China-USA Business Review, July 2017, Vol. 16, No. 7, 332-338
doi: 10.17265/1537-1514/2017.07.005

# Cooperation in Manufacturers—Dealers Relations—Based on Agriculture Materials Industry

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The relations between manufacturers and dealers are complex, especially in agricultural materials industry. But it received little attention in the literature. This study uses structural equation modeling techniques to consider the relationship between the level of cooperation in a manufacture—dealer network, dependence, coercive and noncoercive bases of power, conflict and satisfaction through the survey data from agricultural materials industry. Several strategies for increasing cooperation within distribution channels are inferred from the results. In the future, strategies to increase cooperation between manufactures and dealers in agricultural materials industry will grow in importance as the balance of power shifts toward dealers. The distribution of interests will be the key problem. The paper provides some initial guidance toward more cooperative relationships. Several variables—dependence, bases of power (coercive and noncoercive), and conflict are linked to cooperation; and both cooperation and conflict are found to influence satisfaction. It must be noted that our interpretation of the results is based on information collected from dealers, but not manufacturers.

*Keywords:* cooperation, manufacturers-dealers, agriculture materials industry

Conflicts between manufactures and dealers are plaguing distribution industries. Large food producers are spending millions of dollars to get shelf space for certain products. For example, in the grocery industry large supermarket chains like Safeway are demanding so much money before placing new products on their shelves (Gibson, 1988). Even large producers like Kraft are paying slotting allowances to get their products on grocers' shelves. This is having a profound impact on manufacturers' promotion budgets.

Other industries are experiencing similar conflicts. Leading computer and semi-conductor companies have formed a consortium to reduce conflict and increase cooperation between producers of memory chips (Chipello, 1989). IBM and Microsoft are arguing over how to best develop and promote the software which controls the basic formation of the PC (Zachary, 1990).

Especially in agricultural materials industry, in this particular industry, such conflicts are more significant. But the basic research about how to reduce conflict and increase cooperation in this particular industry still remains in the surface phase. The root causes in conflicts and cooperation—the distribution of interests in industrial chain or industrial system have not yet made an effective solution. Although there is building up the

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industrial system of agricultural materials industry under the support of Country, all levels of Government, the problem of how to solve the conflicts and coordinate the relationship between agricultural materials industry manufacturers and dealers has also little progress.

In light of these events, it is surprising that many researchers have not been devoted to understanding how cooperation between manufactures and dealers can be increased. As noted by Alderson (1965) it was a neglected topic of research among marketers 10 years ago, cooperation was a neglected topic of research among marketers. Cooperation continues to be neglected, while other behavioral dimensions such as power, influence strategies, control, and channel relationships conflict receive the bulk of the attention of marketing researchers. Yet, as Alderson said, "...Co-operation is required if a behavior channel cannot function without system is to act as a unit. Marketing sustained cooperation in which each party knows what to expect from his opposite number (p. 239)."

The purpose of this study is to examine the role of cooperation in manufacture—dealer relationships. Specifically, a conceptual model including behavioral dimensions of marketing channels will be proposed. Next, the results of this study testing the model will be presented. The implications of the findings will then be discussed.

## A Conceptual Model of Manufacture—Dealer Relations

Stern and Reve (1980) have built a strong case that distribution channels are not only economic systems but also behavioral systems. The behavioral focus is oriented toward a sociopolitical perspective which includes (1) dependence and bases of power (French & Raven, 1959; Gaski, 1984; Emerson, 1962; Frazier, 1983a; Thibaut & Kelley, 1959); (2) satisfaction (Hunt & Nevin, 1974; Lusch, 1976); and (3) dominant sentiments-cooperation and conflict (Stern & Reve, 1980).

Dependence and bases of power built the foundation for the relationship, and are antecedents of cooperation and conflict, which characterize the nature of the relationship. These sentiments have an impact on the appraisal of the working relationship between firms (Anderson & Narus, 1984; 1990), which is generally referred to as satisfaction (Anderson & Narus, 1984; 1990; Frazier, 1983b; Robicheaux & EI-Ansary, 1975). Relating cooperation to other constructs which impact relationships provides retailers with information necessary to keep cooperation and conflict within bounds that are functional to long-term relationships (Anderson & Narus, 1990).

A model displaying these constructs is presented in Figure 1. This model was summarized by Skinner, Gassenheimer, and Kelley in 1992, which depicts six behavioral constructs that either directly or indirectly impact the relationship. The constructs include dependence, coercive bases of power, noncoercive bases of power, cooperation, conflict, and satisfaction.

