

Organizational buying behavior: past performance and future expectations

Jagdish N. Sheth

Introduction

The purpose of this invited paper is to assess what has happened since the publication of the paper, "A model of industrial buyer behavior" (Sheth, 1973), and to suggest future academic research opportunities and challenges with respect to theory, methods and empirical observations in organizational buyer behavior (OBB).

As we all know, forecasting the future is a highly risky business, especially if you live through the future. However, I will attempt to do this one more time in this paper for two reasons: First, I probably will not be around to witness the future, and second, the best way to forecast the future is to create one! Therefore, in this paper I will "fast forward" the assessment of academic research conducted since the early 1970s and spend more time suggesting new and exciting research opportunities and challenges in inter-organization buyer behavior. In the Appendix, a detailed review of academic research of the past 25 years is provided.

Fast forward

My first exposure to, and experience with OBB was in 1962 at the University of Pittsburgh. Under the leadership of Professor John Howard, several of us doctoral students were trying to develop a descriptive model of how industrial buyers make buying decisions and supplier selection. I distinctly remember interviewing industrial buyers of steel companies in Pittsburgh about their purchase of industrial fasteners (bolts and nuts) and electrical motors. At that time, the marketing discipline had just discovered the marketing concept; and brand loyalty, retailing and mass advertising were influential in the development of marketing thought (Sheth *et al.* 1989). Consequently, I was surprised to discover that industrial, institutional, and trade buying behaviors were rich with empirical evidence, concepts, and methodology (Sheth, 1973, 1976).

Since the early 1980s, research on OBB has simply exploded (Ward and Webster, 1991). This can be attributed to at least three reasons. First, the shift from understanding and influencing consumers to customers (industrial, institutional, and trade) has led to a greater focus on OBB. Second, both the academic journals and business professional organizations, including the National Association of Purchasing Management (NAPM), have encouraged research and publications on inter-organization buying behavior. Finally, as suggested in Sheth *et al.* (1988), the marketing discipline is increasingly influenced by the disciplines of organizational

The author is grateful to Dr Atul Parvatiyar, Emory University in assisting in preparing the literature review.

Descriptive model

Three conceptual models

behavior (OB), industrial organizations (IO) and transaction cost theories in economics.

The three conceptual models in OBB published in the 1960s and 1970s (Robinson *et al.*, 1967; Sheth, 1973; Webster and Wind, 1972) were also significantly influential in generating academic interest in organizational buying behavior. The concepts of Make-Buy and Modified-Rebuy; the Buying Center; the behavioral aspects of decision making; the joint vs. autonomous decisions; and conflict resolution in joint-decision making processes led to significant research as summarized in the Appendix of this paper.

Perhaps the most popular area of research in OBB has been the understanding of the decision-making process, its antecedents, as well as mediating and moderating contextual variables. In particular, marketing scholars have tried to apply behavioral and economic concepts of power, conflict, and influence in understanding the group dynamics within the buying center. Most of the research methodology for studying this phenomenon has been survey research wherein a key informant is asked to either role play or recall incidents of specific organizational buying decisions.

Three research streams

However, there have also emerged three additional research streams that are worth noting. The first has to do with buyer-seller interaction and buyer-seller relationships, especially in the area of channels as customers. This stream of research is heavily influenced by El-Ansary and Stern's (1972) classic work on power, dependence, and conflict, and later on by Williamson's transaction cost theory.

A second stream of research has focused on partnering with suppliers to achieve better product quality and customer satisfaction. Included in this stream of research are the clinical case studies of supplier partnering relationships carried out by the IMP group in Scandinavia, and subsequent use of networks theory and methodology to quantitatively measure the strength of the customer-supplier relationships over time.

A third major research trend is focused on supply chain partnering and the use of information technology (networked computing and on-line data services). This includes quick response, just-in-time, and the use of electronic data interchange (EDI) for maximizing efficiency through economies of time (reduced cycle times) and mass customization in sharp contrast to the older theories of economies of scale and scope.

Assessment

This fast forward review of the past 20 plus years, surprisingly, generated the same feelings and reactions as the first review I did in the 1970s. Despite continued impressive research in OBB, I believe there is still a perception today among marketing scholars that it is a neglected area of marketing. I cited several reasons for that belief in the 1970s (Sheth, 1978). Let us see if the same holds true even today.

"First, most research in organizational buying behavior has been practice-oriented and less academic oriented" (Sheth, 1978, p. 65). This, I believe, is still true but to a less extent. More papers on OBB are now published in the

Generating knowledge

first tier academic journals, and probably reflect better scientific approach at least in terms of logical positivism tradition of scientific inquiry.

"Second, more good research seems to have been conducted in Europe than in the US and therefore, we are not as aware of its existence" (Sheth, 1978, p. 65). This fact is still very prevalent in terms of generating knowledge (we only have to look at the impressive research tradition of the IMP group and more recently in the services marketing area). However, it is better disseminated today through publications in US journals as well as more active participation by the European scholars in the US based academic conferences.

"Furthermore, research in organizational buying is also scattered across several disciplines such as political science, organizational psychology, and several sub-areas of business including production, finance, and personnel management" (Sheth, 1978, p. 65). Today, this is even more true as scholars in other disciplines have focused their research on the economic aspects of organizational behavior and particularly on buying behavior due to the recent interests in total quality management (TQM), and supplier partnering relationships.

"Third, it seems easier to relate to consumer behavior based on researcher's own introspective analysis of personal experiences but requires additional efforts to experience and learn the reality in organizational buyer behavior prior to conducting research. As such, borrowing and applying many of the theories and methods from the behavioral sciences seems more straightforward in consumer behavior than in organizational buying behavior" (Sheth, 1978, p. 65). This idea is less true today primarily because it is more and more prevalent for marketing scholars to have three to four years of work experience before starting the postgraduate education. At the same time, bulk of field research conducted in the postgraduate courses still tends to be the study of consumers versus customers. Furthermore, the trend is likely to persist unless the early training during the coursework and internships is consciously channelled toward business-to-business markets.

Hard sciences and economics

"Finally, it is true that consumer marketers have tended to be more receptive and less hard-nosed about applying new and different techniques and theories of behavioral sciences probably because of the presumption that consumer behavior is, by definition, more complex and emotional than organizational buying behavior. Therefore, consumer behavior and consumer marketing have distinguished themselves as the leading edge of the marketing discipline. Hence, the popular belief that research in organizational buying behavior is scarce, non-scholarly, and more trade oriented" (Sheth, 1978, pp. 65-55). I believe this is much less true today than 25 years ago. Indeed, some of the best young scholars in business-to-business marketing are trained in hard sciences, industrial organizations, and economics, as well as committed to academic research in OBB.

