THE IMPACT OF CHANNEL FUNCTION PERFORMANCE ON BUYER-SELLER RELATIONSHIPS IN MARKETING CHANNELS

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Abstract	Distributors, across sectors and countries, are faced by the threat of disintermediation. In many industries, horizontal consolidation and advances in information technology have made it easier for manufacturers to bypass distributors and do business directly with consumers. Distributors have responded to this threat or other destructive acts in a number of different ways that can be represented through Hirschman's (1970) Exit-Voice-Loyalty framework. One additional response that distributors frequently adopt is developing countervailing power through dependence-balancing actions. These actions are designed to strengthen bonds with customers and often manifest themselves in the provision of improved channel services to customers. Does this strategy work? We seek to address this in our paper. Specifically, we examine the nature and magnitude of the direct and interactive effects of (a) the performance of marketing functions and services by a distributor and (b) the dependence structure of its relationship with its customers on different dimensions of relationship quality – satisfaction, trust, commitment and conflict. Of particular interest to us is the effect of functional performance on relationship quality in situations characterized by high relative dependence of the distributor on the customer – this closely approximates the situation that many distributors, faced by the threat of disintermediation, find themselves in. Hypotheses from our model are tested using data collected from the paint industry in the Netherlands and Belgium.	
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The Impact of Channel Function Performance on

Buyer-Seller Relationships in Marketing Channels

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ABSTRACT

Distributors, across sectors and countries, are faced by the threat of disintermediation. In many industries, horizontal consolidation and advances in information technology have made it easier for manufacturers to bypass distributors and do business directly with consumers. Distributors have responded to this threat or other destructive acts in a number of different ways that can be represented through Hirschman's (1970) Exit-Voice-Loyalty framework. One additional response that distributors frequently adopt is developing countervailing power through dependence-balancing actions. These actions are designed to strengthen bonds with customers and often manifest themselves in the provision of improved channel services to customers. Does this strategy work? We seek to address this in our paper. Specifically, we examine the nature and magnitude of the direct and interactive effects of (a) the performance of marketing functions and services by a distributor and (b) the dependence structure of its relationship with its customers on different dimensions of relationship quality – satisfaction, trust, commitment and conflict. Of particular interest to us is the effect of functional performance on relationship quality in situations characterized by high relative dependence of the distributor on the customer – this closely approximates the situation that many distributors, faced by the threat of disintermediation, find themselves in. Hypotheses from our model are tested using data collected from the paint industry in the Netherlands and Belgium.

KEY WORDS: Channel Services; Channel Management; Buyer-Seller Relationships; Relationship Marketing; Empirical.

INTRODUCTION

Distributors, across sectors and countries, are faced with the threat of disintermediation. In many industries, advances in information technology (e.g., the commercial adoption of the internet and increasing customer access to the web) as well as increased upstream and downstream consolidation have made it easier for manufacturers and customers to bypass distributors and do business directly with each other. Often, such companies are perceived as having the best business models in their respective industries – e.g., Southwest Airlines in air travel, Geico in auto insurance and Dell in personal computers. Recently, InaCom (one of the world's largest computer dealers), filed for bankruptcy as many PC manufacturers sought to emulate Dell by selling directly to consumers and reducing margins for the retail distribution channel (McWilliams 2000).

In situations where their existence is not threatened, distributors find themselves in a considerably weakened position, subject to 'destructive acts' by other channel members (Hibbard, Kumar and Stern, 2001). For example, in the travel industry, a number of airlines have cut back on commissions offered to travel agents (McDowell 1999) as other, direct avenues of transacting with end-users gain in popularity. Distributors have responded to such destructive acts in a number of different ways – Hibbard, Kumar and Stern (2001) offer a typology of responses (Disengagement, Constructive Discussion, Passive Acceptance, and Venting) based on the "Exit, Voice and Loyalty" (ELV) framework proposed by Hirschman (1970). This framework has been extensively applied in interpersonal (Rusbult and Zembrodt 1983) and intra-organizational contexts (Rusbult et al. 1988) and has been introduced to the study of inter-organizational, marketing channel situations by Ping (1993, 1995, and 1997).

Hibbard, Kumar and Stern (2001) found that "passive acceptance" was the only response that enhanced relationship quality in the manufacturer-dealer dyads that formed the context of their study. They note differences between the marketing channels context and the milieu of romantic relationships, where the ELV framework had been successfully applied (Rusbult and Zembrodt 1983). While this framework may provide a comprehensive typology of responses to destructive acts in interpersonal relationships, the same may not be true for interorganizational relationships. In other words, we are faced with the question – are there any response options, other than those in the ELV typological framework, available to a dealer that has been subjected to a destructive act? Other than "passive acceptance", is there anything a dealer can do that would improve its relationship with the manufacturer that undertook the destructive act? Is there any dealer response that could not only enhance the overall quality of the manufacturer-dealer exchange relationship but also strengthen the dealer's position in its relationship with the manufacturers? The answer to all of these questions may lie in the related notions of "countervailing power" and "dependence balancing" first advanced by Emerson (1962) and subsequently examined and applied by Porter (1974), Etgar (1976), Galbraith (1980), Phillips (1981), Heide and John (1988) and Anderson and Weitz (1989).

Heide and John (1988) view an agent's offsetting specific investments in key customers as a device for safeguarding the former's specific assets in its exchange relationship with manufacturers. They found that intermediaries who bonded more closely with their customers, as a consequence of these offsetting investments, became less dependent on their suppliers and improved their financial performance. Clearly, a dealer's investments in relationships with customers can play a dependence-balancing role in its relationship with (powerful) suppliers reducing their vulnerability to destructive actions by the latter. These investments would ensure a long-term position in the channel for the dealer (Butaney and Wortzel 1988). We posit that it is possible for intermediaries to strengthen bonds with customers by enhancing relationship quality through a number of different means that may or may not entail specific investments. The key question, then, is how should an intermediary go about improving the quality of its relationship with its customers?