### Dependence

Dependence was first considered by Emerson (1962). Pfeffer and Salancik (1978) suggested that dependence is a function of the resources held by a party. Specifically, if A provides resources to B which mediates the goal attainment of B, then B is more dependent on A. More recently, Frazier (1983a) and Keith, Jackson, and Crosby (1990) have proposed that the ability of party A to mediate party B's goals is dependent on A's role performance on issues that are important to party B.

When the goals of channel members are compatible cooperation will generally result (Childers & Ruekert, 1982; Mohr & Nevin, 1990). Furthermore, in channel relationships characterized by high levels of dependence,

the channel member dependent on the role performance of the other is more likely to exert greater effort to maintain the relationship (Frazier, Gill, & Kale, 1989; Rosenberg & Stem, 1970; Schermerhorn, 1975). The effort required to maintain the channel relationship often comes up in the form of cooperation.

Robicheaux and ElAnsary (1975) suggested that through control, dependence can be used to constrain conflict in a channel relationship. Dealers are less dependent when desired resources are available from comparable sources (Frazier & Kale, 1989; Pfeffer & Salancik, 1978). In channel relationships where the parties have incongruent goals conflict often results (Robicheaux & El-Ansary, 1975). As a result, conflict may occur. Thus, the following hypotheses are proposed:

H1: Higher levels of dependence will lead to higher levels of cooperation.

H2: Higher levels of dependence will lead to lower levels of conflict.

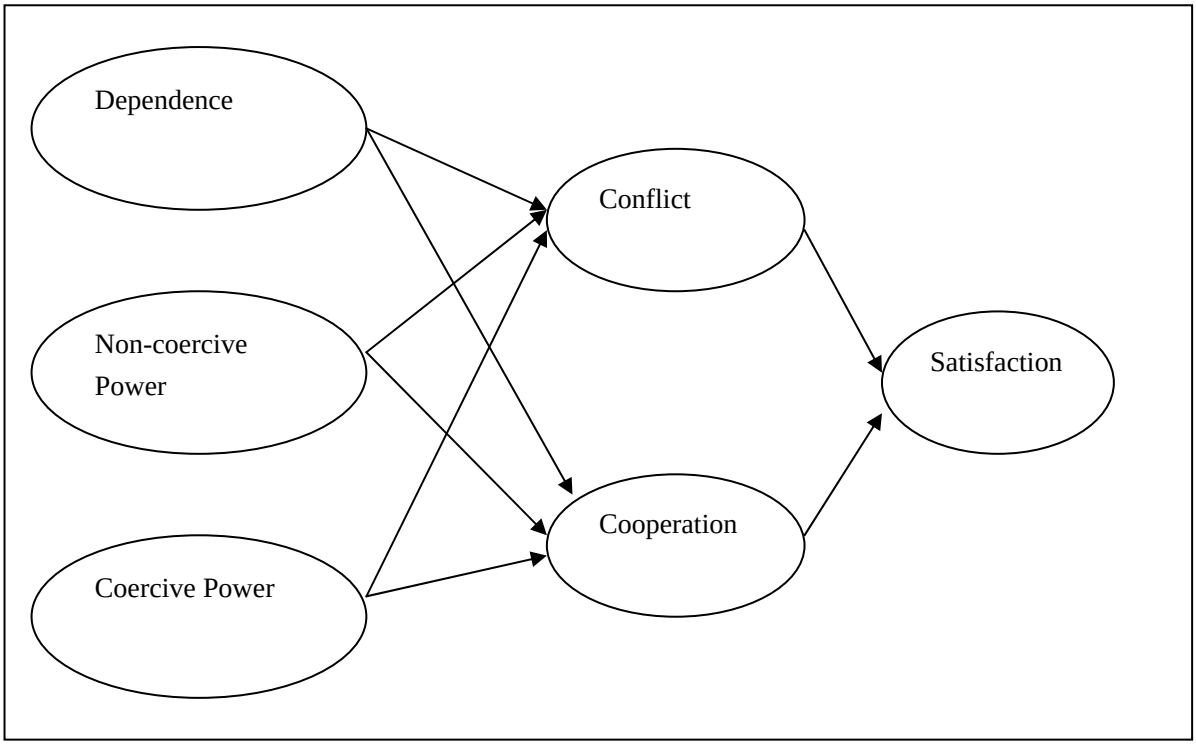


*Figure 1.* Proposed structural model.

**Power**

French and Raven (1959) suggested that bases of power can be classified as coercive, reward, legitimate, referent, and expert. The relationship between coercive and noncoercive bases of power and cooperation and conflict has not been considered previously. However, it has been noted that coercive bases of power represent a power struggle driven by force (Mallen, 1963). The struggle may decrease the level of cooperation and increase the level of conflict inherent in a relationship.

