2007

Delineating the "Ease of Doing Business" Construct within the Supplier–Customer Interface

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SUMMARY

The current research provides insight into the "ease of doing business" construct. Factor analysis of survey responses of supply managers in the electronics industry was used to test the proposed "ease of doing business" construct, which includes the three dimensions — information and material services, financial contract services and personal relations services. Results support a link between a customer's assessment of a supplier's "ease of doing business" and the amount of business conducted with that supplier. The attributes supported by this research provide the means for managers to improve and grow business with customers.

INTRODUCTION

Supply chain management is generally regarded as the integration of the flows of material, information and financing around three competitive priorities: price, delivery and quality. However, sustained competitive advantage in a supply chain is not achieved through these three dimensions alone. Supply chain partners generally acknowledge the pivotal importance of relationship management, but often, default to conventional measures that are mostly founded on easily quantifiable criteria like price, delivery and quality. These measures, however, do not necessarily reflect or capture the complexities of the buyer–supplier interface.

While suppliers constantly seek to improve their relationship with customers, simultaneously customers attempt to objectively evaluate supplier performance. This duality leads to a question frequently encountered in supplier evaluation assessments commonly labeled "the ease of doing business" (EODB), referring to how easy it is to do business with a supplier or the lack of barriers and hurdles in the buyer–supplier interface (Vandenbosch and Dawar 2002; Goodman 2004). Thus, from the customer's point of view, EODB is a customer service/satisfaction measure. From the supplier's side, EODB is often referred to as "customer relationship management (CRM)." However, EODB is neither clearly defined nor well understood by supply chain partners (i.e., the supplier is not able to understand the reported measure, but worse, customers often cannot explain their own response). The ease of doing business concept is infrequently and casually discussed in the academic literature. In one of these rare citations, the quandary of this concept is summarized in the following quote appearing in the work of Bowersox and Closs:

> Although most senior managers agree that customer service is important, they find it difficult to explain exactly what it is and what it does. Two interpretations commonly expressed are *easy to do business with* and *sensitive to customer needs*. While such generalizations have appeal from a qualitative perspective, it is difficult to interpret what "easy to do business with" means for firms that deal with numerous customers on a daily basis . . . (Bowersox and Closs 1996, p. 66).

At first glance, an informal statement like the EODB appears to minimize the complicated process of assessing the depth and breadth of business relationships. In reality, an appropriately defined EODB construct may actually enhance the assessment process. The distinct meaning of this concept, however, continues to elude practicing managers, creating the need for construct postulation and subsequent exploratory research. The challenge for supply managers comes from not knowing what to improve when customers indicate low levels of EODB. Their frustration increases when, having received low scores from customers on EODB and having taken corrective action on some perceived aspect of their business, they continue to receive low scores on the next customer survey.

This study aims to explore the underlying tenets of EODB. It is the first explorative study in the supply chain context. The objectives of this study are twofold. The first objective is to understand if EODB plays a role in predicting satisfaction within the supplier–customer interface. The second objective is to initiate efforts to assemble a framework around this measure and to provide some context for the EODB construct. What factors make up the EODB? What should business managers try to change if they want to improve their EODB rating from certain customers? The current research proposes a construct for EODB based on survey results from the electronics industry. A general background on the use of EODB and how it is linked to managing customer–supplier relationships is initially presented. This is followed by a discussion of the propositions conceptualized and the methodology used. After the results of the analysis are discussed, the paper culminates in a working definition for the EODB and its managerial implications.

LITERATURE REVIEW

Practical Considerations of EODB

While academic studies involving EODB have been limited, publications targeting practitioners have recognized the growing significance of the concept in customer satisfaction. Hammer (2001) defines EODB by arguing that it has nothing to do with products, features, quality or price. Rather, it is a measure of how ''complex, problematic and fatiguing'' it is for a customer to conduct business with the supplier. Similarly, focusing on customer retention, Coyles and Gokey (2002) imply that EODB is separate from price and quality as purchase criteria. They describe customers reassessing their purchases based on price, performance and the ease of doing business with a company. Likewise, Robinson and Kalakota (2004) suggest that having a perspective on customers' interaction with internal services and aligning these service capabilities to that interaction allows a company to be perceived as one with which it is easy to do business.

Hammer supports the case of EODB further with the argument that it enhances customer relationships by making customer interfaces more efficient and effective. In one recent example of enhancing customer relationships with EODB (similar to other high-profile cases from companies like Staples and Geico that actually utilized EODB approaches in their advertising campaigns), National Grange Mutual received the highest rating for its EODB among property and casualty insurance providers. This rating originated from a nationwide survey of property and casualty insurance carriers (Insurance Journal 2003). The factors being considered by respondents include responsiveness, flexibility, timeliness, technical support and effective use of technology.

