is mediated by satisfaction. This research suggests that value and satisfaction can be conceptualized and measured as two distinct, yet complementary constructs.*

Introduction

During the last decade, there has been growing interest in the value construct among both marketing researchers and practitioners (Sinha and DeSarbo, 1998; Gale, 1994). In 1991, a popular business magazine described customer value as the “new marketing mania” (*BusinessWeek*, 1991). Six years later, the Marketing Science Institute recognized value and related issues as a research priority. Since then, several international conferences and seminars have given broader attention to this area of research.

Customer value, however, is far from being a new concept to the marketing discipline. Though it did not attract much explicit attention until it became a watchword in the 1990s, value has always been “the fundamental basis for all marketing activity” (Holbrook, 1994, p. 22). The value concept is closely linked to the exchange theory of marketing. According to this view, voluntary market exchange is a key constituent of the discipline (Alderson, 1957; Kotler, 1972; Houston, 1987). Because voluntary market exchange only takes place when all parties involved expect to be better off after the exchange, perceived value is at the core of marketing.

Despite its pivotal role within the exchange concept of marketing, “only a few articles have studied perceived value as a focal construct” (Sinha and DeSarbo, 1998, p. 237). In business markets, researchers have mainly focused on developing methods of value assessment for physical products (Anderson and Narus, 1999). Research on customer value in business-to-

Value concept and exchange theory of marketing



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Fundamental concerns

business relationships is still at its infancy and has mainly been conducted at a conceptual level (Wilson and Jantrania, 1997).

Several issues of fundamental concern remain unresolved in the emerging value literature. Despite the growing body of research in the area, it is still not clear how customer perceived value interacts with related marketing variables, namely customer satisfaction. Researchers have called for an investigation of the relationship between the two constructs: “Is measuring the satisfaction customers have with a product or service really different from the value they derive from it? If so, what exactly is the distinction? . . . Theoretical and empirical research addressing this question is needed to reduce the apparent operational ambiguities surrounding the two constructs and understand their interrelationship” (Parasuraman, 1997, p. 155).

Research questions

The present paper aims at making a contribution to the emerging value literature by investigating the interaction between two fundamental marketing constructs: customer value and customer satisfaction. Three specific research questions are addressed:

Q1. What are customer value and customer satisfaction as perceived by purchasing managers in business relationships?

Q2. Do customer value and customer satisfaction represent two theoretically and empirically distinct constructs?

Q3. Which of both constructs is the better predictor for behavioral outcomes such as repurchase, search for alternatives, and word-of-mouth?

In order to answer these questions, the paper is structured as follows. The constructs of customer perceived value and customer satisfaction are first assessed. The theoretical differences between both concepts are identified drawing on a literature review. Two alternative models that link customer perceived value to behavioral outcomes are developed in the second part. This is followed by a description of the empirical study and a discussion of its results. Limitations of the present study and suggestions for future research conclude the paper.

Literature review

Customer satisfaction

Measuring customer satisfaction has become increasingly popular in the last two decades and today represents an important source of revenue for market research firms (Oliver, 1999, p. 33; Perkins, 1993). The satisfaction construct has gained an important role in the marketing literature. It is widely accepted among researchers as a strong predictor for behavioral variables such as repurchase intentions, word-of-mouth, or loyalty (Ravald and Grönroos, 1996; Liljander and Strandvik, 1995).

The disconfirmation paradigm

Customer satisfaction research is mainly influenced by the disconfirmation paradigm (Parasuraman *et al.*, 1988). This paradigm states that the customer’s feeling of satisfaction is a result of a comparison process between perceived performance and one or more comparison standard, such as expectations. The customer is satisfied when he/she feels that the product’s performance is equal to what was expected (confirming). If the product’s performance exceeds expectations, the customer is very satisfied (positively disconfirming), if it remains below expectations, the customer will be dissatisfied (negatively disconfirming).

