# Value Creation in Buyer–Seller Relationships

## Theoretical Considerations and Empirical Results from a Supplier's Perspective

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*The essential purpose for a supplier and customer firm engaging in a relationship is to work together in a way that creates value for them. Various important functions of business relationships in creating value for the partner firms are widely assumed in the literature. However, there is a lack of empirical studies due to the absence of conceptual definition. Furthermore, there is a strong concentration on value for customers neglecting that value is also created for suppliers. In this study, the authors take the supplier's perspective and conceptualize value creation as a set of direct and indirect functions of customer relationships. The functions are characterized with respect to performed activities and employed resources of a customer firm. The findings from an empirical study of more than 200 firms show that both direct and indirect functions of customer relationships contribute to the value perceived by the supplier. The results of this study have considerable consequences for the management of inter-organizational relationships and networks regarding the process of how value can be created in business markets.   © 2001 Elsevier Science Inc. All rights reserved.*

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## INTRODUCTION

The concept of value in business markets has recently attracted attention from both academics and managers

# Relationships fulfill crucial functions for suppliers.

and it has been widely used in the marketing discipline [1–4]. The basic notion is that business markets can only be understood applying the concept of value. Anderson and Narus [5] regard value "as the cornerstone of business market management because of the predominant role that functionality or performance plays in business markets." Given the fundamental nature of value in business markets, it is critical for firms to comprehend the mechanisms and means of value creation [6, 7].

In short, value can be regarded as a trade-off between benefits and sacrifices [6, 8]. Some define value in business markets monetarily [2, 5] whereas others use a broader value definition, which also includes non-monetary revenues, such as competence, market position, and social rewards [4, 7, 8]. In the context of this study we understand *value* as the perceived trade-off between multiple benefits and sacrifices gained through a customer relationship by key decision makers in the supplier's organization. Those benefits and sacrifices can result from the relationship under question as well as from connected relationships on which the focal relationship has an impact or is effected by those other relationships.

For the majority of current industrial marketing research concerned with value creation, the focus is on the customers' value [1, 4, 8–10]. Reasoning behind such concentration is the assumption that supplier firms will only succeed in the marketplace once they offer "more" value to their customers compared to their competitors [5, 11, 12]. Customers are becoming a key source of competitive advantage because, in addition to revenues, suppliers can gain product ideas, technologies, and/or market access, etc. from their customers [7, 13–16].

A growing number of researchers point to the pivotal importance of business relationships for *value creation* [8, 9, 13, 17]. Value creation is regarded as the essential purpose for a customer firm and a supplier firm engaging in a relationship [1, 7, 18]. This does not only apply to customers but also to suppliers. Empirical results indicate that suppliers focussing on a few selected customers achieve higher profitability in long-term relationships by reducing their discretionary costs to a greater extent than supplier firms who employ a transactional approach to deal with customers [19]. In this article we take the supplier's perspective because an important contribution for corporate success can be gained from customer relationships. In our understanding, the supplier needs to offer value to the customer but also needs to gain benefits from the customer at the same time. For the sake of their own survival, suppliers need to understand how value can be created through relationships with customers.

Despite the growing trend toward considering and using business relationships as means of value creation, the marketing literature is deficient in some important ways. There is a high concentration on profit as value at the expense of other possible contributions relationships can make. Up to now, the lack of systematic investigation makes it difficult to evaluate value creation in business relationships. Even less developed is the understanding of how a focal customer–supplier relationship creates value for other connected relationships of the partner firms [1]. Our study helps fill these gaps by developing a model of functions of customer relationships, by relating these functions to value creation and by testing this model empirically.

The article is organized as follows. First, we provide an overview of the literature on functions of relationships and develop a conceptual framework. Then we present results from an empirical study exploring functions of customer

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# Functions of relationships can be divided into direct and indirect functions.

relationships from the suppliers' perspective. We conclude with a discussion of the empirical results and their implications for relationship management and theory.