While the last 25 years of research has continued the tradition of earlier research and have moved up the ladder of academic rigor and relevance, I see some challenges and opportunities in business-to-business marketing which paralleled similar efforts in international marketing and more recently in services marketing. First, business-to-business marketing will not become a discipline unless it is anchored to a well-respected theory

**Total quality
management philosophy**

whether home grown or imported. This seems to have made a significant difference in the respectability of consumer research and to some extent marketing strategy in marketing. So far, business-to-business marketing seems to be still in search of a good theory, and therefore, it is predominantly context driven similar to international marketing. Second, business-to-business marketing must become methodologically more sophisticated especially as compared to other areas of marketing such as brand equity, product life cycle, and advertising. The latter have utilized the econometric and mathematical modelling and analytical tools to enhance scientific knowledge and respectability. While the use of LISREL, networks, and other multivariate techniques in business-to-business market is admirable and in the right direction, the potential to do more is enormous. Also, it will be highly desirable to rely less on surveys of subjective perceptions of key informants as the basic data collection procedure, and instead use more financial and other analytical data bases similar to COMPUSTAT and PIMS databases. Figure 1 thus suggests surpluses and shortages of research in OBB.

OBB has been dramatically changing since the 1970s for at least four reasons (Figure 2). First, global competitiveness, especially in the manufacturing sector, such as process machinery, automobiles and heavy engineering, have pointed out the competitive advantages of creating and managing supply chain relationships. Second, emergence of the TQM philosophy has encouraged "reverse marketing" starting with external customers and moving backward into procurement processes and practices, especially as they relate to reduced cycle times and zero inventory management. For example, demand driven manufacturing (DDM) or flexible manufacturing and operations have been instituted in order to serve the diversity of demand with respect to form, place and time value to customers. Third, industry restructuring through mergers, acquisitions and alliances on a global basis has reorganized the procurement function from a decentralized administrative function to a centralized strategic function. This is further intensified by outsourcing (buy vs make), many support functions such as data processing, and human resources. Finally, use of information technologies including

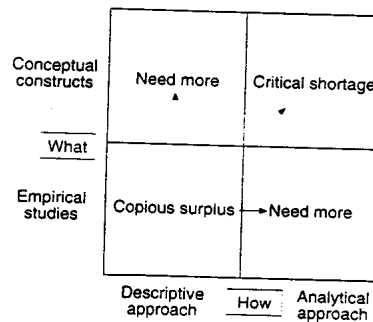


Figure 1. Creating the future

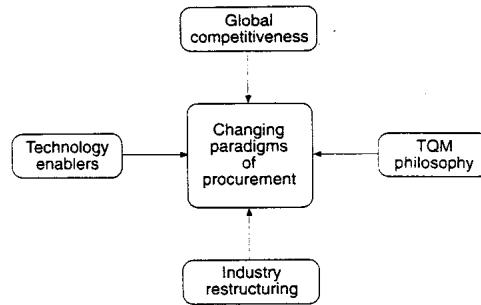


Figure 2. Changing paradigms of organizational buying behavior

networked computing, quick response, EDI and other computer to computer programmed procurement have restructured the buying philosophy, processes and platforms.

Two-dimensional shift

Fundamentally, the consequence of changing paradigms of OBB is likely to result in a two-dimensional shift as shown in Figure 3.

As OBB shifts from a transaction centred to a relational-centred philosophy, and as it shifts from a decentralized domestic sourcing to a centralized global sourcing process, most of the academic research and theory related to organizational decision making including the buying center concept, make vs. buy decisions, sources of interdepartmental conflict and its resolution, and buyer-supplier negotiations will become obsolete. As Eric Hoffer, the philosopher historian has eloquently stated: "In times of drastic change, it is

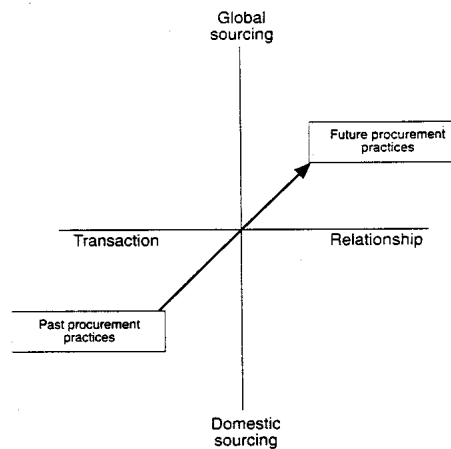


Figure 3. Two-dimensional shift in organizational buying behavior

Crisis of relevance

the learners who inherit the future. The learned find themselves equipped with a world that no longer exists." I believe our older knowledge in OBB likely to be less and less valuable. We need to learn new concepts, methods and theories appropriate for the new world of OBB.

There is enough precedent in marketing for this crisis of relevance. For example, scholars who studied operations research found themselves caught in the transition to multivariate techniques. Similarly, within multivariate techniques, we witnessed the shifts from the traditional regression, discriminant and factor analysis to logit-probit models, on the one hand, and LISREL on the other hand. Similar shifts of knowledge took place in the substantive areas of marketing. For example, behavioral theories of marketing were superseded by competitive strategy theories and concepts from industrial organizations, and more recently the market transactions theories and concepts are giving way to hierarchies and networks as organizational frameworks.

The good news is that as the half life of academic knowledge declines exponentially, it is also creating enormous opportunities for future research in OBB (see Figure 4). The following areas of future research look very promising for academic research as the procurement practice changes from transaction centred to relationship centred, and from domestic to global sourcing:

- *Supplier as customer.* As supply function becomes more a strategic differentiator and a core competency, it will encourage treating suppliers less as vendors and more like partners. Therefore, the buying organizations will have to develop both commitment and trust. It is possible to be a world class supplier, but it is very difficult to be a world class customer. Customers often engage in opportunistic behavior even though they are happy with existing suppliers by exercising their market power. This results in lack of a trusting relationship. Most suppliers therefore, do not trust their customers. Similarly, business customers do

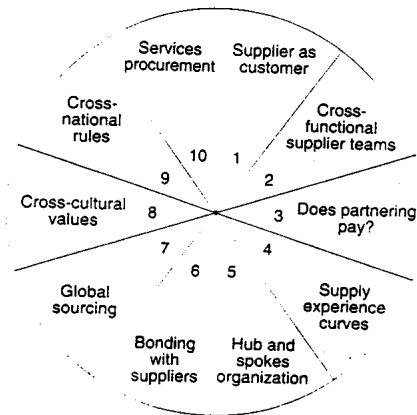


Figure 4. Emerging research opportunities in organizational buying behavior

**Buying center structure
and process**

**Outsource internal
activities**

**Establishing processes
and platforms**

not like to reduce the supplier choices because of the fear that they will be dependent on them. Therefore, they do not make a commitment by reducing their choices. In the future, business customers will have to reduce the number of suppliers and invest in a handful of suppliers with respect to training, capital and know how. In other words, what companies do with their customers with respect to customer selectivity and key account management processes and practices will become equally important for managing relationships with their supplier community.

