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### Assessing reseller performance from the perspective of the supplier

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The objective of the authors' study was to develop a reliable and valid scale to assess reseller performance from the perspective of the supplier. To specify the domain of reseller performance, four different conceptualizations of organizational effectiveness were explored, leading to the identification of eight facets of reseller performance. Using data collected on the resellers of two different suppliers, the authors investigated the reliability and validity of three different types of scales—facet, composite, and global. Results indicate that two composite scales, a 5-item global scale, and seven 3-item facet scales have acceptable levels of reliability, construct validity, and generalizability.

## Assessing Reseller Performance From the Perspective of the Supplier

A Marketing Science Institute report on a 1985 conference on managing marketing channel relations (Ross 1985) concluded that:

Measurement of channels performance was mentioned in almost all of the presentations at this conference. Research into what should be measured is critical. Just as critical is research into how to measure it. Without an agreed upon solution to this issue, channels research will be significantly hampered.

In structuring and managing marketing channels, it is imperative that some means be established for assessing the performance of the channel counterparts with which a firm is linked. Unfortunately, little scholarly research has addressed performance measurement or relevant criteria to use in determining whether the efforts of channel counterparts are productive. Among the studies that have been conducted, sales, cooperation, interfirm assistance, asset turnover, return on assets and investment, service

to customers, profits, and market share have all been offered separately or in *ad hoc* combinations as appropriate criteria to assess the performance of channel partners (e.g., Frazier 1983; Frazier, Gill, and Kale 1989; Gaski and Nevin 1985; Heide and John 1988; Noordewier, John, and Nevin 1990).<sup>1</sup> However, the theoretical rationale for the selection of the criteria is commonly absent or underdeveloped. Clearly, the use of inappropriate measures of performance can lead to inaccurate normative conclusions. Relationships between performance and other constructs may disappear, become irrelevant, increase, or reverse, depending on the criteria of effectiveness being used (Cameron and Whetten 1983).<sup>2</sup>

Three different approaches appear to have been used to construct performance scales. In some studies, performance was operationalized as a unidimensional concept (e.g., Gaski and Nevin 1985; Heide and John 1988). In others, performance was viewed as having multiple dimensions, and each dimension was investigated individually (e.g., Frazier 1983; Noordewier, John, and Nevin 1990). In still others, the multiple dimensions were combined to construct either an unweighted or weighted composite scale or index of performance (e.g., Frazier, Gill, and Kale 1989). In many of the studies, inadequate attention was paid to construct validation. Some re-

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<sup>1</sup>We have included some studies (Frazier 1983; Frazier, Gill, and Kale 1989) that measure role performance to operationalize power.

<sup>2</sup>Following other authors in the organizational effectiveness literature (Cameron and Whetten 1983), we use the terms "performance" and "effectiveness" interchangeably.

searchers used single-item measures, thus precluding an assessment of reliability, which in turn impaired construct validity (Nunnally 1978). The end result of a relatively unsystematic approach to the performance construct in the marketing channels literature calls into question any substantive findings that include performance as a major independent or dependent variable.

The overall purpose of our study was to address both the conceptual and the methodological issues in assessing channel member performance. Specifically our two objectives were to (1) theoretically derive the conceptual domain of reseller performance from the supplier's perspective and (2) assess the reliability and validity of various types of scales (global, composite, and facet) for measuring reseller performance. We define the term "reseller" broadly to encompass any channel intermediary—a franchisee providing a service or product to end users, an independent middleman purchasing products for resale to business or household end users, or a broker/agent selling the supplier's product on an extended contract basis. Thus, the term "supplier" includes both franchisors and organizations that sell their products through any independent middlemen. By adopting the perspective of a supplier, we direct attention to what the supplier wants to accomplish in its relationship with its resellers.

#### THEORETICAL PERSPECTIVES ON ORGANIZATIONAL EFFECTIVENESS

Suppliers engage in relationships with resellers because such relationships are instrumental in achieving the suppliers' objectives. The criteria used to evaluate resellers should highlight the ways in which resellers help suppliers fulfill their ambitions. Therefore, any attempt to develop a model of reseller performance from a supplier's perspective must begin with an examination of what the supplier desires for itself—that is, its criteria of organizational effectiveness.

Quinn and Rohrbaugh (1983) identified four different models of organizational effectiveness which, with minor modifications, provided the theoretical framework for our study. We describe each of the models briefly. Made explicit in the descriptions are the effectiveness criteria they imply for organizations and their significance in deriving the specific constructs that should be used in assessing resellers' performance from a supplier's perspective.

##### *Rational Goal Model*

The rational goal model views the organization as being in the hands of a rational set of decision makers who have in mind a specific set of goals (Gouldner 1959). Organizations, according to this view, are logical both in their selection of goals and in their choice of actions to reach those predetermined goals with maximum efficiency (Scott 1987). This view implies a mechanical model of organizations in which the organization is a structure of manipulable parts, each of which is sepa-

rately modifiable to increase the efficiency of the whole (Gouldner 1959). Thus, both the scientific management school and Weber's theory of bureaucratic organizing postulate that rational processes, such as planning and formalization, are the best means to achieve organizational goals (Scott 1987). Because of the adoption of such a mechanistic model, the main objectives of an organization according to the rational goal model are productivity and efficiency or, stated alternatively, maximizing outputs relative to pertinent conditions such as obstacles and costs (Quinn and Rohrbaugh 1983).

On the basis of the rational goal model, a reseller's performance should be evaluated through its contribution to the supplier's objectives of efficiency and productivity. These objectives can be assessed by examining the reseller's contribution to the supplier's profits and sales, respectively. *Contribution to profits* is conceptualized as the profits and cash the reseller generates for the focal supplier in comparison with the supplier's effort and investment in that reseller. *Contribution to sales* (output per time period) is conceptualized as the sales the reseller is generating for the supplier. A comprehensive assessment of the reseller's sales performance includes not only the actual sales generated for the supplier in comparison with the potential of the reseller's territory and the extent of competition, but also the coverage by the reseller of its assigned territory.

##### *Human Relations Model*

The human relations model views organizations as more than merely instruments to achieve the specific output goals recognized by the rational goal model. It recognizes that organizational participants behave as members of social groups that have commitments and loyalties stronger than their individualistic self-interests.

Cummings (1977) argues that an organization is effective to the extent that it satisfies the goals of its participants. A high degree of satisfaction, cohesion, trust, and morale leads to a supportive atmosphere conducive to the development of organizational participants. Consistent with that reasoning is Quinn and Rohrbaugh's (1983) finding that the human relations model was associated with cohesion and morale as means and human resource development as an organizational end.

Adapting this perspective to marketing channels, the supplier must be concerned with the social aspects of its relationship with the reseller. Building up the reseller's trust of and satisfaction with the supplier will lead to a relationship climate conducive to helping the reseller organizations become quality partners.

According to the human relations model, the supplier should be concerned with the competence of its resellers. The value or worth of the human resources of the reseller's organization to the supplier can be conceptualized as *reseller competence*. From the supplier's perspective, reseller competence includes the experience and product knowledge the reseller's salespersons have in the supplier's product category as well as the administrative,

supervisory, and strategic ability of the reseller's executives.

#### *Internal Process Model*

The internal process model stresses the fact that an organization, when viewed as a system, is a combination of interdependent parts. As one moves from mechanical to organic and sociocultural systems, the interrelations between the parts of the system change from being simple and deterministic to complex and probabilistic (Buckley 1967; Scott 1987). Organizational effectiveness in this model is having adequate control to evoke coordinated action from highly interdependent parts of the organization.

