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# **Modeling Customer Behavior in Negotiations for Motor Carrier Contracts**

Shippers' use of contract motor carrier service has been stimulated during the past decade by their increasing recognition of the importance of including quality transportation services in their competitive strategies. Simultaneously, deregulation has enabled motor carriers to respond more fully to the demand for contract services. Contractual relationships benefit both carriers and their customers by reducing uncertainty, allowing transaction-specific investments, and stabilizing price and service offerings. To adapt to the changing business environment and remain competitive, motor carriers must understand the components which lead to a successful strategy in contractual transaction negotiation.

In this article, the impact of the customer's perception of the dependence of the motor carrier on his organization, his trust of the carrier, and his confidence during the interaction, on his perceived success of the outcome of a contract negotiation is investigated. A model of the customer's negotiation process is presented, based on organizational dynamics and negotiation foundations. Then, data collected from a mail survey of firms that use contract motor carriage service are used to test the conceptual relationships represented by the model. Finally, the implications of the findings are presented for the benefit of managers of motor carrier organizations who are responsible for developing strategies for future contract negotiations.

## **A MODEL OF THE CUSTOMER'S NEGOTIATION PROCESS**

Contract negotiation is a problem-solving, decision-making process involving two or more parties that are seeking mutual gains in the form of economic exchange and conflict resolution.<sup>1</sup> The process of conflict resolution through negotiation involves an understanding of the environments that influence the process, the nature of the relationship between the parties, the activities of preparation, the interactive bargaining sessions, and the outcome of the interaction.<sup>2</sup> The quality of the negotiation process used to create a contract can have a significant effect on the profitability and success of the parties. Historically, much negotiation research focused on the concepts of power, influence, and conflict. Changing market conditions in the last decade has caused interest to center on the issues of trust and cooperation as the key factors influencing the development of channel relations between buyers and sellers in the channel of distribution.<sup>3</sup> Some researchers argue that trust between two channel members affects the interaction and satisfaction derived from their working relationship.<sup>4</sup>

Building on the previous research in organizational dynamics and channel negotiation,<sup>5</sup> a model of the customer's negotiation process is present in Figure 1. Since contract negotiation involves two primary parties, the motor carrier providing the service and the customer buying the service, the model is conceptualized to describe how the customer's perceived success is influenced by his perception of the dependence of the motor carrier on the customer, the degree to which he trusts the carrier, and his confidence during the bargaining activities. In addition, the

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model delineates how the success of the contract negotiation process is influenced by the behavioral factors of the negotiating parties. Thus, the model offers important implications for motor carriers in developing successful negotiation strategies.

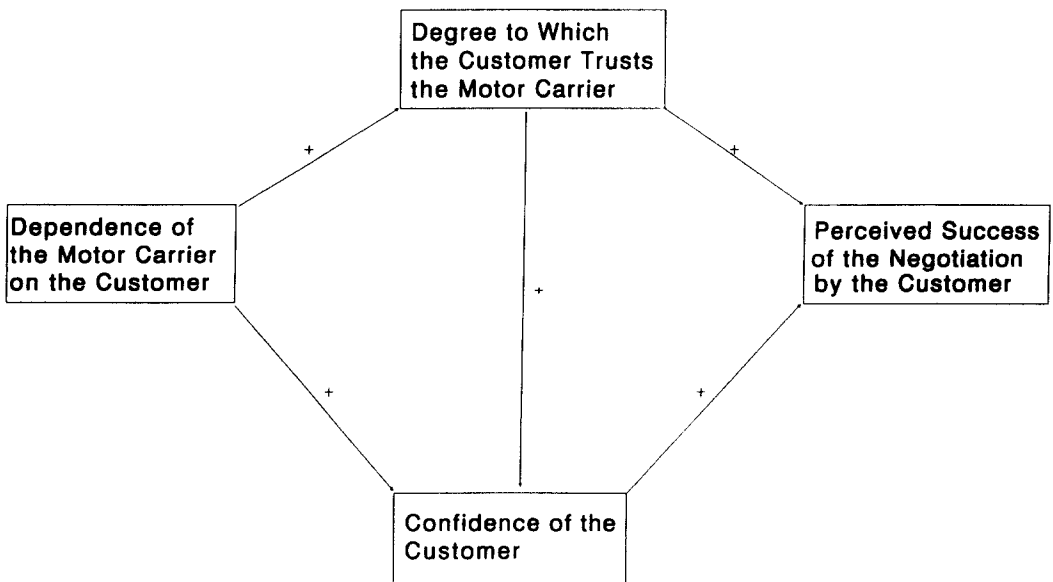
Dependence pertains to the situational advantages inherent in the position of the negotiating parties.<sup>6</sup> It is the degree to which one party's business is dependent on the contractual relationship with another party. For the customer, this dependence may be influenced through the relative size of the organizations (i.e., the size of the motor carrier relative to the size of the customer) and the amount of business they conduct in the traffic lanes and market segments of interest. The carrier's dependence can also be significantly influenced by the characteristics of the external environments. For example, the state of the economy, including inflation and interest rates, has a direct effect on carrier pricing strategies. The nature of competition forces carriers to offer unique discount packages in different markets. In addition, this competition forces the carrier to yield to the shipper's demand for