## FUNCTIONS OF BUSINESS RELATIONSHIPS

Researchers have developed several models and frameworks of relationship functions in the last two decades [13, 20–22]. In the functionalist paradigm [23, 24] the term function can be used in various way, however "in societal functionalism, the term function generally refers to the contribution of an element to a larger system of which it is part" [25]. In the present study functions of a customer relationship refer to performed activities and employed resources of the customer (i.e., what the customer is contributing to the relationship and as such also to the wider network). Functions of business relationships can basically be distinguished into *direct functions* (also called primary or first-order functions) and *indirect functions* (also called secondary or second-order functions) [13, 21, 22]. It is argued that direct functions have an immediate effect on the partner firms. Indirect functions are supposed to have an oblique effect on the partners, because their relationship is directly or indirectly connected to other relationships. In the following we use this distinction to structure suggested functions.

### Direct Functions

The direct functions of customer relationships include activities and resources of the supplier firm and customer firm that may create value to the supplier without being dependent upon other (connected) relationships. Of crucial importance to most suppliers are "cash flow customers" [20]. These are large, loyal customers purchasing a steady volume of products and thus providing the supplier with a regular cash flow. But a distinction should be made between a *profitable customer* and a high *volume customer* [21].

The realization of profit is a necessary precondition for the survival of a company and, thus, is a very important function of customer relationships [19]. Any supplier must have profitable customer relationships if he wants to survive in the long term. This is called a *profit function.* Furthermore, the cash generated by these relationships helps to subsidize other relationships which fulfill different, but in many situations equally important, functions [26].

However, profits cannot or should not be made with all transactions. Most companies need to surpass a certain threshold in the utilization of capacities in order to achieve economies of scale. Thus, suppliers are interested in a certain quantity of products they sell and not only profit they make. Also, customer retention can be a major determinant of supplier's profitability and is essential, given the trend among firms to use fewer suppliers [19]. Therefore, it could be expected that suppliers make concessions in prices to handle customers who purchase comparatively large portions of the suppliers' production. In those cases we will talk about a *volume function.*

Another important direct function of a customer relationship is the *safeguard function* [21]. The safeguard function improves the cost-efficiency of the supplier. Given the uncertainties in competitive markets, suppliers establish certain customer relationships that are held as insurance against crises or difficulties with other customers [26]. Especially under depressed market conditions suppliers may end up in situations where selling agreements are not fulfilled. For these instances suppliers need "emergency customers" who provides some business although it may well be a relatively unfavorable deal. Reducing sacrifices and efforts the supplier has to undertake in order to store, sell, and deliver products contributes to a reduction of supplier's costs. This in turn leads to a better overall profitability of the supplier's organization.

The discussed three functions of relationships all contribute to the profitability of suppliers. All functions are direct in the sense that the effect is derived within a given

# Volume, profit and safeguard functions are direct value creators.

relationship. It is reasonable to assume that fulfillment of at least one function contributes to the overall value a supplier attaches to the relationship under question.

> *H1:* The more a customer relationship fulfills direct functions, the greater the value of the relationship perceived by the supplier.

## Indirect Functions

Indirect functions of business relationships capture connected effects in the future and/or in other relationships—the wider network. "A business network can be defined as a set of two or more connected business relationships, in which each exchange relation is between business firms" [13]. Connected means the extent to which "exchange in one relation is contingent upon exchange (or non-exchange) in the other relation" [27]. Thus, indirect functions are important because they positively impact on exchange in other relationships.

Suppliers establish relationships with customers who are seen to be at the forefront of technology or whose product expertise are high. In such situations suppliers often discount short-term financial gains for the long-term benefits of networking *innovation development* [15, 28, 29]. Product and process innovations developed together with a customer may improve the value of the supplier's offerings to this customer in the future as well as to other customers [30, 31].

Referrals and/or recommendations from current customers support a supplier to enter new markets and to establish commercial relationships [32]. Not only the first customers in a particular market may have a *market function* [20]. Especially large and prestigious customers which are known to apply stringent criteria to their selection of supplier companies may have a valuable reference effect even though they are not the first customers.