In Quinn and Rohrbaugh's (1983) depiction of the internal process model, stability and control are viewed as organizational ends. It is often difficult for suppliers to achieve stability and control in their relationships with their resellers because resellers have disparate goals and hence may engage in suboptimal behavior. A supplier must engender a level of commitment high enough to induce continued membership from its resellers to maintain stability in its channels of distribution. Furthermore, resellers can present a supplier's product in a manner other than what the supplier desires, thus sabotaging its marketing programs. Following the dictates of the internal process model, a supplier therefore would have to develop policies and programs to evoke coordinated action from the resellers toward its desired ends. Hence, to achieve stability and control, the supplier must strive to gain reseller loyalty and reseller compliance with its marketing strategies.

*Reseller loyalty* is conceptualized as the reseller's commitment to and motivation for the supplier. Reseller loyalty is the predisposition of the reseller to engage in goal-directed activity on behalf of the supplier in relation to any other supplier's lines that it may carry. *Reseller compliance* is conceptualized as the reception the reseller gives to the supplier's channel policies and programs. These channel policies and programs are instituted by a supplier to coordinate resellers so they are all working toward the supplier's goals and enhancing the supplier's ability to present its product in a consistent manner to all end users.

#### *Open System Model*

The open system model views the organization as engaging in processes that expand the system, such as growth, learning, and differentiation (Buckley 1967). In this perspective, the organization is not content to survive in its environment but actively attempts to manage it (Pfeffer and Salancik 1978). Organizations try to manipulate, influence, and create acceptability for themselves and their activities (Pfeffer and Salancik 1978).

Quinn and Rohrbaugh (1983) found that the open systems model was associated with flexibility as the means and with growth and external support as organizational ends. However, at numerous points in their theoretical

conceptualization, they stress the importance the open systems model places on flexibility or adaptation. The population ecology model argues that organizational forms must adapt continuously to environmental requirements to survive. Furthermore, Steers' (1975) review of organizational effectiveness studies indicates that adaptability/flexibility is the most popular indicator of organizational effectiveness. On the basis of these considerations, we expanded Quinn and Rohrbaugh's (1983) criteria of organizational ends from the open system perspective to include adaptation. Hence, in our modified conceptualization, organizational effectiveness in the open systems perspective is associated with growth, external legitimacy, and adaptation.

The importance placed on organizational growth implies that a supplier will evaluate its resellers on their ability to generate an *increasing* stream of resources. Furthermore, Pfeffer and Salancik (1978) observed that organizations typically legitimate their operations by associating themselves with other, more generally accepted objectives, institutions, and individuals. The reseller interacts with the most important constituency of the supplier—the supplier's end users. Therefore, a supplier can increase its own legitimacy by being associated with reputable resellers who do an excellent job of satisfying the supplier's customers. Finally, according to the open system model, the supplier will evaluate more favorably those resellers that help facilitate adaptation to the environment. Hence, in the open systems model, reseller performance from the supplier's perspective can be assessed through three facets—contribution to growth, customer satisfaction, and reseller adaptation.

*Contribution to growth* is conceptualized as the increase in sales generated by the reseller for the focal supplier. *Customer satisfaction* is conceptualized as the level and quality of services the reseller provides to the supplier's customers. The monitoring of customer satisfaction is important for a supplier, because end users often do not make clear distinctions between suppliers and resellers when purchasing and consuming a specific brand; problems with the brand can be attributed to either. The third facet, *reseller adaptation*, is the ability of the organization to change its standard operating procedures for marketing the supplier's products in response to environmental changes. From the supplier's perspective, reseller adaptation is conceptualized as the reseller's initiative in marketing the supplier's products in innovative ways in response to changes in its territory.

#### *Integrating the Models*

Quinn and Rohrbaugh (1983) noted that the four models "are embedded in a set of competing organizational values." Combining the eight facets suggested previously into a single effectiveness construct is therefore likely to involve inherent contradictions. Nevertheless, Quinn and Rohrbaugh have suggested that the models can be reconciled and united by using Parsons' (1959) four functional imperatives of goal attainment, pattern mainte-

nance, integration, and adaptation. In the following definitions of these functional imperatives, we relate them to the four models. Because there are overlaps among the models and the imperatives, our suggested matching is closer to a central tendency than to a bright line classification scheme.

- Goal attainment* is activity directed to satisfy system goals through interaction with the task environment. This connection to the environment can be conceptualized as maximizing the outputs of the system in relation to costs and obstacles, which is consistent with the rational goal model's emphasis on efficiency and productivity.
- Pattern maintenance* is reconstituting the capacities of the system by restoring, maintaining, or creating the energies, motives, and values of the cooperating units. It is essentially similar to the human relations model with its concern for the morale of organizational participants and its focus on human resource development as an organizational goal.
- Integration* refers to mutual adjustment of system components necessary for holding the cooperating units in line and maintaining solidarity. It is analogous to the primary importance placed by the internal process model on evoking coordinated action from interdependent parts of the organizational system.
- Adaptation* is perceiving and manipulating the "object world" to mobilize the means or resources necessary for the attainment of system goals. It is the dominant theme running through major open system theories such as population ecology and resource dependence.

An organization must, following Parsons, adequately meet *all* four functional imperatives if equilibrium and/or continuance of the system is to be maintained. Cameron and Whetten (1983) note that organizational effectiveness is inherently paradoxical and that to be effective an organization must have attributes that seem contradictory. Similarly, Quinn and Rohrbaugh (1983) argue that an effective organization must be both stable and flexible as well as productive and cohesive. Following these organization theorists, we integrate the criteria of reseller performance suggested by the four models by postulating that *an effective reseller from the supplier's perspective plays an instrumental role in helping the supplier meet its four functional imperatives of goal attainment, integration, adaptation, and pattern maintenance*. Each model is seen as centering primarily on a particular functional imperative faced by the supplier's organization; therefore, *the criteria of effectiveness that each recommends are only a portion of the concept of effectiveness*. Hence, we propose to combine the eight facets in Table 1 into an overall measure of reseller performance.

## RESEARCH METHOD

### Research Setting

To examine the measurement properties of the performance construct and its proposed scales, we used two independent samples for generating data—the first for

**Table 1**  
CONCEPTUAL FRAMEWORK FOR ASSESSING RESELLER'S PERFORMANCE FROM THE SUPPLIER'S PERSPECTIVE

<i>Effectiveness model</i>	<i>Functional imperative</i>	<i>Supplier's objective</i>	<i>Reseller's contribution</i>
Rational goal model	Goal attainment	Efficiency	Contribution to profits
		Productivity	Contribution to sales
Human relations model	Pattern maintenance	Human resource development	Reseller competence
Internal process model	Integration	Stability	Reseller loyalty
		Control	Reseller compliance
Open systems model	Adaptation	Growth	Contribution to growth
		Adaptation	Reseller adaptability
		External legitimacy	Customer satisfaction

measure development and validation and the second for testing the instrument's generalizability. The focal supplier for the measure development and validation sample is a major vehicle leasing company (designated firm 1). Firm 1 has a network of more than 5000 dealers in the U.S. and Canada. The dealers are mostly small independent businesses that include vehicle rentals as one of the multiple lines of products carried. However, they do not rent vehicles of any firm competing directly with firm 1. Firm 1 does not transfer title of the vehicles to the dealers, but assigns a certain number of vehicles to each of them on the basis of their respective requirements. The dealers are compensated through commissions on revenues generated for firm 1.

The focal supplier for testing the instrument's generalizability is a division of a *Fortune* 500 multinational company (designated firm 2). The division manufactures a portable telecommunications product and distributes it through approximately 1000 resellers. The typical reseller is a small, owner-operated business, employing three to 10 persons, which started as a service business and developed into a sales and service (installation and maintenance) center. Besides firm 2's product, approximately half of the resellers carry directly competing brands and complementary lines of products from other manufacturers. The resellers take title to the products and usually sell them at firm 2's suggested list price.

### Operational Measures

Included in the study were measures used to assess the content validity, convergent validity, criterion-related validity, and nomological validity of three different types of scales employed to measure reseller performance.

