



Why Customers Buy

A look at how industrial customers make purchase decisions. **BY JAMIE P. MONAT**

Understanding why and how customers make purchase decisions is vital to maximizing profitable sales, developing new products, growing companies and developing predictive sales models. Many sales managers and salespeople have prescribed rules of thumb or rubrics that detect and analyze “buying signals,” but these are rarely tested and are often based on gut feel or personal experience. For example, some salespeople believe that, if a prospect’s need is urgent, if his project is funded and if there is no competition, then securing a booking is just a matter of time. Unfortunately, this is not always the case, and there may be other factors that influence why and how customers decide to buy.

Substantial research has been done on the determinants of customer purchase decisions. However, the technical literature is often confusing. Sometimes the conclusions are impractically narrow (e.g., they apply only to the marketing of domestic heating systems) while at other times they are so broad as to be no better than common sense (e.g., customers try to minimize their risk).

In addition, the hundreds of published journal articles represent hundreds of different perspectives, and there has been no distillation of these to yield a concise, validated list of five to 10 key determinants of customer purchase decisions. This article does not represent a comprehensive review of the literature. But an analysis of 28 of the key pieces is sufficient to yield statistically significant results and provides some practical information regarding generally accepted determinants of industrial purchase decisions that should prove useful to sales, marketing and product development managers.

Literature Overview

The theory explaining the forces that drive customer decisions is evolving. One of the earliest analyses of how and why industrial customers make purchase decisions was Robinson, Faris and Wind's 1967 "buy grid" or "buy class" model. It suggested that there are different types of purchase situations—straight rebuy, modified rebuy, and new product purchase—and that industrial purchasing is a process that goes through several phases such as identification of a need, identification of alternative solutions, evaluation of the alternatives and finally a purchase decision.

Many of the early theories argued that purchase decisions usually followed some well-established corporate rules-based logic and that, once the logical rules were discovered, it would be easy to determine why and how purchase decisions were made. These theories focused on purchasing transaction task variables such as price, quantity, service, delivery and quality. They argued that the purchase decision was based primarily on rational economic analyses of the task variables (Bonoma et al, 1977).

The task variable theories worked to a degree and established a framework within which sales and marketing professionals could assess prospects and opportunities. But almost from the start, some researchers realized that there was more to customer purchase decisions than just pure logic and that organizational, psychological and social factors must be considered along with task variables (Webster and Wind, 1972), Sheth, 1973) or Qualls and Puto, 1989).

These models acknowledged that industrial buying decisions are not purely rational but are influenced by the emotions and perceptions of a variety of employees, all of whom have a hand in the purchase decision. These theories intro-

duced the concept of a decision-making unit, or DMU, in which the purchasing decisions were shared among several individuals or groups of individuals (e.g., purchasing, a technical group and accounting). Webster and Wind (1972) identify and discuss the specific roles of users, influencers, deciders, buyers and gatekeepers as constituents of a typical DMU.

Sheth (1973) emphasized the conflict-resolution aspect of joint decision-making for industrial purchases. The task variable models were thus modified to include both individual and group psychological factors. This yielded some improvement in the ability to model purchasing behavior; however, the resulting increase in complexity made use of these results cumbersome, and an accurate, practical model still proved elusive.

In the 1990s and 2000s researchers started to de-emphasize transaction-based selling models and emphasize instead relationship-based models (hence the proliferation of customer relationship management (CRM) software and consultants). These contemporary models explore customer lifetime value (CLV) and add strategic relationship variables such as trust, commitment, loyalty and customer satisfaction to the list of determinants (Tanner, 1999, Reinartz and Kumar, 2003, Venkatesan and Kumar, 2004). However, it is not clear that these factors have a significant impact on purchasing decision-making.

For example, Reinartz and Kumar (2003) analyzed customer profitability as a function of customer lifetime and found little correlation. This surprising result led them to conclude that companies would be more profitable if they first focused on revenue and transaction management and only then on CRM. It may be that relationship-based models are really not conceptually new but that instead they just emphasize the risk-minimization aspect of purchase decisions. After all, a principal benefit of a long-term relationship between a buyer and seller is the development of mutual trust and confidence (i.e., risk minimization). Corporations today invest huge resources in CRM. However, the long-term profit benefits of CRM are still not clear.