Evolution of an EODB Construct

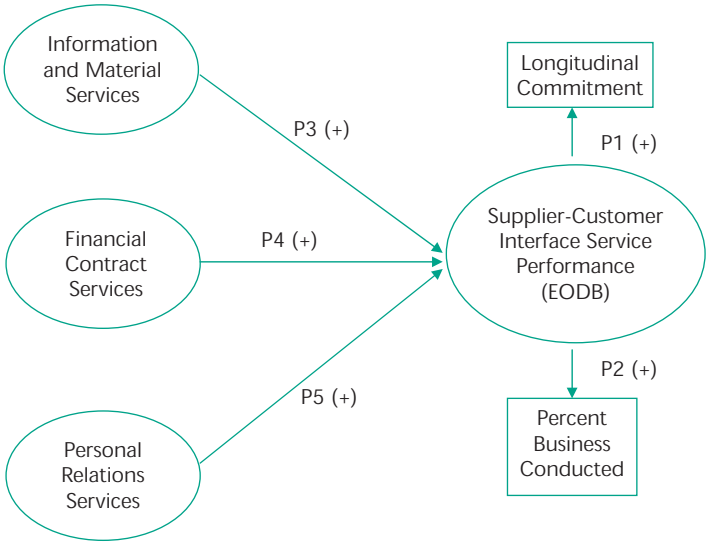
The proposed construct uses the expectancy of disconfirmation theory to examine the role that EODB could eventually play in the customer–supplier interface. In disconfirmation theory, customers compare actual performance levels of a product or service to expected performance levels (Oliver 1980). Customers then make varying degrees of behavioral decisions. The decisions range from approach behaviors (verbal positive reinforcement) to confirmation judgments (performance as expected) to avoidance behaviors, which include switching behaviors that lead to the selection of alternative suppliers (Dadzie, Chelariu and Winston 2005).

This study proposes that the EODB construct contributes to measuring customer satisfaction and is a direct result of the services provided from a supplying organization. Lloyd (2003) argues that EODB could be a mainstay of an organization's customer relationship strategy. Separately, Iacobucci, Grisaffe, Duhachek and Marcati (2003) propose that the extent to which a customer perceives a company as one that is easy to do business with should be a function of high quality and enhanced customer service. Response levels are affected by the strategic attributes of three relational determinants: *information and material services*, *financial contract services* and *personal relations services*. The existence of these three attributes could be interpreted as service excellence (Johnston 2001). According to Johnston (2004), service excellence includes EODB. All three proposed determinants have an effect on EODB, which subsequently converge toward a common definition when considered by customers (Figure 1).

Swaddling and Miller (2002) warn that, despite many attempts to correlate customer satisfaction and customer-repurchase decisions, this correlation is complex and not yet fully understood. They argue that linkages are not yet in place to warrant a role in strategy formulation. They suggest that EODB may play a contributory role in establishing that link and that the need for an EODB construct with theoretical underpinnings is necessary.

Figure 1

MODEL LINKING RELATIONAL SERVICES WITH SUPPLIER'S EASE OF DOING BUSINESS



Theoretical Connection of EODB with the Customer Interface

The relationship between customer service and customer satisfaction is rich and deep. SERVQUAL ignited a stream of continuing research measuring consumer perception and satisfaction with service quality (Parasuraman, Zeithaml and Berry 1988; Parasuraman, Berry and Zeithaml 1991). This literature stream emphasized the role of customer service psychometric properties, including such factors as reliability, responsiveness, assurance and empathy. The customer service literature specific to logistics includes traditional measures of success centered around delivery, such as, availability, timeliness and delivery quality (e.g., Mentzer, Gomex and Krapfel 1989; Dahlstrom, McNeilly and Speh 1996; Emerson and Grimm 1996; Morris and Carter 2005). These dimensions can be expanded to include a comprehensive list of supplier evaluation criteria in the areas of customer relationship and communication factors (Simpson, Siguaw and White 2002). Frazier (1983) argues that the value of these relationships is demonstrated when suppliers use support services. Supporting this view, Hunt and Jones (1998) suggest that subsidiary factors, such as, after sales support and total service capability, play an important part in selecting suppliers. They add that these factors highlight criteria, which may affect ease of doing business between customer and supplier.

Managing the supplier–customer interface has theoretical linkages to sustainable competitive advantage (Tseng and Huang 2007). Supply chain revenues are not optimized without such determinants as loyalty, satisfaction and anticipation of customer needs (Verhoef 2002). Elements of these determinants include long-term commitment of a customer to a supplier and favorable attitude of the customer toward that supplier (Cronin and Morris 1992; Dick and Basu 1994; Morgan and Hunt 1994). It is through this commitment that the repurchase intention and the customer's willingness for relationship renewal is reinforced (Kumar, Scheer and Steenkamp 1995). Managers are already accepting a stop-gap, poorly defined EODB as a minimum predictive measure for those more difficult to quantify dimensions of longitudinal commitment and repurchase intention (Stading 2002). The following propositions aim to explore this relationship.

Proposition 1: EODB is positively related to the longitudinal commitment of a customer to a supplier.

Proposition 2: EODB is positively related to the repurchase intention of a customer from a supplier.

Information and Material Services

Managing information in a supply chain has a number of benefits and is important in building supply chain relationships (Manoochehri 1984; Russell and Krajewski 1992). The first proposition considers the individual association between EODB and the management of information needed to help materials flow more efficiently. In a supply chain, contact points between the customer and the supplier are critical in building a solid relationship. These contact points and supplier functions are associated with daily or routine order processing, allowing *availability of inventories* and making *on-time deliveries*. Managing these contact points falls on the *inside sales* function of a supplier with responsibilities for such elements as *pricing* information and direct *quality quotes* to the customer. Daily contact points influence the

customer's perception of how easy it is to do business with a supplier. These are important attributes for suppliers in maintaining relationships with customers and should be managed carefully (Verwijmeren, van der Vlist and van Donsellar 1996; Shin, Collier and Wilson 2000; Goodman 2004).