- Facet scales* are intended to cover, separately, the principal areas within a more general domain (Ironson et al. 1989), for example, each of the eight facets of reseller performance identified in Table 1. The scale measuring each individual facet should be internally homogeneous and discriminably different from the others (Ironson et al. 1989).
- Global scales* employ multiple items that elicit overall impressions and summary evaluations, for example, asking a supplier how successful the overall exchange relationship with a reseller has been. Global scales are sometimes referred to as clinical combinations because they require the respondents to combine their evaluations cognitively into a single integrated response or global judgment (Einhorn 1972).
- Composite scales* assume the whole is equal to the sum of its principal parts (Ironson et al. 1989). They require explicit summing of the facets and are sometimes referred to as mechanical composites (Einhorn 1972). Both for predicting a criterion and for representing the overall evaluations of raters, unit-weighted additive linear models have been found to be adequate (Einhorn and Hogarth 1975).

In comparison with mechanical composites, respondents' global evaluations may be based on a different set of facets and/or a unique method of combining the facets (both in terms of the function that relates the facets to the overall evaluation and in the weights assigned to the facets). It is not surprising, therefore, that composite measures do not always give the same results as summary evaluations via global scales (Ironson et al. 1989). Versions of all three scaling approaches—facet, composite, and global—have been used in the marketing literature to assess channel member performance, but no study has examined more than a single type of scale.

*Content validity* refers to the degree of correspondence between concepts and their indicators. To maximize the probability that our scales faithfully sampled the domain of the performance construct as defined, we conducted the following procedure for content validation. First, more than 100 items were generated from construct definitions and the literature. Second, executives of firms 1 and 2 assessed the content validity of these items, and 62 items remained. Third, these items were subjected to an item-sort task administered to 21 graduate students. The responses were analyzed to ascertain which items were the most troublesome for the students to assign to the hypothesized facet. As an outcome of this pretest, four items were selected for each facet of reseller performance. Because the sorting analysis indicated that respondents were having difficulty in distinguishing between items that measured contribution to sales and items that measured contribution to growth, an additional item for each of those two facets was constructed. Thus, the questionnaire used in the field study included five items for those two facets in contrast to four items each for the other six facets, resulting in a 34-item scale.

*Convergent validity* is established by showing that attempts to measure the same trait through maximally dif-

ferent methods are in agreement. To assess the convergent validity of the general scales, we examined the convergence between the composite and global scales of reseller performance. The global scale was measured by the five items shown in the Appendix.

To assess convergent validity of the facet scales, we tried to collect at least one item per facet from the respective firms' archival data. Because use of archival data and use of survey data are maximally different methods of measuring performance, such comparisons would provide strong tests of convergent validity. Unfortunately, however, both firms collected little information on their resellers, which limited the number of possible comparisons. The archival data collected from the two suppliers are described in the Appendix.

*Criterion or predictive validity* is evaluated when an instrument is going to be used to predict some important external form of behavior (i.e., the criterion). To that end, we included the following item:<sup>3</sup> "In the past, the supplier has considered dropping this reseller." We expected this item to be related negatively to reseller performance.

Ultimately, the only real test of a construct's "validity" is its usefulness as an explanatory device—its *nomological validity*. The question to be answered is: Does the construct behave the way it is supposed to in relation to other constructs of interest? We assessed the nomological validity of measures in relation to three other constructs that previous research in marketing channels suggests have important implications for reseller effectiveness—*influence by the reseller over the supplier, supplier satisfaction, and supplier's perception of the level of conflict with the reseller.*

Anderson and Narus (1990) found that the higher the level of favorable outcomes one channel partner provides for another, the greater the influence the former has over the latter. In the same vein, Anand and Stern (1985) found that firms are willing to relinquish control to another channel partner when their expectations are met or exceeded. Therefore, there should be a positive relationship between reseller performance from the supplier's perspective and influence by the reseller over the supplier.

Past research also indicates that if a channel partner makes large contributions to another partner's goals, the latter will be more satisfied with its overall relationship with the former (Anderson and Narus 1990). Likewise, Frazier (1983) found that manufacturers' role performance is related positively to dealer satisfaction with the manufacturer. Frazier, Gill, and Kale (1989) found higher role performance by one channel member to be related inversely to the other channel member's perception of conflict. Frazier (1983) found higher role performance

<sup>3</sup>Given the cross-sectional nature of the study, we were unable to get a good criterion (some item measuring behavior) such as dealer termination and opted for the next best alternative.

of the manufacturer to be related positively to the dealer's agreement with the manufacturer's position on important issues. Such agreement between channel members on important issues makes conflict much less likely to develop between them.

On the basis of the previous findings, we expected reseller performance to be related positively to influence over supplier and supplier satisfaction and negatively to conflict. We measured influence over the reseller by using four items adapted from Anderson and Narus (1990). We measured the supplier's overall satisfaction with the exchange relationship and the level of conflict with the reseller by adapting three items previously used by Frazier (1983) and Anderson and Narus (1990). The measures used are listed in the Appendix.

*Other variables.* Measures of reseller performance should not be unduly influenced by effects of the environment in which the reseller operates. For example, a reseller located in a market with high sales potential may be doing a poor job for the supplier and still generate a large amount of sales. In comparison, a reseller in a less attractive location doing an outstanding job of capturing available sales in the area for the supplier may appear to be a poor performer. If the reseller performance scales were highly correlated with the environmental conditions (especially environmental munificence) faced by the reseller, it would be unclear whether the scale was capturing the reseller's performance or the reseller's environment.

To evaluate this potential problem, we included in the study five items that tapped into competitor and consumer dynamism, environmental munificence, and environmental diversity among consumers. Competitor dynamism was measured with two items and the other variables were each measured by a single item. The items used were adapted from Achrol and Stern (1988) and are listed in the Appendix.

### Research Design

*Data sources and sampling.* Data for the study were collected by the key informant method. Because effectiveness is defined in terms of the supplier's perspective of reseller performance, the key informants were selected from the suppliers' organizations. We took four steps to enhance the reliability of key informant reports.

First, we used *multiple informants*. Errors arise in informant reports because of selective perception on the part of the informants (Phillips 1981). The biases are likely to occur when informants are reporting on evaluative and inferential matters and when the phenomenon is related to the informant's role in the organization (Houston 1974). One solution for increasing the reliability of informant reports is to use multiple informants (Phillips 1981; Seidler 1974). Therefore, we collected reports on each reseller's performance from two different informants.

Second, we used *snowballing*. The informant method is effective only to the extent the informants selected are

indeed "key," having reliable knowledge of the subject of interest (Seidler 1974). One method for improving accuracy of informant selection is the snowballing technique in which a preliminary sample of informants is used to nominate more knowledgeable (about the issues under study) informants (Seidler 1974). Our snowballing technique required each supplier's marketing department to nominate two positions in its organization that were occupied by persons who were most knowledgeable about individual reseller operations. For firm 1, the two appropriate informants occupied positions of sales manager and fleet manager. For firm 2, the appropriate informants were the sales manager and regional business manager.

The suppliers were asked to identify the persons within their organizations who held the nominated positions. Every available pair of informants occupying the two nominated positions in each firm was utilized. For firm 1, 150 pairs of informants were identified. However, the small number of informants available in firm 2 made it impossible to obtain both an adequate sample size and independence of observation. Independence was assured in firm 1 by randomly selecting 150 resellers, thereby having each pair of informants report on a single reseller. To secure independence of observation in firm 2 would have restricted the sample size to only 11 resellers. In consultation with firm 2 executives, we determined that each informant could reliably report on as many as seven resellers. A sample of 73 resellers was then randomly generated for firm 2.

Third, we performed *informant competency checks*. Informants were screened and qualified along several different dimensions via a mail questionnaire (hereafter called "questionnaire 1.") Informant experience was assessed by asking informants how long they had (1) been with the firm, (2) occupied their current positions, and (3) known the reseller. In addition, using 5-point Likert-type scales (1 = have, 5 = do not have, adequate information/knowledge), we asked informants about their level of information and knowledge about specific resellers on each of the eight facets listed in Table 1.