In addition to those already mentioned, there are other theories of industrial customer purchase decision-making, including the reward/measurement model (Anderson and Chambers, 1985), the participation-influence model (McQuiston and Dickson, 1991), prospect theory-based models (Qualls and Puto, 1989), role theory (Johnston and Bonoma, 1981), organizational buyer choice theory (Tanner, 1999) and selling formula theories (Wotruba, 1981). The large body of often discrepant literature may appear confusing to a practitioner who is trying to make good decisions about sales and marketing. In light of the large number of theories

Executive Summary

Understanding how and why customers and prospects

make purchase decisions is vital to maximizing profitable sales, developing new products, growing companies and developing predictive sales models. Although hundreds of articles have been written on this topic, there are many discrepant theories and there is no concise, validated list of the key determinants of customer purchase decisions. This article analyzes and distills 28 key papers from the technical literature to yield a concise list of eight key purchase decision determinants.

and the difficulty in selecting the “right” one, we wondered if there were customer purchase determinants that were common to many of them. We hypothesized that, if so, those widely agreed-upon determinants might be useful to practitioners, even if there were no commonly accepted theory. Perhaps there is reasonable agreement regarding the factors that customers consider, even if there is disagreement regarding how they use those factors to make purchase decisions.

Methodology

Toward this end, we examined 28 significant papers in the purchase decision analysis literature, and, instead of focusing on the theories, we tabulated the frequency and importance attributed to the various determinants mentioned within the theories. The 28 papers were selected to cover a broad range of purchasing theories and were based upon availability of clearly stated determinants within the paper. (Papers that described theories but that did not specifically mention purchase decision determinants were excluded.) A sufficient number of papers was chosen to yield statistically significant results at the 99 percent confidence level. Each paper was parsed for articulated purchase decision determinants.

Beginning with some of the task variable models as examples, Lehmann and O’Shaughnessy (1974) claim that price, supplier reputation, product reliability, delivery reliability and supplier flexibility are the key determinants. Simonson (1993) argues that alternatives, timing and purchase quantity are important. Bunn (1993) has developed a taxonomy of determinants and argues that the four key determinants are: importance, uncertainty/risk, the choices that are available (competition) and buyer power. Donath et al. (1995) suggests that an inquirer’s resources, desire, authority, need and timing are the drivers of purchase decisions. Johnston and Lewin (1996) reviewed 25 years of organizational purchasing literature and concluded that risk minimization is the dominant factor.

In addition to the determinants mentioned in the task variable models, we also included determinants that are discussed

in the psychological, organizational, social and relationship-based models. These determinants include perceived impact on career advancement, reward orientation, conflict aversion and perception of organizational climate (i.e., politics, attitude toward supervisor, peer acceptance, corporate role) as well as strategic relationship variables such as trust, commitment, loyalty, customer satisfaction, past purchase history (frequency, dollar amount and recency) and communication type and frequency (Tanner, 1999, Reinartz and Kumar, 2000 and 2003, Venkatesan and Kumar, 2004, Quigley et al. 1993).

The results from all 28 papers were tabulated in a 28 x 29 matrix (available from the author) listing the 28 source paper titles on the horizontal axis and 29 literature-stated determinants on the vertical axis. This facilitated counting and subsequent grouping of similar concepts into categories of fundamental issues. Some translation of the authors’ wording into common descriptors was required; however, significant attempts were made not to alter the authors’ meaning or to

Exhibit 1 Determinants of customer purchase decisions

Determinant	Number of references mentioned in
Risk to customer	12
Price/value	11
Past experience with vendor; loyalty or commitment to vendor	10
Alternatives available/competition	9
Quality of product or service	8
Delivery time	8
Service provided by vendor	8
Decision-making authority of vendor’s contact at the customer	7
Personal psychological factors	6
Degree of need of customer	5
Vendor’s reputation/image	5
Availability of the right quantity	4
Flexibility/convenience offered by vendor	4
Reliability of vendor	4
Suitability or product or service to solve problem	4
Vendor’s technical expertise	3
Salesmanship of vendor	3
Importance of product or service to customer	3
Vendor size	2
Urgency to customer	2
Vendor resources	2
Customer’s company policies	2
Shared vision	2
Vendor location	1
Desire	1
Vendor stability	1
Novelty	1
Complexity	1
Payment terms	1

editorialize. For example, Donath and Simonson both refer to availability of the product when it is needed as “timing,” while Sheth calls it “time pressure” and Webster and Wind call it “availability at the right time.” We grouped these all under the descriptor “delivery time.” Similarly, Webster and Wind (1972) use the phrase “identification and evaluation of alternatives,” while Sheth (1973) uses “perceived potential of alternative suppliers” and Quigley et al. (1993) use “competitors” and “evaluation of alternatives.” We grouped these all under the descriptor “alternatives available/competition.”