The attributes of this determinant in the EODB framework are structured around recurring arguments which support availability and responsiveness in the customer service and customer satisfaction literature (e.g., Bitner 1992; Dadzie et al. 2005). Supplier availability and responsiveness can make an impression on a customer in various ways. This proposition is formulated to assess the effect of daily contact points for both product- and service-related attributes of availability and responsiveness on the EODB framework.

Proposition 3: The information and material (IM) services determinant is positively related to the EODB, such that the daily service contact points strengthen the EODB rating.

Financial Contract Services

Part of a supplier's responsibility in the supply chain includes customer awareness and the sharing of programs which result in mutual cost savings and financial efficiencies gained through supply chain improvement projects. This is important for maintaining customer relationships (Milgrom and Roberts 1988; Newnan 1991). Savings, however, are not necessarily realized, shared or recognized without contracts. Contracts of various kinds (formal, informal, policies, etc.) are instrumental in realizing shared benefits between customers and suppliers. Negotiation and implementation of financial arrangements between supply chain partners easily affect customer–supplier relationships. Contract negotiations and those supplier functions that are associated with various points of shared benefits affect a customer's satisfaction level with a supplier and can affect a customer's perception of the ease of doing business.

The fourth proposition addresses the management of contracts. Financial contracts focus on areas of potential contention like *credit terms*, product quality *nonconformance issues* and the subsequent *handling of potentially returned material*. The expediency of producing those contracts is addressed within the *contract turnaround* and *negotiation* process. These logistical issues are important for suppliers in realizing savings and maintaining relationships with customers (Berry 1980; Collier 1987; Bowen, Siehl and Schneider 1989; Goodman 2004).

Proposition 4: The financial contract (FC) services determinant is positively related to the EODB, such that those services strengthen the EODB rating.

Personal Relations Services

The importance of personal interaction in creating satisfied customers has been recognized in the customer service literature (Crosby and Stephens 1987; Dwyer, Schurr and Oh 1987). It has been shown that future sales opportunities depend mostly on relationship quality (Crosby, Evans and Cowles 1990). It is at the individual level that the quality of the relationship between supply managers and suppliers is affected (Brennan and Turnbull 1999). Components of relationship commitment include to what degree partners are willing to share confidential information and level of investment in the relationship, including both current and future investment (Gundlach and Achrol 1995). The components of the commitment dimension begin with the importance of a relationship as measured by how hard a partner is willing to work at preserving the relationship (Morgan and Hunt 1994). Ability to answer customer questions from a technical perspective should influence a customer's perception of that supplier (Hartley, Zirger and Kamath 1997).

The third determinant of the EODB framework proposed in this study is the effectiveness of the personal relations services. Services of individual attention with attributes like *on-location* (*outside*) *sales support* or *technical support* can foster important relations with suppliers. These types of services are a potential source of sustained competitive advantage (Sheth and Parvatiyar 1995; Hartley et al. 1997; Shin et al. 2000). In addition, supplier functions that impact personalized services, such as, *order follow-up*, *customization* or *Web based e-services*, can influence a customer's perception of a supplier's EODB (Collier 1987; Goodman 2004; Zahay and Griffin 2004; Dadzie et al. 2005). The following proposition considers the individual association between EODB and those services which cater to the customer at a personal level.

Proposition 5: The personal relations (PR) services determinant is positively related to the EODB, such that those services strengthen the EODB rating.

The determinants affecting the perceptive measures of EODB begin with the transference of requisite information between customers and suppliers; they include the financial alignment for these provisions and the technical support and follow-up for the product or service. These are considerations in building a framework for EODB. The propositions presented in this research are tested to identify significant contributions of each attribute to the EODB (Dess and Davis 1984; Johnson and Fornell 1991).

METHODOLOGY

This study seeks to isolate those attributes of EODB which supply managers use to evaluate suppliers. The identifiable benefits of this research include understanding customer behavior patterns predicted by the EODB

customer response. Given that EODB predicts behavior patterns, identifying which of those attributes influences the EODB response subsequently affects how managers can utilize this measure to grow their business with a given customer.

Process

Measuring the proposed construct establishes the foundation for theory development around a concept; a construct is needed for theory construction when a concept moves from case studies and anecdotes to testable models (Bagozzi and Fornell 1982; Sethi and King 1994). EODB practical case studies and anecdotes exist; therefore, construct development logic is followed in this research. The current research tests the proposed construct with a survey (the attributes having been substantiated from a pilot study). Results from the survey are collected, followed by a test for proposed model fit, and ending with a modified model. The final step of developing the norms has to be a longitudinal concern verified with future studies (Mentzer, Flint and Kent 1999; Keller, Savitskie, Stank, Lynch and Ellinger 2002).

Pilot Study

A pilot study was used to collect data through initial questionnaires with subsequent follow-up discussions. Discussions were recorded to identify a filtered list of potential attributes of EODB. This information was then used to build the survey instrument used in this study. In the pilot study, 61 industry personnel formed five groups to measure the instrument for content validity. Both groups, supplier personnel and customers from the electronics components industry, were represented in the focus groups. Supplier representatives included sales professionals, operational personnel and management executives. Participants from the customer side were typically professionals with supply management responsibilities.

Participant responses were analyzed using multiattribute utility theory. This approach allows the choices and alternatives to expand beyond those initially considered (Keeney and Raiffa 1976). Participants were asked to respond to a scenario presented to them by selecting their preferences. These preferences were used to clarify questions on the survey instrument.