Much of the research on relationship quality in the marketing channels literature has focused on the impact of the (inter)dependence structure of the relationship (e.g. Anderson and Narus 1990; Brown, Lusch, and Nicholson 1995; Kumar, Scheer, and Steenkamp, 1995) on relationship quality. Although the (inter)dependence structure has been found to affect the quality of the relationship, its effect is relatively small (Kumar, Scheer, and Steenkamp 1995). This creates a need to identify alternative and additional antecedents of relationship quality. While the marketing channel literature has paid extensive attention to the factors and mechanisms that affect the relationship between manufacturers and resellers (e.g., Dwyer, Schurr, and Oh 1987; Brown, Lusch, and Smith 1991), the focus has been on behavioral antecedents. In this paper, we seek to provide additional economic antecedents of relationship quality. After all, buyer-seller relationships are economic relationships. We focus on the role of channel services and functions performed by the distributor for its customers. We report the results of a study of 317 industrial distributor – organizational customer relationships. In our study, we take the perspective of the organizational customer (i.e., a professional painting services provider) and its relationship with its most important supplying industrial distributor. Furthermore, we study how the impact of channel function performance on relationship quality is moderated by the extant dependence structure of the relationship. In doing so, we assess the impact of channel function performance on different dimensions of relationship quality – satisfaction, trust, commitment and conflict under different dependence structures.

In the remainder of the paper, we first discuss the nature and importance of relationship quality. Next, we present theory and hypotheses with respect to the impact of channel function performance and dependence structure on relationship quality. We then describe our data collection and construct development procedures. Subsequently, we present our results. We conclude our paper with a discussion of our findings and their implications.

THEORY AND HYPOTHESES

We study the impact of a distributor's channel function performance on relationship quality and how this impact is moderated by the dependence structure in the relationship. Our research framework is graphically presented in Figure 1.

[Please Figure 1 About Here]

Relationship Quality

The relationship marketing literature describes a continuum of relationships ranging from transactional to relational exchanges (Dwyer, Schurr, and Oh 1987; Noordewier, John, and Nevin 1990). Dwyer, Schurr, and Oh (1987, p. 13) describe transactional exchanges as "transactions with a distinct beginning, short duration, and sharp ending by performance," and relational exchanges as "exchanges with commencement traces to previous agreements, longer duration, and reflecting an ongoing process". With transactional orientation, it is unlikely for future exchange between two parties to occur. In contrast, with relational orientation, a high likelihood of future interactions exists (Ganesan 1994).

Long-term and high-quality relationships, characterized by frequent interactions between different members of a distribution channel, offer advantages for both sellers and buyers. For sellers, they offer the benefits of creating exit barriers for their customers (Andaleeb 1996), leveraging limited resources through joint efforts with customers, gaining benefits from customer ideas and experiences (Anderson and Narus 1991), and improving capacity planning

(Han, Wilson, and Dant 1993). For the customer, a long-term relationship with a supplier reduces stress and risks, solves initial problems, and leads to the accommodation of special needs. The customer learns what to expect (Bitner 1995) and the reliability of supply increases (Han, Wilson, Dant 1993).

High levels of satisfaction, trust, and commitment, and low levels of conflict are important characteristics of long-term, high-quality relationships (e.g., Anderson and Narus 1990; Coleman and Robicheaux 1994; Morgan and Hunt 1994). Indeed, a number of recent empirical studies have viewed relationship quality as a combination of some or all of these constructs (Dwyer and Oh 1989; Kumar, Scheer and Steenkamp 1995; Jap 2001; Hibbard, Kumar and Stern 2001). *Satisfaction* is typically defined as the appraisal of a firm's working relationship with another firm (Anderson and Narus 1990; Geyskens, Steenkamp, Kumar 1999). Satisfaction plays an important role in relationships and has been found to be instrumental in increasing cooperation between channel partners, and leading to fewer terminations of relationships (Ganesan 1994). *Trust* is widely recognized as an essential dimension of relationship quality (Morgan and Hunt 1994; Garbarino and Johnson 1999; Geyskens, Steenkamp, and Kumar 1998). A frequently used definition of trust is the perceived credibility and benevolence of the partner (Ganesan 1994; Kumar, Scheer, and Steenkamp 1995). Trust in the partner's credibility is the belief that the partner stands by its word, fulfills promised role obligations, and is sincere, and trust in the partner's benevolence is the belief that the partner is interested in the firm's welfare and will not take unexpected actions that will negatively affect the firm (Kumar, Scheer, and Steenkamp 1995). *Commitment*, similar to trust, is viewed as an essential indicator of relationship quality (Morgan and Hunt 1994; Wilson 1995; Geyskens, Steenkamp, and Kumar 1999). Anderson and Weitz (1992, p. 19) define commitment as "a desire to develop a stable relationship, a willingness to make short-term sacrifices to maintain the relationship, and a confidence in the stability of the relationship." Commitment is enduring and reflects a positive valuation of a relationship (Moorman, Zaltman, and Deshpandé 1992). Finally, *Conflict* implies a level of tension, frustration, and disagreement in the relationship due to one party obstructing the other party in reaching its goal (Geyskens, Steenkamp, and Kumar 1999). Despite the fact that channel conflicts can be functional (Coughlan, Anderson, Stern, and El-Ansary 2001), in general higher levels of conflict will indicate lower relationship quality.

Antecedents of Relationship Quality

Given the importance of long-term, high-quality relationships, it is not surprising that much research has been conducted on the antecedents of these relationships. One of the most extensively investigated antecedents of relationship quality in the marketing channels literature is (inter)dependence (e.g. Anderson and Narus 1990; Brown, Lusch, and Nicholson 1995; Kumar, Scheer, and Steenkamp, 1995; Lusch and Brown 1996). In general dependence asymmetry between channel partners has been found to be detrimental for relationship quality while high total interdependence stimulates relationship quality. However, as noted by Kumar, Scheer and Steenkamp (1995), these two interdependence constructs explain only a very small percentage of variance in the dimensions of relationship quality studied by them – namely, trust, commitment and conflict. Therefore, they call for the identification of additional antecedents to fully explain variations in different dimensions of relationship quality.

We propose *functional* or economic antecedents to explain the development of relationship quality. The impact of such variables on relationship quality has received substantially less attention than *behavioral* antecedents. For example, the performance of marketing functions by a reseller is rarely examined as an antecedent of long-term relationships with customers, although the existence of resellers is primarily justified because they perform these functions (Alderson 1954; Alderson and Martin 1967; Bucklin, 1966). By performing marketing functions in a superior way, the quality of the relationship between resellers and their customers can be improved. Berry and Gresham (1986) state that good service is necessary to retain client relationships. In this study, we investigate the impact of behavioral as well as economic variables.

