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**ORGANIZATIONAL BUYING: SUPPLIER  
EVALUATION CRITERIA FOR STANDARD  
PRODUCTS**

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ORGANIZATIONAL BUYING: SUPPLIER EVALUATION CRITERIA  
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by

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All organizations, including business firms, must purchase goods and services to conduct their affairs. They constitute the single most important segment of buyers and thus organizational buyer behaviour has emerged as an important field of study.<sup>1</sup> Organizational buying process is highly complex and involves several considerations for making purchase decisions.<sup>2</sup> Responsibility for organizational buying is often shared by several functionaries with delegated authority. Purchasing personnel, however, do play an important role in the buying decision process. Their evaluation of suppliers is most likely to influence the final choice of the supplying company.<sup>3</sup> Though the role of different departments in the purchase of various products like capital equipment, off the shelf items, materials and supplies, etc., varies considerably across organizations, the purchase department is usually involved in locating the possible source of supply and for conducting a qualitative analysis of potential suppliers.<sup>4</sup>

It is for these reasons that marketers must improve their understanding of the choice criteria considered most important by the purchasing executives for evaluating suppliers. Since buyers can and do articulate the reasons for making a choice, it can be inferred that the choice criteria exist.<sup>5</sup> Not much

work has been done in India for studying the organizational buying behaviour. Since the market conditions are quite different in India as compared to United States and other western countries, the importance attached to different criteria is likely to be different in our context. Hence a study was undertaken to understand the relative importance of various supplier attributes as perceived by purchase executives in India. The findings on the importance attached to different criteria for evaluating alternate sources of supply have important implications for marketers in designing effective marketing strategies for dealing with organizational buyers in India.

Another objective of the study was to find out whether there were any significant differences in the perceived importance of supplier attributes when the evaluation was done by top purchasing executives as compared to other levels of purchasing personnel. The findings could help in designing marketing strategies specific to the hierarchical positions of the purchasing executives if such differences in perceptions are found to exist.

#### THE STUDY

The study was basically designed to improve our understanding of criteria that are important in selecting and/or evaluating suppliers. A purposive sample of 500 purchasing executives in India, representing a cross-section of different industries, were contacted through a mail questionnaire. In all, 173 completed questionnaires were received. The questionnaire was designed in two parts. First one sought background information about the

responding executive, his job and his company. In the second part the respondent was asked to rate, on a seven point semantic differential scale, each of the 65 attributes<sup>6</sup> which were identified as most relevant supplier characteristics considered important in selecting vendors for standard items.<sup>7</sup>

#### RESPONDENT CHARACTERISTICS

The average age of the respondents in the study was 40 years. 69% of them being in the age group 30 to 50 years with 15% below 30 years and another 15% above 50 years of age. Average total experience was 14 years with about 9 years in the purchase department. 65 percent of the respondents had 5 to 20 years of experience in purchase department with 32% having less than 5 years and 3% more than 20 years. Eighty nine percent of the respondents were degree holders or had some technical or professional qualifications. Six percent of respondents had education levels below under graduate while about 5% did not specify their academic qualifications. 23 percent of the respondents had backgrounds in arts and commerce, 13% in science, 31% in engineering, 1% in cost accounting and 21% had management backgrounds. The remaining 11% had either general education below the graduate level or did not specify their educational backgrounds. Forty nine of the responding executives were the heads of the purchase departments in their respective companies and the remaining 124 were other senior level purchase executives, mostly just below the purchasing heads.

RESPONDENTS' ORGANIZATIONS

The sales turnover of the companies to which the respondents belonged was from Rs. 5 to 20 crores in 38% of cases and Rs.20 crores and above in 41% of them with the 21% below Rs.5 crores sales group. The overall average sales turnover of the responding companies was Ra.15 crores. In 67% of them, the total company purchases formed 30 to 69% of the sales turnover with another 4% each in the range of 20-29% and 70-79% purchase - sales ratio. Purchases formed less than 20% of the sales revenue in 6% of the companies and above 80% in 19% of the responding companies. The overall average expenditure on purchases as a part of sales turnover was 60%. Sixty percent of the companies belonged to private sector, 34% to public sector and the remaining 6% were from co-operative and joint sector. The industry profile of the responding executives' organizations is given below:

	%
Consumer products (non-durables)	15.61
Consumer durables	8.67
Light engineering	9.83
Heavy engineering	2.31
• Electrical equipment	5.78
Electronics	2.89
Chemicals	12.14
Industrial supplies	10.40
Others	32.37
	<hr/> 100.00 <hr/>

### RELATIVE IMPORTANCE OF ATTRIBUTES

All the 65 attributes have been listed in Table 1 after grouping them into six sub-headings starting with variables with highest mean ratings within each group for all the 173 respondents. Alongside are given separately the mean importance ratings by 49 purchasing heads and 124 other level purchasing executives. The last column in the table gives the overall rankings of the various variables.

