## Directions for Marketing Knowledge Development: Opinions of Marketing Research Managers

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In a recent Journal of Marketing article, Myers, Greyser, and Massy report a retrospective examination of the effectiveness of marketing's R & D marketing management. The effectiveness investigation was housed in the thesis that "the most meaningful criterion—perhaps the only criterion—for assessing and making new investments in developing marketing knowledge was its ultimate contribution to marketing practice" (Myers, Greyser and Massey, 1979, p. 26). It was the opinion of these researchers that "the past contributions of research and knowledge development at best can be characterized as mixed" but that the outlook is optimistic for the future.

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It is significant and appropriate that the knowledge value of a business discipline is assessed ultimately at the user or practitioner level. This investigation by Myers, *et al.*, is but one of a number of self-assessment studies conducted within the academic discipline of marketing (Holbert 1976; Kover 1976; Greenberg, Goldstucker, Bellinger 1977; Ostheimer 1977).

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The study reported here deals with practitioner's opinions of the direction that future marketing knowledge development efforts should take. The practitioners are a sample of marketing research managers drawn from a national frame. Specifically, the project assesses which of a set of sixteen marketing decision-making areas require additional knowledge development work, how much additional work is required, and whether that work should be focused predominantly (a) in the conceptual and theoretical areas, (b) in the development of applied models for decision making, or (c) the development of new and more advanced measurement and analysis techniques.

The findings should be useful in a number of ways but primarily in determining the appropriateness of educators' basic research activities vis-a-vis the perceived needs of practitioners.<sup>2</sup>

## METHOD

The methodology was designed to elicit practitioners' perceptions of the need for additional knowledge development in the marketing discipline. Four types of information were gathered from the marketing research manager respondents: (1) a rank order of the importance of each of 16 marketing decision-making areas with regard to the contribution of those decision-making areas to the particular firm's operating success (See Exhibit 1); (2) a scaled indication of the need for additional knowledge development for each of the 16 tested decision-making areas; (3) an assessment of the type of additional knowledge development required; and (4) selected classification and demographic information for each respondent and responding firm.

## Sample

The sample frame for the study was a purchased mailing list of domestic marketing research managers. This list was selected because the topic to be investigated required the knowledge and experience of persons who have dealt with problems across a wide spectrum of marketing decision-making areas (see Exhibit 1) and have familiarity with a broad range of marketing literature. A systematic sample of 300 firms was selected by choosing every 3rd

#### EXHIBIT 1

#### Perceived Importance of Selected Marketing Decision Making Topics: Rank Ordered by Primary Market Served

			Markot Served				
	Indust		Const				
Marketing	Importance	Mean of	Importance	Mean of			
Decisions	Rank	Ranks	Rank	Ranks			
Making Topics	(a)	(b)	(c)	(d)			
Market Potential Estimation	1	(5,22)	•	(3.24)			
	,		<u>.</u>				
Market Share Analysis	2	(5.58)	3	(5.98)			
Competitive Conditions in Markets	3	(5.83)	2	(4.84)			
Product Attribute Identification	4	(5.92)	10	(9.35)			
Product Positioning	5	(6,22)	7	(7.75)			
Sales Forecasting	6	(6.94)	4	(6.48)			
Market Segmentation	7	(7.53)	6	(7.53)			
Concept Testing-New Products	8	(8.03)	11	(9.63)			
Advertising/Sales Impact	9	(8.14)	14	(11.16)			
Buyers Brand Choice	10	(8.33)	13	(10.60)			
Price Determination	11	(8.39)	5	(6.49)			
Advertising/Communications Impact	12	(8.58)	15	(11.76)			
Sales Cost Analysis	13	(10.61)	9	(8.69)			
Economic Forecasting	14	(11.75)	8	(8.22)			
Distribution Cost Analysis	15	(12.17)	12	(10.36)			
Packaging Effects	16	(12.29)	16	(12.93)			

\*Kolmogorov-Smirnov was calculated to test for differences in the distributions of group rankings. Using a two-tailed test where N=16 and  $Kp\geq 8$ ,  $H_0$  could not be rejected at a=.05 level.

firm from the listing and eliminating company duplication when it occurred. Ninety-nine useable questionnaires were returned for a response rate of 33 percent. As Exhibits 2 and 3 show, responding managers represented industrial- and consumer-market sellers with about equal frequency, and typically held graduate degrees in business disciplines, primarily marketing. In general, practitioners surveyed tended to be well acquainted with the research literature in selected professional business journals (see Exhibit 4).