With the *scout function* we emphasize another significant indirect function. To be successful, suppliers must obtain meaningful information from others outside of the organization [23, 33]. Customers often gather and dis-

pose of information about market developments that is relevant to the supplier's business earlier than the supplier would be able to [29]. Thus, customers are scouts in the marketplace.

In business-to-business markets official authorities, chambers, banks and/or trade associations can play an almost dominant role. Sometimes, customers' experience in dealing with such actors can be of considerable help for a supplier to reduce time- and money-consuming licensing procedures, business negotiations, etc. [21]. As such customer relationships can also fulfill an *access function.*

Our theoretical considerations have shown that resources (e.g., technological know-how, market information, goodwill) utilized, developed, and/or gained in a specific customer relationship may have implications for the supplier's exchanges in other relationships. It is reasonable to assume that the fulfillment of these indirect functions will positively contribute to the overall judgement of the overall relationship value.

> *H2:* The more a customer relationship fulfills indirect functions, the greater the value of the relationship perceived by the supplier.

It should be noted that a customer relationship may serve to fulfill more than one direct and/or indirect function. The importance of different functions varies from customer to customer and to the same customer over time [13, 26]. Furthermore, in a given supplier–customer relationship, indirect functions can be as important as the direct ones, or even more so. A supplier might be prepared to accept a lower volume and/or margin than normal, regarding this as costs of technical know-how, market access, or information.

The conceptual framework is shown in Figure 1.

## EMPIRICAL STUDY

### Data Collection and Sample

In a first step we evaluated 30 buyer–supplier relationships by conducting partly structured interviews with em-

# Innovation, market, scout and access functions are indirect value creators.

ployees of supplier firms in Germany. In 12 cases, field interviews were carried out with the corresponding customers in France, and in seven cases with the customers in Great Britain. The purpose of these interviews was to develop a set of items that tap each of the relevant constructs and to provide an initial test of some of the measures. Furthermore, we modified several items that were extracted from various previous studies and verified them for their relevance to the context of the present study through the interviews with CEOs, sales managers and purchasing managers.

Data for the study were obtained from managers responsible for relationship and network management tasks. We gathered the addresses of their firms from a commercial address list, including industrial goods manufacturers. Potential key informants for this study, usually the CEOs or sales managers of the companies, were initially contacted by phone and were asked to participate in the study. The telephone contacts were also made to ensure that the persons were best able to report on the in-

vestigated constructs. The data were collected in standardized personal interviews in supplier companies. For the purpose of this study, 247 questionnaires were sufficiently completed, resulting in a response rate of 43.6% (of the 567 companies contacted).

The sample can be described as follows: On average, the business relationship had been in existence for 13.3 years. The responding suppliers were all located in Germany and primarily operated in the fields of mechanical engineering (34%), the electronics industry (30%), the metal-processing industry (12%) and the chemical industry (11%). Their customers were located in Great Britain (20%), France (22%), and Germany (58%). They worked in sectors such as the electronics industry (26%), mechanical engineering (17%), the chemical industry (17%), and vehicle manufacturing (10%). For the most part, suppliers were small and medium-sized enterprises (SMEs), which is reflected in an average of 445 employees per firm. The customers employed 1076 persons on average.
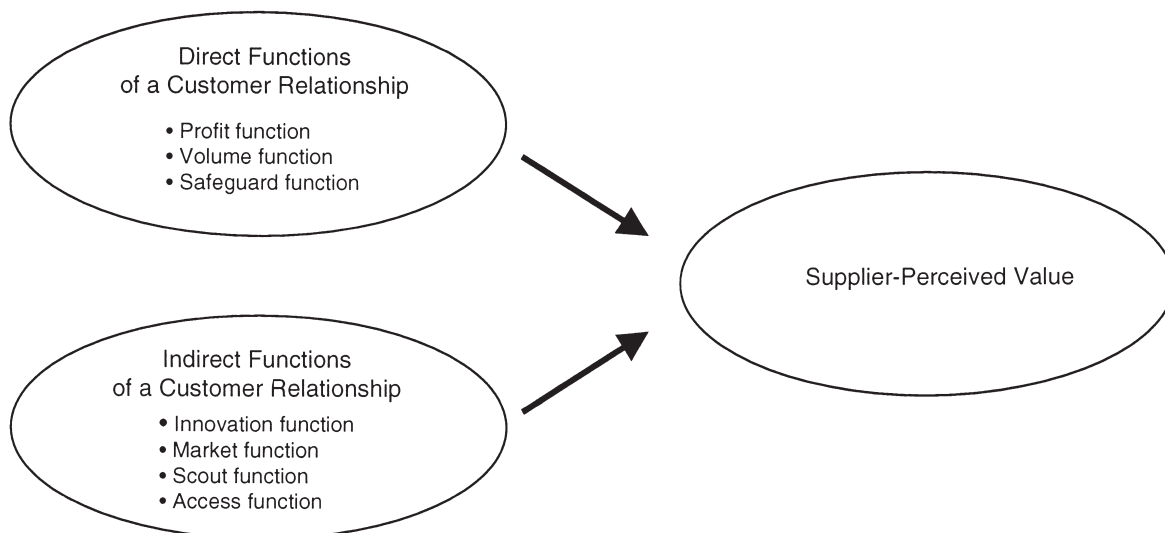
**FIGURE 1.** **Functions of a customer relationship.**