The Distributor's Role: Performing Marketing Channel Functions

Channel intermediaries are independent businesses that assist producers, manufacturers and final users in the performance of distribution tasks. They exist because, as specialists in the performance of distribution tasks, they operate at higher levels of effectiveness and efficiency (Rosenbloom 1997; Coughlan, Anderson, Stern, and El-Ansary 2001) than manufacturers or end-users. Rosenbloom (1987) identifies six distribution tasks that an intermediary performs for customers – (a) making the product available; (b) delivering customer service; (c) providing credit and financial assistance; (d) assortment convenience; (e) breaking bulk; and (f) giving advice and technical support. It is logical to assume that the quality of the performance of these distribution functions will be positively related to relationship quality. Indeed, drawing on Social Exchange Theory (Thibaut and Kelley 1959), one could posit that the effective performance of marketing functions would raise the comparison level of the focal reseller relative to the comparison level of alternatives. Organizational customers will be satisfied with good financial conditions, a convenient assortment, good location features, clear information, and friendly personnel and will not look to replace their reseller. Rather, they will be motivated to develop trust and increase commitment as well as not engage in dysfunctional conflicts, in order to build and sustain a long-term relationship with the reseller. Relationship marketing theory also contends that organizations that deliver superior benefits will be highly valued and that partners will commit themselves to establishing, developing, and maintaining relationships with such parties (Morgan and Hunt 1994). Conversely, when the performance of marketing functions is insufficient, the customers will experience a decrease in relationship quality. We hypothesize:

H_1: As the performance level of the marketing functions executed by the distributor increases, the organizational customer's satisfaction with, trust in, and commitment to the distributor will increase and the extent of channel conflict will decrease.

(Inter) dependence Structure

The interdependence structure of a dyadic relationship refers to the (relative) dependence of the two parties on each other (Emerson 1962; Kumar, Scheer, and Steenkamp 1995). Two dimensions of dependence can be distinguished. *Total interdependence* is the sum of both parties' dependencies on each other while *interdependence asymmetry* refers to the difference between each party's dependence on the other. This difference has also been referred to as the more dependent party's *relative dependence* (Anderson and Narus 1990) or the less dependent party's *relative power* (Frazier and Rody 1991). Being dependent leads to the need to maintain a relationship with another organization to achieve its goals (Frazier 1983; Heide and John 1988).

When customers see their reseller as being highly dependent on them, they have little motivation to develop a long-term relationship (Ganesan 1994; Lusch and Brown 1996). This explains why relationships that are asymmetrical in dependence and power have been found to be less stable, less trusting, and more dysfunctional (Anderson and Weitz 1989). The more powerful firm does not need not to develop a high-quality relationship, because it can use its relative power to obtain its partner's cooperation (Kumar, Scheer, and Steenkamp 1995).

Furthermore, the relatively dependent party will expect to be exploited and/ or attacked regardless of its own behavior and, therefore, it is most likely to engage in dysfunctional behavior (Lawler, Ford, and Blegen 1988). Thus, when a reseller is dependent on its industrial customers, the satisfaction, trust, and commitment of the customer will tend to be lower, and the conflict level in the relationship will be higher.

Symmetric interdependence exists when both parties are equally dependent on each other. In such a situation both parties will have equal access to resources that are valued by their partner. When total interdependence is high, both parties have a high stake in ensuring the relationship's success (Buchanan 1992). Both parties face relatively high exit barriers, so they have a strong motivation to build, maintain, and strengthen the relationship (Kumar, Scheer, and Steenkamp 1995). When resellers and industrial customers are mutually dependent, they will thus have an interest in improving the relationship quality. Thus, higher total interdependency will cause higher customers' satisfaction, trust, and commitment and lower conflict. We hypothesize:

H_2: As the relative dependence of the distributor on its organizational customer increases, the customer's satisfaction with, trust in, and commitment to the distributor will decrease and the extent of channel conflict will increase.

H_3: As the total interdependence between the distributor and its organizational customer increases, the customer's satisfaction with, trust in, and commitment to the distributor will increase and the extent of channel conflict will decrease.

Interaction of Channel Function Performance and Interdependence

High relative dependence of the distributor decreases the motivation of customer to improve the relationship. The distributor will be more vulnerable to opportunistic or destructive behavior by the customer. In such a situation, the effective performance of channel functions by the distributor can safeguard against dysfunctional behavior and thereby be especially positive for the relationship quality. In addition, it may lead to dependence balancing and a subsequent increase in interdependence, which may have a positive effect on the relationship quality.

In a situation with high total interdependence, both parties are motivated to develop, maintain, and improve the relationship. The presence of these incentives will magnify the effect of actions taken by the distributor to improve relationship quality. Thus, the performance of marketing functions by the reseller will have a stronger impact on relationship quality when the total interdependence is high. We hypothesize:

H_4: The impact of the distributor's marketing functions performance on the organizational customer's satisfaction with, trust in, and commitment to the distributor and on the extent of channel conflict will be stronger if the relative dependence of the distributor is higher.

H_5: The impact of the distributor's marketing functions performance on the organizational customer's satisfaction with, trust in, and commitment to the distributor and on the extent of channel conflict will be stronger if the total interdependence between distributor and customer is higher.

METHODOLOGY

To test our hypotheses, we conducted a mail survey among professional painters (buyers) in the Netherlands and Belgium (the Dutch speaking part only). A questionnaire consisting of multiple-item scales was developed to measure the painters' scores on a set of constructs. Our final sample consisted of 317 painters (233 Dutch and 94 Flemish) out of 1500 painter names. This meant a response rate of 21.1%.

Before responding to the multiple-item scales, painters were requested to identify their most important distributor (seller). This was the distributor where the painter bought most of his/her paints (in terms of the monetary value of purchases). These relationships are likely to be ones where the painter is very involved in the relationship. We expected this to have a positive impact on the quality of the answers. No control upon the selection of the specific distributor was imposed. Although this approach might potentially have decreased the amount of variation of the (inter) dependencies in the relationships in our data, analyses showed that our data on the dependence-structure constructs still contained substantial variation and were not extremely skewed.

Measures

Our research model broadly consists of three sets of constructs. These concern (1) distributor channel function performance, (2) (inter) dependence, and (3) relationship quality. We measured these constructs using multiple-item scales. The exact wording of the items used in these scales can be found in the Appendix.

<u>Marketing Channel Functions Performance</u>

We measured how distributors performed marketing channel functions by using customer ratings on five dimensions. These dimensions were determined by applying a two-step procedure. First, we took Rosenbloom's (1987) taxonomy of distributor functions and determined which of these would be relevant for the specific setting in which we collected our data. The relevance and applicability of these functions for the specific channel we conducted our study in (e.g., for paint products) was determined after discussions with experts within the channel. Next, we developed a list of specific items reflecting important functions performed by paint distributors. Applying a principal-component factor analysis uncovered the following five key functions performed by distributors for their customers. These are:

(a) Location refers to spatial convenience and accessibility of the distributor's outlet.