In addition to the questionnaire responses of sample members, 11 letters from marketing research managers, reflecting on portions of the questionnaire, were received but are incorporated only qualitatively in this report.

## Key Decision-Making Areas

Specific topics in the decision-making area list were selected on the combined basis of extent of coverage in the marketing literature

## EXHIBIT 2

#### Description of Respondents According to Size and Primary Market of Employing Firm

#### Annual Gross Sales (N = 99)

		Less than \$1 Billion	\$1-5 Bil.	>\$5 Bil.
Primary Market	Industrial >50%	27	11	6
Served	Consumer >50%	29	16	10

## EXHIBIT 3

## Description of Respondents According to

## Education and Training Background

## Level of Education of Respondent

orad.

		4 yrs. of College	work no degree	Masters	Ph.D.
	Finance	1	0	7	1
Discipline of Primary Formal	Marketing	10	8	48	4
Training	Quantitative Mothods	1	1	5	1
	Other*	1	1	9	1

<sup>\*</sup> Includes accounting, law, and economics predominantly.

## EXHIBIT 4

## Respondent Readership by Journal

Respondent Readership by Jo	ournal
	Read at least 2 issues during past year Yes No
Journal of Marketing Research	66 33
Harvard Business Review	65 34
11 1 20 11 24	1

and preliminary exploratory personal interviews with marketing research managers. For example, buyer brand choice and product positioning are topics which have received extensive review in the literature (Kotler 1968; Holmes 1973; Urban 1975; Trout 1976; Reibstein 1978) while assessment of competitive conditions in marketing and price determination were frequently mentioned as important decision areas by market research managers. While the list is not all-inclusive, it is representative of decision-making areas of importance to most business firms.

## Questionnaire

The questionnaire was administered by mail during the fall of 1979. In addition to an individually-addressed cover letter, the research instrument consisted of four parts and required about 20 minutes to complete. Self-addressed, stamped return envelopes were provided. Reminder post cards were sent four weeks after the original mailing.

The questionnaire introduction was followed by a section which listed the 16 decision-making areas. The respondent was asked to rank order these 16 areas in terms of their "importance with regard to their contribution to your firm's operating success." The order of presentation of the decision-making areas, in this question and following questions, was rotated to minimize response set tendencies.

In the second part of the questionnaire, the respondent was asked to indicate the amount of additional development work which each decision area requires. Instructions to the respondent indicated that a decision-making area in need of no further development "would be one characterized by widely accepted theory, useful models, and refined measurement methods." By contrast, the respondent was instructed that a decision-making area deficient in one or more of these aspects would logically require additional development work. Given these instructions, the respondent indicated the amount of additional work required, if any, on a five-point scale ranging from "no need" to "great need." A response category of "no basis for judgment" was also provided.

The third section of the questionnaire sought respondents' opinions regarding the *kinds* of additional development work required, if any. Specifically, each respondent could indicate for each

decision-making area whether additional work should be focused in the "concept and theory," "aplied models," or "measurement and analysis technique" categories discussed earlier. Each of these categories of development work was carefully explained, and examples were provided, in the question instructions. Respondents could answer more than one category and could also indicate "no further development needed."

The final part of the questionnaire gathered classificatory and demographic information.

The questionnaire was pretested on five market research managers leading to several minor terminology adjustments.

## RESULTS

The analysis of the data was straightforward. Interest centered on determining which decision-making areas were most important and what, if any, type of additional knowledge development work should be undertaken in those areas. Additionally, patterns in the data based upon rather traditional industry and respondent classification factors were examined. Because the research was designed to prepare a set of generalized findings, the principal form of analysis involved an extensive series of cross tabulations of the data.

## Importance of Individual Decision Areas

The rank order of perceived importance of the various decisionmaking topics, in terms of contribution to operating success, is shown in Exhibit 1. The data are displayed according to primary market served (industrial vs. consumer) and the mean of the ranks for each decision-making topic is shown in parentheses. There exists a Spearman rank correlation between groups of .714 which suggests little overall difference in importance attributions as a function of primary market served.