# Both direct and indirect functions impact on overall value perception.

For the purpose of this study, respondents seemed to be appropriate as key informants who deal with relationship and network management and hold personal contacts to customers themselves. In 46% of our cases, the key informants were members of the firm's top management. Forty percent of the respondents were from middle management, and only 14% of the interview partners were members of lower management. The key informants had been actively involved in the respective customer relationships for approximately seven years on average. They met employees from the customer firms approximately nine times per year on average.

## Operationalization

Appendix 1 contains the measures and items of the study. The psychometric quality of the measures was assessed using procedures suggested in the measurement literature. We purified our proposed measures by assessing their reliability and unidimensionality. All items pertaining to the same function were submitted to an exploratory factor analysis. Items with low factor loadings were eliminated. In a next step item-to-total correlations were computed for each of the items. Items for which these correlations were not significant at the .01 level were dropped. After that, Cronbach's alpha was computed and, if it was smaller than .7, the item with the smallest item-to-total correlation was removed until the requirement of alpha being at least .7 was met. Next, the remaining items were subjected to an exploratory factor analysis. The factor-loading matrix revealed the necessity of further deleting items.

We have conceptualized functions of customer relationships as a two-dimensional construct (direct and indirect functions). Therefore, the remaining 21 items representing functions through a customer relationship were inputs of a second-order confirmatory factor analysis (CFA). By the means of a second-order CFA model "the proposed dimensions of a multidimensional construct are explicitly represented and parameters related to each dimension can be used to examine useful properties of the measurements" [34]. The maximum likelihood (ML) method in LISREL VIII was used to estimate model parameters with the covariance matrix as data input. Each of the 21 items is hypothesized to load on one of seven first-order factors, depending on its meaning. Variance common to all measures and reflecting meaning at a higher level of abstraction is captured through the influence of the two second-order factors termed "direct functions" and "indirect functions."

The overall fit indices obtained for the model were as follows: $\chi^2_{(181)} = 254$, $p = .000$, GFI = .91, AGFI = .89, CFI = .97, RMR = .05, RMSEA = .04. Given the model is quite complex, the fit statistics suggest that the overall model is acceptable [35, 36]. Our assessment of the overall model was also confirmed by the Q-plot of standardized residuals that is characterized by points falling approximately on a 45° line [37].

Table 1 contains standardized ML parameter estimates for the measurement model, proportions of variance extracted, construct reliability values, and Cronbach's alpha values. All items exhibit reasonably high reliabilities. All Cronbach's alphas except one exceed the threshold value of .7. The average variance extracted and all of the construct reliabilities exceed the threshold values of .5 and .7, respectively [38]. Discriminant validity between the seven factors and the two second-order constructs respectively is given applying the criterion suggested by Fornell and Larcker [38]. The squared correlations between the seven relationship functions ranged between 0.05 and 0.39. The squared correlation between the construct's direct functions and indirect functions is 0.37. Thus, the measurement model results can be interpreted as acceptable.