Survey

A customer survey was designed based on the findings of the pilot study and sent to procurement professionals of 2,500 segmented companies that purchase components from the electronics industry. The supply managers were asked to relate their answers regarding EODB questions using a 5-point scale. These EODB survey questions were aligned to the determinants and attributes specified in the propositions. In addition, when considering a supplier, respondents were asked to indicate *years in the relationship* and *percent of business conducted*. These responses were used to measure longitudinal and repurchase commitment, respectively.

There were 420 surveys returned, where 372 of them had usable responses. Over 60 percent of the respondents had over 10 years of experience in their professional procurement positions. Professional supply managers typically purchased through a variety of mechanisms, including annual contracts, competitive bid processes or simply reordering as needed. All respondents indicated that they use multiple suppliers when purchasing electronics components. Usable responses represented 15 percent of the companies that had the surveys mailed to them. The following industry segments were represented by the responses: 35 percent from the communications industry (both wired and wireless), 24 percent from contract manufacturers, 16 percent from military, aerospace and defense and about 15 percent from industrial and manufacturing control industries. The remaining 10 percent of respondents were from a variety of other industries.

RESULTS

Analysis of Measurements

A two-stage procedure was used to analyze the model shown in Figure 1 (Anderson and Gerbing 1988). Principal component analysis was used as the extraction method. Nonresponse bias was tested by comparing both early and late respondents across the key variables (Armstrong and Overton 1977). In addition, responding companies were compared with those not responding from which no significant differences were detected. Key variables include company size, industry and years in the relationship. The reliability of the instrument measured with a Cronbach's α of 0.858 on standardized items.

Convergent validity is supported by the underlying set of measures of each latent determinant; the p-value for closeness of fit is 0.00073 (Anderson, Gerbing and Hunter 1987). Predictive validity is supported with positive coefficients in each of the EODB model dimensions. The conceptualization of the construct is supported by the relationship of the attributes with the determinants (Sethi and King 1994). Discriminant validity was tested by assessing the paired correlations between the construct dimensions of the constrained versus the unconstrained model (Venkatraman 1989). The fit of the model with the unconstrained correlation was significantly better than the constrained model. Table I provides the results supporting discriminant validity.

Structural Model

The proposed EODB construct includes the effects of customer service at the supplier–customer interface along

Table I

ASSESSMENT OF DISCRIMINANT VALIDITY

Test #	Description	ML estimate Phi	*t*-value	χ^2 constrained model (df)	χ^2 unconstrained model (df)	Difference
	Inventory and material services with					
1	Financial contract services	0.46	8.61*	375.25 (27)	87.10 (26)	288.15*
2	Personal relations services	0.49	8.49*	166.51 (14)	76.12 (13)	90.39*
	Financial contract services with					
3	Personal relations services	0.74	16.33*	82.82 (20)	48.50 (19)	34.32*

*Each statistical test (*t*-tests and χ^2 tests) are significant at $p < 0.01$ level.

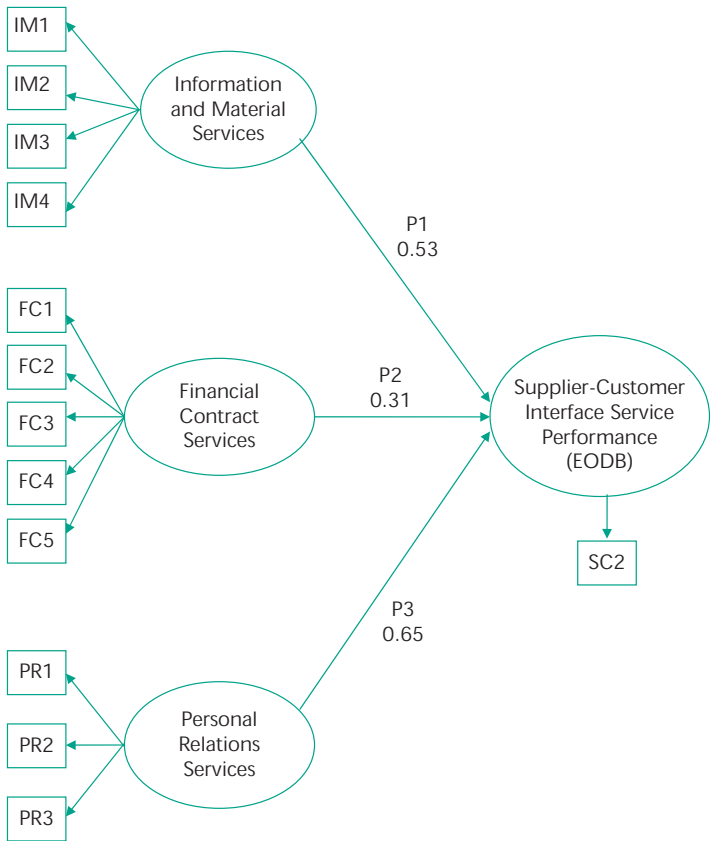
three determinants: informational and material services, financial contract services and personal relations services. These are consistent with those latent constructs examined by others (Mentzer and Kahn 1995; Mentzer et al. 1999; Keller et al. 2002). A structural model and results for testing the research framework are presented in Figure 2. The first order factors for the structural equation model tend to support the propositions. Owing to scaling anomalies, polychoric correlations were used for the analysis (Jöreskog and Sörbom 1986).

The factors were rotated using a Varimax rotation with Kaiser's normalization. Factor rotation converged after four rotations. The resulting factor loadings are shown in Table II. Factor 1 had four items load, factor 2 had five items load and factor 3 had three items load. Three items were eliminated iteratively based on an evaluation of whether the elimination was viewed as a substantive loss that would jeopardize the integrity of the construct.