Results from this survey indicated that in both firms the sales managers were more experienced and rated themselves as more informed to evaluate the reseller's performance on each of the eight facets. The three experience questions revealed that the average length of time the four types of informants had occupied their positions ranged from 10.7 months to 20.5 months, they had been employed with the supplier between 12.6 to 160.4 months, and they had been working with the reseller for 8.2 months to 24.1 months. These mean scores suggest that each type of informant had adequate opportunity to interact with the reseller upon whom they were to report. For each of these three questions, the low end of the range reflected the mean for the business managers in firm 2 and the high end was occupied by the sales managers in firm 1.

On the questions asking whether the informants had

adequate knowledge/information of the selected resellers on each of the eight performance dimensions, mean scores on each facet ranged from 1.20 to 1.97 for sales managers and 1.53 to 1.97 for fleet managers in firm 1. In firm 2, the mean scores on the facets ranged from 1.34 to 2.46 for sales managers and from 1.49 to 3.50 for business managers. These results suggest that the informants, on average, could provide valid reports on individual resellers with whom they were familiar.

Our fourth step to enhance reliability was *triangulation of reports*. As Glick et al. (1990) point out, a major advantage of using multiple informants is that, by resolving discrepancies among different informants' reports, one can enhance the validity of the data. This resolution of discrepancies is usually done through face-to-face discussions among the informants or by using some heuristic (such as simple averaging) to compute a composite score for the organization (Glick et al. 1990). We used both averaging and face-to-face reconciliation.

When the two informants reporting on a particular reseller differed substantially on any item (i.e., a difference of two or more points on 7-point scales), they were asked to reconcile their differences by contacting one another (usually face to face, but sometimes by phone) to produce a consensual rating on each of those items. For the items on which informants did not substantially disagree, the simple average of their responses was considered to represent the organizational score. The input for the entire data analysis consisted of these empirically converged, organizational-level responses.

*Response rates.* Upon returning their completed competency questionnaires (questionnaire 1), the informants were mailed the primary research instrument (questionnaire 2), a self-administered questionnaire featuring the items to assess all eight facets of reseller performance. To provide as strong a test of convergent validity as possible between the composite and global measures, we assessed global performance on a separate questionnaire (questionnaire 3) mailed two weeks after consensual responses to questionnaire 2 were returned. Substantial differences between the two informants on both questionnaires 2 and 3 were fed back for reconciliation.

The entire set of questionnaires were returned for 83 (55.3%) and 56 (76.7%) resellers for firm 1 and firm 2, respectively. However, questionnaire 3 contained only a single construct—the global overall evaluation of the reseller's performance from the supplier's perspective. Therefore, for the purposes of the data analysis, all resellers on whom we had consensual responses to questionnaire 2 from both informants were included. Hence, the data analysis was conducted on 98 resellers (65.3%) for firm 1 and 63 resellers (86.3%) for firm 2.

*Scale-weighting sample.* To help construct a subjectively weighted scale of reseller performance, we conducted a survey of high-level executives in each firm who participate in strategic marketing decision making, set marketing channel policy, and thus have the best information on what the supplier desires from its resellers.

The primary sponsor of this research within each company nominated the executive informants who were then asked, via mail questionnaire, to divide 100 points among the eight facets of performance in proportion to how important they felt each facet to be. Responses were received from 13 (100%) and 8 (88.9%) executives in firm 1 and firm 2, respectively. The results of this survey are reported in Table 2.

### DATA ANALYSIS AND RESULTS

Following conventional scale development procedure (Gerbing and Anderson 1988), we began our examination of the three types of scales (facet, composite, and global) to measure reseller performance with an assessment of unidimensionality, followed by a computation of reliability, and concluded with an evaluation of criterion-related validity and construct validity. This analysis was conducted on the data from firm 1. The data from firm 2 then were used to assess the generalizability of measures of reseller performance that had acceptable levels of reliability and validity in sample 1.

#### Assessment of Unidimensionality

Following Gerbing and Anderson's (1988) recommendation, we used confirmatory factor analysis models estimated by the program LISREL to assess unidimensionality. Three separate models were run: (1) the 34 items measuring the eight facets of reseller performance, (2) the 10 items measuring the three constructs of conflict, supplier satisfaction, and reseller influence over supplier, and (3) the five items measuring global reseller performance. Because the composite measures of reseller performance were conceptualized as multidimensional scales, unidimensionality was assessed at the facet level rather than for the entire scale.

The initial confirmatory measurement model involving all 34 items measuring the eight hypothesized facets of reseller performance resulted in a fit that was unacceptable. As Table 3 shows, it had poor fit indices, along with several large residuals, and a phi matrix that was not positive definite. An examination of the item-total correlations indicated that all four items measuring re-

Table 2  
RESULTS OF EXECUTIVE QUESTIONNAIRE

	Firm 1 (n = 13)		Firm 2 (n = 8)	
	Range	Mean	Range	Mean
Contribution to sales	0–50	20.4	12–35	18.6
Contribution to profits	0–50	16.0	0–16	9.4
Reseller competence	4–30	14.9	5–15	10.0
Reseller loyalty	0–20	7.2	5–15	10.2
Reseller compliance	0–30	14.0	7–13	10.4
Reseller adaptation	0–10	5.5	11–16	13.1
Contribution to growth	5–25	11.0	10–20	15.5
Customer satisfaction	0–40	11.1	7–20	12.8



**Table 3**  
**FIRM 1: RESULTS FROM CONFIRMATORY FACTOR ANALYSIS**

<i>Model</i>	<i>Convergent validity</i>	<i>Discriminant validity</i>	<i>Residuals over 2.58</i>	<i>Chi square (d.f.)</i>	<i>Goodness of fit index</i>	<i>Root mean square residual</i>
Reseller performance (34 items and 8 facets)	Yes	No	Many	741.51 (499) <i>P</i> = .000	.709	.075
Reseller performance (21 items and 7 facets)	Yes	Yes	2 <sup>a</sup>	191.92 (168) <i>P</i> = .100	.851	.056
Global reseller performance (5 items and 1 construct)	Yes		None	3.89 (5) <i>P</i> = .565	.983	.014
Nomological constructs (10 items and 3 constructs)	Yes	Yes	9	79.04 (32) <i>P</i> = .000	.863	.075
Nomological constructs (9 items and 3 construct)	Yes	Yes	None	23.16 (24) <i>P</i> = .511	.953	.052

<sup>a</sup>Of 210 residuals.

seller loyalty were highly correlated with the other dimensions. Hence, reseller loyalty was eliminated as a facet of reseller performance. Investigation of the pattern of residuals from subsequent LISREL runs and a further examination of the item-total correlations resulted in the deletion of another nine items.

A measurement model of the remaining 21 items loading onto the seven remaining facets of reseller performance (Table 3) resulted in a model of acceptable fit. Each of the seven facets was measured by three items, which are reported in the Appendix. These results, and an examination of the patterning of residuals, seemed to indicate that unidimensionality was achieved—that is, a single trait was underlying each of the seven remaining facets of reseller performance. Further examinations of reliability and validity of the unit-weighted and manager-weighted scales were conducted on scales aggregating across the seven remaining facets. The manager-weighted scale was constructed by combining the weights shown in Table 2.<sup>4</sup>

An initial confirmatory measurement model of 10 items hypothesized to load on the nomological constructs of supplier satisfaction, conflict, and reseller influence over supplier indicated a poor fit (Table 3). One of the items measuring supplier satisfaction had a pattern of high negative residuals with several different variables and therefore was eliminated from further analysis. A confirmatory measurement model of the remaining nine items with the three constructs (Table 3) produced an acceptable fit. The pattern of residuals suggests that unidimensionality for each construct was achieved. A confirmatory measurement model of the five items of the overall global performance construct revealed an acceptable fit (Table 3).