For our further analysis the arithmetical means of the three multi-item scales, profit function, volume functions, and safeguard function, were used to measure the construct direct functions of a customer relationship. The arithmetical means of the four multi-item scales, innova-

# Relationships can be classified according to their value creation.

tion function, market function, scout function, and access function, were used to measure the construct indirect functions of a customer relationship. For the assessment of supplier-perceived value within a relationship setting, we selected one item that embraces the two critical components of the relationship value: benefits and sacrifices. The key informants were asked to rate the profitability of the customer relationships in question considering all

**TABLE 1**
**Second-Order Confirmatory Factor Analysis Results**

| Factor/Item | Standardized factor loading | Percent variance extracted | Construct reliability | Cronbach's alpha |
|---|---|---|---|---|
| Profit function (F1) | | | | |
| 1 | .68*** | .65 | .78 | .77 |
| 2 | .91*** | | | |
| Volume function (F2) | | | | |
| 1 | .88*** | .55 | .78 | .77 |
| 2 | .65*** | | | |
| 3 | .67*** | | | |
| Safeguard function (F3) | | | | |
| 1 | .64*** | .51 | .75 | .74 |
| 2 | .87*** | | | |
| 3 | .60*** | | | |
| Innovation function (F4) | | | | |
| 1 | .63*** | .62 | .86 | .86 |
| 2 | .79*** | | | |
| 3 | .86*** | | | |
| 4 | .83*** | | | |
| Market function (F5) | | | | |
| 1 | .79*** | .66 | .85 | .85 |
| 2 | .88*** | | | |
| 3 | .76*** | | | |
| Scout function (F6) | | | | |
| 1 | .81*** | .59 | .81 | .81 |
| 2 | .70*** | | | |
| 3 | .80*** | | | |
| Access function (F7) | | | | |
| 1 | .65*** | .52 | .76 | .76 |
| 2 | .78*** | | | |
| 3 | .72*** | | | |
| Direct value functions | | | | |
| F1 | .70*** | .50 | .74 | .67 |
| F2 | .81*** | | | |
| F3 | .58*** | | | |
| Indirect value functions | | | | |
| F4 | .82*** | .52 | .81 | .75 |
| F5 | .62*** | | | |
| F6 | .77*** | | | |
| F7 | .65*** | | | |

*** = Parameter estimates are significant at the .001 level.

# Relationship management has to mirror the functions fulfilled in the relationship.

revenues and costs associated with the relationships on a seven-point scale.

## RESULTS

We tested the two hypotheses using causal modeling by means of LISREL VIII. Because it is unreasonable to assume that the error variance of the supplier-perceived value measure is zero, we included a 15% measurement error in this measure. Table 2 contains the parameter estimates of the structural model.

The overall fit measures were all met in our structural analysis, which suggests that the models fit the data well. All relationships predicted in the structural models are found to be in a positive direction (H1 and H2 supported). Furthermore, the model explains a substantial proportion of the variance in the endogenous variable: supplier-perceived value 49%. In summary, these results provide strong evidence for direct and indirect function's nomological validity.

## CONCLUSION

### Discussion

Value creation "can be regarded as the raison d'être of collaborative customer–supplier relationships" [1]. The present study identified seven functions of customer rela-

**TABLE 2**
**Structural model**

| Model parameter | Standardized ML Parameter γ coefficient (t-value) |
| --- | --- |
| Direct functions→supplier-perceived value | .51 (4.99) |
| Indirect functions→supplier-perceived value | .28 (3.04) |

$\chi^2_{(18)} = 26$, $p = .10$, GFI = .97, AGFI = .95, CFI = .98, RMR = .04, RMSEA = .04, $R^2 = .49$

tionships. The *volume function* contributes to the success of the supplier by securing the necessary "break-even" volume and, thus, allows the company to operate on a profit-making basis. A positive cash flow to the supplier is provided through the *profit function* of a customer relationship. Obtaining stability and control in sales terms within a dynamic marketplace is represented by the *safeguard function*. Those three functions are directly related to a company's performance. As such we label the identified functions as direct value-creating functions.