Satisfaction as an affective state of mind

Although most scholars agree on the disconfirmation paradigm, the nature of satisfaction remains ambiguous. On the one hand, satisfaction clearly arises from a cognitive process comparing perceived performance against some comparison standards. On the other hand, the feeling of satisfaction essentially represents an affective state of mind. Consequently, some satisfaction scales tap the cognitive dimension of satisfaction, while others capture its affective nature. The extent to which a satisfaction scale focuses on the cognitive or the affective dimension, however, should have an impact in terms of both the antecedents that affect satisfaction and the consequences fostered by satisfaction.

A clear decision on the fundamental nature of the satisfaction construct is needed. In accordance with the majority of research being done on the satisfaction construct, we opt for the latter view and define a purchasing manager's satisfaction with a supplier as an affective state of mind resulting from the appraisal of all relevant aspects of the business relationship (Geyskens *et al.*, 1999, p. 223).

Customer perceived value

The key role of satisfaction within the marketing research domain has recently been questioned (Anderson *et al.*, 1994). Researchers have repeatedly witnessed conflicting survey results of high satisfaction scores correlating with declining market share (Gale, 1994; Jones and Sasser, 1995). Critics have argued that traditional customer satisfaction models rate a company's performance as perceived by existing customers, but do not integrate potential customers, non-customers, or competition in the set of analysis (Gale, 1994). Moreover, the customer's perception of price or costs should be specifically taken into account. Hence, customer satisfaction measurement has been criticized as being limited to a tactical level, providing simple product improvement and a correction of defects and errors of existing products and services.

Value construct

Grounded on these arguments, Gross (1997) has called for a replacement of the satisfaction construct by the value construct as a better predictor of outcome variables in business markets. Gross (1997, p. 6) argues that the construct of satisfaction in business markets is a misleading notion imprudently borrowed from consumer markets. As purchasing managers buy for economic rather than emotional reasons, customer perceived value should be the critical dimension in business marketing.

While the literature contains a variety of definitions of customer perceived value, three common elements can be identified:

- (1) the multiple components of value;
- (2) the subjectivity of value perceptions; and
- (3) the importance of competition.

First, most definitions present customer perceived value as a trade-off between benefits and sacrifices perceived by the customer in a supplier's offering (Zeithaml, 1988, p. 14; Monroe, 1990, p. 46). Perceived benefits are a combination of physical attributes, service attributes and technical support available in relation to a particular use situation (Monroe, 1990). Perceived sacrifices are sometimes described in monetary terms (Anderson *et al.*, 1993). Other definitions describe sacrifices more broadly. Sacrifices are of prime importance to customers in value perceptions. Monroe (1990) argues

Multiple benefits and sacrifices

that customers value a reduction in sacrifices more than an increase in benefits.

Second, value is a subjectively perceived construct (Kortge and Okonkwo, 1993). Different customer segments perceive different values within the same product. In addition, the various members in the customer organization involved in the purchasing process can have different perceptions of a supplier's value delivery (Perkins, 1993).

Finally, value is relative to competition. Delivering a better trade-off between benefits and sacrifices in a product or service, i.e. offering better value than competition, will help a company to create sustainable competitive advantage.

Against the background of the key issues discussed in our literature review, we define customer-perceived value in business markets as the trade-off between the multiple benefits and sacrifices of a supplier's offering, as perceived by key decision-makers in the customer's organization, and taking into consideration the available alternative suppliers' offerings in a specific use situation.

Conceptual differences between satisfaction and customer perceived value
Our literature review suggests that satisfaction and value are complementary, yet distinct constructs (Woodruff and Gardial, 1996, p. 98). Table I provides an overview of major conceptual differences between both constructs.

Value is the result of a cognitive comparison process. The concept has been described as a "cognitive-based construct which captures any benefit-sacrifice discrepancy in much the same way disconfirmation does for variations between expectations and perceived performance" (Patterson and Spreng, 1997, p. 421). In contrast to the cognitive-based value construct, satisfaction is conceptualized by most researchers as an affective evaluative response (Oliver, 1996).

Satisfaction as a post-purchase construct

We have seen that most satisfaction models are rooted in the disconfirmation paradigm. Hence, satisfaction must be considered as a post-purchase construct. Customer perceived value, in turn, is independent of the timing of the use of a market offering (Woodruff and Gardial, 1996) and can be considered as a pre- or post-purchase construct.