The top fifteen attributes, considered most important by the purchasing executives are: reliability in quality, delivery, honesty in dealings, regularly meeting quality specifications, delivery without too much of follow up, competitive prices, help in emergency situations, cooperation in unforeseen circumstances, keeping promises, quick delivery when needed, handling rejections promptly, price protection, direct source of supply, favourable reputation, and prompt reply to communications. The means for these variables range from 6.51 to 5.44 on a seven point scale. The high importance attached to these variables can be well understood when we look at the background of the purchasing personnel and the amount of work they have to handle. The background data reveal that purchases by the responding companies constitute almost 60% of the sales turnover. Naturally the purchase executives do not want to bother too much about the

purchase of standard items and want to get the right goods, of the right quality, at right price, at the right place, without too much of follow up and with full cooperation of the suppliers. This accounts for high importance ratings given to attributes like direct source of supply to avoid delays, and favourable reputation, which is an indicator of less worries to the purchase executive in case of standard products to enable him to devote greater time and energy on non-standard or custom built products where very close liaison between many departments of the buyer company with the seller is required at various stages of design or execution of the orders.

The least important 15 attributes were: providing help in preparing prebid specifications, affiliation with the company, helpful in providing special handling equipment, being a large firm, potential to expand capacity, providing information through advertising, having research and development facilities, giving information through promotional activities, utilisation of effective selling methods, accepting small order quantities, recommendations of other departments, credit for scrap or salvage, supply of special reports, adapting to specific needs, and having high calibre management. The mean importance ratings of these attributes range from 2.99 to 3.89 on a seven point scale with seven as extremely important. The reasons for low score are not far to seek. More often than not these standard products are repeat purchase products with pre-specified materials



and quality. For example, question of prebid specifications arises only in case of highly complex, high cost, high technology, relatively unknown or unused plant and machinery and not in case of products bought frequently or available readily from the market for general use. Similarly, many other attributes become relatively unimportant for standard products because of the inherent nature of these products.

#### THE SIX ATTRIBUTE GROUPS

##### Convenience Related Attributes

In Table 1 all the 65 attributes have been grouped under six major headings. Under the convenience related characteristics, first five variables have a high importance rating, the rank order of their importance being 5th, 10th, 11th, 13th, and 15th among all the sixty five variables included in this study. Other variables are ranked less important. For standard products the important convenience related attributes are delivery without constant follow up, quick delivery at short notice, quick adjustment of rejections, lack of too many intermediaries, direct source of supply, which in turn is related to quick delivery without much follow up, and prompt communications. The basic reasoning is that in the case of direct source of supply everything will work out faster as compared to an indirect source, the whole objective being to select suppliers who are more convenient to handle and which do not consume too much of the purchase executive's time. This also accounts for low

priority or importance given to attributes like supplier accepts small order quantity, allows credit for scrap or adapts to specific needs or anticipates requirements or offers broad product line or advises on potential trouble, etc. These attributes add less to convenience and hence have been rated low. Also quite often, there are multiple sources of supply for many standard products, along with lower per unit cost as compared to custom built products. Hence attributes like acceptance of small orders, adapting to specific needs, broad product line, and advice on potential trouble get a comparatively low rating.

#### Calibre - Capacity Attributes

These are again more important for custom built products than for standard products due to the inherent nature of these products. The attribute which is considered most important in this group is "regularly meets quality specifications" with a mean importance rating of 6.14 and is ranked 4th in importance among the 65 attributes. It is quite understandable because whatever be the type of product, the supplier must meet quality specifications. Next in importance are attributes like "maintains up-to-date stock", "has good packaging, including packing slips", etc. Other attributes in this group are ranked somewhere between 42nd to 63rd place. On the whole, calibre - capacity attributes received much lower mean importance ratings as compared to all other groups except the attributes under the inter-corporate relations factor.

Economic - Financial Attributes

The seven attributes under this group received ranks of 6, 12, 14, 18, 21, 23 and 31 with a ratings range of 5.98 to 4.79. These attributes covered supplier capabilities regarding competitive prices, price protection, extended payment terms, volume discount, lower price, high cash discounts and favourable financial position. Economic and financial attributes generally received higher importance ratings when compared with service related attributes, calibre - capacity attributes and also inter-corporate relations attributes. This is probably because of higher share of standard products among the total purchases of the organizations.