<sup>4</sup>In reallocating the 100 points to the seven remaining facets, we are probably making some assumptions. However, as observed subsequently, this issue is not critical for our study because the two composite scales are closely related and convergent validity is therefore established by using the global performance scale.

#### *Assessment of Reliability*

Reliability (coefficient alpha) for each of the facets, the global scale, and the other constructs included in the study is reported in the Appendix. The reliability for the individual facets ranges from .68 for financial performance to .82 for sales performance and customer satisfaction. The reliability is .94 for both the unit-weighted and global performance scales and .85 and .88, respectively, for the scales measuring conflict and supplier satisfaction.<sup>5</sup> However, the reliability for the reseller influence over supplier scale is only .56. Thus results including this construct must be considered tentative. Further, as only two items remained after the confirmatory factor analysis to measure supplier satisfaction, the reliability of that scale must also be interpreted with caution.

#### *Assessment of Convergent Validity*

Convergent validity of the facet scales and the global scale was assessed by examining whether each indicator's pattern coefficient from the measurement model was significant (Anderson and Gerbing 1988). This is what Bagozzi (1981) calls "convergence in measurement." From Table 3 we can see that convergent validity was achieved for each facet scale, the global reseller performance scale, and the constructs of reseller influence over supplier, supplier satisfaction, and conflict because the "t-value" for each item is greater than 2 in all three of the measurement models accepted.

In addition, we examined convergent validity by inspecting the correlations between the data collected by primary (questionnaires) and secondary (archival) methods on each facet. The limited analysis possible with the available secondary data is reported in Table 4 (D, firm 1). The results are not encouraging. None of the correlations are significant at the .05 level. Thus, conver-

<sup>5</sup>Nunnally's (1978, p. 248) formula for computing the reliability of linear composite scales was used to assess the reliability of the unit-weighted reseller performance scale.

Table 4  
ASSESSMENT OF CONVERGENT AND EXTERNAL VALIDITY

	Firm 1						Firm 2																	
A. Measures as methods																								
	<u>UnitPerf</u>			<u>WeighPerf</u>			<u>GlobPerf<sup>a</sup></u>			<u>UnitPerf</u>			<u>WeighPerf</u>			<u>GlobPerf<sup>a</sup></u>								
UnitPerf	1.00						1.00						1.00											
WeighPerf	.99*			1.00			.99*			1.00			.99*			1.00								
GlobPerf	.78*			.77*			1.00			.75*			.75*			1.00								
B. Facet correlations																								
	<u>Profit</u>	<u>Compet</u>	<u>Compli</u>	<u>Adapt</u>	<u>Growth</u>	<u>CusSat</u>	<u>Profit</u>	<u>Compet</u>	<u>Compli</u>	<u>Adapt</u>	<u>Growth</u>	<u>CusSat</u>												
Sales	.53*	.64*	.32*	.65*	.67*	.48*	.76*	.70*	.47*	.72*	.83*	.66*												
Profit		.46*	.27**	.35*	.48*	.34*		.59*	.61*	.56*	.73*	.67*												
Compet			.51*	.70*	.52*	.63*			.40*	.75*	.69*	.62*												
Compli				.54*	.31**	.64*				.40*	.42*	.66*												
Adapt					.55*	.69*					.77*	.52*												
Growth						.33*						.70*												
C. Pattern of nomological relationships																								
	<u>UnitPerf</u>						<u>GlobPerf</u>						<u>UnitPerf</u>						<u>GlobPerf</u>					
DropRes	-.57*						-.51*						-.86*						-.66*					
ResInflu	.65*						.61*						.81*						.63*					
SupSatis	.80*						.75*						.87*						.73*					
Confli	-.50*						-.46*						-.59*						-.53*					
D. Survey and archival data																								
	<u>SaleQt</u>		<u>Fin1</u>	<u>Fin2</u>	<u>Exper</u>	<u>Grow</u>	<u>SaleQt</u>	<u>Accru</u>	<u>NEmp</u>	<u>Exper</u>	<u>Grow</u>													
	(n = 56)		(n = 88)	(n = 88)		(n = 90)	(n = 56)	(n = 61)	(n = 48)	(n = 49)	(n = 42)													
Sales	-.12						.52*																	
Profit/compli <sup>b</sup>			.17	.18				.32**																
Compet					-.02				-.25	.16														
Growth						-.12					.07													
E. Nomological validity of archival data																								
	<u>SaleQt</u>	<u>Fin1</u>	<u>Fin2</u>	<u>Exper</u>	<u>Grow</u>	<u>SaleQt</u>	<u>Accru</u>	<u>NEmp</u>	<u>Exper</u>	<u>Grow</u>														
DropRes	.12	-.19	-.17	-.06	.25***	-.40**	-.13	-.15	-.22	.11														
ResInflu	-.02	.06	.13	-.01	.00	.38**	.38**	-.02	.37**	-.02														
Satis	.05	.08	.08	-.04	-.07	.39**	.19	.16	.34***	-.11														
Confli	-.30**	-.02	-.03	.00	-.05	-.28***	-.16	-.07	-.04	-.09														

<sup>a</sup>The sample size for GlobPerf is 83 for firm 1 and 56 for firm 2. In all other cases, except where stated otherwise, it is 98 for firm 1 and 83 for firm 2.

<sup>b</sup>Profit for firm 1 and compli for firm 2.

\*Significant at the .001 level.

\*\*Significant at the .01 level.

\*\*\*Significant at the .05 level.

gent validity of the facet scales could not be established with the available archival data.

For the composite scales of reseller performance, convergent validity was examined by inspecting the correlations between the three proposed general measures of reseller performance—unit-weighted composite, manager-weighted composite, and global—reported in Table 4 (A, firm 1). The correlation of .99 between the two composite scales implies that assigning differential weights to the facets does not make much difference, and the two composites cannot be considered to be maximally different methods. We therefore do not report results for the manager-weighted composite scale. The unit-weighted composite and global performance scales come closer to being “maximally different methods” because they dif-

fer in concept (mechanical vs. clinical composite), measurement (specific vs. global items), and administration (separate questionnaires). The correlation between these scales is high (.78) and significant ( $p = .01$ ), thereby providing evidence of convergent validity.

#### Assessment of Discriminant Validity

To establish discriminant validity between the facets, we used the 21-item, seven-facet measurement model of reseller performance (see Table 3) as the base model. Discriminant validity was assessed by constraining the phi value for a pair of facets to unity and then estimating the resulting measurement model. Because the model in which the facet correlations were not constrained to unity gave a significantly better fit than the constrained model

for each pair of facets, it indicated that the traits are not perfectly correlated, and discriminant validity was achieved (Anderson and Gerbing 1988).

To assess discriminant validity of the unit-weighted and global performance scales, we adapted the procedure used by Ruekert and Churchill (1984) to test for discriminant validity of channel member satisfaction. In Table 5, cell A reproduces the correlations between the two scales measuring reseller performance. Cell B has the correlations between reseller performance and other constructs that were hypothesized to be theoretically related to reseller performance. Cell C contains correlations between reseller performance and other variables (environmental) with which no theoretical relationships were expected. To establish discriminant validity, three criteria must be met—the correlations in cell A should be larger than those in cell C, correlations in cell A should be greater than those in cell B, and the correlations between measures of reseller performance and the other related constructs should have a consistent pattern (Bagozzi 1981; Ruekert and Churchill 1984).

Because the convergent validity coefficient (.78) is greater than the correlations between reseller performance and items measuring the reseller's environment, the first criterion is satisfied. Cell B, or the correlations between reseller performance and other constructs with which reseller performance was expected to be related, contains much larger correlations. Yet, except for the correlation between supplier satisfaction and the unit-weighted reseller performance scale, the convergent validity coefficient is larger than all other correlations in cell B. Criterion 3 requires an examination of the size of the correlations between each of the measures of reseller performance and the other constructs (cell B). A consistent pattern is observed, as the largest is a positive correlation with supplier satisfaction, followed by a positive correlation with reseller influence over supplier and

a negative correlation with conflict. The largest negative correlation is with intention to drop the reseller. Thus, though the global scale satisfies all three criteria, the unit-weighted scale completely satisfies only two of the three criteria and partially satisfies the third.