competitive bidding procedures which are price-sensitive. Therefore, as the external environments become more volatile, each party's dependence perception changes. To the extent that the motor carrier depends on the customer, the customer has the power to influence the carrier's negotiating behavior.<sup>7</sup> In the model, the dependence of the carrier on the customer is measured by the customer's perception of his relationship with the carrier.

When negotiating a transportation contract, trust between the customer and motor carrier plays a critical role. In this context, trust is defined as one party's belief that the other party is ready to undertake coordinating actions.<sup>8</sup> Therefore, trust evolves from many components of the negotiation process, including the personal, department, and organizational environments, the nature of the relationship between the parties, and each negotiator's level of preparation for the bargaining sessions. For example, the negotiator's ego, beliefs, and experience can affect his perception of the trust of the parties. In addition, the responsibility granted to each negotiator through the organizational culture such as

Figure 1

**A Model of the Customer's Negotiation Process**



price and service decision authority influences the trust between the parties. The nature of the relationship between the organizations and the duration of the relationship also impact each party's trust. Finally, the amount of time that the negotiator spends preparing for the negotiation can affect his trust of the other party. However, these elements of trust are all manageable and can be monitored when they are apparent to the negotiators.

Since short-term inequities are inevitable in any negotiation, each party must trust that the other party will honor his commitments in order to reach an agreement in the long term to avoid early abatement of the process. Only with a certain level of trust and cooperation will each party's initiatives not be subjected to exploitation by the other party. Since the behavior of negotiators is an important means by which one party evaluates another party's trustworthiness during the negotiation, the degree to which the customer trusts the carrier is measured by the customer's perception of the carrier's trustworthy behavior.

Based on the previous foundations, a positive relationship between the dependence of the motor carrier on the customer and the degree to which the customer trusts the carrier is hypothesized. Therefore, as the customer perceives that the carrier is dependent on his organization, he is likely to believe that the carrier is highly interested in reaching an agreement and thus is likely to take coordinated actions during the negotiation. Hence, the customer is more likely to trust that his initiatives will not be exploited by the carrier.

The bargaining activities are influenced by the customer's approach to the contract negotiation with the motor carrier, which is reflected through his confidence. The negotiator's confidence is reflected through his attempts to dominate and use his bargaining strength during the negotiation. Initially, each negotiating party evaluates his relative position and develops a certain level of confidence about his power to influence the other party and the resulting outcome. The level of confidence of the customer influences the strategy that he uses in the negotiation process.

A positive relationship is expected between the dependence of the motor carrier on the customer and the customer's confidence. The rationale is that the negotiator is more confident about his ability to influence the negotiation outcome if he perceives that the other party is

highly dependent on the contract being negotiated. When the negotiator is highly dependent, he will yield more ground to the other party because he has a limited number of options in the negotiation.

Furthermore, it is predicted that a positive relationship will exist between the degree to which the customer trusts the motor carrier and the confidence of the customer. This is because when a negotiator believes that the other party is going to cooperate, he is more likely to perceive that he can influence the negotiation outcome to his advantage. Thus, he may develop a corresponding strategy and act confidently.

The perceived success of the customer is the degree to which he perceives that the outcome of the negotiation meets his goals. In a contract negotiation for transportation service, the carrier's goal may be to achieve profitable and secured business with the customer, while the customer's goal may be to obtain quality and dependable transportation services at a reasonable cost. The outcome of the negotiation reflects the tradeoffs made by the carrier and customer relative to their goals under the constraints of their dependence, trust, and confidence.

The degree to which the customer trusts the motor carrier is hypothesized to have a positive impact on the customer's perceived success of the negotiation. The higher the degree to which the customer trusts the carrier, the more likely that the customer perceives that the carrier is taking coordinated actions in the negotiation process. Thus, the customer is more likely to have a positive experience from the negotiation and perceive greater success from the outcome. It is also posited that the confidence of the customer has a positive influence on his perceived success. If the customer is confident about his power to influence the outcome of the negotiation, he is more likely to develop strategies that enhance his control of the bargaining activities. Therefore, the negotiator is likely to perceive that he will have had a successful contract negotiation.