(b) Assortment refers to both the depth and breadth of the distributor's assortment.

(c) Financial and Price-Setting Policies refers to price setting policies, financial conditions and credit arrangements as offered by the distributor.

(d) (Promotional) Information refers to both promotional information and information about products and how to use them.

(e) Personnel Services refers to the quality and competency of distributor personnel and the services they deliver.

Next, we used LISREL 8.3 (Jöreskög and Sörbom 1993) to assess the quality of the five channel function constructs. The average value of the factor loadings was .74. These findings support the convergent validity of the items. The correlations between the five dimensions were moderate (between .50 and .69) but significantly different from 1. This provides evidence for discriminant validity of the five separate dimensions. The Cronbach alpha reliabilities of the first-order factors range from .69 to .89. Since the correlation between the five dimensions was relatively high, we also specified a second-order factor model with the five dimensions discussed above as the first-order factors and channel function performance as second-order factor. The chi-square for this model is 344.43 ($p<.001$). The comparative fit index is 0.92, above the generally accepted level of .90. All first-order and second-order factor loadings are highly significant (minimum t-value is 6.90, $p<.001$ and most t-values are above 9.00) and larger than 0.57. The average value of the second-order factor loadings was .77. Given the quality of this model, we developed one channel function performance construct by first developing scores for the five separate dimensions (through computing the arithmetic mean of individual item scores) and, next, computing an unweighted average of the scores on the five dimensions.

Dependence Structure

The dependence structure in the relationship between the distributor and the customer was defined using the relative dependence and total interdependence constructs. The values of these constructs were computed based on the measured values of distributor and customer dependence. Distributor and customer dependence were measured using items from scales used by Lusch and Brown (1996). *Distributor Dependence* refers to the dependence of the distributor on the informant's organization and how it would hurt profits to lose this organization as a customer. *Customer Dependence* refers to the dependence of the informant's organization, that is the organizational customer, on the distributor and how it would hurt business not being able to do business any longer with the distributor.

Measure Validation

We specified a two-factor model with one factor representing the distributor's dependence construct and the other factor representing the organizational customer's dependence construct. Both constructs were measured using three items. The chi-square of this model was 50.58 ($p<.001$). The comparative fit index was 0.94. All factor loadings were significant (minimum t-value was 10.03, $p<.001$ and most t-values were above 12.00) and larger than 0.59. The average factor loading was .81 for the distributor dependence construct and .72 for the customer dependence construct. These findings support the convergent validity of the items (.89). Distributor dependence and customer dependence were then determined by computing the arithmetic means of the item scores. Note that, in keeping with the approach employed in extant research (e.g., Kumar, Scheer, and Steenkamp 1995), *Distributor Relative Dependence* is computed by subtracting the distributor's dependence score from the customer's dependence score and *Total Interdependence* is computed by adding the distributor's and the customer' dependence score.

Relationship Quality:

The quality of the relationship between the distributor and the organizational customer was measured as the customer's satisfaction with, trust in, and commitment to the relationship, and the level of conflict in the relationship. In measuring the constructs, we used existing and established scales. Items from these scales were used if they were appropriate and relevant in the context where we conducted our study in.

Satisfaction was measured as the customer's overall satisfaction with the performance of the distributor. We used items from scales used by MacIntosh and Lockshin (1997) and Sirohi, Mclaughlin, and Wittink (1998) to measure satisfaction.

Trust was measured as the customer's trust in the distributor's honesty and reliability. Our scale was composed of items from scales used by Siguaw, Simpson, and Baker (1998) and Doney and Cannon (1997).

Commitment was measured as the customer's willingness to keep buying and stay a customer for the distributor. To measure this construct we used items from scales used by Siguaw, Simpson, and Baker (1998), Sirohi, McLaughlin and Wittink (1998), and Geyskens, Steenkamp, Scheer, and Kumar (1996).

Conflict was measured as the amount of antagonism in the relationship between the customer and the distributor. This construct was measured with items from the scale used by Kumar, Scheer, and Steenkamp (1995).

Measure Validation

We specified a four-factor model with the four factors representing the four relationship constructs – satisfaction, trust, commitment, and conflict. The chi-square of this model was 175.36 ($p<.001$). The comparative fit index was 0.96. All factor loadings were significant (minimum t-value was 6.36, $p<.001$ and most t-values were above 13.00) and larger than 0.41. The average factor loading for the satisfaction construct was .68, for the trust construct .72, for the conflict construct .86, and for the commitment construct .59. These findings support the convergent validity of the items. The constructs were moderately to highly correlated with the absolute correlation coefficients ranging from .48 to .87. However, all correlation coefficients were significantly different from unity, showing discriminant validity.

The values for all relationship quality constructs were developed by computing unweighted averages of the informants' item ratings. Table 1 contains descriptive statistics for the constructs and correlations between them.

[Please Insert Table 1 About Here]

RESULTS

Our hypotheses were tested by performing regression analyses. Equation 1 presents the framework we applied for our analyses.

$$\text{Relationship Quality} = \beta_0 + \beta_1 * \text{Channel Functions Performance} + \beta_2 * \text{Distributor Relative Dependence} + \beta_3 * \text{Total Interdependence} + \beta_4 * \text{Interaction 1 (Channel Function Performance * Distributor Relative Dependence)} + \beta_5 * \text{Interaction 2 (Channel Function Performance * Total Interdependence)} + \varepsilon \quad (1)$$

We performed four regression analyses, i.e., one for each of the four relationship quality variables. To avoid multicollinearity problems, we mean-centered the values of the channel function performance, the relative dependence, and the total interdependence constructs. This procedure ensures that the scores on these constructs become uncorrelated with the mutual interaction terms (Jaccard, Turrisi, and Wan 1990).

The results of the regression analyses are presented in Table 2

[Please Insert Table 2 About Here]

The results in Table 2 show that in relationships in which the distributor effectively performs marketing channel functions, the organizational customer perceives quality of the relationship as being better. Greater satisfaction, trust, and commitment and lower levels of conflict between the distributor and customer characterize relationships in which channel functions are performed better. This finding confirms H_1.

Next, we find that relationships in which the distributor is relatively dependent on its customer are perceived less favorably by the customer, compared to relationships in which the distributor is less dependent. Distributor dependence leads to lower satisfaction, trust, and commitment and a higher level of channel conflict. This finding confirms H_2.

Furthermore, it is striking that although the effect of relative dependence is significant, it is clearly less substantial than the effect of channel functions performance. Distributors can thus compensate for the negative effects of a relatively dependent position on relationship quality by providing superior channel function performance.

