

Research in industrial buying behavior—today's needs, tomorrow's seeds

BY JAGDISH N. SHETH
IBE Distinguished Professor
and Research Professor
University of Illinois, Urbana

THE FUTURE of industrial buying behavior research depends largely on its past and present.

A careful look at the state of the art shows the field has a rich tradition of empirical and practice-oriented research. After reviewing and summarizing such findings, I find it possible to speculate about future research needs and trends in this area.

Although I've found more than 1,000 references in books, articles, commentaries, and trade and professional publications, many are unaware of such research; consider it nonscholarly and trade-oriented; and still believe consumer buying behavior is a more thoroughly researched area. Among the reasons for this are:

—More good research seems to have been conducted in Europe than in the U.S.; and, therefore, we in the U.S. aren't aware of it.

—Research in industrial buying is scattered across several disciplines, such as political science, organizational behavior, and several business subareas including production, finance, and personnel management.

—Since relating to consumer behavior through personal experiences, buyers conducting research, is easier than experiencing and learning the reality of industrial buying behavior, borrowing and applying many behavioral science theories and methods seems more straightforward in consumer than in industrial behavior. This has probably led to greater media exposure to, and retention of, consumer research findings.

—Consumer marketers have tended to be more receptive and less hardened about applying new and different techniques and theories of behavioral sciences, probably because of the presumption that

upon the same situation differently and different situations as if they were the same. A related, but controversial, issue is whether industrial buyers primarily use rational or emotional criteria in selecting suppliers.

The controversy becomes more interesting when one compares the empirical research on industrial buyers with that on housewives. Not very surprisingly, but contrary to popular belief, industrial buyers also tend to use a substantial number of noneconomic criteria in selecting products or services.

Individual characteristics also include learning and loyalty, and perceived risk. Perceived risk theory assumes buyers tend not to maximize the expected payoff but rather minimize the risk.

This research has focused on specific tactics buyers adopt to minimize risks including relying on supplier reputation, developing strong source loyalty, searching for information, relying upon credible sources such as friends and experts, and greater deliberation and planning in high-risk situations.

Risk theory is supplemented by

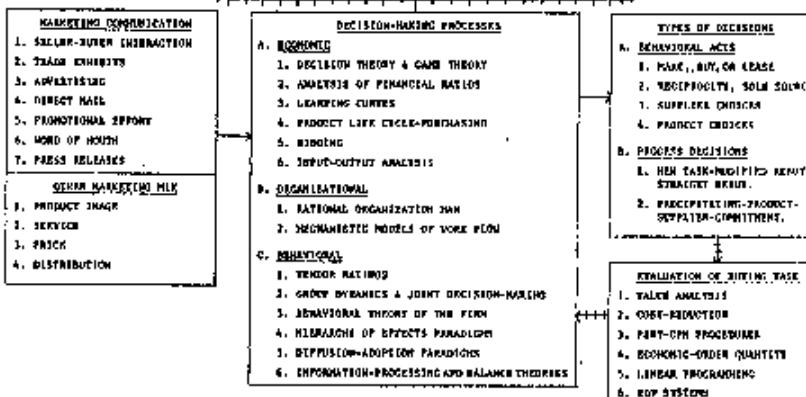
psychological learning theories by which the buying process over time and with repetitive purchase decisions becomes routine.

FUTURE—First is the need to investigate sex and race differences, if any, among industry buyers. And with the recent government rules about affirmative action programs, many buyers are likely to be legally declared members of minority groups.

Differences in both style and content of decision making between men and women and different subcultures and ethnic groups are likely to spill over into the area of industrial buying decisions. So far, very little research exists which answers whether male purchasing

SUMMARY OF RESEARCH IN INDUSTRIAL BUYING BEHAVIOR

INDIVIDUAL CORRELATES	ORGANIZATIONAL CORRELATES	SITUATION CORRELATES
1. DEMOGRAPHICS (AGE, SEX, EDUCATION) 2. PERSONALITY & LIKELIHOOD 3. CRITERIA (RATIONAL VS. EMOTIONAL) 4. PERCEPTIONS 5. LEARNING & LOYALTY 6. PERCEIVED RISK	1. LATERAL & VERTICAL ENCLAVEMENT 2. ROLE OF PURCHASING 3. DEMOGRAPHICS (SIZE, TYPE) 4. ORGANIZATIONAL STYLE AND VALUE SYSTEM	1. TYPE OF TRADE 2. BUSINESS CLIMATE 3. PERSONAL FAVORS & RELATIONSHIPS 4. LEGAL-POLITICAL CONSIDERATIONS



is to provide some insights into the impact of their communication efforts.