Both constructs aim at different directions. Customer satisfaction measures how well a supplier is doing with his/her present market offering, as perceived by existing customers. Such a tactical orientation provides guidelines of action for improving current products and services. The customer value construct, in turn, points at future directions. Its strategic orientation aims at assessing how value can be created for customers and by which means a supplier's market offering can best meet customers' requirements.

Satisfaction	Customer perceived value
Affective construct	Cognitive construct
Post-purchase perspective	Pre-/post-purchase perspective
Tactical orientation	Strategic orientation
Present customers	Present and potential customers
Supplier's offerings	Suppliers' and competitors' offerings

Table I. Conceptual differences between satisfaction and value

Satisfaction vs value

As a consequence, the assessment of customer perceived value is directed toward former, present, and potential clients, whereas satisfaction research is mainly geared toward the supplier's current customer base.

Finally, satisfaction research is predominantly oriented toward the assessment of the supplier's market offering, but not necessarily integrating information pertaining to competitor's product offerings. Customer perceived value measurement, on the other hand, explicitly benchmarks the supplier's offering with competition.

In the literature review, the major constituents of customer perceived value and customer satisfaction have been identified. It has been argued that satisfaction and value are two complementary, yet distinct constructs. In the following section, two conceptual models of how customer perceived value leads to behavioral intentions such as repurchase, search for alternatives and word of mouth will be developed. The methodology used for empirically testing both models will then be described.

From customer value to behavioral outcomes

Most conceptual and empirical contributions to the emerging value literature posit a direct impact of customer value on behavioral outcomes neglecting the role of satisfaction (Zeithaml, 1988, p. 4; Dodds *et al.*, 1991, p. 308). A rationale for neglecting satisfaction is provided by Gross (1997) who argues that in business markets, purchasing managers' decision making is mainly guided by cognitive factors and not by affective ones. Therefore, a first model has been developed taking into consideration solely the cognitive input and conative output. In this "direct impact model", customer perceived value is supposed to have a direct impact on the outcome variables.

Mediated impact model

With regard to the theory of reasoned action (Fishbein and Ajzen, 1975) a second model can be developed which is best described as the "mediated impact model". According to Fishbein and Ajzen's framework, cognitive variables are mediated by affective ones to result in conative outcomes. In the second model, customer perceived value is supposed to have an indirect impact on behavioral outcomes. Customer satisfaction is considered as a mediating variable between customer perceived value and the purchasing managers' conative intentions.

Empirical study

Empirical data were gathered in a cross-sectional survey among purchasing managers in Germany. Based on a CD-ROM directory of industrial suppliers, a randomized sample of 960 purchasing managers was contacted in a telephone survey and invited to participate in the study. Respondents received a standardized questionnaire by fax. They were asked to rate their supplier relationships on a number of five-point rating scales (anchor: "strongly agree" vs. "strongly disagree"). A total of 342 responses was obtained. Since the key informant methodology was used to collect data, the competency of the respondents was assessed in accordance with Kumar *et al.* (1993). A total of 41 questionnaires did not meet the screening requirements leading to a net sample size of 301.

All relevant constructs were measured on multi-item scales. As recommended by Churchill (1982) and Nunnally (1978), several steps were taken to ensure content validity of the scales. First, a set of possible items was generated based on a literature review. These items were subjected to an item-sort task administered to 19 doctoral students in business

administration. The students were asked to assign the individual items to what they believed to be the “correct” construct. Two indices proposed by Anderson and Gerbing (1991, p. 734) were computed for each item to find out which items were difficult to assign correctly to the corresponding constructs. The p_{sa} index is an indicator of the extent to which an item reflects its intended construct. It simply measures the proportion of respondents who assign an item to its intended construct. The c_{sv} index reflects the extent to which respondents assign an item to its posited construct more than to any other construct. Therefore the c_{sv} index provides a more accurate estimate of substantive validity than the p_{sa} index. Based on these two indices, items for the questionnaire were selected. The questionnaire was then pre-tested with 30 purchasing managers. After some minor adjustments, the resulting items were included in the final survey (see Appendix for items).