Noncoercive bases of power increase the value of the relationship through team support and common interests (Mallen, 1963). This suggests that when noncoercive bases of power are used levels of cooperation may increase, while levels of conflict decrease, the following hypotheses are proposed:

H3: Higher levels of coercive power will lead to lower levels of cooperation.

H4: Higher levels of noncoercive power will lead to higher levels of cooperation.

H5: Higher levels of coercive power will lead to higher levels of conflict.

H6: Higher levels of noncoercive power will lead to lower levels of conflict.

**Cooperation, Conflict, and Satisfaction**

Satisfaction is the overall evaluation of the relationship between two channel members. The level of satisfaction experienced is the outcome of the interorganizational relationship (Anderson & Narus, 1984).

Previous channels researchers have suggested that a positive relationship exists between cooperation and satisfaction (Anderson & Narus, 1984; Mallen, 1963; Sibley & Michie, 1982). The cooperative efforts of channel members should result in greater channel efficiency and the achievement of goals, which leads to higher levels of satisfaction. Based on previous research, conflict is expected to have a negative relationship with satisfaction (Anderson & Narus, 1984; Frazier, 1983b; Gaski, 1984). Based on the preceding discussion, the following hypotheses are proposed:

H7: Higher levels of cooperation will lead to greater levels of satisfaction.

H8: Higher levels of conflict will lead to lower levels of satisfaction.

## Analysis and Results

**Sample**

Data were collected through the field survey from the dealers of the agricultural materials industry in Hubei province, P. R. China. Because the agricultural materials industry in Hubei is typical, especially in Jianghan Plain, the data will be representative.

A total of 200 questionnaires were written by dealers, resulting in an available response rate of 75 percent. The participating dealers are distributed in the various counties and cities in Jianghan Plain. These percentages provide evidence of the representativeness of the sample.

**Measurement**

The questionnaire used in this study included measures of dependence, coercive and noncoercive bases of power, cooperation, conflict, and satisfaction. All constructs were measured through multiple-item scales. A Likert-type scale was used ranging from 1 (strongly disagree) to 5 (strongly agree). We have made reference to the design of the questionnaire by Skinner, Gassenheimer, and Kelley in 1992. The reliability of the questionnaire is presented in the Appendix.

Through Table 1, we can see that Cronbach's Alpha of the five behavioral constructs is 0.600, 0.785, 0.625, 0.711, 0.612. According to Cronbach's Alpha table, the questionnaire has a strong internal consistency.

**Measurement Model**

The set of scale items used to assess each construct was randomly split into halves to provide multiple indicators for each construct included in the models (Skinner, Gassenheimer, & Kelley, 1992). The fit indices by the LISREL VI program were used to assess the overall fit of the measurement model (see Table 2). The values for these fit indices were X2 = 63.24 with 43 degrees of freedom ($p$ = 0.024), GFI = 0.957, AGFI = 0.922, and RMR = 0.032. The fit indices provide support for the measurement properties of this model.

**Structural Model**

The relationships hypothesized in this study were formulated as a structural equation model which was estimated through AMOS 7.0.

The values for these fit indices were GFI = 0.966. AGFI = 0.0.958, CFI = 0.0.925, and RMSEA = 0.043.

The structural model fits the data well.

Table 1

*Reliability Statistics*

| Constructs / Reliability statistics | Dependence | Non-coercive power | Coercive power | Conflict | Cooperation |
|---|---|---|---|---|---|
| Cronbach's alpha | 0.600 | 0.785 | 0.625 | 0.711 | 0.612 |
| N of items | 3 | 4 | 3 | 2 | 3 |

As hypothesized in H2, the level of dependence in a relationship was found to have a positive impact on the level of conflict displayed in the relationship (0.39); In H3, higher levels of coercive power will lead to higher levels of cooperation (0.17); As H8, higher levels of conflict will lead to higher levels of satisfaction (0.67). These hypotheses were not supported.

The hypothesized relationships between dependence and cooperation (H1), noncoercive, cooperation and conflict (H4; H5; H6), cooperation and satisfaction (H7) were all supported. The data can be found in Figure 2 (Standardized model).