- *Cross-functional supplier teams.* As business customers begin to source on a global and relational basis with their key suppliers, they will have to internally create and maintain cross-functional teams that are dedicated or focussed on their key suppliers. As these cross-functional supplier teams replace the buying center structure and process, there will be a need for academic frameworks, concepts, and methods to study and enhance performance of cross-functional supplier teams.
- *Does partnering pay?* Just as relationship marketing is struggling with the issue of return on investing in relationships with customers, there will be similar concerns about partnering with suppliers. Therefore, what will be very desirable is to develop a performance metric that analytically quantifies supplier relationship equity. My a priori hypothesis is that similar to smaller market share brand names whose cost of maintenance is more than its value, supplier partnering with smaller share suppliers will not be economical. This should result in supplier selectivity.
- *Supply experience curves.* Managing supplier relationships on a global basis is not an easy task as most business customers have realized. Therefore, in industries where supply function is a key strategic advantage, companies will focus on creating core competency in supply side management and develop sharper experience curves. Therefore, we need to learn how to apply experience curve concepts and methods to supply side management similar to what is applied in manufacturing.
- *Hub and spokes organization.* As organizations reduce the number of suppliers in each product or service category, and at the same time outsource internal activities, there will be a need for developing a hub and spoke organization in which one or two suppliers in each product or service category are the spokes and the procurement organization becomes the hub on a global basis. This hub and spokes organizational architecture has analogs in local area networks (LANS) and in computer assisted logistics systems (CALS). It would be fascinating to use networks methodology to study the hub and spokes organizational designs.
- *Bonding with suppliers.* Creating, managing, and enhancing ongoing relationships with suppliers on a global basis will require organizations to learn about, and invest in bonding processes and philosophies similar to what organizations are learning and practicing with their customers. What are the governance concepts and processes for bonding with suppliers? Are they different from the governance processes appropriate for bonding with customers?
- *Global sourcing.* This is a key driver for future academic research. While several global enterprises, especially in the automotive, high technology and the aerospace industries are establishing processes and

Providing value-added services

- platforms, it is still at an infancy stage of practice in other industries. Similarly, there is no real academic framework that provides insight and explanations for global sourcing. At best, we have one or two books on global sourcing that reflect its importance and practice.
- **Cross-cultural values.** Both the buying and selling practices and value systems vary significantly across cultural boundaries. In some cultures reciprocity is declared illegal and unethical whereas in other cultures it is the preferred way of doing business. What is considered as an agent fee in one country is recognized as a bribe, subject to prosecution under the anti-corruption laws. Similarly, doing business with family members and politically connected individuals is presumed to provide a sense of trust and commitment in some cultures whereas it is considered as nepotism and unethical behavior in others. This is another area of academic research of enormous potential.
 - **Cross-national rules.** Similar to cross-cultural differences, there are cross-national rules that regulate economic behaviors of enterprises. Specifically, the two-tier regulation (one for domestic and the other for foreign enterprises) is common with respect to ownership, management, control, and coproduction practices. With the rise of nationalism in recent years, this has become a key issue for global enterprises such as McDonald's, Coca-Cola, General Electric, and Enron, especially as they expand their market scope and supply scope in large emerging nations such as India, China, and Indonesia.
 - **Services procurement.** We know a lot about product procurement; however, our academic knowledge for services procurement seems to be limited. As organizations outsource more and more internal services, and as suppliers engage in providing value-added services to their customers, one expects greater need to understand and research service procurement. Furthermore, most advanced countries are, de facto, services economies as measured by employment and GNP contribution. Services Procurement will have the same issues as what services marketing scholars have experienced: Are services different than products? What is the impact of perishability, simultaneity of production and consumption, and lack of standardization on services procurement function, especially on a global basis? This has become a major issue in advertising agencies, professional services (accounting, legal, human resources and consulting), as well as information services (data processing, telecommunications and on-line services).

Concluding remarks

The fundamental message of this invited paper for scholars in OBB can be summed up as good news and bad news. The bad news is that half life of the impressive knowledge generated in the past 25 years is declining at an exponential rate. The good news is that the repositioning of the procurement practice from an administrative, and transaction focused function to a strategic, and relational focused function is generating numerous future opportunities for innovative and insightful academic research.

References and further reading

- Anderson, P.F. and Chambers, T.M. (1985), "A reward/measurement model of organizational buying behaviour", *Journal of Marketing*, Spring, pp. 7-23.
- Anderson, E., Chu, W. and Weitz, B. (1987), "Industrial purchasing: an empirical exploration of the buyclass framework", *Journal of Marketing*, July, pp. 71-86.

- Anderson, J.C., Håkansson, H. and Johanson, J. (1994), "Dyadic business relationships within a business network context", *Journal of Marketing*, Vol. 58, October, pp. 1-15.
- Bagozzi, R.P. (1978), "Exchange and decision processes in the buying center", in Bonoma, T.V. and Zaltman, G. (Eds), *Organizational Buying Behavior*, American Marketing Association, Chicago, IL, pp. 100-25.
- Banting, P., Beraes, J. and Gross, A. (1991), "The industrial buying process in capitalist and socialist countries", *Industrial Marketing Management*, Vol. 20, pp. 105-13.
- Barclay, D.W. (1991), "Interdepartmental conflict in organizational buying: the impact of the organizational context", *Journal of Marketing Research*, Vol. 28, May, pp. 145-59.
- Bellizzi, J.A. and McVey, P. (1983), "How valid is the buy-grid model?", *Industrial Marketing Management*, Vol. 17, pp. 57-62.
- Berkowitz, M. (1986), "New product adoption by the buying organization: who are the real influencers?", *Industrial Marketing Management*, Vol. 15, pp. 33-43.
- Berkowitz, M. (1988), "End users and technical staff as influences in buying new industrial products: high stakes, but do they really matter?", *Advances in Business Marketing*, Vol. 3, pp. 27-48.
- Bonoma, T.V. and Johnston, W.J. (1978), "The social psychology of industrial buying and selling", *Industrial Marketing Management*, Vol. 17, pp. 213-24.
- Bonoma, T.V., Bagozzi, R.P. and Zaltman, G. (1978), "The dyadic paradigm with specific application toward industrial marketing", in Bonoma, T.V. and Zaltman, G. (Eds), *Organizational Buying Behavior*, American Marketing Association, Chicago, IL, pp. 49-66.
- Bonoma, T.V., Zaltman, G. and Johnston, W.J. (1977), *Industrial buying behavior*, Report No. 77-117, Marketing Science Institute, Cambridge, MA.
- Boyle, B., Dwyer, F.R., Robicheaux, R.A. and Simpson, J.T. (1992), "Influence strategies in marketing channels: measures and use in different relationship structures", *Journal of Marketing Research*, Vol. 29, November, pp. 462-73.
- Brown, S.P. (1995), "The moderating effects of insupplier/outsupplier status on organizational buying attitudes", *Journal of the Academy of Marketing Science*, Vol. 23 No. 3, pp. 170-81.
- Bunn, M.D. (1993), "Taxonomy of buying decision approaches", *Journal of Marketing*, Vol. 57, January, pp. 38-56.
- Bunn, M.D. (1994), "Key aspects of organizational buying: conceptualization and measurement", *Journal of the Academy of Marketing Science*, Vol. 22 No. 2, pp. 160-69.
- Bunn, M.D. and Clopton, S.W. (1993), "Patterns of information source use across industrial purchase situations", *Decision Sciences*, Vol. 24 No. 2, pp. 457-78.
- Cadotte, E.R. and Stern, L.W. (1979), "A process model of interorganizational relations in marketing channels", *Research in Marketing*, Vol. 2, pp. 127-58.
- Carter, J.R. and Narasimhan, R. (1994), "The role of purchasing and materials management in total quality management and customer satisfaction", *International Journal of Purchasing and Materials Management*, Summer, pp. 3-13.
- Choffray, J.M. and Lilien, G.L. (1980), "Industrial market segmentation by the structure of the purchasing process", *Industrial Marketing Management*, Vol. 9, pp. 331-42.
- Clopton, C.W. (1984), "Seller and buying firm factors affecting buyers negotiation behavior and outcomes", *Journal of Marketing Research*, Vol. 21, February, pp. 39-53.
- Dabholkar, P.A., Johnston, W.J. and Cathey, A.S. (1994), "The dynamics of long-term business-to-business exchange relationships", *Journal of the Academy of Marketing Science*, Vol. 22 No. 2, pp. 130-45.
- Dempsey, W.A. (1978), "Vendor selection and the buying process", *Industrial Marketing Management*, Vol. 7, pp. 257-67.
- Deshpande, R. and Zaltman, G. (1987), "A comparison of factors affecting use of marketing information in consumer and industrial firms", *Journal of Marketing Research*, Vol. 24, February, pp. 114-18.
- Dholakia, R.R., Johnson, J.L., Bitta, A.J.D. and Dholakia, N. (1993), "Decision making time in organizational buying behavior: an investigation of its antecedents", *Journal of the Academy of Marketing Science*, Vol. 21 No. 4, pp. 281-92.
- Drumwright, M.E. (1994), "Socially responsible organizational buying: environmental concern as a noneconomic buying criterion", *Journal of Marketing*, Vol. 58, July, pp. 1-19.
- Diamond, E.J. (1994), "Moving toward value-based purchasing", *International Journal of Purchasing and Materials Management*, Spring, pp. 3-8.