As hypothesized in H_3, relationships in which the distributor and its customer are highly interdependent are characterized by higher customer trust and customer commitment. Surprisingly, however, they are also characterized by significantly higher levels of channel conflict. Apparently, interactions that are perceived as dysfunctional by the customer occur more frequently when the two parties are highly dependent on each other. This may happen because, when both parties are highly dependent on each other, there is a greater likelihood of each party's behavior obstructing the other from achieving its goals. Exchange relationships with high levels of interdependence are often characterized by the presence of exit barriers and high switching costs. In these circumstances, with both parties locked in, relationships are unlikely to be terminated and unhappiness with the behavior of the other party is manifested through conflicts. It should be noted, though, that such conflicts do not necessarily need to have negative long-term consequences and can even become functional.

When we look at the interaction between channel function performance and relative dependence, we find a positive and significant interaction between function performance and relative distributor dependence, in terms of impact on customer satisfaction and commitment. No effect is found for customer trust and channel conflict. Thus, H_4 is partially confirmed. Performing channel functions effectively is especially important for improving customer satisfaction and commitment in relationships in which the distributors are relatively dependent.

Finally, we study the effects of interaction between channel function performance and total interdependence. No relationship between the interaction and customer satisfaction or trust is found. However, relationships in which distributors perform well with respect to channel functions are more likely to yield substantially greater customer commitment and fewer channel conflicts if the distributor and the customer are highly interdependent. Here, the results with respect to conflict are interesting. Together with the main effect of interdependence on conflict, this result suggests that, in highly interdependent relationships, there is substantial potential for conflicts to arise because goal attainment is highly dependent on the partner's actions. However, if the distributor performs its channel functions appropriately, there is a substantial reduction in the actual level of relationship conflicts since such performance allows the customer to reach its goals.

DISCUSSION

In this paper, we have studied the impact of distributor channel function performance on relationship quality in the distributor-customer dyad. We view this strengthening of distributor-customer bonds as a mechanism for dependence-balancing in manufacturer-distributor relationships. For distributors, the importance of undertaking actions that facilitate dependence-balancing is reinforced by the finding that there are very few response alternatives to manufacturer-generated destructive acts that do not harm relationship quality (Hibbard, Kumar and Stern, 2001). Our results show that distributors can improve their relationships (and strengthen bonds) with organizational customers by performing their channel functions effectively. Notably, the effective performance of channel functions has a particularly pronounced effect on customer satisfaction and commitment when the distributor is relatively dependent on the customer – a scenario that is found with greater frequency in an era of disintermediation and buyer consolidation.

A clear managerial implication of our study is that embattled distributors, when faced with destructive acts or the threat of disintermediation, need not limit their response to the

Exit-Voice-Loyalty framework originally proposed by Hirschman (1970) and further developed by others. Instead, these distributors should focus on effectively performing channel functions, as a means of salvaging and strengthening relationships with customers. Heide and John (1988) have shown that offsetting specific investments in distributor-customer relationships can balance the dependence structure in supplier-distributor relationships by strengthening bonds with customers. Our study shows that performing channel functions effectively can have a similar effect of enhancing relationships with customers. The managerial implications of our results are somewhat more mixed for upstream channel members. They are presented with a dilemma, in terms of the type of distributor to be selected – should they choose a distributor who may expand the size of the pie, even if it means a reduced share of the pie for the manufacturer? In order to maximize the quality of channel services delivered and be competitive against other suppliers, a supplier is likely to prefer working with distributors that effectively perform channel functions. At the same time, these distributors are more likely to develop good exchange relationships and bond with customers, thereby shifting the power balance between supplier and distributor in favor of the latter.

Our study makes important theoretical contributions to the literature on relationships in marketing channels. Compared with the impact of the often-investigated construct of dependence structure, the impact of channel function performance on relationship quality is relatively large. This result addresses the gap in explaining variations in different dimensions of relationship quality (highlighted by Kumar, Scheer, and Steenkamp, 1995). It also highlights the role of economic variables (in addition to behavioral variables) as antecedents of relationship quality and other key marketing channel constructs.

While our empirical results largely confirm our hypotheses, H_3, H_4 and H_5 are only partially supported. Moreover, our results for the effects of total interdependence on conflict are not similar to those obtained by Kumar, Scheer and Steenkamp (1995). While they found that higher total interdependence was associated with lower levels of conflict, we found the reverse to be the case. In our study the main effect of total interdependence on conflict was positive. The explanation for this may be lie some of the consequences of high interdependence. Under conditions of high interdependence, goal attainment is more likely to be contingent on partner in the relationship, creating greater potential for the obstruction of the goal and consequent conflict. Moreover, conditions of high interdependence often result in both parties being locked into a relationship. In such situations, each party is more tolerant of opportunistic behavior by the other (Wathne and Heide 2000) and accepts consequent higher levels of conflict. In terms of the interaction between channel function performance and total interdependence, our results clearly indicate that high-quality channel function performance is critical for high-quality relationships between buyers and sellers. Indeed, if the distributor performs these functions adequately, it is likely to facilitate goal attainment by the partner and negate the effect of high interdependence on conflict. This, again, stresses the importance of channel function performance for buyer-seller relationships.

Our results, when taken together with those of Kumar, Scheer and Steenkamp (1995), suggest the need for further investigation of variables that mediate or moderate the relationship between interdependence and relationship quality. This could include variables from TCA, such as the magnitude and nature of relationship-specific investments made by each party, as well as more traditional behavioral constructs – e.g., the punitive capabilities of each party (Kumar, Scheer and Steenkamp 1998), the extent to which coercive influence strategies are used (Gundlach and Cadotte 1994), cognitions and attributions about each party’s actions (Hibbard, Kumar and Stern 2001) or the structure of the buyer-seller relationship (Cannon and Perreault, Jr. 1999). This presents an excellent opportunity for future research.