#### *Assessment of Criterion-Related and Nomological Validity*

Each of the facet scales, the composite scales, and the global scale of reseller performance have a significant negative correlation with the item measuring whether the supplier has considered dropping the reseller in the past. Thus, criterion-related validity is established.

To assess nomological validity of the facet scales and the two general scales, we estimated several structural equation models (see Table 6). The gamma coefficients linking the appropriate reseller performance measure and the three constructs—reseller influence over supplier, supplier satisfaction, and conflict—are in the expected direction and significant (*t*-value greater than 2.0) in each of the models estimated in Table 6.<sup>6</sup> However, the overall fits for the facet scales (models 1–7, Table 6) are inferior to the overall fits for the two general scales (models 8 and 9, Table 6). The normed fit indexes for the individual facet scales are close to but below the recommended .9 cutoff and the chi squares are significant. In contrast, both general scales have a normed fit index of .93 and acceptable chi square.

#### *Relationship With Environmental Variables*

To examine the impact of the environment on the performance measures, we investigated the correlations between the environmental variables and the general measures of reseller performance. As Table 5 indicates, none of the correlations between the global scale of reseller performance and the items measuring the reseller's environment are significant at the .05 level. In contrast, the unit-weighted performance scale has a significant positive correlation with competitor dynamism, implying that the more dynamic the competitors' sales and promotional strategies tend to be, the higher is the supplier's rating of reseller effectiveness.

#### *External Validity*

The preceding analysis on firm 1 data shows that the 21-item composite scale, a 5-item global scale, and seven 3-item facet scales have acceptable levels of reliability and construct validity. The data from firm 2 were used to test the generalizability of these results.

Differences in research method (each informant in firm 2 reported on multiple resellers, thereby violating the in-

**Table 5**  
**FIRM 1: DISCRIMINANT VALIDITY**

	<i>UnitPerf</i> <sup>a</sup>	<i>GlobPerf</i> <sup>b</sup>
<i>Cell A</i>		
UnitPerf		
GlobPerf	.78*	
<i>Cell B</i>		
DropRes	-.57*	-.51*
ResInflu	.65*	.61*
Satis	.80*	.75*
Confli	-.50*	-.46*
<i>Cell C</i>		
Envr1	.13	.12
Envr2	.33*	.16
Envr3	.09	.14
Envr4	.13	.08
Envr5	.07	.03

<sup>a</sup>*n* = 98 for correlations with UnitPerf.

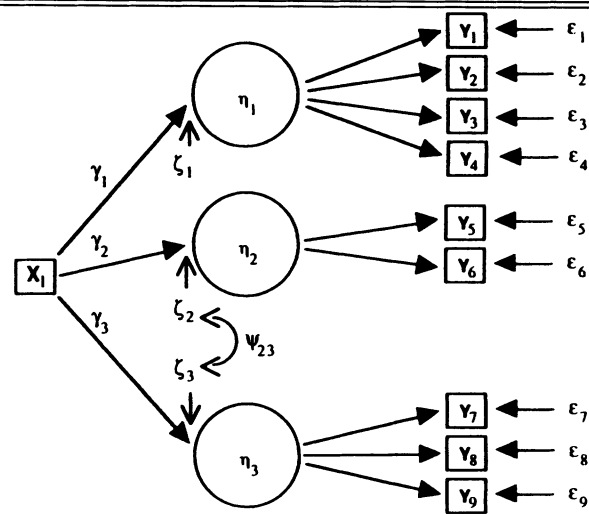
<sup>b</sup>*n* = 83 for correlations with GlobPerf.

\*Significant at the .001 level.

<sup>6</sup>However, because conflict and supplier satisfaction are theoretically related, and share common antecedents other than performance, a correlation between the  $\zeta$ 's of supplier satisfaction and conflict is implied. Thus the  $\psi$  between supplier satisfaction and conflict was allowed to covary (or set free) in the LISREL models estimated.

Table 6  
FIRM 1: ASSESSMENT OF NOMOLOGICAL VALIDITY

Model	Gamma (T-value)			$\chi^2$ (d.f.)	NFI
	ResInflu	Satis	Confli		
1. Sales	.453 (5.123)	.516 (6.268)	-.301 (3.171)	62.92 (32) $p = .001$	.87
2. Profit	.240 (3.029)	.444 (5.243)	-.290 (3.048)	73.72 (32) $p = .000$	.83
3. Compet	.384 (4.335)	.611 (7.890)	-.266 (2.769)	55.74 (32) $p = .006$	.88
4. Compli	.190 (2.555)	.621 (8.018)	-.560 (6.799)	82.21 (32) $p = .000$	.84
5. Adapt	.378 (4.235)	.624 (8.223)	-.347 (3.701)	52.11 (32) $p = .014$	.89
6. Growth	.440 (4.981)	.408 (4.860)	-.237 (2.459)	68.17 (32) $p = .000$	.85
7. CusSat	.217 (2.817)	.673 (9.194)	-.557 (6.721)	64.41 (32) $p = .001$	.87
8. UnitPerf	.419 (4.638)	.748 (11.34)	-.484 (5.521)	39.38 (32) $p = .173$	.93
9. GlobPerf	.370 (3.785)	.694 (9.113)	-.451 (4.693)	36.15 (32) $p = .281$	.93



dependence of errors assumption) and small sample size preclude the use of structural equation modeling. Nevertheless, analysis of firm 2 data should demonstrate that (1) each of the scales has acceptable levels of reliability, (2) the correlations among the three general measures of reseller performance are similar across the two samples, and (3) a consistent pattern of nomological relationships is present in both samples.

The Appendix indicates that in general the scales have higher reliability in firm 2 than in firm 1. Of special interest is the fact that the scales measuring financial performance, contribution to growth, and reseller influence over supplier performed more reliably (with alpha of .83, .88, and .79, respectively) in the second sample. Only "reseller compliance" has a reliability below .70 in the second sample, though at .68 it is close enough not to pose a major concern. The unit-weighted and global scales have very high reliability (.97 and .98, respectively).

Next, similar to the analysis on firm 1 data, the extent of agreement among the three general scales of reseller performance was assessed. Table 4 (A, firm 2) reports that the correlation between the two composite measures is .99, and the correlation between the global and unit-weighted performance scales is .75, demonstrating significant agreement between these measures of overall performance. Furthermore, when these convergent validity coefficients are contrasted with those of firm 1 in Table 4, they are remarkably similar.

To assess the generalizability of the criterion and nomological validity relationships, we examined the correlations between each of the scales and the three hypothesized dependent constructs, as well as the criterion measuring intention to drop reseller. The results are reported in Table 4 (C, firm 2). As predicted, each of the

scales of reseller performance is related positively to reseller influence over the supplier and supplier satisfaction, and has a significant negative relationship with conflict and consideration given to dropping the reseller. In addition, each of the facet scales has a similar pattern of relationships. Thus, a consistent pattern of nomological relationships is demonstrated across the two samples.

In addition to the analysis to establish external validity of the scales, two other concerns were explored with the firm 2 data. Given our failure in firm 1 to obtain convergence between the limited archival data available and the facet scales, similar relations were examined with firm 2 data. Unlike firm 1, firm 2 had no data on financial performance, but data on reseller compliance were available.

Table 4 (D, firm 2) shows that the sales generated by the reseller as a percentage of the quota set by the supplier have significant positive associations with sales performance and reseller compliance. The same is true for the percentage of funds available that was used by the reseller. Thus we find convergence between the primary and secondary indicators for both sales performance and reseller compliance. In contrast, we do not find convergent validity between survey and archival measures in either sample for contribution to growth and reseller competence. Overall, in comparison with the first sample, the firm 2 sample was slightly more successful in achieving convergence between the facet scales and the archival data.