Results

In the 28 articles reviewed covering task-based, psychological, organizational and relationship-based models, 29 determinants of customer purchase decisions were mentioned. (See Exhibit 1.)

It would be acceptable to use Exhibit 1 as is. However, this long list is unwieldy and contains several conceptual redundancies. To be useful practically, it should be condensed by eliminating statistically insignificant determinants and by grouping similar concepts representing fundamental issues. In establishing fundamental issues, we applied the governing principles of Value Tree development as articulated by Hämmäläinen (2002): The list of fundamental determinants should be (1) complete (i.e., it should include all literature-mentioned determinants that are mentioned by a statistically significant percentage of the articles); (2) assessable; (3) independent and (4) non-redundant. Further, the set should be the minimum size necessary to adequately characterize the literature.

Risk to customer, past experience with vendor, loyalty, commitment, vendor’s reputation/image, vendor stability and reliability of vendor are all manifestations of the prospect’s perception of risk and may therefore all be subsumed under the fundamental issue of “risk.” Similarly, urgency to

customer, delivery time and availability of the right quantity may all be subsumed under “prospect’s perception of his company’s urgency and ability of the vendor to comply,” which is a fundamental issue relating to timing. And degree of need, desire and importance of product to customer may be grouped under the fundamental issue “customer’s perception of his company’s need and desire.” These groupings are somewhat subjective, and different analysts may identify different fundamental issues. Whether “quality,” for example, should represent a subelement of “risk” or should stand on its own as a fundamental issue may be debated, as may the correct assignation of “vendor’s reputation/image.”

Fortunately, the resulting list of key determinants is remarkably insensitive to how the items are grouped: If no conceptual grouping at all were done, six of the top eight determinants would remain the same. Similarly, if “vendor’s reputation/image” and “vendor stability” were not subsumed under “perception of risk,” then “perception of risk” would still remain the most frequently mentioned determinant. Thus, although the raw data presented in Exhibit 1 may be grouped in slightly different ways, the eight determinants listed in Exhibit 2 reasonably categorize the various authors’ descriptors into significant fundamental issues and are insensitive to the particular categorization algorithm. Grouping the factors in this way and then eliminating those that are mentioned by fewer than 22 percent of the 28 references (to eliminate those that are not significant at the 99 percent confidence level) yields the results shown in Exhibit 2.

The eight principal determinants in Exhibit 2 represent a concise synthesis of the major literature-referenced determinants of industrial purchase determinants and should prove useful to sales and marketing people on a practical basis.

Application of Results and Discussion

Although it is not surprising that the prospect’s perception of value, ability to purchase, perception of quality and service and urgency are key buying determinants, it is somewhat surprising that “prospect’s perception of risk” tops the list. In our experience, industrial manufacturers rarely address risk perception directly. The current results suggest that this should change. A greater emphasis on warranty, quality assurance procedures, ISO certification, availability of 24/7 technical support and proven application of products and services (e.g., reference sites) may enhance sales by reducing customers’ perceived level of risk.

Simply procuring detailed information on the eight determinants for each prospect does not automatically ensure a sale. While many industrial companies use these eight determinants to make purchase decisions, they often weight them differently (Szymanski, 1988, Lehmann and O’Shaughnessy, 1974). For example, a small, family-owned business may make purchase decisions primarily based upon the owner’s personal trust relationships with vendors while minimizing factors such as value, urgency and competition. On the other hand, a large, publicly held corporation may have fixed rules for assessing capital requests based upon minimum ROIs or