APPENDIX: MEASUREMENT SCALES

Marketing Channel Function Performance
(very bad 0-1-2-3-4-5-6-7-8-9-10 very good)

Location
1. Location, accessibility
2. Parking facilities
3. Opening hours

$\alpha = 0.69$

Assortment
1. The number of brands
2. The number of painting products per brand
3. The number of non-paint products

$\alpha = 0.76$

Financial and Price-Setting Policies
1. Price level
2. Price – quality relationship
3. Financial conditions, credit arrangements, discounts

$\alpha = 0.81$

(Promotional) Information
1. Special offers
2. Instructional information with new products
3. Technical information and brochures

$\alpha = 0.85$

Personnel
1. Expertise, competency
2. Correctness of deliveries
3. Speed of in-store services
4. Customer friendliness
5. Relationship management reputation
6. Continuity of personnel occupation

$\alpha = 0.89$

Mean Overall Scale = 7.78 (1.02)

Dependence of Industrial Distributor (completely disagree 1-2-3-4-5 completely agree)

1. This distributor is dependent on us
2. It is difficult for this distributor to replace us
3. It would be costly for this distributor to lose us as a customer

α = 0.85, Mean = 2.17 (1.11)

Dependence of Organizational Customer (completely disagree 1-2-3-4-5 completely agree)

1. We are dependent on this distributor
2. It is difficult to replace this customer
3. It would be costly to lose this distributor

α = 0.75, Mean = 2.24 (1.03)

Customer Satisfaction with Industrial Distributor (completely disagree 1-2-3-4-5 completely agree)

1. This distributor delivers value for the money we pay
2. When I leave this distributor's outlet, I am satisfied
3. This distributor can improve a lot (R)
4. Generally, I feel satisfied with this distributor

α = 0.77, Mean = 3.99 (0.64)

Customer Trust (completely disagree 1-2-3-4-5 completely agree)

1. This distributor is open and honest with us
2. This distributor is knowledgeable about its products
3. In difficult times this distributor will support us
4. This distributor is reliable

α = 0.81, Mean = 4.18 (0.66)

Customer Commitment (completely disagree 1-2-3-4-5 completely agree)

1. We are constantly looking for another distributor to buy our materials from (R)
2. We have a good relationship with this distributor and want to keep buying from them
3. We will continue buying our paints from this distributor
4. The quantity of paints we buy from this distributor will grow in the coming years

α = 0.66, Mean = 4.19 (0.63)

Channel Conflicts (completely disagree 1-2-3-4-5 completely agree)

1. The relationship with this distributor is full of conflicts
2. Negotiations with this distributor are always rough
3. We often differ of opinion with this distributor
4. We do get frustrated with the way this distributor works

α = 0.92, Mean = 1.56 (0.82)

REFERENCES

Alderson, Wroe (1954), "Factors Governing the Development of Marketing Channels," Richard M. Clewett (ed.), *Marketing Channels in Manufactured Products*, Homewood, IL: Richard D. Irwin, 5-22.

------------------ and Miles W. Martin (1967), "Toward a Formal Theory of Transactions and Transvections," Bruce E. Mallen (ed.), *The Marketing Channel: A Conceptual Viewpoint*, New York: John Wiley and Sons, 50-51.

Andaleeb, Syed S. (1996), "An Experimental Investigation of Satisfaction and Commitment in Marketing Channels: The Role of Trust and Dependence," *Journal of Retailing*, 72 (Spring), 77-93.

Anderson, James C. and James A. Narus (1990), "A Model of Distributor Firm and Manufacturer Firm Working Partnerships," *Journal of Marketing*, 54 (January), 42-58.

Anderson, James C. and James A. Narus (1991), "Partnering as a Focused Strategy," *California Management Review*, 33 (Spring), 95-113.

Anderson, Erin and Barton Weitz (1989), "Determinants of Continuity in Conventional Industrial Channel Dyads," *Marketing Science*, 8, (Fall), 310-323.

Anderson, Erin and Barton Weitz (1992), "The Use of Pledges to Build and Sustain Commitment in Distribution Channels," *Journal of Marketing Research*, 29 (February), 18-34.

Berry, Leonard L. and Larry G. Gresham (1986), "Relationship Retailing: Transforming Customers into Clients," *Business Horizons*, (November-December), 43-47.

Bitner, Mary J. (1995), "Building Service Relationships: It's all about Promises," *Journal of the Academy of Marketing Science*, 23 (4), 246-51.

Brown, James R., Robert F. Lusch, and Carolyn Y. Nicholson (1995), “Power and Relationship Commitment: Their Impact on Marketing Channel Member Performance,” *Journal of Retailing*, 71 (4), 363-92.

Brown, James R., Robert F. Lusch, and Laurie P. Smith (1991). “Conflict and Satisfaction in an Industrial Channel of Distribution,” *International Journal of Physical Distribution & Logistics Management*, 21, (6), 15-25.

Buchanan, Lauranne (1992), “Vertical Trade Relationships: The Role of Dependence and Symmetry in Attaining Organizational Goals,” *Journal of Marketing Research*, 29 (February), 65-75.

Bucklin, Louis P. (1966), *A Theory of Distribution Channel Structure*, Berkeley, CA: IBER Special Publications.

Butaney, Gul, and Lawrence H. Wortzel (1988), “Distributor Power Versus Manufacturer Power: The Customer Role,” *Journal of Marketing*, 52, (January), 52-63.

Cannon, Joseph P. and William D. Perreault Jr. (1999), “Buyer-Seller Relationships in Business Markets,” *Journal of Marketing Research*, 36 (November), 439-460.

Coleman, James E. and Robert A. Robicheaux (1994), “The Structure of Marketing Channel Relationships,” *Journal of the Academy of Marketing Science*, 22 (1), 38-51.

Coughlan, Anne T., Erin Anderson, Louis W. Stern, and Adel El-Ansary (2001), *Marketing Channels*, 6th edition, Upper Saddle River NJ: Prentice Hall.

Doney, Patricia M. and Joseph P. Cannon (1997), “An examination of the nature of trust in buyer-seller relationships”, *Journal of Marketing*, Vol. 61 (April), 35-51.

Dwyer, F. Robert, Paul H. Schurr, and Sejo Oh (1987), “Developing Buyer-Seller Relationships,” *Journal of Marketing*, 51 (April), 11-27.

Emerson, Richard M. (1962), “Power-Dependence Relationships,” *American Sociological Review*, 27 (February), 31-41.

Etgar, Michael (1976), "Channel Domination and Countervailing Power in Distribution Channels," *Journal of Marketing Research*, 13 (August), 254-62.

Frazier, Gary L. (1983), "On the Measurement of Interfirm Power in Channels of Distribution," *Journal of Marketing Research*, 20 (May), 158-66.

----------------- and Raymond C. Rody (1991), "The Use of Influence Strategies in Interfirm Relationships in Industrial Product Channels," *Journal of Marketing*, 55(January), 52-69.

Galbraith, J. K. (1980). American Capitalism. White Plains, N.Y.: M. E. Sharpe.

Ganesan, Shankar (1994), "Determinants of Long-Term Orientation in Buyer-Seller Relationships," *Journal of Marketing*, 58 (April), 1-19.