FUTURE—If there is one aspect of industrial buying behavior which needs more, and more rigorous, research, this is it. Considerable work remains to be done in measuring the direction and magnitude of impact of marketing communications on industrial buying behavior since so little is known so far.

The first of two specific areas in need of immediate research is the modeling and testing of marketing mix variables appropriate for industrial marketing. We know very little about the main effects and interaction effects of personal selling, direct mail, exhibitions, and advertising in industrial marketing.

The second and related area is the search for alternative ways of communication to successful selling. As

Value analysis is, therefore, a normative tool which attempts to quantify the decision outcomes in nongame terms and provide a set of decision rules to improve the efficiency of buying. Two other techniques with basically the same objective are cost-utilization and economic-order quantity analysis.

On the other hand, systems analysis has been identified as a very useful innovative technique for evaluating the buying task. Despite the quantitative and somewhat normative approach to evaluating the buying task or the purchasing function, there is still relatively low sophistication and standardization in measuring the economic and noneconomic performance of industrial buying decisions.

FUTURE—While a substantial amount of research exists on the economic normative approaches to

INDIVIDUAL CORRESPONDENCE—CURRENT STATE—A considerable amount of research has been done on the individual differences in both the content and the impact of the decision-making process. An interesting finding is that certain characteristics of the individual buyers can explain differences in the decision-making process. For example, in engineering-oriented organizations, there is a greater tendency to more significantly related engineering and marketing departments than to the determination of autonomous vs. joint decision-making power in the organization than with respect to the decision-making process itself.

A related category includes ability and lifestyle profiles. The next two categories relate to spatial differences among the buyers with respect to relevance and importance of certain characteristics in the organization. In general, less autonomy is given to the purchasing agents. Often, in these organizations, they are no more than under-takers.

INDIVIDUAL CORRESPONDENCE—CURRENT STATE—There are two main types of buyers: those who make purchases from formal agents in the buying process. An individualistic need also exists for research going beyond the simplistic categorization of rational vs. emotional choice criteria which organizations' buyers use in deciding product and supplier choices. We need to empirically measure the extent to which organizational buyer behavior is determined by functional, social, emotional, situational, and curiosity criteria.

The third area is to shift emphasis away from knowing what the industrial buyers' expectations (choice criteria) are to knowing what are their *satisfactoriness* with the existing marketing practice.

Technological innovations have enabled industrial marketers to provide a lot of benefit to their customers but the problem may lie in the packaging and marketing of that technology. Often, what is needed to satisfy the customer may be a simple adjustment in the existing marketing mix rather than inventing a whole new technology.

ORGANIZATIONAL CORRESPONDENCE—CURRENT STATE

Only a few studies have dealt with the impact of organizational characteristics on industrial buyers' decision-making processes. The decision-making process has concentrated on:

—The role of purchasing department;

—The extent of internal vs. vertical involvement in the process;

—Organizational style, including structure, degree of centralization—decentralized, profit responsibility, and managerial philosophy.

MARKETING COMMUNICATIONS—CURRENT STATE

General conclusions about the relationship between marketing communication and the industrial buying process remain to be drawn.

For example, in

The Marketing of Industrial Products, Aubrey Wilson pointed out in 1966

This is somewhat unfortunate and

highly frustrating to marketing

managers because, in essence, the

single most important reason for

INDIVIDUAL CORRESPONDENCE—CURRENT STATE—There are two main types of purchase situations involving industrial buyers' decision processes. The most obvious is the type of product.

In particular, substantial differences in the process exist between the telephone selling, a two-way communication in personal selling, or minimum travel costs. Decisions to buy or make, replace or repair when often are influenced by the economic outlook and its impact on the liquidity of the buying organization.

A third more subtle category relates to personal favors and relationships between buyers and sellers. Here we must also include bribery, patronage, and nepotism, which seem to be widespread in some countries.

Finally, legal-political considerations impacting upon specific purchase situations are often more crucial in influencing of suppliers than in the choice of products because of the complex web of antitrust legislation. Of course, a number of political considerations come into play when dealing with foreign suppliers such as the East European countries.