The correlations between the scales of reseller performance and the environmental variables were also computed with sample 2 data. Consistent with the results from the first sample, global performance is not related sig-

nificantly to any of the five environmental variables. However, unit-weighted reseller performance is related positively to competitor dynamism, market capacity, and consumer dynamism with correlations of .29, .29, and .30, respectively.

### DISCUSSION, LIMITATIONS, AND CONCLUSIONS

#### Discussion

Our research results indicate that the unit-weighted scale and the 5-item global scale have high reliability and adequate construct validity. Though specific behaviors or predictions related to the individual facets are not highlighted here, results of tests to assess the reliability and validity of the facet scales are consistently positive. In addition, results from the second sample support the generalizability of all the scales. However, some of our findings need further explanation.

*Facet scales.* The items measuring reseller loyalty are highly correlated with the items measuring the other facets and therefore add little unique information. The lack of discrimination may be due to the relatively more abstract nature of reseller loyalty or an overall affect toward the reseller. It is also possible that the items measuring loyalty were poor.

We were only partially successful in obtaining convergence between the informants' judgments on the facets and available archival data. Institutional indicators, however, represent bits of information that are given organizational meaning only through managerial processes of evaluation, interpretation, and judgment. To the extent that relevant organizational behaviors and outcomes result directly from such managerial processes, the failure of archival data to converge with self-report measures is probably of little theoretical or practical significance. Furthermore, only a few of the correlations (reported in Table 4, E) between the archival data and intention to drop the reseller, reseller influence over supplier, supplier satisfaction, and conflict (the variables used to assess nomological and criterion-related validity) are significant and in the expected direction. This finding suggests that it may be the available archival data that lack theoretical and explanatory relevance.

For the facets themselves, there are both conceptual and empirical reasons *against* examining them *individually* in research similar to ours. Conceptually, no single facet represents performance. Empirically, the facets did not have differential linkages with other constructs, a condition that is likely to occur if facets have negative or low correlations with each other (Tables 4, B and 6). Still, focusing on individual facets may be highly enlightening when the goal of the evaluation is diagnosis of strong or weak performance.

*General scales.* The global scale passed all the tests conducted to assess construct validity. However, we had some concerns about the performance of the unit-weighted performance scale. First, we were unable to obtain ad-

equated discrimination between reseller performance and supplier satisfaction. Fiske (1982) notes the difficulty in obtaining discrimination between more abstract, general concepts, especially when they have attributes in common. It is also possible that the high correlation between performance and satisfaction was caused by the comprehensive conceptualization of the performance construct in our research. The composite measure could have picked up a large amount of general variance that overlapped with supplier satisfaction. Conceptually, satisfaction and performance are closely related. Satisfaction is often used as the focal consequence in channels (Anderson and Narus 1990) or as a subfacet of channel outcomes (Mohr and Nevin 1990). Alternatively, the high agreement could be a method artifact. The components of the composite scale and the related constructs, such as supplier satisfaction, were measured by the same instrument (questionnaire 2) on the same 7-point Likert-type scales.

Second, ideally, we would prefer the reseller performance scales to be uncorrelated with environmental indicators. However, on the basis of resource dependence and population ecology theories, one can argue for a relationship between the environmental indicators and such facets as reseller growth, reseller adaptation, and customer satisfaction. Such a relationship may have resulted in the significant correlations observed in the second sample between the composite scales and the three environmental variables.

Finally, it is encouraging to observe discriminant validity between our measures of reseller performance and reseller influence over supplier because role performance is often used to measure interfirm influence (Frazier 1983). This finding suggests that the two are distinct concepts. However, in our scale, we have to some extent intermixed influence items (the actual change in another party) and power items (the potential to influence another party) (Frazier 1983). Sharper operationalization of reseller influence over supplier would enhance future research.

Assigning differential weights to the facets made little difference in either sample; the correlation between the two composite scales was almost unity. A closer examination of the data seems to suggest that weighting failed to have any impact because the facets are highly correlated with each other in both samples (Table 4, B). In addition, the weights that were used to combine the facets were not substantially different from unit weights.

#### Limitations

On a cautionary note, we emphasize that this is only a first study. The results must be considered tentative until the reseller performance concept is tested further across several different settings. For example, the channel context (both environment and structure) may have an impact on the relative importance of the different criteria. Though most of the facets developed in our study

may also be appropriate for evaluating supplier performance from the reseller's perspective, changes (such as substituting brand equity or supplier's reputation for customer satisfaction) may be necessary. These issues should be addressed in future research.

### Conclusions

All of the scales developed in our research are suitable for measuring reseller performance, as defined in our study. The decision about which scale should be employed, however, must depend ultimately on the objectives or purpose of the evaluation.

There are theoretical, methodological, and managerial reasons to favor the composite scales. In contrast to the other scales (global and facet), the composites come closest to mapping the theoretical domain of the reseller performance. Conceptually, performance is a multifaceted construct and therefore examining any single facet in isolation is not likely to produce an adequate assessment. Besides, the results from Table 6 indicate that when relationships with other constructs are the focus of inquiry, the general measures of performance provide a better fit than the individual facet scales. In addition, a large body of research indicates that the predictive ability of mechanical combinations or composites is superior to that of clinical combinations or global evaluations (Einhorn 1972).

Methodologically, Silk and Kalwani (1982) note that, in comparison with global questions, specific questions help informants cope with complexity by structuring their task, thereby reducing measurement error and enhancing the probability of obtaining convergence between informant reports. Each informant may use different facets, different weights, and a different function to combine the facets when rendering global judgments, making it even more difficult to achieve consensus between informants.

The two composite scales are also superior from a managerial perspective. In comparison with the global scale, a composite scale helps standardize the criteria by which the resellers are evaluated within a firm. This point is important when, as is usually the case, numerous employees within the supplier's organization are evaluating the performance of different resellers. In addition, employees and organizations change their behavior to maximize their performance on the criteria used to evaluate them. Thus, a composite measure can be used to communicate clearly to two important constituencies—boundary personnel within the supplier's organization who are responsible for managing relationships with the reseller *and* the resellers themselves. A composite scale may also be very useful for a variety of channel control

purposes—for example, screening and ranking resellers. Because suppliers are under increasing legal pressure to defend themselves against terminated resellers' charges that termination was a result of the supplier's desire to maintain an unlawful practice (Stern and El-Ansary 1988), data generated from periodic evaluation of performance by a reliable and valid composite scale may help the supplier defend against allegations of capricious practices.

If change in managerial policy toward channels is a likely outcome of the research, it would be useful to employ the manager-weighted scale for its political value. Because of the enormous ranges of the weights assigned to any particular facet by the executives in our samples, the means of the weights are almost worthless. The need is to find some consensus among managers as to what facets of performance should be emphasized within the firm, so that appropriate incentives can be established to achieve those ends. In addition, both discussions with executives of various firms and the responses to the executive questionnaires strongly suggested that managers favored the weighted scale. Hence, a measure of reseller performance from the supplier's perspective incorporating a differential weighting scheme may have greater face validity and practical utility.

One must recognize, however, that for many research purposes, the 5-item global scale is adequate, especially if the main purpose of the research is to examine the impact of various other constructs (such as power and conflict) on overall performance. The global judgment method has the benefits of brevity and simplicity because it takes less of the respondent's time and demands less knowledge about the organization by the researcher constructing this scale (Patchen 1963). The global measure is more generalizable across organizations, because of the relatively abstract nature of the questions. In contrast, to accommodate differences between firms, minor changes in the wording of the items constituting the composite measures are necessary.