Image - Dependability Attributes

Of the total of thirteen Image - Dependability Attributes, quite a few received high mean importance ratings. As many as three most important attributes (with overall rank of 1,2 and 3 respectively), namely, reliability in quality, delivery and honesty in dealings formed part of this group. A few other supplier attributes in this group like "keeps promises", has a favourable reputation", and "offers well known brands or products" also received high rankings. Attributes with lowest ratings in this group were; is a large firm, utilizes effective selling methods, maintains favourable labour-management relations, is a progressive firm and is a well known firm. These attributes got overall rankings between 39 and 62 with mean

importance ratings in the range of 3.32 to 4.28. The reasons are not far to seek. Whatever be the type of product, quality, delivery, honesty in dealings and keeping promises are always important supplier attributes and, therefore, they get the highest ratings of 6.51, 6.43, 6.21, 5.81 with importance rankings of 1,2,3 and 9. However, attributes like being a large firm, supplier using effective selling methods, etc. with low importance ratings are not of any great significance for standard products because of the inherent nature of these products with generally many sources of supply and easy commercial availability. These factors become more important when we are looking for suppliers of plant, machinery and other sophisticated equipment supplied to specific requirements.

#### Inter-Corporate Relations Attributes

There were in all six attributes under this heading and these received mean ratings ranging from 4.62 to 3.32 and rankings somewhere between 32 to 64. All these attributes were generally considered as having little importance. Inter-corporate Relations, thus, turned out to be the least important factor for standard products purchases.

#### Service Related Attributes

There were eighteen service related attributes included in the study and those that emerged important were: helps in emergency situation and willing to cooperate in the face of unforeseen circumstances. These mean importance ratings of 5.87 and 5.84 and rankings of 7 and 8 respectively.

Insignificant ranks of 65, 60, 58 and 53 went to attributes like helpful in preparing pre-bid specifications, provides information through advertising, provides information through promotion activities and supplies special reports, which were part of the service related attributes group. Mean importance rating for these four attributes were 2.99, 3.45, 3.51 and 3.87. It is largely because of the nature of standard products that these attributes received low importance ratings.

#### RATING DIFFERENCES BETWEEN PURCHASING HEADS AND OTHER PURCHASE EXECUTIVES

For finding significant differences in ratings on supplier attributes as perceived by the two groups of purchasing personnel, a t-test was performed on ratings given by the two groups and it was found that the differences were significant at .05 level only in case of 2 attributes, namely, supplier sells at lower price and has knowledgeable salesmen. The attribute concerning low-price was considered less important whereas the attribute "has knowledgeable salesmen" more important by the purchasing heads as compared to other purchase executives. On the remaining sixty three attributes, t-test revealed no significant differences in the perceived importance ratings given by the heads and other purchase executives.

#### COMPARISON OF IMPORTANCE ACROSS ATTRIBUTE GROUPS

Since attribute groups were formed with unequal number of attributes and some groups had as many as 18 variables, while others had as few as 6, a comparison of the overall means of the groups for their relative importance would not be very meaningful since

categories with more variables might have some relatively unimportant attributes included in them. It was, therefore, decided to compare attribute groups from their relative importance by taking the average of the six most important variables in each category.<sup>8</sup> Such a comparison indicated that Image-Dependability group emerged as the most important category with top 6 variables giving an overall average of 5.92. The order of importance of other groups and their means for 6 top variables were Convenience-related variables, Economic-financial attributes, Service-related attributes, Calibre-capacity attributes and Inter-corporate Relations attributes with 5.54, 5.38, 5.29, 4.73 and 3.98 as their mean ratings, respectively. As many as 4 variables with overall ranks within 10 belonged to Image-Dependability category. Another 2 of the top 10 variables belonged to Convenience-related attributes group. Economic-Financial attributes group had one while Service-related attributes group had two such top ranked variables. Calibre-capacity attributes group had only one of the top 10 ranked variables while Inter-corporate relations group did not have any such variable. It is thus clear that standard products are bought primarily on considerations of Image-Dependability of the supplier with buying convenience and economic-financial considerations as other important factors. Factors relating to supplier service, calibre and inter-corporate relations don't matter much for such products.