Through the *innovation function* technological know-how and creative ideas are obtained from the customer. Gaining access to new markets (i.e., new customers) is represented by the *market function*. The *scout function* of a customer relationship captures the possibility to gain critical information through customers. The *access function* allows access to third parties and makes those actors reachable, open, and understandable. Those four functions do not influence the performance of a company directly within that relationship or at a particular moment in time, but are nevertheless important for the future development of the company. Therefore, these functions are summarized under the heading of indirect value-creating functions.

Creating value through business relationships is becoming one of the most discussed topics in the marketing literature. Our further analyses show that the empirically identified functions explain a very high proportion of the overall value assessment by the supplier. This signals that we have indeed captured the most important aspects of this construct. It is the fulfillment of the functions with creates value for the supplier. Given the high percentage of explained variance of value we can conclude that the discussed functions are the main drivers of value creation. As such, we suggest discussions about "value-creating functions of business relationships." These findings provide additional evidence to the growing body of knowledge concerning the importance of business relationships for value creation.

However, some limitations of this study should be recognized and taken into account when interpreting its findings. In our study, we mostly interviewed SMEs. Those companies might be more dependent upon their customers because each customer normally accounts for a substantial proportion of their business. In particular, the volume function and the safeguard function might be of more importance to SMEs because an unreliable customer could ruin the whole business. In contrast, larger companies can reduce the level of dependency upon one single customer and, in turn, emphasize the profit function. Therefore, the different functions can have different importance levels as our study might suffer from a company size clustering bias. Furthermore, we only analyzed rational functions (i.e. functions with an economic background). However, our work with the companies has convinced us that there are not always rational or economical reasons behind relationships.

Sometimes a supplier deals with a customer because of a good past history, social support, and/or because of "good feelings." Such "soft value-creating functions" also include fairness or trustful dealings. A richer picture could be drawn by including non-economic functions into our model as a third dimension (social functions). Such aspects of a relationship are hard to capture within an empirical study, especially, when more than one person is involved in managing a single relationship, because different persons might see the social functions in one relationship differently. The effect of such functions on success measures is debatable as it could be positive (e.g., increase of efficiency through less formalization) or negative (e.g., through lock-in effects).

As a final limitation, we acknowledge the fact that our sample only reflects relationships between manufacturers and customers who use the product themselves. Even though we strongly believe that the distinction between direct and indirect value-creating functions stands true for other relationships as well, other functions might be considered (e.g., in a manufacturer–distributor relationship).

## Managerial Implications

We have seen that several value-creating functions of customer relationships can be distinguished. An understanding of these functions is of paramount importance for the supplier in order to gain the most out of his customer relationships. Given that customers today expect to be involved in relationships in order to gain benefits of their own, suppliers need to understand the potential which these relationships offer them in return. Such an understanding will guide suppliers to a meaningful use of relationships and prevent them from pure altruistic customer orientation. An understanding of the functions explained in this article can serve as a guide for suppliers to define what to ask a customer. Only attending the customers' interests without return is a one-way track to economic losses.

Managers can use the developed framework to classify relationships which in turn will have managerial implications for the management of different groups of relationships. In Figure 1 we used the two dimensions, direct value-creating functions and indirect value-creating functions, to develop a 2 × 2 matrix, useful to categorizing value creation through customer relationships. Due to our findings managers concerned with relationship and network management tasks within supplier firms have to be aware of these four types of customer relationships. In the following we discuss the four different groups of customer relationships and their management implications in more detail (see Figure 2).