Garbarino, Ellen and Mark S. Johnson (1999), "The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships," *Journal of Marketing*, 63 (April), 70-87.

Gassenheimer, Jule B. and Rosemary Ramsey (1994), "The Impact of Dependence on Dealer Satisfaction: A Comparison of Reseller-Supplier Relationships," *Journal of Retailing*, 70 (3), 253-266.

Geyskens, Inge, Jan-Benedict E.M. Steenkamp, and Nirmalya Kumar (1998), "Generalizations about Trust in Marketing Channel Relationships using Meta-Analysis," *International Journal of Research in Marketing*, 15, 223-248.

Geyskens, Inge, Jan-Benedict E.M. Steenkamp, and Nirmalya Kumar (1999), "A Meta-Analysis of Satisfaction in Marketing Channel Relationships," *Journal of Marketing Research*, 36 (May), 223-238.

Geyskens, Inge, Jan-Benedict E.M. Steenkamp, Lisa K. Scheer and Nirmalya Kumar (1996), "The effects of trust and interdependence on relationship commitment: a trans-atlantic study", *International Journal of Research in Marketing*, Vol. 13, 303-317.

Gregory T. Gundlach and Ernest R. Cadotte (1994), "Exchange Interdependence and Interfirm Interaction: Research in a Simulated Channel Setting," Journal of Marketing Research, 31 (November), 516 -- 32.

Han, Sang-Lin, David T. Wilson, and Shirish Dant (1993), “Buyer-Seller Relationships Today,” *Industrial Marketing Management*, 22 (4), 331-8.

Heide, Jan B. and George John (1988), “The Role of Dependence Balancing in Safeguarding Transaction-Specific Assets in Conventional Channels,” *Journal of Marketing*, 52 (1), 20-35.

Hibbard, Jonathan D., Nirmalya Kumar and Louis W. Stern, “Examining the Impact of Destructive Acts in Marketing Channel Relationships,” *Journal of Marketing Research*, 38 (February), 45-61.

Hirschman, Albert O. (1970), *Exit, Voice and Loyalty: Responses to Decline in Firms, Organizations and States.* Cambridge, MA: Harvard University Press.

Jaccard, J., R. Turrisi, and C.K. Wan (1990), *Interaction Effects in Multiple Regression*, Thousand Oaks CA: Sage University Papers.

Jap, Sandy (2001), “‘Pie-Sharing’ in Complex Collaboration Contexts,” *Journal of Marketing Research*, 38 (February), 86 – 99.Jöreskög, Karl and Dag Sörbom (1993), *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*, SSI Scientific Software International, Chicago.

Kumar, Nirmalya, Lisa K. Scheer, and Jan-Benedict E. M. Steenkamp (1995), “The Effects of Perceived Interdependence on Dealer Attitudes,” *Journal of Marketing Research*, 32 (August), 348-56.

Lawler, Edward J., Rebecca Ford, and Mary A. Blegen (1988), “Coercive Capability in Conflict: A Test of Bilateral Deterrence Versus Conflict Spiral Theory,” *Social Psychology Quarterly*, 51 (2), 93-107.

Lewis, M. Christine and Douglas M. Lambert (1991), "A Model of Channel Member Performance, Dependence, and Satisfaction," *Journal of Retailing*, 67 (2), 205-225.

Lusch, Robert F. and James R. Brown (1996), "Interdependency, Contracting, and Relational Behavior in Marketing Channels," *Journal of Marketing*, 60 (October), 19-38.

Macintosh, Gerard and Lawrence Lockshin (1997), "Retail relationships and store loyalty: a multi-level perspective", *International Journal of Research in Marketing*, Vol. 14, 487-497.

McDowell, Edwin (1999), "Travel Agents Stung by New Wave of Commission Cuts," *NYTimes.com*, October 12.

McWilliams, Gary (2000), "InaCom Was Undone by Rebates, Soft Dollars and Problem Accounting," *WSJ.com*, November 8.

Moorman, Christine, Gerald Zaltman, and Rohit Deshpandé (1992), "Relationships between Providers and users of Market Research: The Dynamics of Trust within and between Organizations," *Journal of Marketing Research*, 29 (August), 314-28.

Morgan, Robert M. and Shelby D. Hunt (1994), "The Commitment-Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (July), 20-38.

Noordewier, Thomas G., George John, and John R. Nevin (1990), "Performance Outcomes of Purchasing Arrangements in Industrial Buyer-Vendor Relationships," *Journal of Marketing*, 54 (October), 80-93.

Phillips, Lynn W. (1981), "Assessing Measurement Error in Key Informant Reports: A Methodological Note on Organizational Analysis in Marketing," Journal of Marketing Research, 18 (4), 395 -- 415.Ping, Robert A., Jr. (1993), "The Effects of Satisfaction and Structural Constraints on Retailer Exiting, Voice, Loyalty, Opportunism, and Neglect," *Journal of Retailing*, 69 (3), 320-352.

-------------- (1995), “Some Uninvestigated Antecedents of Retailer Exit Intention,” *Journal of Business Research*, 34 (November), 171-180.

-------------- (1997), “Voice in Business-to Business Relationships: Cost-of-Exit and Demographic Antecedents,” *Journal of Retailing*, 73 (2), 261-281.

Porter, Michael E. (1974), “Consumer Behavior, Retailer Power, and Market performance in Consumer Goods Industries,” *The Review of Economics and Statistics*, 56 (November), 419-436.

Rosenbloom, Bert, (1987), *Marketing Functions and the Wholesaler-Distributor: Achieving Excellence in Distribution,* Distribution Research and Education Foundation, Washington D.C.

Rusbult, Caryl E., Daniel Farrell, George Rogers, and Arch Mainous (1988), “Impact of Exchange Variables on Exit, Voice, Loyalty, and Neglect: An Integrative Model of Responses to Declining Job Satisfaction,” *Academy of Management Journal*, 31 (3), 599-627.

----------- and Isabella Zembrodt (1983), “Responses to Dissatisfaction in Romantic Involvements: A Multidimensional Scaling Analysis,” *Journal of Experimental Social Psychology,* 19 (May), 274-293.

Siguaw, Judy A., Penny M. Simpson, and Thomas L. Baker (1998), “Effects of Supplier Market Orientation on Distributor Market Orientation and the Channel Relationship: The Distributor Perspective,” *Journal of Marketing*, 62 (July), 9-111.