### INDUSTRIAL MARKETING IMPLICATIONS

The study has measured the perceived importance of various attributes for supplier selection in case of standard products. Reasons for some attributes getting high mean importance ratings and others getting low ratings were also analysed. These attributes were then combined under six broad categories on judgement basis and mean importance ratings of various attributes falling under each of these categories were listed in Table 1, starting with the ones having highest perceived importance ratings. In some of the categories, the attributes on the whole had lower importance ratings than others. Based on these insights, a marketer of standard goods selling to industrial organizations can plan his marketing strategy, giving more emphasis to factors and attributes which have come out to be more important. For example, Image-Dependability, Convenience-Related and Economic-Financial factors are more important than the other three. Within each one of these, emphasis ought to be given to the most important attributes. Taking the example of Image-Dependability factor, the most important supplier attributes are: reliable in quality, reliable in delivery, fair and honest in dealings, keeping promises, etc. Marketers who are able to match their efforts with the attributes which have received higher mean importance ratings stand a better chance of being chosen as suppliers.

Another major implication for marketers is that as far as standard products go, the top purchasing executives as well as other purchasing personnel have similar perceptions on 63 of the 65 attributes rated for their importance. This suggests the need for adopting almost similar marketing strategy, irrespective of the specific hierarchical levels held by the executives in the purchase departments. The only difference being that the top executives give less importance to lower price and greater importance to knowledgeable company salesmen of the suppliers as compared to other levels of purchasing executives.

Moreover, the similarity of perceptions among various levels of executives on the importance of various attributes for supplier selection in case of standard products means that for such items relatively little organizational conflict would occur and once the purchase executive has been convinced in favour of a supplier of a particular product, the deal is more likely to be clinched unlike in the case of non-standard products like plant and machinery or custom built products, where not only the different levels of purchase executives may need to be approached but also specialised personnel from other departments may need to be convinced regarding the choice of a supplier.

The study also indicates that the purchase of standard items is something which the purchase executives often want to routinize



since purchase departments in India are often under-staffed constituting on an average only 1% of all employees in Indian organizations as compared to 1.5% in USA.<sup>9</sup> Thus, the purchase executives would generally look for simplification of their decision making, particularly in case of standard products and they would prefer dependable suppliers which can provide them a certain degree of buying convenience.

END NOTES

1. Webster, Frederick E. Jr. and Yoram Wind, Organizational Buying Behaviour (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1972) pp. 1-2.
2. Ozanne, Urban B. and Gilbert A. Churchill, Jr., "Five Dimensions of the Industrial Adoption Process", Journal of Marketing Research, Vol. 8 (August 1971), pp. 332-328; and Frederick E. Webster, Jr. and Yoram Wind, "A General Model for Understanding Organizational Buying Behaviour", Journal of Marketing, Vol. 36 (April 1972), pp. 12-19.
3. Weigand, Robert E., "Why Studying the purchasing agent Is Not Enough", Journal of Marketing, Vol. 32 (January 1968), pp. 41-45.
4. Mehta, Subhash C. and B.S. Bhatia, Purchasing in Indian Industry: Implications for Marketers, (Indian Institute of Management, Ahmedabad, 1971), pp. 124-135.
5. Lehman, Donald R. and John O' Shaughnessy, "Differences in Attribute Importance for Different Industrial Products," Journal of Marketing, Vol. 38 (April 1974), pp. 36-42.
6. The list of 65 supplier attributes was the same as used by Kiser, G.E., C.P. Rao and S.R.G. Rao in their study "Vendor Attribute Evaluations of 'Buying Centre' Members Other Than Purchasing Executives", Industrial Marketing Management, Vol. 4, No. 4(1975). The authors are thankful to Professor C.P. Rao for his permission to the use of this list.
7. The study collected data on supplier-attribute importance for both standard as well as special products. The present paper, however, presents the findings relating only to the standard products. The standard products were defined as items generally available off-the-shelf.
8. Since the number of variables in the smallest category was 6, this number was chosen.
9. Mehta and Bhatia, op. cit., p. 124.

Table 1

Mean Importance Ratings of Supplier Attributes

	Mean Importance Ratings			
	All Respondents (N=173)	Purchasing heads (N=49)	Other purchasing executives (N=124)	Overall Importance Ranking <sup>+</sup>
(1)	(2)	(3)	(4)	(5)
<u>Convenience-Related Attributes</u> (4.80, 0.85)*				
1. Delivers without constant follow up	6.00	5.94	6.02	5
2. Can deliver quickly	5.75	5.65	5.79	10
3. Handles rejections promptly and efficiently	5.69	5.78	5.66	11
4. Is direct source of supply	5.49	5.12	5.63	13
5. Answers all communications promptly	5.44	5.47	5.43	15
6. Advises us of potential trouble	4.41	4.47	4.38	36
7. Is located in close proximity	4.87	4.62	4.97	24
8. Offers broad product line	4.38	4.27	4.42	37
9. Anticipates our requirements	4.35	4.61	4.24	38
10. Adapts to specific needs	3.91	3.8	3.95	52
11. Allows credit for scrap or salvage	3.75	3.94	3.67	54
12. Accepts small order quantities	3.58	3.65	3.55	56

+ Rank 1 means highest importance and 65 lowest.