- Dwyer, F.R., Schurr, P.H. and Oh, S. (1987), "Developing buyer seller relationships", *J. of Marketing*, Vol. 51, April, pp. 11-27.
- El-Ansary, A.I. and Stern, L.W. (1972), "Power measurement in the distribution channel", *Journal of Marketing Research*, Vol. 9, February, pp. 47-52.
- Frazier, G.L. (1983), "Interorganizational exchange behavior in marketing channels: a broadened perspective", *Journal of Marketing*, Vol. 47, Fall, pp. 68-78.
- Frazier, G.L. and Rody, R.C. (1991), "The use of influence strategies in interfirm relations in industrial product channels", *Journal of Marketing*, Vol. 55, January, pp. 52-69.
- Frazier, G.L., Spekman, R.E. and O'Neal, C.R. (1988), "Just-in-time exchange relations in industrial markets", *Journal of Marketing*, Vol. 52, October, pp. 52-67.
- Gronhaug, K. (1976), "Exploring environmental influences in organizational buying", *J. of Marketing Research*, Vol. 8, August, pp. 225-9.
- Håkansson, H. (Ed.) (1982), *International Marketing and Purchasing of Industrial Goods: Interaction Approach*, John Wiley & Sons, Chichester.
- Hallén, L., Johanson, J. and Seyed-Mohamed, N. (1991), "Interfirm adaptation in business relationships", *Journal of Marketing*, Vol. 55, April, pp. 29-37.
- Han, S.L., Wilson, D.T. and Dant, S.P. (1993), "Buyer-seller relationships today", *Industrial Marketing Management*, Vol. 22, pp. 331-8.
- Handfield, R.B. (1993), "A resource dependence perspective of just-in-time purchasing", *Journal of Operations Management*, Vol. 11, pp. 289-311.
- Heide, J.B. and John, G. (1990), "Alliances in industrial purchasing: the determinants of action in buyer-supplier relationships", *Journal of Marketing Research*, Vol. 27, February, pp. 24-36.
- Heide, J.B. and John, G. (1992), "Do norms matter in marketing relationships?", *Journal of Marketing*, No. 56, April, pp. 32-44.
- Heide, J.B. and Miner, A.S. (1992), "The shadow of the future: effects of anticipated interaction and frequency of contact on buyer seller cooperation", *Academy of Management Journal*, Vol. 35 No. 2, pp. 265-91.
- Heide, J.B. and Weiss, A.M. (1995), "Vendor consideration and switching behavior for buyers in high technology markets", *Journal of Marketing*, Vol. 59, July, pp. 30-43.
- Henthorne, T.L., LaTour, M.S. and Williams, A.J. (1993), "How organizational buyers reduce risk", *Industrial Marketing Management*, Vol. 22, pp. 41-8.
- Jackson, D.W. Jr, Keith, J.E. and Burdick, R.K. (1984), "Purchasing agents' perception of industrial buying center influence: a situational approach", *Journal of Marketing*, Fall, pp. 75-83.
- Johnston, W.J. and Bonoma, T.V. (1981), "The buying center: structure and interaction patterns", *Journal of Marketing*, Vol. 45, Summer, pp. 143-56.
- Kohli, A. (1989), "Determinants of influence in organizational buying: a contingency approach", *Journal of Marketing*, Vol. 53, July, pp. 50-65.
- Kohli, A.K. and Zaltman, G. (1988), "Measuring multiple buying influences", *Industrial Marketing Management*, Vol. 17, July, pp. 197-204.
- Leigh, T.W. and Rethans, A.J. (1984), "A scripttheoretic analysis of industrial purchasing behavior", *Journal of Marketing*, Vol. 48, Fall, pp. 22-32.
- Lynn, S.A. (1987), "Identifying buying influences for a professional service: implications for marketing effort", *Industrial Marketing Management*, Vol. 16, pp. 119-30.
- Martilla, J.A. (1971), "Word-of-mouth communication in the industrial adoption process", *Journal of Marketing Research*, Vol. 8, May, pp. 173-8.
- Martin, J.H., Daley, J.M. and Burdick, H.B. (1988), "Buying influences and perceptions of transportation services", *Industrial Marketing Management*, Vol. 17, pp. 305-14.
- Matthyssens, P. and Bulte, C.V. (1994), "Getting closer and nicer: partnerships in the supply chain", *Long Range Planning*, Vol. 27, February, pp. 72-83.
- McQuiston, D.H. (1989), "Novelty, complexity, and importance as causal determinants of industrial buyer behavior", *Journal of Marketing*, Vol. 53, April, pp. 66-79.
- Metcalfe, L.E., Frear, C.R. and Krishnan, R. (1992), "Buyer seller relationships: an application of the IMP interaction model", *European Journal of Marketing*, Vol. 26 No. 2, pp. 27-46.
- Michaels, R.E., Day, R.L. and Joachimsthaler, E.A. (1987), "Role stress among industrial buyers: an integrative model", *Journal of Marketing*, Vol. 51, April, pp. 28-45.
- Moriarty, R.T. and Bateson, J.E.G. (1982), "Exploring complex decision making units: a new approach", *Journal of Marketing Research*, Vol. 19, May, pp. 182-91.