FUTURE—More research is needed on the impact of macroeconomic, economic, and non-economic situational factors on the decision-making process. In particular, we need to know more about the postponing of a decision as a consequence of a specific event, such as the energy crisis or a management change within the organization.

—The second and related area is the measurement of post-decision communication with a supplier developed, and only recently reported (Jerry Wind's research, many years ago in the *Journal of Marketing Research*, has touched upon the question of loyalty toward suppliers).

[There is very little research on the loyalty towards the buying organization & supplier developed, and only Jerry Wind's research reported many years ago in the *Journal of Marketing Research*, has touched upon the question of loyalty toward suppliers. This knowledge can be classified into three categories: economic, industrial, and behavioral approaches.

EVALUATION OF PURCHASING

FUNCTION—CURRENT STATE

While several studies have attempted to measure the impact of a specific marketing communication effort such as direct mail, trade shows, press releases, etc., very little scientific basis exists to come to any quantitative benefit.

Perhaps this is due to the dissatisfaction of existing quantitative methods of evaluating the purchasing function.

The best known quantitative technique applied is value analysis, which refers to quantifying the economic value of a purchase to the organization and equating the price to the paid for this

econometric performance appraisals to evaluating the buying task, what we need is a more useful, namely oriented evaluative method, comparable to the development of "theory Y" in the personnel area.

DECISION-MAKING PROCESSES—CURRENT STATE

Permit me to single most researched area in industrial buying behavior is how and why the organizations decide about various objects utilized in the purchasing function. Both theories and empirical researches have begun in an effort to unravel the mysteries of the purchasing function in the organization. The vast amount of literature seems to have concentrated on these cut-off questions:

—Is the industrial buyer rational or emotional in the decision process?

—Is the purchase decided on by an individual or a committee?

—In the decision-making process different for innovation adoption or repeat buying products?

—What is the extent of conflict in industrial buying and how is it resolved?

—What factors influence the organizational decision-making process?

This knowledge can be classified into three categories: economic, industrial, and behavioral approaches.

1. An entirely different approach has been the examination of the internal relations of the supplier organization, which are supposed to become more efficient with improved economic activity and, therefore, economies can be attributed not simply to the sales factor but also to learning factors.

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3. The recent interest in microeconomics about the learning experience curve of organizations, which are supposed to become more efficient with improved economic activity and, therefore, economies can be attributed not simply to the sales factor but also to learning factors.

4. A more marketing-oriented approach is where the product life cycle of the buying organization becomes the focal point for development.

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opposing purchasing strategic plans.

6. Closely related to game theory is the analysis and modeling of the competitive bidding process.

4. In the application of industrial-output analysis, the purchasing function is involved in providing inputs, maintaining and capital goods for the shared organization output.

ORGANIZATIONAL VIEW: At least four different organizational viewpoints have been applied to understand and explain how the purchasing agents decide on products and suppliers.

4. **Functional**: This view is primarily concerned by well-defined and exacting objectives of the organization and behaving in a manner which would typically rational decision-making process.

A second classical view sees the time-and-motion-study approach to define the work flow of the purchasing function and even attempts to build finely mechanistic models of the organization function. Attempts to implement such views in purchasing organizations have met with considerable resistance or been bypassed by interesting loopholes or backdoor tactics.

The other two organizational viewpoints are more contemporary. The first, reported in 1972 by Frederick F. Webber Jr. and Wind in their *Organizational Buying Behavior*, is an attempt to model the purchasing function in terms of an organizational decision-making process, including identifying goals, calculating benefits of sensible alternatives, and using some judgment rule to optimally match the organization's objectives and the most appropriate alternative.

The organizational decision theory differs from the rational or analytical view in terms of optimality of result. Whether the organization's objectives, whether they are rational



Jagdish N. Sheth

tactics (persuasion, bargaining, etc.), will which the conflict is resolved. A third behavioral approach (C-3) is the information-adjustment paradigm in which an attempt is made to discern the adoption decisions of new products for new products and services into awareness, interest, trial, and adoption stages, and examine the sources of information and influence at each stage.

This approach has become extremely useful in a new way of understanding how new products, especially those requiring large capital expenditures, get adopted or rejected by industrial buyers.