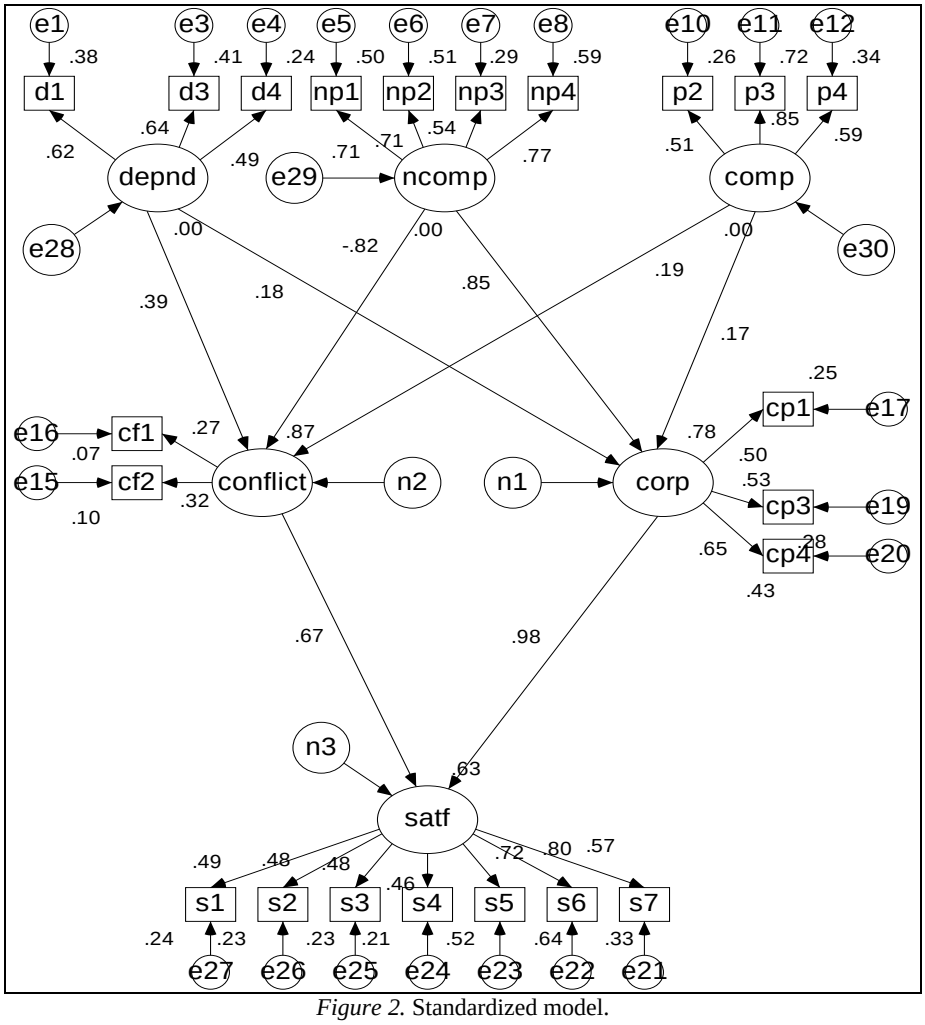


*Figure 2.* Standardized model.

## Discussion

In the future, strategies to increase cooperation between manufactures and dealers in agricultural materials industry will grow in importance as the balance of power shifts toward dealers. The distribution of interests will be the key problem. This study provides some initial guidance toward more cooperative relationships. Several variables—dependence, bases of power (coercive and noncoercive), and conflict were linked to cooperation; and both cooperation and conflict were found to influence satisfaction. It must be noted that our interpretation of the results is based on information collected from dealers, but not manufacturers.

Several strategies can be inferred from our results. Dependence can be used strategically to increase cooperation, which is exercising control of dealers' advertising and their agencies.

Assuming cooperation is the desired dominant sentiment in channel relationships, this research suggests that noncoercive bases of power should be used whenever possible. Coercive bases of power were found to increase channel conflict. Dealers are using coercive power sources—the ability to withhold shelf space—to obtain slotting allowances.

If the desired outcome of a channel relationship is satisfaction, it is important to encourage cooperation. Cooperation is critical to establish a satisfactory relationship. Two parties, whether it is a farm equipment dealer and manufacturer or a goods retailer and a producer, can enhance satisfaction by establishing a cooperative relationship. This is difficult to accomplish when one party is also trying to influence the decision of the other party.

It should be noted that the agricultural materials industry is a complex and special industry, so there are differences between agricultural materials industry and other ordinary industry. Through the structural model, we can get this conclusion from the failure of three assumptions. For example, conflict is presented in all interorganizational relationships and it is negative to satisfaction (Anderson & Narus, 1984), but in the agricultural materials industry, higher levels of conflict will lead to higher levels of satisfaction (0.67). The reason may be, even there exists high levels of conflict, if it has been well resolved, conflict can also bring a high level of satisfaction.

Finally, there are two shortcomings in this research. First, data should be collected from both sides of the manufacturer-dealer dyad to gain a more accurate understanding of this relationship, but our interpretation of the results is based on information collected from dealers; second, some relationships between the measurements are not so good. Overall, we achieve the meaningful results. All of these behavioral measures must be examined in the context of performance before their true value to manufacturers and dealers can be assessed.

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