Channel performance is an important theoretical and managerial concept. Incorporating it within the nomological network in channels research can only help enhance our understanding of channel relationships. Doing so can also yield benefits for practitioners because, managerially, many normative prescriptions on formulation and implementation of marketing channel strategies are geared toward improving performance. Perhaps disagreements on both what facets to measure and how to measure them have contributed to the relative neglect of performance in the channels literature. Our study is a preliminary attempt to resolve these issues and provide reliable and valid scales that can be adopted by researchers in the future.

APPENDIX  
OPERATIONAL MEASURES<sup>a</sup>

- 
- Contribution to sales: Sales* (reliability = .82; .96)<sup>b</sup>
1. Over the past year, the dealer has been successful in generating high [rental revenues/sales volume] for *the supplier*,<sup>c</sup> given the level of competition and economic growth in his market area.<sup>d</sup>
  2. Compared to competing dealers in the [district/territory], this dealer has achieved a high level of market penetration for *the supplier*.
  3. Last year, the revenue that this dealer generated from *the supplier* was higher than what other competing dealers within the same [neighborhood/territory] generated.
  - \*4. Relative to his size, his available resources, and the competition he faces, the dealer could have generated greater [sales volume/revenues] for *the supplier* last year.
  - \*5. Last year, the dealer did not meet the sales target that *the supplier* had set for it.
- Contribution to profits: Profit* (reliability = .68; .83)
1. *The supplier's* cost of servicing the dealer is reasonable, given the amount of business which the dealer generates for *the supplier*.
  2. The dealer's demands for support [some examples] have resulted in inadequate profits for *the supplier*.
  3. *The supplier* made inadequate profits from this dealer over the past year because of the amount of time, effort, and energy which *the supplier* had to devote to assisting him.
  - \*4. Last year, the revenues generated by this dealer were not commensurate with *the supplier's* efforts to stimulate those revenues.
- Reseller competence: Compet* (reliability = .77; .74)
1. The dealer has the required business skills necessary to run a successful [kind of business the supplier is in] business.
  2. The dealer [has amassed/demonstrates] a great deal of knowledge about the features and attributes of *the supplier's* products and services.
  3. The dealer and his personnel have poor knowledge of competitors' products and services.
  - \*4. The dealer has not invested enough time or money in educating or training himself or his employees to be more competent in selling *the supplier's* products and services.
- Reseller compliance: Compli* (reliability = .72; .68)
1. In the past *the supplier* has often had trouble getting the dealer to participate in its [some program important to the supplier] program.
  2. The dealer almost always conforms to *the supplier's* accepted procedures.
  3. The dealer has frequently violated [stipulations/terms and conditions] contained in his [contract/agreement] with *the supplier*.
  - \*4. The dealer accurately [files some reports required by the supplier] and gets them in on time.
- Reseller loyalty: Loyal*
- \*1. The dealer clearly wants to [rent/sell] *the supplier's* products and shows his desire to do so in a number of positive ways.
  - \*2. It takes an inordinate amount of time, effort, and energy to get the dealer's attention on *the supplier*.
  - \*3. The dealer shows greater motivation to [sell competing brands or] engage in other business rather than in furthering *the supplier's* business.
  - \*4. The dealer places a disproportionately higher amount of time and effort behind *the supplier* relative to other businesses that he engages in.
- Reseller adaptation: Adapt* (reliability = .79; .86)
1. The dealer senses long-term trends in his market area and frequently adjusts his selling practices.
  2. The dealer is very innovative in his marketing of *the supplier's* products and services in his [neighborhood/territory].
  3. The dealer makes an effort to meet competitive changes in his [neighborhood/territory].
  - \*4. The dealer could be more responsive (by changing hours of operations, staff, and local advertising) to seasonal sales fluctuations.
- Contribution to growth: Growth* (reliability = .69; .88)
1. The dealer will either continue to be or will soon become a major source of revenue for *the supplier*.
  2. Over the next year, *the supplier* expects its revenue generated from this dealer to grow faster than that from other competing [of the supplier] dealers within the same [district/territory].
  3. In the past *the supplier's* [business with the dealer/market share through the dealer] has grown steadily.
  - \*4. Over the years, the dealer has been successful in his efforts to expand *the supplier's* business.
  - \*5. Through its association with this dealer, *the supplier* has generated [large/significant monthly] increases in revenues.
- Customer satisfaction: CusSat* (reliability = .82; .71)
1. *The supplier* has [frequently] received complaints from customers regarding this dealer.
  2. The dealer goes out of his way to make his customers happy.

APPENDIX  
(Continued)

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3. The dealer provides [customers/end users] with good assistance in the solution of any problems involving *the supplier's* products and services.
- \*4. The dealer helps his customers reduce their concerns about [buying or renting the supplier's products] by providing useful information.
- Influence over supplier: ReInflu* (reliability = .56; .79)<sup>d</sup>
1. The dealer exerts strong influence over the way *the supplier*<sup>b</sup> markets its products through this dealer.
  2. We often consult the dealer on how *the supplier* should market its services in his market area.
  3. We often follow most suggestions that this dealer makes.
  4. We generally try to accommodate this dealer's requests.
- Supplier satisfaction: Satis* (reliability = .88; .90)
- \*1. The relationship of *the supplier* with the dealer has been an unhappy one.
  2. Generally, *the supplier* is very satisfied with its overall relationship with this dealer.
  3. *The supplier* is very pleased with its working relationship with the dealer.
- Conflict: Confli* (reliability = .85; .82)
1. The relationship between the dealer and *the supplier* can be best described as tense.
  2. The dealer and *the supplier* have significant disagreements in their working relationship.
  3. *The supplier* and the dealer frequently clash on issues relating to how *the supplier* should conduct its business through the dealer.
- Environmental variables*
- Envr1*: The level of competitive activity (number and quality of competing dealers) within the dealer's [neighborhood/territory] is high.
- Envr2*: There are a number of changes taking place in competitors' sales and promotional strategies within the dealer's [neighborhood/territory].
- Envr3*: The customers in the dealer's [neighborhood/territory] vary a lot in their preferences and needs for [renting or buying the supplier's products].
- Envr4*: The general consumer demand for [the supplier's products] in the dealer's [neighborhood/territory] is strong and growing.
- Envr5*: There are a number of changes taking place in the consumer's [supplier's products] preferences within the dealer's [neighborhood/territory].
- Global performance: GlobPerf* (reliability = .94; .98)
1. *The supplier's* association with this dealer has been a highly successful one.
  2. If I had to give the dealer a performance appraisal for the past year, it would be (where 1 was poor and 5 was outstanding)
  3. The dealer leaves a lot to be desired from an overall performance standpoint.
  4. Taking all the different factors into account the dealer's performance has been (where 1 was excellent—couldn't be better and 7 was bad—couldn't be worse).
  5. Overall, how would you characterize the results of *the supplier's* relationship with the dealer (where 1 was it has fallen far short of expectations and 5 was it has greatly exceeded our expectations).
- Archival data*
- Firms 1 and 2
- SaleQt*: The sales that the reseller generated over the past year as a percentage of the target set for the reseller by the supplier.
- Exper*: The number of months that the reseller had been carrying the supplier's line.
- Grow*: The growth in sales that the reseller had generated for the supplier over the past year.
- Firm 1 only
- Fin1*: Percentage of time that the reseller had the supplier's vehicles leased out over the past year.
- Fin2*: Revenues that the reseller generated per vehicle made available to it by the supplier.
- Firm 2 only
- Accru*: Percentage of the promotion monies made available to the reseller that had been utilized by the reseller over the past year.
- NEmp*: Number of employees that the reseller employed.
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<sup>a</sup>Unless otherwise indicated, all items measured on 7-point Likert-type scales.

<sup>b</sup>The two reliability values refer to firm 1 and firm 2, respectively.

<sup>c</sup>*The supplier* is used to disguise the name of the supplier.

<sup>d</sup>Terms that were substituted between the two firms are in brackets.

\*Item not included in the final scale and therefore not in the reliability computation.



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