\* Figures in brackets give overall mean ratings for all the attributes included in the factor and standard deviation, respectively.

Table I (contd.)

	1	2	3	4	5
<u>Calibre-capacity Attributes (4.29, 0.92)</u>					
1. Regularly meets quality specifications		6.14	6.10	6.15	4
2. Maintain up-to-data stock		5.08	5.18	5.04	20
3. Has good packaging, including packing slips		4.80	4.75	4.81	28
4. Has technical ability and knowledge		4.28	4.53	4.18	42
5. Has knowledgeable salesmen *		4.10	4.49	3.94	46
6. Has high calibre management		3.98	4.20	3.89	51
7. Has research and development facilities		3.48	3.71	3.39	59
8. Has potential to expand		3.42	3.41	3.42	61
9. Helpful in providing special handling equipment		3.32	3.22	3.36	63
<u>Economic-financial Attributes (5.30, 0.42)</u>					
1. Has competitive prices		5.98	6.16	5.90	6
2. Guarantees price protection		5.62	5.73	5.58	12
3. Offers extended payment terms		5.45	5.29	5.52	14
4. Offers volume discounts		5.25	5.24	5.25	18
5. Sells at lower price *		5.08	4.47	5.31	21
6. Offers higher cash discounts		4.90	4.78	4.96	23
7. Has favourable financial position		4.79	4.94	4.73	30

\* The importance ratings given by purchasing heads and other purchasing executives were significantly different for these two items at  $\alpha = .05$ .

Table 1 (contd.)

	1	2	3	4	5
<u>Image - Dependability Attributes</u>					
1. Reliable in quality	6.51	6.44	6.53		1
2. Reliable in delivery	6.43	6.37	6.45		2
3. Is fair and honest in dealings	6.21	6.16	6.23		3
4. Keeps promises	5.81	5.76	5.83		9
5. Has favourable reputation	5.40	5.55	5.34		16
6. Offers well known brands and/or products	5.13	5.37	5.04		19
7. Exhibits desire for business	4.82	4.71	4.86		25
8. Has favourable attitude	4.81	4.71	4.85		27
9. Is a well known firm	4.31	4.32	4.28		39
10. Is a progressive firm	4.15	4.20	4.13		49
11. Maintains favourable labour management relations	4.08	4.45	3.93		47
12. Utilises effective selling methods	3.54	3.43	3.58		57
13. Is a large firm	3.39	3.57	3.32		62
<u>Inter-Corporate Relations Attributes</u>					
1. Source has been used before	4.62	4.47	4.69		32
2. Is a current supplier	4.23	4.02	4.31		43
3. Is known to our institution	4.02	3.65	4.16		49
4. Is accepted by our other depts.	3.98	3.84	4.04		50
5. Is recommended by our other depts.	3.70	3.61	3.73		55
6. Is affiliated with our institution	3.32	2.98	3.45		64

Table I (contd.)

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	1	2	3	4	5
<u>Service-Related Attributes (4.48, 0.77)</u>					
1. Helps in emergency situations		5.87	5.80	5.90	7
2. Willing to cooperate in the face of unforeseen difficulties		5.84	5.82	5.84	8
3. Offers frequent delivery service		5.39	5.33	5.41	17
4. Offers better warranties		5.02	4.80	5.11	22
5. Invoices correctly		4.82	4.78	4.84	26
6. Provides needed information		4.80	4.84	4.79	29
7. Maintains consignment stock at vendor plant		4.75	5.08	4.61	31
8. Supplies parts lists and operations manuals		4.51	4.27	4.61	33
9. Helpful in overcoming our occasional errors		4.43	4.37	4.46	34
10. Maintains repair service		4.42	4.57	4.38	35
11. Makes salesman available as needed		4.32	4.43	4.27	39
12. Maintains frequent sales calls		4.31	4.49	4.42	41
13. Maintains technical service in the field		4.20	4.45	4.10	44
14. Makes available test and demonstration models		4.05	4.20	3.99	48
15. Supplies special reports		3.87	3.43	3.58	53
16. Provides information through promotional activities		3.51	3.63	3.47	58
17. Provides information through advertising		3.45	3.43	3.45	60
18. Helps in preparing pre-bid specifications		2.99	3.10	2.94	65