- Moriarty, R.T. Jr and Spekman, R.E. (1984), "An empirical investigation of the information sources used during the industrial buying process", *Journal of Marketing Research*, Vol. 21, May, pp. 137-47.
- Nicosia, F.M. and Wind, Y. (1977), *Behavioral models of organizational buying processes*, *Behavioral Models for Market Analysis: Foundations for Marketing Action*, Dryden Press, Hinsdale, IL, pp. 96-120.
- Noordwier, T.G., John, G. and Nevin, J.R. (1990), "Performance outcomes of purchasing arrangements in industrial buyer-vendor relationships", *Journal of Marketing*, Vol. 54, October, pp. 80-93.
- Patton, W.E. III, Puto, C.P. and King, R.H. (1986), "Which buying decisions are made by individuals and not by groups", *Industrial Marketing Management*, Vol. 15, pp. 129-38.
- Perdue, B.C. (1992), "Ten aggressive bargaining tactics of industrial buyers", *Journal of Business and Industrial Marketing*, Vol. 2, Spring, pp. 45-52.
- Perdue, B.C. and Summers, J.O. (1991), "Purchasing agents' use of negotiation strategies", *Journal of Marketing Research*, Vol. 28, May, pp. 175-89.
- Provan, K.G. (1993), "Embeddedness, interdependence, and opportunism in organizational supplier-buyer", *Journal of Management*, Vol. 19 No. 4, pp. 841-56.
- Puto, C.P. and Qualls, W.J. (1989), "Organizational climate and decision framing: an integral approach to analyzing industrial buying decisions", *Journal of Marketing Research*, Vol. 26, May, pp. 179-92.
- Qualls, W.J. and Puto, C.P. (1989), "Organizational climate and decision framing: an integrated approach to analyzing industrial buying decisions", *Journal of Marketing Research*, Vol. 26, May, pp. 179-92.
- Ramaswamy, V., Gatignon, H. and Reibstien, D.J. (1994), "Competitive marketing behavior in industrial markets", *Journal of Marketing*, Vol. 58, April, pp. 45-55.
- Rangan, V.K., Moriarty, R.T. and Swartz, G.S. (1992), "Segmenting customers in mature industrial markets", *Journal of Marketing*, Vol. 56, October, pp. 72-82.
- Robertson, T.S. and Wind, Y. (1980), "Organizational psychographics and innovativeness", *Journal of Consumer Research*, Vol. 7, June, pp. 24-31.
- Robinson, P.J., Faris, C.W., and Wind, Y. (1967), *Industrial Buying and Creative Marketing*, Allyn & Bacon, Boston, MA.
- Ronchetto, J.R. Jr, Hutt, M.D. and Reingen, P.H. (1989), "Embedded influence patterns in organizational buying systems", *Journal of Marketing*, Vol. 53, October, pp. 51-62.
- Ryan, M.J. and Holbrook, M.B. (1982), "Decision-specific conflict in organizational buyer behavior", *Journal of Marketing*, Vol. 46, Summer, pp. 62-8.
- Schmittlen, D.C. and Peterson, R.A. (1994), "Customer base analysis: an industrial purchase process application", *Marketing Science*, Vol. 13 No. 1, pp. 41-67.
- Sheth, J.N. (1973), "A model of industrial buyer behavior", *Journal of Marketing*, Vol. 37, October, pp. 50-6.
- Sheth, J.N. (1976), "Buyer seller interaction: a conceptual framework", *Advances in Consumer Research*, Vol. 3, pp. 382-6.
- Sheth, J.N. (1978), "Recent developments in organizational buying behavior", *P.L. Management Review*, Vol. 1, January, pp. 65-92.
- Sheth, J.N., Gardner, D.M. and Garrett, D.E. (1988), *Marketing Theory Evolution and Evaluation*, John Wiley & Sons, New York, NY.
- Silk, A.J. and Kalwani, M.U. (1982), "Measuring influence in organization purchase decisions", *Journal of Marketing Research*, Vol. 19, May, pp. 165-81.
- Spekman, R.E. (1981), "Segmenting buyers in different types of organizations", *Industrial Marketing Management*, Vol. 10, pp. 43-8.
- Spekman, R.E. and Stern, L.W. (1979), "Environmental uncertainty and buying group structure: an empirical investigation", *Journal of Marketing*, Vol. 43, Spring, pp. 54-64.
- Sriram, V. and Banerjee, S. (1994), "Electronic data interchange: does its adoption change purchasing policies and procedures", *International Journal of Purchasing and Materials Management*, Winter, pp. 31-40.
- Swift, C.O. and Coe, B.J. (1994), "Sourcing preference scale", *Industrial Marketing Management*, Vol. 23, pp. 171-80.
- Thomas, R.J. (1982), "Correlates of interpersonal purchase influence in organizations", *Journal of Consumer Research*, Vol. 9, September, pp. 171-82.
- Thomas, R.J. (1984), "Bases of power in organizational buying decisions", *Industrial Marketing Management*, Vol. 13, pp. 209-17.

- Vyas, N. and Woodside, A.G. (1984), "An inductive model of industrial supplier choice processes", *Journal of Marketing*, Vol. 48, Winter, pp. 30-45.
- Ward, S. and Webster, F.E. Jr (1991), "Organizational buying behavior", in Robertson, Kassarjian, H.H. (Eds), *Handbook of Consumer Behavior*, Prentice-Hall, Englewood Cliffs, NJ, pp. 419-58.
- Webster, F.E. Jr (1970), "Informal communication in industrial markets", *Journal of Marketing Research*, Vol. 7, May, pp. 186-9.
- Webster, C. (1993), "Buyer involvement in purchasing success", *Industrial Marketing Management*, Vol. 22, August, pp. 199-205.
- Webster, F.E. Jr (1965), "Modelling the industrial buying process", *Journal of Marketing Research*, Vol. 2, November, pp. 370-76.
- Webster, F.E. Jr (1991), "Informal communications in industrial markets", *Journal of Marketing Research*, Vol. 7, May, pp. 186-9.
- Webster, F.E. Jr and Wind, Y. (1972), "A general model for understanding organizational buying behavior", *Journal of Marketing*, Vol. 36, April, pp. 12-19.
- Weiss, A.M. and Heide, J.B. (1993), "The nature of organizational search in high technology markets", *Journal of Marketing Research*, Vol. 25, May, pp. 220-33.
- Wilson, D.T. (1987), "Qualitative approaches to organizational buying behaviour theory development", *Advances in Business Marketing*, Vol. 2, pp. 115-39.
- Wilson, E.J., Lilier, G.L. and Wilson, A.T. (1991), "Developing and testing a contingency paradigm of group choice in organizational buying", *Journal of Marketing Research*, Vol. 28, November, pp. 452-66.
- Woodside, A.G. (1994), "Network anatomy of industrial marketing and purchasing of manufacturing technologies", *Journal of Business and Industrial Marketing*, Vol. 9 No. 1, pp. 52-63.
- Woodside, A.G. and Sherrell, D.L. (1980), "New replacement part buying", *Industrial Marketing Management*, Vol. 9, pp. 123-32.
- Zaltman, G. and Bonoma, T.V. (1977), "Organizational buying behavior", *Industrial Marketing Management*, Vol. 6, pp. 53-60.