Items loading on factor 1 included on-time deliveries, inside sales representatives, quote quality, and resolution of pricing issues. The items loading on factor 2 included contract turnaround time, contract negotiation, resolution of nonconforming material, return material authorization issues and Web e-services. The items

Figure 2

MODEL TESTS OF LINKAGES BETWEEN RELATIONAL SERVICES WITH SUPPLIER'S EASE OF DOING BUSINESS



loading on factor 3 included technical support personnel availability, customized operations and outside sales representative availability and responsiveness. The items that did not load were order follow-up, inventory availability and credit terms.

The response averages, standard deviations and correlations are included in Table III. The correlations support factor analysis results. The response averages provide the perspective of the respondents about how each individual item was regarded in relation to the EODB.

Lastly, a correlation was run between EODB and the percent volume purchased from a supplier and also with the years in the relationship. The results support the factor analysis, providing evidence that a correlation exists between EODB and the percent of business done with a supplier (p=0.031). A correlation, however, does not exist between the years in a relationship and EODB, nor does a correlation exist between the years in a relationship and the percent of business being carried by that supplier. The length of time in a business relationship does not appear to hold the value for customers that good business performance does (i.e., ''What have you done for me lately?''). Managers should continuously work to understand the customers' expectations regardless of the years in the relationship.

DISCUSSION

The EODB construct will continue to evolve as future research examines various aspects of this construct. This study presents a first attempt to conceptualize and test a construct based on the input of various authors discussing contributing factors of an enigmatic customer–supplier measure. The results support the second proposition that the EODB is linked to the repurchase commitment as measured by the percent of business conducted with a supplier. Conversely, the results fail to support the first proposition involving a longitudinal commitment as measured by the years in the relationship. The test results support each proposal, three through five, involving the EODB determinants. These include the following: the first determinant of information and material flows, the second determinant of financial contract services and the third determinant of personal relations services.

The results support linking some, but not all, of the proposed attributes to EODB. Attributes showing positive association with the EODB include relational aspects of doing business, such as negotiating contracts, providing technical support and providing customization for the customer. As a note of caution, the items that did not load should not be interpreted as being less important to customers. For instance, inventory availability did not load on a determinant, however, that does not mean that it is less important to customers. It simply means that inventory availability is not considered to be a part of how a customer views a supplier's EODB rating. Interestingly, the Web e-services attribute loaded on the financial contract services determinant. This was unanticipated, but it should probably be expected. The Web appears to be providing a growing role for not only communicating financial terms, but it is also providing the means for business to business transactions. Web-based e-services is certainly a dynamic and evolving field and will undoubtedly continue to grow in significance in future studies.

Table II

PARAMETER ESTIMATES FOR MEASUREMENT RELATIONS

Construct	Standardized Loading[a]
Information and material services[b] (0.83)[c]	
• On-time deliveries (IM1)	0.755 (11.96)
• Inside sales responsiveness (IM2)	0.774 (13.04)
• Pricing and negotiation (IM3)	0.715 (16.04)
• Quote quality and turnaround (IM4)	0.810 (12.00)
• Inventory availability*	
Financial Contract Services[b] (0.79)[c]	
• Contract turnaround time (FC1)	0.834 (16.10)
• Contract negotiations (FC2)	0.810 (17.05)
• Nonconforming material handling (FC3)	0.653 (12.59)
• Return material authorizations (FC4)	0.594 (12.01)
• Web-enabled e-business services (FC5)[d]	0.556 (10.76)
• Credit terms and credit limits*	
Personal Relations Services[b] (0.68)[c]	
• Customized operations (PR1)	0.606 (13.68)
• Technical support (PR2)	0.731 (11.47)
• Outside sales availability (PR3)	0.553 (13.40)
• Order follow-up*	
Supplier–Customer Performance (EODB rating)	
• Years in the relationship[e]	
• Percent of business (SC2)	0.869[f]

[a]t-values from unstandardized solution are shown in parentheses.
[b](1=very unimportant and 5=very important).
[c]Construct reliabilities shown in parentheses (Fornell and Larcker 1981).
[d]This item was proposed to be a part of the personal relations construct, but it loaded on the financial contract construct.
*Denotes items eliminated in scale purification; items not grouped but may stand alone.
[e]Not significant.
[f]Fixed parameter.

MANAGERIAL IMPLICATIONS

Examining some of the key managerial implications of this research includes linking these results to initial statements in this study. One of these statements, with literature support, was that managers within the supply