Data analysis and results

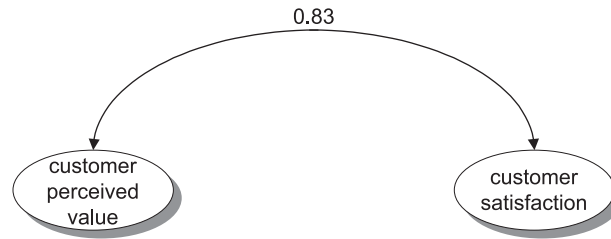
Consistent with Gerbing and Anderson (1988), reliability, unidimensionality, convergent validity and discriminant validity of the scales were assessed (for a description of the scale items used, see the Appendix). The items were examined first by item-to-total correlations. Items with low correlation were deleted. The remaining items were subjected to exploratory and confirmatory factor analysis to assess unidimensionality and convergent validity. In the process of purifying the scales, two items measuring customer satisfaction were dropped. The scales measuring customer perceived value, repurchase intention, search for alternatives and word of mouth fulfilled standard requirements immediately. Table II reports item loadings, individual item reliability, Cronbach’s alpha and average variance extracted of the refined measurement models.

Discriminant validity

Next, discriminant validity between customer perceived value and customer satisfaction was assessed by means of a chi-square difference test and the Fornell-Larcker criterion (see Figure 1). When the correlation between customer perceived value and customer satisfaction was fixed to 1, the chi-square statistics showed a significant increase ($\Delta\chi^2 = 13.16$; $\Delta df = 1$). Moreover, the average variance extracted exceeded the squared correlation (0.68) between the two constructs. This indicates discriminant validity of

Construct	Item	Item loading	t-value	Individual item reliability	Cronbach’s alpha	Average variance extracted
Customer perceived value	1	0.83	Standardized	0.70	0.77	0.70
	2	0.85	15.16	0.72		
	3	0.57	9.51	0.32		
Satisfaction	1	0.87	21.48	0.76	0.89	0.89
	4	0.92	Standardized	0.84		
Repurchase	1	0.86	Standardized	0.73	0.91	0.85
	2	0.88	19.33	0.78		
	3	0.91	20.36	0.83		
Search for alternatives	1	0.83	Standardized	0.70	0.75	0.80
	2	0.71	10.33	0.51		
Word of mouth	1	0.79	15.60	0.63	0.87	0.79
	2	0.84	16.89	0.71		
	3	0.86	Standardized	0.74		

Table II. Scale properties



Chi-square difference test:
significant increase ($\Delta\chi^2 = 13.16$)

Fornell-Larcker Criterion:
average variance extracted > 0.7
squared correlation = 0.68

Figure 1. Discriminant validity

customer perceived value and customer satisfaction (Fornell and Larcker, 1981). In addition to the theoretical differences elaborated before, this empirical research shows for the first time that customer perceived value and customer satisfaction can be conceptualized and measured as two distinct constructs.

Testing relationships

After having shown that the measurement models are consistent with the empirical data, the substantive relationships between customer-perceived value, customer satisfaction and behavioral outcomes were tested using the statistical package AMOS 3.6.

In the mediated impact model (see Figure 2), customer perceived value is estimated to have a strongly positive and highly significant impact on satisfaction. Satisfaction itself has a strongly positive and highly significant impact on repurchase and word-of-mouth intention. Moreover, it reduces the search for alternatives. Overall the mediated impact model has a very good fit ($\chi^2/df = 1.68$; GFI = 0.96; AGFI = 0.93; RMSEA = 0.048). Parameter expansion (i.e. adding direct relationships between CPV and behavioral outcomes) did not improve the fit significantly. It can therefore be concluded that – for the data set in the present study – satisfaction is a better predictor for behavioral outcomes than CPV.