Appendix

Research related to Sheth (1973) and Webster and Wind (1972) models
Decision-making process:

- *Dempsey (1978)*. This reports the results of a study dealing with the vendor selection process. Based on the results of the study, the author identifies five evaluative criteria: (vendor stability, basic economic criteria, geographic affinity, attendant services, and assurance mechanisms) and four categories (seller dominated external information, buyer oriented external information, salesmen, and buyer oriented internal information).
- *Vyas and Woodside (1984)*. The authors develop an inductive model of supplier choice processes. Their descriptive, composite model incorporates subroutines of events, interactions and decisions learned from studying entire industrial buying processes of products.
- *Anderson and Chambers (1985)*. Describes a new model of organizational buying process based on the assumption that organizational buying behavior is essentially a form of work behavior. The model emphasizes the role of reward measurement systems in motivating purchasing process participants. A second submodel is concerned with the process of group interaction and consensus formation.
- *Banting et al. (1991)*. This reports the results of a two nation (Hungary and Canada) study of the industrial buying process. Similarities as well as differences in purchasing patterns between the two nations were found.
- *Rangan et al. (1992)*. This offers a framework for buyer behavior oriented microsegmentation of industrial customers. Four segments of national accounts of a large industrial company are identified: transaction buyers, programmed buyers, relationship buyers and bargain hunters.
- *Dholakia et al. (1993)*. The authors report an empirical investigation on the length of time firms take in making major purchase decisions and examines its antecedents. Findings suggest that firm size, buy-class, decision-making unit (DMU) size, information source, and size of consideration set, all significantly affect decision-making time.
- *Bunn (1994)*. The author applies a combination of literature and field-based approaches to develop four constructs that underlie buyer behavior: procedural control, proactive

focusing: use of analysis techniques; and search for information. Measurement scales for these constructs are created and evaluated through a survey of purchasing professionals.

- *Schmittlein and Peterson* (1994). Their model applies customer base analysis in which past purchase behavior of customers are observed to understand the current and likely future purchase patterns. Results indicate that customer base analysis can be both effective in predicting purchase patterns and in generating insights into how key customer groups differ.
- *Brown* (1995). The author tests a conceptual model of the relationships among buyer's perspectives of and attitudes toward a vendor company's marketing mix, and the moderating effects of insupplier/outsupplier status of the seller. Results indicate significant moderating effects of insupplier/outsupplier status, and generally validates predictions made on the basis of attitude theory.
- *Buying center - influence of members of buying center.* *Silk and Kalwani* (1982) reported findings bearing on the reliability of measures used in industrial market surveys to identify the structure of buying groups. They found a lack of consensus about purchase influence between pairs of informants from the same organization. They also found ratings appear to differentiate among roles but not stages in the decision process.
- *Thomas* (1982) studied the nature of interpersonal influence on the individual's decision in organizational buying. Findings suggest that social and organizational bases of influence of personal sources explain changes in a decision maker's product evaluations.
- *Jackson et al.* (1984) carried out work to identify relative influence of participants and how it changes across purchase of different products, buy classes and procurement decisions. Findings indicate that the relative influence of the buying center members is constant in different buy classes, but changes across product types and decision types.
- *Thomas* (1984) studied internal relationships among key participants in the buying center. Findings indicate relative importance of selected bases of power, and their relative importance by organizational position.
- *Berkowitz* (1986) addressed the issue of who the main influencers are in new product adoption. Findings indicate that end users and technical staff are interested in product sampling; that price was an important consideration among end users and technical staff; and that the purchasing department exercised the final authority for ordering.
- *Lynn* (1987) analyzed the structure of the buying center for a professional service and found that CPA buying centers are similar in size and in the number of levels of corporate hierarchy and functional areas as other industrial services.
- *Kohli and Zaltman* (1988) developed a multi-item scale to tap influence, and the process through which influences are manifested in buying centers.
- *Martin et al.* (1988) compared the expectations of buying center role groups for transportation mode selection and found meaningful differences between role groups. Findings support the suggestion that role members in a buying center have different perceptions of suppliers.
- *Kohli* (1989) identified factors that affect an individual's influence in the buying center. The study found that expert power has the greatest influence followed by reinforcement power of the individual.
- *McQuiston* (1989) focussed on who participates on organizational purchase and decisions and the factors that affect the interpersonal influence between participants during the session. This author proposed a structural equation model that suggests the purchase situation attributes of novelty, complexity and importance are causal determinants of participation and influence in industrial purchase decisions.
- *Ronchetto et al.* (1989) introduced the organizational buying system concept as an organizational framework for exploring the patterned, repeated interactions that characterize ongoing purchasing processes. Findings indicate that organizational actors derive influence from the position they occupy within the buying system. Individual influence is derived from properties of the formal and informal structure.
- *Buying center - structure.* *Choffray and Lilien* (1980) present a methodology for segmenting industrial markets on the basis of functional involvement in phases of the purchasing decision process. Implementation of the methodology in a real life situation involving industrial cooling systems led to the identification of four segments of organizations.

- *Woodside and Sherrell* (1980) report a study on purchase of industrial equipment in the paper manufacturing industry. Five decision stages and five overlapping buying centers were found.
- *Johnston and Bonoma* (1981) developed a method for the quantifiable dimensions of a buying center. They defined and operationalized five interactive dimensions of the buying center: vertical and lateral involvement; extensiveness; connectedness; and purchasing manager centrality.
- *Moriarty and Bateson* (1982) tested the current methodologies of surveying all members of a DMU. They found that there was a greater response rate to the use of "snowballing by telephone" technique as against single stage and exhaustive snowballing.
- *Environmental influences on organizational buying behavior. Gronhaug* (1976) developed a taxonomy for classifying organizations and comparing their behavior in buying situations, based on the organizations that were product dependent and product independent and found purchasing activities to be more structured in product dependent than in product independent organizations. The study also found that search behavior, buying motives and goals pursued were different in the two types of organizations.
- *Spekman and Stern* (1979), presented a conceptual and methodological framework for examining OBB from a multiperson level of analysis. They view structure as a central variable for it shapes the nature and degree of interpersonal interaction within the buying group, and it is also a primary determinant of the buying group's information acquisition and processing capabilities.

Based on the in-depth study of 21 buying processes, *Drumwright* (1994) addresses how and why socially responsible buying becomes important in organizations. Socially responsible buying is addressed under the general rubric of noneconomic buying criteria and is observed from the perspective of concern for the environment.