Table III

Correlations model and variables	Mean (Std Dev.)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
		CONSTRUCT CORRELATION														
Information and material services																
1. Quote quality	4.651 (0.541)	1.00														
2. On-time delivery	4.825 (0.381)	0.464	1.00													
3. Inside sales	4.722 (0.484)	0.568	0.521	1.00												
4. Pricing	4.643 (0.529)	0.660	0.484	0.423	1.00											
5. Inventory availability	4.690 (0.586)	0.202	0.206	0.190	0.082*	1.00										
Financial contract services																
6. Contract turnaround	3.921 (1.078)	0.208	0.168	0.175	0.287	0.133	1.00									
7. Contract negotiation	4.048 (0.945)	0.269	0.241	0.176	0.354	0.186	0.727	1.00								
8. Nonconforming materials	4.159 (0.950)	0.298	0.206	0.191	0.390	0.102*	0.545	0.536	1.00							
9. Return material authorizations	4.310 (0.784)	0.364	0.255	0.252	0.389	0.125	0.517	0.512	0.404	1.00						
10. Credit terms	4.071 (0.965)	0.215	0.274	0.226	0.321	0.136	0.352	0.388	0.292	0.384	1.00					
Personal contact service																
11. Technical support	3.929 (0.922)	0.204	0.145	0.184	0.151	0.180	0.286	0.364	0.330	0.290	0.278	1.00				
12. Outside sales	4.048 (0.945)	0.321	0.185	0.185	0.376	0.135	0.366	0.533	0.397	0.350	0.311	0.514	1.00			
13. e-Services	3.444 (1.128)	0.180	0.057*	0.80*	0.189	−0.012*	0.397	0.378	0.297	0.259	0.284	0.330	0.294	1.00		
14. Customized operations	3.056 (1.261)	−0.037*	0.000*	−0.003*	0.137	0.094*	0.301	0.180	0.228	0.225	0.229	0.322	0.248	0.282	1.00	
15. Order follow-up	4.373 (0.735)	0.387	0.335	0.304	0.400	0.203	0.413	0.405	0.352	0.397	0.325	0.314	0.381	0.200	0.304	1.00

*Correlations that are *not* significant to the 0.01 level.

chain accept a ''stop-gap, poorly defined EODB'' as a minimum predictor of customer longitudinal and repurchase commitment. Does the study support EODB as a predictor of these measures?

In the study, the number of *years in the relationship* did not appear to link with the EODB. The *percent of business conducted* with supplier, however, did correlate with the EODB response. While not fully conclusive after this first exploratory study, the result should grab the attention of practicing managers. If the link between EODB and *percent of business conducted* with supplier is verified through longitudinal studies, then this could easily have strategic implications. EODB may grow even stronger in importance for predicting climates of increases or decreases in business opportunities with customers. Any measure predicting a long, prosperous relationship with a customer is only providing a false sense of security and probably providing support for managerial complacency. The idea, though, that EODB is a predictor of how much or what percent of the business is conducted could prove to be a very useful barometer of customer attitude toward a supplier (i.e., customer satisfaction).

The second managerial implication, given EODB is a predictor of the *percent of business conducted* between a supplier and a customer, is the question regarding how to control it. What attributes make up this allusive measure? How would one go about improving it? Pricing, quality and delivery elements were included in the study to examine linkages with EODB. In the results, however, relationship factors showed the strongest links to EODB.

Relational aspects of EODB like negotiating contracts, providing technical support and providing customization for the customer had strong associations to EODB. In addition, the attributes including contact availability, responsiveness, follow-up and coordination were linked to the term. Is there one relational aspect to the term that

can be adjusted to improve a supplier's EODB rating? Unfortunately, not. The term is indeed complex. It is not, however, completely indefinable. EODB attributes are relational, and these attributes provide insights for managers to begin examining specific elements of their business in an effort to improve the rating.

Future Research

The study shows linkages between the percent of business conducted with a supplier and satisfaction levels with EODB. This result needs to be substantiated and examined closer. Other attributes, while not appearing significant to the EODB, should not be considered less important to customers. Instead, in this study, supplier performances in these areas appear to influence a customer's response to a lesser degree on the EODB construct. These measures should not be discounted, but rather, should be verified in future studies. Additionally, it would be interesting to see how the nonpersonal (e.g., credit terms, systems capabilities) and personal (e.g., negotiations) components of the EODB construct interact with each other and contribute to the satisfaction of customers. Additional customer relational attributes should be examined for influence on EODB. Initial indications from this study show that customer relationship management (CRM) attributes like negotiating contracts and providing technical service influence this rating. These two findings, EODB being tied to the percent of business conducted with a supplier and consisting of CRM-like attributes, together, strongly indicate that EODB may be tied to customer satisfaction. This is a suggestion that should be further investigated.

Completing a study in one industry, while providing a convenient foundation for the research, also represents an inherent limitation for generalizing the results. This research invites opportunity for researchers to validate, expand or modify this measure of performance evaluation. EODB appears to be a complicated measure that requires additional clarification, but because of its prominence in practice, both executives and academicians would welcome further contextual definition of this measure. A plethora of research in marketing has been devoted to linking customer satisfaction to customer loyalty by comparing satisfaction to expected performance levels. This specific link remains an enigma. This paper demonstrates the positive relationship between EODB and customer satisfaction. The potential linkage that EODB may play in linking customer satisfaction with customer loyalty is outside the scope of this paper and is left for future research.

REFERENCES

Anderson, J.C. and D.W. Gerbing. ''Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach,'' *Psychological Bulletin*, (103:3), 1988, pp. 411-423.

Anderson, J.C., D.W. Gerbing and J.E. Hunter. ''On the Assessment of Unidimensional Measurement: Internal and External Consistency, and Overall Consistency Criteria,'' *Journal of Marketing Research*, (24:4), 1987, pp. 432-437.

Armstrong, J.S. and T.S. Overton. ''Estimating Non-Response Bias in Mail Surveys,'' *Journal of Marketing Research*, (14:3), 1977, pp. 396-402.

Bagozzi, R.P. and C. Fornell. ''Theoretical Concepts, Measurements, and Meaning.'' In C. Fornell (Ed.), *A Second Generation of Multivariate Analysis*, Praeger, New York, 1982, pp. 24-38.

Berry, L.L. ''Service Marketing Is Different,'' *Business*, May-June 1980, pp. 24-29.