Sirohi, Niren, Edward W. Mclaughlin and Dick R. Wittink (1998), “A model of consumer perceptions and store loyalty intentions for a supermarket retailer”, *Journal of Retailing*, Vol. 74 (2), 223-245.

Thibaut, John W. and Harold H. Kelley (1959), *The Social Psychology of Groups*, New York: John Wiley & Sons.

Wathne, Kenneth H. and Jan B. Heide (2000), "Opportunism in Interfirm Relationships: Forms, Outcomes, and Solutions," *Journal of Marketing*, Vol. 64 (October), 36-51.

Wilson, David T. (1995), "An Integrated Model of Buyer-Seller Relationships," *Journal of the Academy of Marketing Science*, 23 (4), 335-45.

Table 1

Means, Standard Deviations, and Correlation Coefficients

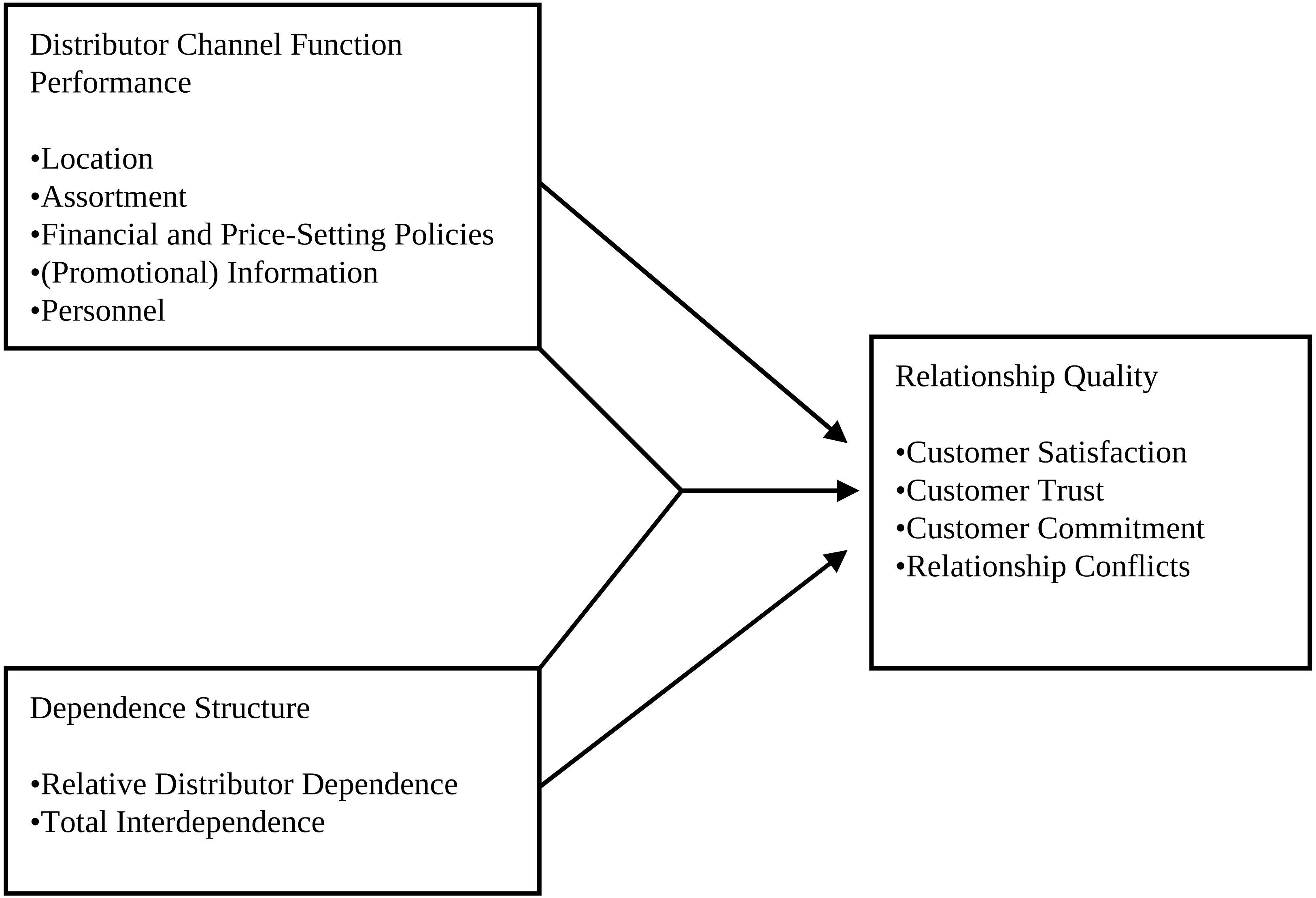
	Channel Functions	Distributor Dependence	Customer Dependence	Customer Satisfaction	Customer Trust	Customer Commitment	Channel Conflicts
Correlations							
Distributor Dependence	-.092 (.108)						
Customer Dependence	.181 (.001)	.266 (.000)					
Customer Satisfaction	.606 (.000)	-.221 (.000)	.221 (.000)				
Customer Trust	.548 (.000)	-.087 (.000)	.273 (.000)	.598 (.000)			
Customer Commitment	.383 (.000)	-.054 (.342)	.273 (.000)	.497 (.000)	.561 (.000)		
Channel Conflicts	-.334 (.000)	.263 (.000)	.000 (.000)	-.433 (.000)	-.424 (.000)	-.401 (.000)	
Means	7.781	2.173	2.242	3.985	4.176	4.190	1.560
Standard Deviations	1.016	1.109	1.027	.6403	.663	.630	.820

Table 2

**Results of Regression Analyses:
The Effects of the Performance of Marketing Channel Functions and (Inter)Dependence on Relationship Quality
Beta Coefficients (Significance)**

	Customer Satisfaction		Customer Trust		Customer Commitment		Channel Conflict	
Distributor Channel Functions Performance	.554	(.000)	.498	(.000)	.307	(.000)	-.279	(.000)
Distributor Relative Dependence	-.241	(.000)	-.178	(.000)	-.196	(.000)	.139	(.011)
Total Interdependence	-.016	(.713)	.100	(.038)	.120	(.022)	.178	(.001)
Interaction 1 (Channel Functions * Relative Dependence)	.098	(.024)	.058	(.218)	.082	(.110)	-.014	(.787)
Interaction 2 (Channel Functions * Total Interdependence)	.018	(.682)	-.010	(.836)	.112	(.033)	-.121	(.025)
R^2	.429		.319		.195		.158	
F (Sig)	47.076	(.000)	29.706	(.000)	15.876	(.000)	12.454	(.000)

Figure 1: Research Framework



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