- *Information search. Webster* (1970) found little support for word-of-mouth communication in industrial markets and suggested a key role for manufacturers' salesmen.
- *Marrilla* (1971) established the importance of word of mouth communication within firms and found that the opinion leaders had greater exposure to impersonal information.
- *Moriarty and Spekman* (1984) conducted empirical investigation of the sources of information sought by decision participants and discovered the importance of non-personal information.
- *Deshpande and Zaltman* (1987) studied the use of marketing information in industrial firms.
- *Bunn and Clopton* (1993) developed the taxonomy of industrial customers' information source use. They concluded that purchase situations are significantly related to choice of an information source mix.
- *Weiss and Hiede* (1993) studied the nature of the search behavior in high technology markets. They concluded that search behavior is determined in part by certain inherent characteristics of markets and in part by buyer's present situation.
- *Organizational climate and role perceptions. Qualls and Puto* (1989) explored the benefits of using organizational climate as one of the factors affecting decision-framing processes of industrial buyers. Experimental findings indicate that buyer's general orientation towards risk affects the frame and, subsequently, the buyers' choice. However, there were mixed results with regard to the organizational climate factors affecting decision frame and subsequent choice.
- *Robertson and Wind* (1980) conducted an empirical study that focussed on organizational climate to explain industrial buying behavior.
- *Spekman* (1981) presented organizational type as a potentially important company specific characteristic that affects the organizational buying process. Differences in the importance associated with purchasing related factors exist among purchasing managers from commercial, not-for-profit and governmental organizations.
- *Thomas* (1982) conducted an empirical study on the role perceptions of the members of a buying center.
- *Michaels et al.* (1987). Research perspectives from role theory are examined with a large sample of purchasing professionals. The results suggest that an awareness of the nature

and influence of role stress in the buying context could be valuable to marketing professionals.

- *Henthorne et al.* (1993) examined the role played by informal members of the buying center and their impact on the type and level of risk perceived by the organizational buyer. Results indicated that informal influence has a significant effect on perceived risk experienced by the organizational buyer.
- *Conflict resolution*. *Ryan and Holbrook* (1982) propose a construct, decision-specific conflict, in an attempt to integrate purchasing conflict, exchange transactions and microsegmentation. Using 17 purchasing decisions faced by automobile fleet administrators, nomological validity was supported by an inverted U-shaped relationship between conflict and responsibility weighted by time.
- *Barclay* (1991) formulated a model of organizational characteristics that affect buying related interdepartmental conflict and found that organizational characteristics such as barriers to communication, the reward system and the ambiguity of departmental responsibilities explain a substantial portion of the variance in the manifestations of buying related conflict.

Research related to Robinson et al. (1967)

- *Buy-class framework*. *Belliczi and McVey* (1983) based on research conducted in the commercial construction industry, test the effects of product type and purchase experience on industrial buyer behavior (to test the validity of the buy - grid model). The findings indicate that product type is a meaningful variable which is related to industrial buyer behavior. However, the purchase experience variable or buy-class variable is not significantly related to buyer behavior.
- *Leigh and Rethans* (1984) apply cognitive script theory to the analysis of industrial purchase behavior in a computer terminal purchase. Industrial buyers' scripts for the overall new purchase process, an initial sales call, a follow up negotiation meeting and a modified rebuy situation are established and validated.
- *Patton et al.*'s (1986) research premiss is that in certain types of industrial purchase decisions (vendor selection in modified rebuy situations), the presence of certain mediating variables may indicate that the individual purchasing agent rather than a buying group may make the vendor selection decision. Major findings are that individual decisions seem to predominate in modified rebuy decisions, that loyalty to existing suppliers seems to have an effect on the extent of individual decision making and that the extent of joint decision making appears to be related to the size of the firm.
- *Anderson et al.* (1987) used an empirical approach to examine the buy-class framework. Managers of salesforces were asked about the behavior their salespeople encounter on the part of their industrial customers. Much of what salespeople observe is found to correspond closely to the buy-class theory. Also "problem newness" and "information needs" dimensions are found to be strongly related. However, "seriousness of consideration of alternatives" seems to be a separate dimension that does not operate entirely as predicted by the buy-class framework.
- *Wilson et al.* (1991) developed a contingency model for predicting buying center choice using two situations of the RFW framework (modified rebuy and new task decisions) and three levels of perceived risk. Organizational buying centers in firms responded to product evaluation decisions. These data were used as input for seven alternate models of group choice in order to note the predictive accuracies of each model by situation. Major findings are that in new task situations with high perceived risk, a unanimity model tends to predict choice most accurately. In modified rebuy situations with moderate to high risk, group choice models such as a voting model tend to be used; in these, group judgments are considered but unanimity is not required.
- *Bunn* (1993) developed a classification scheme (taxonomy) of buying patterns and situations. It consists of four prototypical "buying decision approaches" identified through empirical procedure: search for information, use of analysis techniques, focus on proactive issues, and reliance on control mechanisms. The use of the particular decision approach depends on four situational characteristics: purchase importance, task uncertainty, extensiveness of choice and perceived buyer power.

Research related to buyer - seller interaction models

Dyadic and interactive perspectives. *Sheth* (1976) provides a comprehensive conceptualization of the buyer-seller interaction process. It has been postulated that the quality of interaction is a

function of the compatibility between the buyer and the seller with respect to both the style and the context of interaction. A number of personal, organizational, and product-specific factors are described as determinants of style and extent of communication on buyer-seller interaction processes.

- *Bonoma et al.* (1977) emphasized in this monograph the need for taking a dyadic approach.
- *Nicosia and Wind* (1977) suggest a model based on inter-organizational and intra-organizational processes during buying decisions. They take a dyadic perspective of processes in the selling organization as well as processes in the buying organization. They describe the buying process in terms of individuals and groups, both in selling and purchasing organizations and in terms of activities performed by them.
- *Bagozzi* (1978) provides an exchange theory framework of industrial buying and decision processes. He emphasizes the interactions between buyers and sellers during the exchange process and reviews leadership and decision-making, group decision-making processes (including research and theory in bargaining and negotiation), coalition and other group effects, and social power approaches.
- *Bonoma et al.* (1978) posited a "system paradigm" consisting of an "embedding model" in which dyadic relations are contained in an overall system context. They stress the characteristic of "interdependence" in dyadic relations.
- *Bonoma and Johnston* (1978) offer dyadic or two-party models as reconceptualizations for understanding industrial buying behavior. In the dyadic model, the two most important variables are the relational variables between the two parties (e.g. trust, cooperation). The exchanges that take place between the members of the dyad are the most meaningful of these relational variables. Also included are other variables, such as situational variables. Exchanges and interrelationships are posited as the basis for explaining buying behavior.
- *Research focussed on interaction and social variables.* *Håkansson* (1982) presented the industrial marketing and purchasing (IMP) group interaction model. Drawing heavily on the microeconomic notions of the "new institutional economists", the IMP model reflects the idea that transaction costs may be reduced when a transaction is internalized in one unit. The authors prefer to call the "buyers" and "sellers" as actors linked to one another by "short term exchange" episodes and "long-term exchange" episodes. Besides the interaction based linkages, the relationship is influenced by its "atmospheres" (e.g. power dependence, cooperation, expectations etc.).
- *Metcalf et al.* (1992) apply the IMP interaction model to study buyer-seller collaborative efforts or factors that engender close relationships between buyers and sellers. The basic processes are posited as integral to the development of close buyer-seller relationships: exchange, cooperation and adaptation.
- *Heide and Miner* (1992) examined cooperation between 136 industrial buyers and suppliers by examining the effects of anticipated interaction and frequency of contact on buyer-seller cooperation. Using the iterated games framework, they predict that anticipated open-ended future interaction or extendedness, and frequency of contact will increase the chances and that a pattern of cooperative behavior will occur, but performance ambiguity will decrease such chances. Results indicated that extendedness and frequency are associated with joint cooperation.
- *Negotiation process and strategies.* *Clepton* (1984) pointed out that industrial buyers and sellers as individual are boundary spanners, linking communication between the two firms; moreover, when long-term relationships are usually sought and both parties are expected to emerge from negotiation with favorable outcomes and conflict is prevalent.
- *Perdue and Summers* (1991) reported findings from a field study on the relation between negotiation strategies used by the purchasing agent and the characteristics of the purchase content (cost sensitivity of the buyer firm, supplier competition, uniqueness of the buying firm's specifications, buyer's cooperative orientation, having information, and formal planning). Results demonstrate the ability of contextual variables to predict the negotiation strategies likely to be used by purchasing agents.
- *Perdue* (1992) reported the findings from a field study of purchasing agents' use of ten aggressive bargaining tactics when negotiating rebuy purchases of components parts. Results suggest that purchasing agents favor tactics that manipulate the sellers' perceptions about the degree of competition for the purchase contract to persuade (or coerce) the seller to concede.