LOW-PERFORMING RELATIONSHIPS. We see three different subgroups of ineffective relationships. First, there

|  | | Low | High |
|---|---|---|---|
| Direct value-creating functions of customer relationships | High | Selling relationships | High-performing relationships |
|  | Low | Low-performing relationships | Networking relationships |

Indirect value-creating functions
of customer relationships

FIGURE 2. **Classifying value creation through customer relationships.**

can be fairly new relationships which have not developed a clear pattern of functions. But there might be good potential to develop these relationships. Also, relationship development and maintenance is an investment process in the sense that costs and revenues appear in different time periods [39]. Second, formerly better performing relationships, which have changed in the meantime due to various reasons, can be in this box. Those relationships are either near dissolution, or there might be a chance to renew their potential. Lastly, low-performing relationships may have been and will be ineffective regardless of time. There was never a high potential in it and nor will there be one in the future. Maybe such relationships exist for other reasons (e.g., non-rational functions) or have simply not been analyzed.

If a relationship fulfills neither direct nor indirect functions then there is a question of why the supplier stays in this relationship. Regardless of the reason why a particular relationship is ineffective, a critical analysis needs to be performed in order to evaluate the future potential of this relationship. There might be good reasons for keeping a customer relationship, which may be centered around reasons outside the ones described. But the critical notion in this case is that the supplier is investing in a relationship in which none of the value-creating functions are fulfilled. If a customer relationship proves to be ineffective in the long run, suppliers should not waste their resources by maintaining those relationships in the future.

SELLING RELATIONSHIPS. We name relationships which only involve direct functions as selling relationships. The benefit for the supplier is the possibility of selling large quantities, for a profitable price, and/or over-capacities. Thus, the value will be directly created through the customer relationship, due to high profits and/or economies of scale.

Typically it has been assumed that individual salespeople manage selling relationships with customers. However, with technological advancement, just-in-time manufacturing, and coordinated buying, the complexity of the selling task has evolved beyond the capabilities of a single salesperson. Therefore, previous conceptual and empirical work in marketing suggests that a group within a supplier firm should have primary responsibility for managing a selling relationship [40]. Four roles have been conceptualized in the core selling team [41]. (1) A selling team leader responsible for all team actions, including negotiation and internal and external relationship development. (2) A seller who serves as primary contact for customers. (3) A internal coordinator responsible for compiling and coordinating the extended selling team. The extended selling team consists of functional experts possessing the technical knowledge needed by the selling team to meet specific customer needs and wants. (4) A customer service representative who provides installation, maintenance, and other customer services. Individual members of the core selling team may be responsible for more than one role.

NETWORKING RELATIONSHIPS. These are customer relationships that have a strong impact on value creation in connected relationships. Within networking relationships valuable resources are gathered and/or created (e.g., know how, market information, and new products). It is the supplier's task to transform these resources into value by facilitating them into connected relationships. As such the success of this relationship depends upon the supplier's ability to transform the relationship's outcome into results elsewhere in the network.

The responsibility for managing this relationship inside the supplier is not easy to allocate. A complex bundle of relationship management activities has to be coordinated and embedded within a broader range of other relevant (relationship) management activities in the supplier firm [42].

Salespeople and/or sales managers might not be encouraged and/or might be overcharged to transfer resources from networking relationships to connected relationships, so that value will be created [33]. If, for example, innovation development plays a major role in a given customer relationship, then the supplier's R&D department might be in a better position to handle this relationship. This would imply that the marketing department offers a service function to the R&D department as marketing may have more experiences in managing relationships. But the responsibility for the relationships needs to be transferred to R&D. Due to the complexity and diversity of the management, tasks within networking relationships teams should be empowered and encouraged to undertake actions that nurture and sustain it [42, 43].

HIGH-PERFORMING RELATIONSHIPS. This group of relationships fulfills direct as well as indirect value functions. A full range of functions is exploited. This attaches a very high value for the supplier to relationships in this box.

If a full variety of value-creating functions are or should be fulfilled in a relationship, the relationship itself and its management become more complex. Various in-

puts are needed in order to exploit the relationship and in order to demonstrate competence in several areas such as selling existing products and developing new ones. Different departments and functions of the supplier organization have to interact with the high-potential customer. Therefore, relationship teams composed of personnel out of different departments from the supplier firm may be the best prepared to handle this relationship [40, 41, 43]. The allocation of responsibility for this relationship is not easy and should involve a cross-functional team as opposed to a single department.