Bitner, M.J. ''Servicesapes: The Impact of Physical Surroundings on Customers and Employees,'' *Journal of Marketing*, (56:2), 1992, pp. 57-71.

Bowen, D.E., C. Siehl and B. Schneider. ''A Framework for Analyzing Customer Service Orientations in Manufacturing,'' *Academy of Management Review*, (14), 1989, pp. 75-95.

Bowersox, D.J. and D.J. Closs. *Logistical Management: The Integrated Supply Chain Process*, McGraw-Hill, New York, 1996.

Brennan, R. and P.W. Turnbull. ''Adaptive Behavior in Buyer-Supplier Relationships,'' *Industrial Marketing Management*, (28:5), 1999, pp. 481-495.

Collier, D.A. *Service Management: Operating Decisions*, Prentice-Hall, Englewood Cliffs, NJ, 1987.

Coyles, S. and T.C. Gokey. ''Customer Retention Is Not Enough,'' *McKinsey Quarterly*, (2), 2002, pp. 81-89.

Cronin, J.J. and M.H. Morris. ''Satisfying Customer Expectations: The Effect on Conflict and Repurchase Intentions in Industrial Marketing Channels,'' *Journal of the Academy of Marketing Science*, (56), 1992, pp. 55-68.

Crosby, L.A., K.R. Evans and D. Cowles. ''Relationship Quality in Services Selling: An Interpersonal Influence Perspective,'' *Journal of Marketing*, (54:3), 1990, pp. 68-81.

Crosby, L.A. and N. Stephens. ''Effects of Relationship Marketing on Satisfaction, Retention, and Prices in the Life Insurance Industry,'' *Journal of Marketing Research*, (24:4), 1987, pp. 404-411.

Dadzie, K.Q., C. Chelariu and E. Winston. ''Customer Service in the Internet-Enabled Logistics Supply Chain: Website Design Antecedents and Loyalty Effects,'' *Journal of Business Logistics*, (26:1), 2005, pp. 53-78.

Dahlstrom, R., K.M. McNeilly and T.W. Speh. ''Buyer-Seller Relationships in the Procurement of Logistical Services,'' *Journal of the Academy of Marketing Science*, (24:2), 1996, pp. 110-124.

Dess, G.G. and P.S. Davis. ''Porter's 1980 Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance,'' *Academy of Management Journal*, (27), 1984, pp. 467-488.

Dick, A.S. and K. Basu. ''Customer Loyalty: Toward an Integrated Conceptual Framework,'' *Journal of the Academy of Marketing Science*, (22:2), 1994, pp. 99-113.

Dwyer, F.R., P. Schurr and S. Oh. ''Developing Buyer-Seller Relationships,'' *Journal of Marketing*, (51:2), 1987, pp. 11-27.

Emerson, C.J. and C.M. Grimm. ''Logistics and Marketing Components of Customer Service: An Empirical Test of the Mentzer, Gomes, and Krapfel Model,'' *International Journal of Physical Distribution & Logistics Management*, (26:8), 1996, pp. 29-42.

Fornell, C. and D.F. Larcker. ''Evaluating Structural Equation Models with Unobservable Variables and Measurement Error,'' *Journal of Marketing Research*, (18:1), 1981, pp. 39-50.

Frazier, G.L. ''Interorganizational Exchange Behavior: A Broadened Perspective,'' *Journal of Marketing*, (47:4), 1983, pp. 67-78.

Goodman, J. ''Are you easy to do business with (EDB)?'' http://www.c-interface.com/customerinterface/article/articleDetail.isp?id=97386, March 2004.

Gundlach, G.T. and R.S. Achrol. ''The Structure of Commitment in Exchange,'' *Journal of Marketing*, (59:1), 1995, pp. 78-92.

Hammer, M. *The Agenda: What Every Business Must Do to Dominate the Decade*, Crown Publishing Group, Westminster, MD, 2001.

Hartley, J.L., B.J. Zirger and R.R. Kamath. ''Managing the Buyer Supplier Interface for an On-Time Performance in Product Development,'' *Journal of Operations Management*, (15), 1997, pp. 57-70.

Hunt, I. and R. Jones. ''Winning New Product Business in the Contract Electronics Industry,'' *International Journal of Operations and Production Management*, (18:1/2), 1998, pp. 130-142.

Iacobucci, D., D. Grisaffe, A. Duhachek and A. Marcati. ''FAC-SEM: A Methodology for Modeling Factorial Structural Equations Models, Applied to Cross-Cultural and Cross-Industry Drivers of Customer Evaluations,'' *Journal of Service Research*, (6:1), 2003, pp. 3-23.

Insurance Journal, Independent survey reveals good news for NGM, http://www.insurancejournal.com/news/national/2003/11/24/34411.htm, November 24, 2003.

Johnson, M.D. and C. Fornell. ''A Framework for Comparing Customer Satisfaction Across Individuals and Product Categories,'' *Journal of Economic Psychology*, (12:2), 1991, pp. 267-286.

Johnston, R. *Delivering Service Excellence, the View from the Frontline, a Research Report*, The Institute of Customer Service, Colchester, Essex, UK, 2001.

Johnston, R. ''Towards a Better Understanding of Service Excellence,'' *Managing Service Quality*, (14:2/3), 2004, pp. 129-133.

Jöreskog, K.G. and D. Sörbom. *PRELIS: A Program for Multivariate Data Screening and Data Summarization. A Preprocessor for LISREL*, Scientific Software International, Mooresville, IN, 1986.