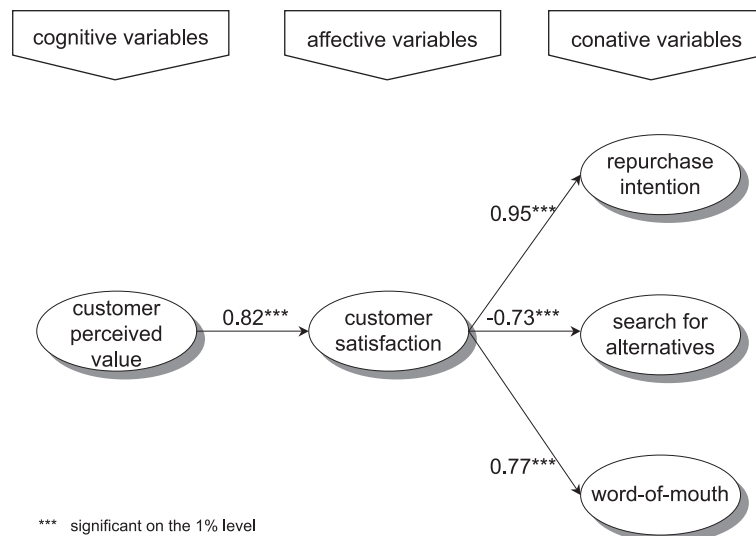


Figure 2. Parameter estimates in the mediated impact model

Global fit indices

In the rival model (see Figure 3), customer perceived value is supposed to have a direct impact on the investigated outcomes. Here customer perceived value is estimated to have a strongly positive impact on repurchase and word-of-mouth intention as well as a strongly negative impact on the search for alternatives. Again, all substantive relationships are significant at the 1 percent level.

The direct impact model, however, performs significantly lower than the mediated impact model. Out of four global fit indices ($\chi^2/df = 3.82$; GFI = 0.92; AGFI = 0.87; RMSEA = 0.098), only the GFI fulfils the standard minimum requirements. As the Akaike (1974) information criterion also favors the mediated impact model, it clearly is to be preferred over the direct impact model (see Table III for a comparison of global fit indices).

Discussion of academic and managerial implications

This paper shows that customer perceived value and customer satisfaction can be conceptualized and measured as two distinct yet complementary constructs. Strong interactions between the two concepts do exist. Both theoretical reasoning and empirical research provide evidence, however, that value and satisfaction tap different dimensions. In order to prevent conceptual ambiguities, customer satisfaction should be conceptualized and measured as an affective construct, while customer perceived value is best being conceptualized as a cognitive variable.

Mediated impact model

The results of our comparison of the direct impact model and the mediated impact model argue that researchers should take into account both constructs when assessing outcomes of relationship value. In this sense, our results do not confirm the criticism of certain scholars concerning the predictive power

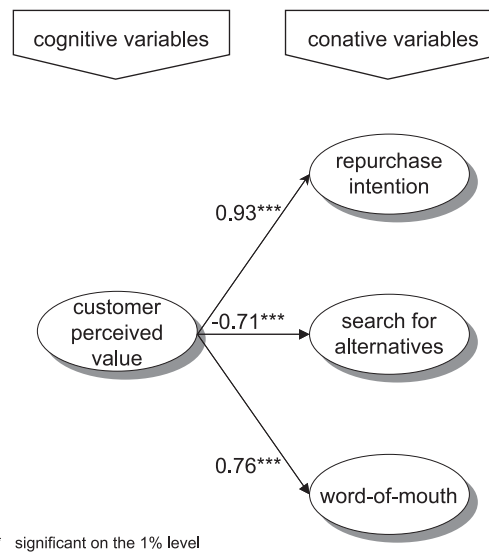


Figure 3. Parameter estimates in the direct impact model

Global fit index	Mediated impact model	Direct impact model
χ^2/df [df] (< 2.5)	1.69 [df = 50]	3.83 [df = 32]
GFI (> 0.9)	0.96	0.92
AGFI (> 0.9)	0.93	0.87
RMSEA (< 0.05)	0.048	0.098
AIC (min!)	141.7	168.4

Table III. Global fit indices

Cognitive and affective variables

of affective variables such as satisfaction in a business-to-business context. With the advent of customer value research, measuring satisfaction has not become obsolete. Affective variables continue to be of importance in business research, especially within a relationship marketing setting.

Overall, the findings of the present study provide evidence for Erevelles (1998, p. 209) who claims:

Although it may be true that organizational buying behavior involves a more cognitive approach than individual buying behavior, . . . affective processes frequently occur or sometimes even dominate organizational buying decisions.