We have derived some managerial implications by distinguishing relationships along two axes, direct and indirect functions. Hereby, we have seen that relationship management is influenced by what functions are fulfilled in a given relationship. Companies need to analyze their relationships in order to allocate resources accordingly.

## Theoretical Implications

The aim of our study has been the empirical identification of relationship functions and an analysis of the relation between the functions and value creation. But the present study not only provides answers to important questions concerning value creation through relationships, it also raises questions for further research.

To understand the value concept, the opposite side of benefits (i.e., the sacrifices) must be discussed. Several costs of relationships have been discussed, such as handling costs (e.g., personnel, travel, communication), relationship-specific investments (e.g., product modifications, organizational adaptations), and opportunity costs. Although, so far a model of relationship costs and *dysfunctions of relationships* is missing. Here, we suggest a similar approach to the one presented in this study in order to develop a measurement tool.

Furthermore, the relationship between the identified value-creating functions and other relationship-specific constructs needs to be analyzed. After we have developed a model of value-creating functions (i.e., the dimensions of potential outcomes of relationships) we need to understand the preconditions for the development of those functions as well as the development process itself. Based on other studies, it could be expected that variables such as trust, commitment, and partner-specific adaptations are key determinants for the successful development and maintenance of value-creating relationships [7, 43].

Are there different preconditions and antecedents for the different functions? Can we see a relation between the development stage of a relationship and value-creation in a relationship? The development process of value creation in relationships should be especially looked at in longitudinal studies. We assume that relationships can "travel" between the boxes in the matrix over time.

In addition, there is the important question of *value sharing* [1, 7]. When value is created within a relationship both partners would like to benefit from this situation. Value is provided from one partner to the other, but what, in turn, is received (e.g., customer's innovation function balanced by supplier's volume function)? To secure the long-term survival of the relationship both partners must understand the value-creating functions within the relationship. It is important to note that these functions can vary between the partners: The customer may value indirect functions, where as the supplier sees direct functions fulfilled from his position. So what does the provider of a certain function receive? Are there typical combinations of value-creating functions in relationships? This process of sharing requires an effective management; we have pointed out some issues in the previous sections. But for a deeper understanding of value creation, more research efforts are needed.

Direct and indirect value-creating functions also suggest implications for *reward systems*. Short-term oriented reward systems may work for a direct function, because results can be seen in a short period of time. Nevertheless, a short-term orientation fails in motivating personnel to exploit indirect value functions of relationships because of a time gap between input and outcome. New reward systems need to be developed and implemented in order to promote indirect functions of relationships which are vital for the survival of a company. More research needs to be done in terms of reward systems in order to motivate personnel in fulfilling indirect relationship functions.

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## Appendix 1

### Measures and Items of the Study.

Please rate the benefit/utility that your company gains through the customer relationship! (1 = very low, ..., 7 = very high)

Profit function (mean = 3.79, SD = 1.41)
    margin per product
    overall profit
Volume function (mean = 4.19, SD = 1.54)
    amount of deliveries
    long-term supply agreements
    sales volume
Safeguard function (mean = 3.04, SD = 1.37)
    possibility of short notice deliveries
    possibility to sell over-capacities
    reduction of dependency on other customers
Innovation function (mean = 2.87, SD = 1.50)
    joint development of production processes
    joint concept development of new products
    adoption of new technologies
    prototype testing
Market function (mean = 2.90, SD = 1.55)
    initiation of contacts with new customers
    information about potential new customers
    references to potential new customers
Scout function (mean = 2.94, SD = 1.43)
    information about the market
    information about competitors
    information about relevant third organizations (e.g., further suppliers and customers)
Access function (mean = 2.30, SD = 1.38)
    support by handling contacts with governmental agencies
    initiation of contacts to important persons ("movers and shakers")
    promotion in influential institutions and committees

Considering all costs and revenues associated with this relationship, how would you assess its profitability? (1 = very bad, 7 = very good) (Mean = 4.45, SD = 1.73)