Keeney, R.L. and H. Raiffa. *Decisions with Multiple Objectives: Preferences and Value Tradeoffs*, John Wiley and Sons, New York, 1976.

Keller, S.B., K. Savitskie, T.P. Stank, D.F. Lynch and A.E. Ellinger. ''A Summary and Analysis of Multi-Item Scales Used in Logistics Research,'' *Journal of Business Logistics*, (23:2), 2002, pp. 83-283.

Kumar, N., L.K. Scheer and J.E.M. Steenkamp. ''The Effects of Supplier Fairness on Vulnerable Resellers,'' *Journal of Marketing Research*, (32), 1995, pp. 54-65.

Lloyd, D. What makes the difference between neutral service satisfaction and service excellence?, Lorien Customer Focus White Paper, http://www.lorien.co.uk, 2003

Manoochehri, G.H. ''Suppliers and the Just-In-Time Concept,'' *Journal of Purchasing and Materials Management*, (Winter), 1984, pp. 16-21.

Mentzer, J.T., D.J. Flint and J.L. Kent. ''Developing a Logistics Service Quality Scale,'' *Journal of Business Logistics*, (20:1), 1999, pp. 9-32.

Mentzer, J.T., R. Gomex and R.E. Krapfel Jr.. ''Physical Distribution Service: A Fundamental Marketing Concept?,'' *Journal of the Academy of Marketing Science*, (17:1), 1989, pp. 53-62.

Mentzer, J.T. and K.B. Kahn. ''A Framework of Logistics Research,'' *Journal of Business Logistics*, (16:1), 1995, pp. 231-250.

Milgrom, P. and J. Roberts. ''Communication and Inventory as Substitutes in Organizing Production,'' *Scandinavian Journal of Economics*, (90), 1988, pp. 275-289.

Morgan, R.M. and S.D. Hunt. ''The Commitment-Trust Theory of Relationship Marketing,'' *Journal of Marketing*, (58), 1994, pp. 20-38.

Morris, M. and C.R. Carter. ''Relationship Marketing and Supplier Logistics Performance: An Extension of the Key Mediating Variables Model,'' *Journal of Supply Chain Management*, (41:4), 2005, pp. 32-43.

Newnan, D.G. *Engineering Economic Analysis*, Engineering Press, San Jose, CA, 1991.

Oliver, R.L. ''A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions,'' *Journal of Marketing Research*, (17:4), 1980, pp. 460-469.

Parasuraman, A., L.L. Berry and V.A. Zeithaml. ''Refinement and Reassessment of the SERVQUAL Scale,'' *Journal of Retailing*, (67:4), 1991, pp. 420-450.

Parasuraman, A., V.A. Zeithaml and L.L. Berry. ''SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality,'' *Journal of Retailing*, (64:1), 1988, pp. 12-40.

Robinson, M. and R. Kalakota. *Offshore Outsourcing: Business Model, ROI, and Best Practices*, Mavar Press, Alpharetta, GA, 2004.

Russell, R.M. and L.J. Krajewski. ''Coordinated Replenishments from a Common Supplier,'' *Decision Sciences*, (23), 1992, pp. 610-632.

Sethi, V. and W.R. King. ''Development of Measures to Assess the Extent to Which an Information Technology Application Provides Competitive Advantage,'' *Management Science*, (40:12), 1994, pp. 1601-1627.

Sheth, J.N. and A. Parvatiyar. ''Relationship Marketing in Consumer Markets: Antecedents and Consequences,'' *Journal of the Academy of Marketing Science*, (23:4), 1995, pp. 255-271.

Shin, H., D.A. Collier and D.D. Wilson. ''Supply Management Orientation and Supplier/Buyer Performance,'' *Journal of Operations Management*, (18:3), 2000, pp. 317-333.

Simpson, P.M., J.A. Siguaw and S.C. White. ''Measuring the Performance of Suppliers: An Analysis of Evaluation Processes,'' *Journal of Supply Chain Management*, (38:1), 2002, pp. 29-41.

Stading, G.L. ''Using Supply Chain Management to Transform Infrastructural Advantages Into Marketable Services,'' *Conference Proceedings*, Decision Sciences Institute, 2000.

Swaddling, D.C. and C. Miller. ''Don't Measure Customer Satisfaction,'' *Quality Progress*, (35:5), 2002, pp. 62-67.

Tseng, T.L. and C.C. Huang. ''Rough Set-Based Approach to Feature Selection in Customer Relationship Management,'' *OMEGA*, (35:4), 2007, pp. 365-383.

Vandenbosch, M. and N. Dawar. ''Beyond Better Products: Capturing Value in Customer Interactions,'' *Sloan Management Review*, (43:4), 2002, pp. 35-42.

Venkatraman, N. ''Strategic Orientation of Business Enterprise: The Construct, Dimensionality, and Measurement,'' *Management Science*, (35:8), 1989, pp. 942-962.

Verhoef, P.C. ''Understanding the Effect of Customer Relationship Management Efforts on Customer Retention and Customer Share Development,'' *Journal of Marketing*, (67:4), 2002, pp. 30-45.

Verwijmeren, M., P. van der Vlist and K. van Donsellar. ''Networked Inventory Management Information Systems: Materializing Supply Chain Management,'' *International Journal of Physical Distribution and Logistics*, (26:6), 1996, pp. 16-31.

Zahay, D. and A. Griffin. ''Customer Learning Processes, Strategy Selection, and Performance in Business-To-Business Service Firms,'' *Decision Sciences*, (35:2), 2004, pp. 169-203.