Exhibit 2 Significant fundamental issues

Determinant	Percent of references cited in
Prospect’s perception of risk	64%
Prospect’s perception of value/price	39
Prospect’s perception of his company’s urgency and ability of the vendor to comply	36
Availability to prospect of a better deal (competition)	32
Prospect’s perception of his company’s need and desire	29
Prospect’s perception of quality	29
Prospect’s perception of service	29
Prospect’s ability to purchase	25

Exhibit 3 Booking conversion probability scoreboard

Determinant	Rating (positive, neutral, negative)
Prospect's perception of risk	
Prospect's perception of value/price	
Prospect's perception of his company's urgency and ability of the vendor to comply	
Availability to prospect of a better deal (competition)	
Prospect's perception of his company's need and desire	
Prospect's perception of quality	
Prospect's perception of service	
Prospect's ability to purchase	
NET RATING	

other value metrics and may minimize the importance of competition. It may be possible to develop a quantitative model using these eight determinants to predict customer purchase behavior. However, any such model would necessarily have to allow for different weighting factors.

The table of purchasing determinants has many practical applications including qualifying prospects; qualifying sales leads and predicting which will convert to bookings; developing marketing programs and value propositions; guiding product development efforts and guiding advertising content. One of the most useful applications of the eight key determinants is to assess the probability of conversion of sales opportunities to bookings. A simple qualitative approach would mandate that for each sales opportunity the relevant salesperson must assess each of the eight determinants as good, neutral or bad using a scorecard similar to that shown in Exhibit 3.

For example, suppose an industrial filtration system company has a prospect who is interested in purchasing a \$1 million filtration system for the clarification of apple juice. The seller's sales representative has been instructed by his sales manager to use Exhibit 3 to determine the likelihood of an eventual sale. The sales rep determines that the prospect is well-funded, has excellent credit and will save \$600,000 per year by installing the system. He therefore rates perception of value and ability to purchase as "good." The sales rep further determines that there is no competition (using either filtration or any other technology), that the prospect has approved funds and that he must spend the money before the end of the current fiscal year (three months from now). He rates both competition and urgency as "good."

Finally, the vendor and prospect have an excellent 20-year business relationship, and the filtration system comes with a 10-year unconditional warranty. Therefore, the sales rep

rates perception of risk as "good." In this hypothetical dream scenario, all eight of the determinants are positive, and a sale within three months is likely. The converse is also true—if all eight determinants are negative, then a sale is improbable. In the real world, the situation will likely be in the middle—some determinants will be positive and some negative. In this case, the challenges are to determine which are the most important and how much weight they are afforded, and how to turn around the negatives.

A more sophisticated approach would require that the sales rep determine the prospect's weighting factors (importance) for each of the eight key determinants and that he then rate each of the determinant values on a scale of 1-10 using the SMART technique (Edwards and Barron, 1994). After multiplying the eight weights by the eight values and summing, a net score would be obtained; the higher the score, the higher the probability of a sale. Even more sophisticated quantitative models can be developed, but they require substantial data acquisition and statistical analysis. Discriminant analysis or logistic regression each appear to be viable statistical tools to use in the development of such a model and are topics of future work.

There are many other examples of the application of Exhibit 2 to real-world sales and marketing situations. Sales leads can be qualified, marketing campaigns can be structured and the accuracy of sales projections can be improved. It would be difficult to undertake such efforts without an understanding of the key determinants of purchase decisions, and, although much research has been done, a practical distillation of the literature has not been available. This work has yielded a concise list of industrial customer purchase decision determinants that should prove valuable to sales, marketing and product development practitioners.

Limitations and Future Work

Not all articles related to customer purchase decision-making were reviewed for this article, and not all purchasing theories and subtheories were investigated in detail, so their inclusion may result in a slight shift in conclusions. Some subjectivity has been applied in categorizing purchase decision determinants, and (as noted) different analysts may derive slightly different categorizations. Future articles will discuss past attempts to model and manage sales leads and their related success and failures, as well as the development of a new logistic regression-based model that may be used to predict which sales leads will eventually convert to bookings for specific companies.

All references mentioned in this article are available until at least 31 December 2009 on the author's Web site: www.wpi.edu/~jmonat. ●

Jamie P. Monat is a director and adjunct professor in the corporate and professional education department at Worcester Polytechnic Institute, Worcester, Mass. He may be reached at jmonat@wpi.edu.