#### METHODOLOGY

To test the conceptual relationships in Figure 1, a mail survey was conducted of negotiators that had recently completed a negotiation for contract motor carrier service. Based on the results of a series of interviews with managers who are responsible for negotiating contracts for

motor carrier service, a structured questionnaire was developed for soliciting information about the concepts in the model. The questionnaire was sent to representatives of 515 firms that purchase motor carrier service, followed by two mailings to nonrespondents over the following four weeks.<sup>9</sup> Completed questionnaires were received from a sample of 262 respondents during the six-week data collection phase, yielding a 50 percent response rate.

The questionnaire requested information about the negotiator's knowledge and perceptions of the most recent contract that he had negotiated. Specifically, the questionnaire elicited information concerning his perception of the dependence of the other party on his firm, the degree to which he perceived the negotiating behavior of the motor carrier to be trustworthy (i.e., friendly, optimistic, and controlled), his confidence during the negotiation (i.e., strength and dominance), and his perception of the degree of success of the negotiation. These variables were assessed using semantic differential

and rating scales in this research.

Based on the data, the reliabilities, i.e., Cronbach's coefficient alphas, of the multiple-measure scales for the customer's trust of the carrier and the confidence of the customer were estimated to be .660 and .693, respectively. These alphas suggested that the reliabilities of the two multiple-measure scales were acceptable for behavioral research.<sup>10</sup> Throughout the analysis, a path analytic procedure with Ordinary Least Square criterion was applied to estimate the model coefficients. Path analysis was selected because it is equivalent to a series of multiple regressions that when combined generate an overall Chi-square statistic for the model. This Chi-square statistic is used to assess the extent to which the model is supported by the data.

The correlations among the variables in the analysis were first corrected for attenuation. The disattenuated correlations (presented in Table 1) lead to the estimates of the path coefficients (presented in Table 2).

**Table 1. Corrected Correlation Matrix of Variables in the Model**

	Dependence of the Motor Carrier on the Customer	Degree to which the Customer Trusts the Motor Carrier	Confidence of the Customer	Perceived Success of the Customer
Dependence of the motor carrier on the customer	1.00			
Degree to which the customer trusts the motor carrier	0.06	1.00		
Confidence of the customer	0.13	0.60	1.00	
Perceived success of the customer	0.17	0.51	0.60	1.00

**Table 2. Estimates of the Model Coefficients**

Path	Beta Weight	Standard Error	Significance
Dependence of the motor carrier on the customer → Degree to which the customer trusts the motor carrier	0.060	0.062	> .10
Dependence of the motor carrier on the customer → Confidence of the customer	0.094	0.049	< .05
Degree to which the customer trusts the motor carrier → Confidence of the customer	0.594	0.049	< .05
Degree to which the customer trusts the motor carrier → Perceived success of the customer	0.234	0.060	< .05
Confidence of the customer → Perceived success of the customer	0.459	0.060	< .05
Overall	Chi-Square = 1.22	d.f. = 1	> .05

### RESULTS OF THE RESEARCH

Table 2 shows that the model was supported by the data, as indicated by its insignificant overall Chi-square of 1.22, since an insignificant Chi-square suggests that the model-reproduced correlations match the observed correlations well. Moreover, the dependence of the carrier on the customer and the degree to which the customer trusts the carrier both had significant positive effects on the confidence of the customer. Similarly, the perceived success of the customer is significantly and positively influenced by the degree to which the customer trusts the carrier and the customer's confidence during the negotiation. However, the dependence of the carrier on the customer has an insignificant impact on the degree to which the customer trusts the carrier, though the effect was in the hypothesized direction. Hence, with the exception of the relationship between the dependence of the carrier on the customer and the degree to which the customer trusts the carrier, all hypothesized effects were supported at the .05 level.

While these results support most of the conceptual relationships in the model, one limitation of the research should be recognized when interpreting the findings. Contract negotiation is a dynamic process in which a motor carrier and a customer may interact several times before arriving at consensus on the terms of an agreement. Negotiation may be recurrent as time passes and previous experience of the negotiation may influence the outcome of the process. Unfortunately, the conceptual structure of this model does not tap the dynamic dimension of the process. As such, this study elicited respondent retrospective reports to generate the data used to test the measures of the variables included in the model. This approach to framing the questions and perceptual selective recall by the respondents over time could be interpreted to be less accurate than data collected in a longitudinal manner. However, previous research of the use of respondent retrospective reports has demonstrated the validity of this approach to collecting data under the constraint of generally acceptable tests of reliability.<sup>11</sup> From this experience, it is recommended that future conceptualization and research should investigate the dynamic nature of issues using longitudinal research methods.