A highly related approach (C-4) concerns to both existing and new products borrowed from the hierarchy of Webster (borrowed in 1968 by Webster from Texas communication research). The most common such

JBR calls for papers on industrial buying behavior

What are the decision rules?

What are used in decision rules? Does he use some compensatory or trade-off principle between two or more criteria so that a supplier weak on one is balanced by his strengths with respect to other criteria?

Alternatively, does he use a disjunctive (exclusion in one article,

use such as decisively, price, specification) or a punctuative (above minimum levels on all criteria) decision rule? This research is fascinating but highly useful for policy purposes.

However, very little is as we known fact about the variety of human cultures involved in processing of information and research about the specific rules industrial buyers tend to use.

FUTURE.—There is already too much theorizing about the decision-making process involved in organizational buying behavior!

JM

example is the so-called "AIDA model," consisting of attention, interest, desire, and action stages of the internal process of buying decisions.

A fifth approach (C-5), more patient and relying less upon any specific behavioral science theory, consists of developing scaling scales on a number of salient criteria with which to assess and evaluate suppliers. These criteria can be both economic and noneconomic, according to Wind, Paul Green, and Patrick Robinson's 1968 *Journal of Purchasing* article.

Also, they are often derived by a subjective consensus of the buying staff, although past performance and commercial information provided by the supplier are used as inputs to those subjective ratings. The ratings are more limited to the

suppliers rather than to a specific production or a specific buying situation. The vendor ratings are then used by the buying manager for his decision to include or exclude a specific supplier for a particular purchase situation.

The sixth behavioral approach (C-6) for modeling the industrial buying decision process is the use of information-processing and cognitive consistency theories from social psychology, such as reported by J.A. Howard and W.M. Morgenstern in 1968. The basic emphasis is to understand or hypothesize how a buyer confronted with some descriptive or hypothetical information about various products or suppliers decides on selecting or rejecting them.

Want are used in two things. First, someone should attempt to bring about consistency among various economic, organizational and behavioral theories by integrating them into a comprehensive theory of industrial buying behavior.

Future, the initiative theory

should be tested and validated or

research based on adequate empirical research. In this regard, industrial buying behavior can learn from consumer behavior where, for example, several attempts have been made to test the Howard-Sheth theory of buyer behavior.

Second, it would be even more valuable if we carry out research on "theory nature." In other words, what specific theory of industrial buying do the purchasing agents and other decision makers actually use in their buying tasks?

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We'll bet you can't pass a simple test

objectives, whether they are rational, or non, conventional or nonconventional, the traditional decision-making approach does not question its legitimacy but rather has to achieve its satisfaction by means of an efficient decision-making process.

A second contingency view-point, reported by Wend the following year, is the classification of purchasing decisions into:

- Those which require consensus in the organization.
 - Those which are hierarchical where a superior has the power to negotiate or modify lower-level decisions, and
 - Those which entail a bargaining process of give-and-take among several makers.
- The organizational viewpoints, in general, have tended to be more descriptive and realistic than the economic viewpoints. They focus on the organization task itself as opposed to the individuals performing the tasks.

BEHAVIORAL VIEWPOINTS: Probably the single most influential behavioral approach applied to understanding how and why individual buying takes place is that theory proposed by R.M. Cyert and J.G. March in their 1963 book, *The Behavior Theory of the Firm* (C-3). In the summary figure, focus is on four related aspects of decision making:

- Conflict among decision makers and partial resolution,
- Avoidance of uncertainty by establishing decision rules,
- Problematic search which is highly selective and narrow, and
- Organization and learning due to repetitive experiences.

The best applications of the theory to understanding industrial buying behavior were made by Ward in 1968 and by Webster and Ward in 1972. I have fully utilized this group dynamics approach (C-2) in the research which I reported in 1975. The emphasis here is on the understanding at the interaction process within a small group, where the individuals probably have very different buying objectives and expectations about the alternatives of suppliers.

A major focus in the group dynamics approach is on the process of conflict resolution in the organization among various departments.

about television.

TEST YOURSELF

(Circle each of the following statements as TRUE or FALSE.)

- A: Young blue-collar adult men (average age 32) with a heavy interest in outdoor life are 'heavy watchers of TV Sports.' FALSE
- B: Young married suburban women prefer TV programs about investment. FALSE
- C: There is more to TV audience measurement than age and income. TRUE

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