To truly understand organizational buying decisions, multidimensional models that take into consideration both cognitive and affective variables are needed. Therefore, the concepts of customer perceived value and customer satisfaction do not substitute but complement each other.

Organizations increasingly invest in the development of marketing information systems that combine external customer information and internal performance measures (McLeod and Rogers, 1985). In current practice, managers predominantly rely on satisfaction measurement to develop and implement marketing strategies. The present research confirms on the one hand the relative importance of customer satisfaction tools for marketing decision making. On the other hand, the study's findings are in line with Woodruff (1997) who argues that marketing information systems should integrate not only satisfaction indicators but also include customer value measurements. Managers should take into account both variables when designing marketing information systems. Critical customer information includes on the one hand data about how satisfied customers are with the company's products and services. On the other hand, the assessment of how value is perceived by customers in market offerings complements the information needed for marketing decision making.

Positive behavioral intentions

As organizational buying behavior ultimately consists of individuals making decisions (Webster and Wind, 1972), marketing professionals must take into account both cognitive and affective inputs. Our research suggests that value must first be created by a supplier for its customer. It must then be experienced in the customer's organization and translated into satisfaction in order to result in positive behavioral intentions.

Limitations and research directions

The present research focused on two core constructs, i.e. value and satisfaction in response to the research issues raised in the literature (Parasuraman, 1997, p. 155). Other closely related constructs such as trust and commitment have not been investigated in the present study. Hence, future research should be directed toward investigating the interaction of value with other core marketing constructs.

Further, to ensure generalizability of our results, the present research was based on a cross-sectional sample. However, the project was conducted in one single country and should be extended to respondents from different countries to allow for cross-country validation.

Finally, the use of structural equation modeling in our research suggests a linearity of the relationships between the variables in our models. This assumption could be considered as a limitation of our study and represents a potential for further research in this area.

Customer perceived value

Summary

This paper raises the question of whether customer perceived value is a substitute for customer satisfaction in business markets. It is motivated by recent criticism that customer satisfaction may not be a suited construct within a business-to-business setting.

First, a definition of customer perceived value and customer satisfaction in business markets is provided based on a literature review. Then, the paper assesses the theoretical differences between both constructs. Next, customer perceived value is measured as a cognitive variable. Customer satisfaction, in turn, is measured as an affective variable. Discriminant validity between both constructs is confirmed. Following, two models that prescribe how customer perceived value may lead to behavioral intentions are introduced: a direct impact model and a mediated impact model. According to the mediated impact model, customer perceived value leads to satisfaction which, in turn, leads to positive behavioral intentions. This model has a significantly better fit than the rival model which poses a direct relationship between customer perceived value and behavioral outcomes. Based on the data set in this study, it can be concluded that satisfaction remains a strong predictor for behavioral outcomes. Customer perceived value is a complement and not a substitute for customer satisfaction. However, more research is required before a particular view concerning the nomological relationship between customer perceived value, customer satisfaction and behavioral outcomes is to be accepted.

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Appendix. Scale items

Customer perceived value

- (1) Compared to the price we pay, we get reasonable quality.
- (2) Compared to the quality we get, we pay a reasonable price.
- (3) The purchasing relationship delivers us superior net-value.

Satisfaction

- (1) It is a pleasure to have a purchasing relationship with the supplier.
- (2) To some extent we have not found the ideal supplier yet (reversed scale). (This item was dropped, based on confirmatory factor analysis.)
- (3) The supplier always tries his best (this item was dropped, based on confirmatory factor analysis).
- (4) We are very satisfied with our supplier.

Repurchase intention

- (1) Next time we will buy again from our current supplier.
- (2) In the foreseeable future we will consider our current supplier as part of our evoked set.
- (3) We intend to continue the purchasing relationship with our supplier.

Search for alternatives

- (1) Recently we have spent some effort to search for alternative suppliers.
- (2) We are continuously looking for alternatives to replace our current supplier.

Word of mouth

- (1) Our current supplier can use us as a reference customer.
- (2) We would be glad to serve as a reference customer to our current supplier.
- (3) We will recommend our current supplier to other purchasing managers.