### DISCUSSION OF RESEARCH RESULTS

Despite their limitations, these research re-

sults assist in identifying and supporting general guidelines for the development of strategies for negotiation of motor carrier service offerings. In general, the results of the study indicate that the customer's perceived success of the negotiation is significantly influenced by his perception of the motor carrier's dependence, his level of trust in the motor carrier, and his confidence during the negotiation.

Specifically, the motor carrier's dependence on the customer indirectly affects the customer's perceived success of the contract negotiation. When a customer perceives that the carrier is highly dependent on his organization, he becomes more confident about his negotiating position. If the customer has a position of strength in the negotiation, he is more likely to perceive greater success from the outcome. In the current shipper's market, the carrier dependence has led to significant rate discounting that in turn has increased the shipper's confidence during negotiations.

When the customer trusts the motor carrier and thus believes that the carrier is going to cooperate in the negotiation, he usually experiences a cooperative bargaining environment. Therefore, the customer and the carrier are able to reach a successful agreement and reduce the cost of the negotiation. On the other hand, when the customer trusts the carrier, he becomes more confident about his relative position in the negotiation. A confident customer usually finds it advantageous to leverage his position and act aggressively during the negotiation. When the customer experiences a favorable bargaining environment and adopts an aggressive negotiation strategy, he will perceive greater success from the outcome of the negotiation, which ultimately helps him achieve his negotiation objectives.

### MANAGERIAL IMPLICATIONS

From a managerial standpoint, the findings of this research suggest several ways in which motor carrier organization can improve their negotiation strategies in order to have greater success. First of all, firms should be concerned with the importance of the perceived dependence between the negotiating parties. Since the customer's perception of the dependence of the motor carrier on his organization indirectly affects his perception of the success of the negotiation, negotiators must learn to manage the nego-

tiation process based on their perceptions of the position and behavior of the other party. When the customer is acting too aggressively or is expected to do so, the motor carrier should communicate relevant information to the customer in an attempt to influence or alter the customer's perception of the dependence relationship. For example, if the motor carrier negotiator senses that the customer does not fully understand the service offerings that he has available, he can attempt to influence the customer's perception of the relative positions of the negotiating parties by introducing additional service offerings that can neutralize the customer's objections. In this situation, the motor carrier can improve his position in the negotiation on that particular issue and possibly influence the outcome of the other contract issues being discussed.

On the other hand, when developing a negotiation strategy, the motor carrier should analyze all relevant information and help the customer form an objective perception about the dependence relationship between his organization and the customer. That is, the motor carrier should assess the characteristics of the customer and determine the extent to which he wants to pursue this business based on his firm's market segmentation strategy. For example, the motor carrier must assess the revenue-cost benefits from the additional business and determine whether this customer fits the firm's customer profile. Accurate assessment of the position of the parties based on objective perception and an appropriate strategy will keep the parties from becoming too self-confident during the bargaining sessions, which otherwise could delay the negotiation process.

Second, the motor carrier must act to avoid the customer's misperception about his trustworthiness in order to create a favorable negotiation environment. A certain level of trust is necessary for both parties to benefit from the negotiation and attain a successful perception of the outcome. Misperception, however, usually causes one to behave in an aggressive manner, which can jeopardize the continuation of the negotiation process. Therefore, the best strategy for the motor carrier is to build an appropriate level of trust between the parties. Moreover, the motor carrier must assess the benefit of his level of aggressiveness and determine whether that aggressiveness may be detrimental to the customer's perception of the trust in the relationship.

Third, since the confidence of the customer has a positive and significant effect on his perceived success of the outcome, it is important that the motor carrier develop appropriate strategies and behave accordingly to influence the customer's confidence level. As implied by the findings of this research, a certain level of confidence based on objective evaluation of relative positions is needed for successful negotiation. However, overconfidence based on the misperception of the relative positions will hinder the continuation of the negotiation. Hence, the negotiation strategy and the corresponding bargaining behavior must be founded on an objective evaluation of the relative positions of the negotiating parties.

#### CONCLUSION

Successful negotiation outcome requires each participating negotiator to understand the nature of the process and the characteristics of each participating party. This research has addressed the customer's perceived success of the negotiation and three antecedent variables leading to that perception. Those variables include the customer's perceived dependence of the motor carrier, the level of the customer's trust in the carrier, and the confidence of the customer's negotiator during the bargaining sessions. The results indicate that the customer is likely to be influenced by the dependence, trust, and confidence factors when assessing the outcome of the negotiation. Therefore, motor carrier negotiators should understand the customer's perceptions of the negotiation process and develop corresponding strategies aimed at influencing the customer's perceptions.

#### ENDNOTES

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