- *Dabholkar et al.* (1994) proposed a framework of business-to-business interaction that integrates approaches to bargaining from social psychology and economics in order to provide a conceptual paradigm emphasizing long-term relationships. They propose a classification of negotiation behavior along two dimensions and examine the dyadic negotiation process that translate negotiation behavior into long-term relationships.
- *Buyer-supplier relationships.* *Dwyer et al.* (1987) describe a framework for developing buyer-seller relationships based on a continuum of contractual, discrete, relational exchanges.
- *Hallén et al.* (1991), on the basis of social exchange theory and resource-dependence model, formulated a structural model of interfirm adaptation. The model accounts for mutual adaptation as a consequence of trust-building as well as for unilateral adaptation due to imbalanced dependence between the parties. Results support the view that interfirm adaptations are elements in a social exchange.
- *Heide and John* (1992) showed that norms play a very significant role in structuring economically efficient relationships between independent firms.
- *Han et al.* (1993) examined how industrial buyers and suppliers perceive recent changes in business markets and found that major factors influencing companies toward using fewer suppliers include the need for enhanced performance, cost reduction and greater technical cooperation. They also found that good relationships are characterized by mutual trust and satisfactory exchange.
- *Provan* (1993) developed theory and hypotheses explaining constraints on the emergence of opportunism when buyer-supplier relations are considered in a network context. It is hypothesized that opportunistic behavior of individual network suppliers relative to the dominant buyer, or hub firm, will decline at increasing levels of embeddedness in an interdependent supplier-buyer network, despite conditions of high asset specificity and small numbers bargaining.
- *Anderson et al.* (1994) used a network approach to provide a means for understanding the connectedness of business relationships in a dyadic context. They also conduct a substantive validity assessment to furnish some empirical support for the constructs.
- *Buyer-seller relationships in channel context.* *Cadotte and Siem* (1979) developed a dynamic process model for inter-organizational relations in marketing channels. Five interrelated elements are emphasized: conflict potential; dependence (and its obverse power); conflict perception; resultant force; and conflict after match. The model is based on the political-economy perspective of power and dependence.
- *Frazier* (1983) developed a framework of inter-organization exchange behavior in marketing channels.
- *Frazier and Rody* (1991) developed hypotheses on the reciprocal use of non-coercive and coercive influence strategies by the supplier and the distributor in the channel dyad and on the interrelationships of these strategies with the interfirm power, latent conflict, manifest conflict, and conflict resolution constructs. Hypotheses are generally supported by data from a national survey of industrial distributors.
- *Boyle et al.* (1992) developed new measures of influence strategies in marketing channels (i.e. the means by which a firm's personnel communicates with its partners to affect their behavior) in order to examine associations with the strength of buyer-seller relationships (relationalism) and alternate governance structures (market, administrative, franchise and corporate).
- *Special arrangements between buyers and sellers.* *Frazier et al.* (1988) explained how JIT exchanges compare with other forms of exchange; what conditions are most conducive to the initiation of JIT exchanges; and what key factors influence the success or failure of initiated JIT exchanges.
- *Heide and John* (1990), drawing on a normative theory of transaction costs, identified conditions under which alliances in industrial purchasing are useful. Results support the model wherein it is posited that the utility of the relationships is derived from an ability to safeguard relationship-specific investments and to facilitate adaptation to uncertainty.
- *Noordewier et al.* (1990) demonstrated that performance in terms of acquisitions costs is enhanced when, under conditions of uncertainty, firms introduce more relational elements in their purchasing arrangements.
- *Handfield* (1993) proposed a model using resource dependence to explain how and why purchasing is moving towards JIT. Results support the idea that purchasing departments

in make-to-order firms are likely to reduce the number of critical suppliers in response to uncertainty in demand.

- *Swift and Cne* (1994) examined single and multiple sourcing of products. A sourcing preference scale is developed to measure purchasing manager's attitudes towards either single or multiple sourcing. Differences in selected demographic and organizational characteristics between purchasing managers having preference for single and multiple sourcing were found.
- *Supply-chain partnering*. *Webster* (1993) discussed the importance of buyer involvement and then determined the level of involvement or importance that industrial buyers place on the purchase of services.
- *Matthyssens and Bulte* (1994) addressed the shift in OBB and industrial marketing. They also discussed the evolution of purchasing toward a more relational and cooperative mode.
- *Carter and Narasimhan* (1994) integrated the concepts, ideas, and findings that have emerged from ongoing multi-phase studies of purchasing role in TQM. They developed several ideas about what purchasing organizations should do to attain TQM goals.
- Based on empirical data from 21 firms, *Dumond* (1994) examined the readiness of the organizational environment, in terms of several critical variables (performance measurement system, extent of functional interaction, and access to external information) for successful implementation of value-based purchasing, is examined.
- Based on a survey of 122 purchasing managers, *Sriram and Banerjee* (1994) results show that the impact of EDI is moderated by the volume of transactions using EDI. Its adoption requires somewhat different skills and training for buyers, and it also changes some aspects of a firm's relationship with its suppliers.
- *Woodside* (1994) examined the hypothesis that the marketing-purchasing of new, industrial manufacturing technologies involves the development of a new network of relationships within and across enterprises.

(Jagdish N. Sheth is Kellstadt Professor of Marketing at Goizueta Business School, Emory University, Atlanta, Georgia, U.S.A.)