It is interesting to note that the top-ranked decision topic, "market potential estimation," is independent of primary market served and that the three decision areas judged to be most important are identical for both primary market types served. Further examination of Exhibit 1 reveals that, whereas the three decision areas ranked as most important are all generally related to the situation

analysis stage of a firm's overall planning process, "economic fore-casting," another topic which pertains to assessment of operating environment, is ranked far lower. In addition, the uniformly low appraisal of "distribution cost analysis" by all respondents points out an apparent discrepancy between the perceptions of surveyed practitioners and some publishing academicians. In a number of texts and journal articles, marketing scholars have emphasized the sizeable cost-saving potential which exists in the distribution management area (Tavernier 1975; Mallen and Silver 1964; Kotler 1976).

Finally, and somewhat unexpectedly, the data in Exhibit 1 suggest that marketing research managers representing organizations serving predominantly industrial customers tend to regard knowledge of advertising effects as more important to their firm's success than do their counterparts in businesses selling to consumer markets. This importance rank difference exists in both the "advertising-communications impact" and "advertising-sales impact" categories.

## Decision Areas in Need of Additional Knowledge Development

Exhibit 5 displays the same decision-making topics classified into a  $3\times3$  matrix based upon relative business success importance and the relative need for additional knowledge development. For example, respondents serving primarily industrial markets believe market-share analysis to be of relatively high importance but of relatively low need in terms of additional knowledge development. The decision topics shown in normal type are based upon the responses of firms selling primarily in industrial markets, while topics in script represent the responses of firms which focus primarily on consumer markets.

Again, it is important to recognize that Exhibit 5 displays relative rather than absolute positionings. The perceived need for additional knowledge development was assessed on a five-point scale. The range of decision topic means across respondents was divided into three equal intervals and the decision topics classified into the low, moderate, and high categories.

On the basis of the results displayed in Exhibit 5, some insight is gained as to where the greatest returns of future research lie. It is to be expected that some areas of decision making will be regarded as

EXHIBIT 5

Marketing Decision Making Area Importance Ranking and the Need for Additional Knowledge Development

RELATIVE NEED FOR ADDITIONAL KNOWLEDGE DEVELOPMENT<sup>C</sup> 1

LOW

	LON	ALWARDI	nign	
нісн	IGH Mkt. Share Anal. Comp. Cond. Mkts. Prod. Attri. Id. Mtc. Share Anac.		Mkt. Pot. Est.	
MODERATE	Mkt. Segment. Buyers Brand Ch. Sales Cost Anal.	Sales Fore. Concept Testing Adv/Comm. Prod. Attri. 10. Sales Fore. Mkt. Seg. Econ. Forc.	Adv/Sales Imp. Price Deter. Product Position. Concept Test Price Det.	
LOW	Salos Cost Anal, Dist. Cost, Anal,	Econ. Fore. Pkg. Effects Dist. Cost Anal. Pkg. Effects	Adv/Sales Imp. Buyers Brand Ch. Adv/Comm.	

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relatively mature in terms of their current state of development. These areas may have benefited from an earlier period of research emphasis or they simply may not require sophisticated concepts, models, or measures for effective managerial action. In this study, "market share analysis" is such a topic; high in perceived importance but in little need of additional development. By contrast, the call for work "in market potential estimation" is more pressing. This decision area is regarded as highly important and in either moderate or high need of further development by all respondents. The findings also suggest that differences may occur as a function of market served. While research managers from firms oriented toward con-

Responses for firms serving predominantly industrial markets in normal type; responses for firms serving predominantly consumer markets in script.

<sup>&</sup>lt;sup>b</sup>Classification based upon analysis of mean of ranks across respondents. The mean scores were categorized into 3 equal interval groupings.

<sup>&</sup>lt;sup>C</sup>Classification based upon distribution of scale responses across respondents into 3 equal interval categories.

sumer markets agree with those from firms oriented toward industrial markets on the high need for development in "advertisingsales impact," they differ markedly in their perception of the importance of this decision area (See Exhibit 1).

## EXHIBIT 6

# (a) Type of Additional Knowledge Davolopment Needs by Type of Primary Market Served (Mean percentage of respondents)

		Conceptual and Theoretical	Applied Models	Measurement & Analysis Techniques	None Recognized
Primary Market	Industrial	18%	31%	36%	15%
Served	Consumer	15%	29%	42%	14%

(b)
Type of Additional Knowledge
Davolopment Needs By Level
of Education of Market Research Managers
(Mean percentage of respondents)

Undergradunte degree	17%	28%	39%	75%
Masters degree or graduate study	15%	32%	39%	14%
Doctoral dagrae	15%	32%	36X	17%

Education

(c)
Type of Additional Knowledge
Development Nacds By Size Of
Responding Firm
(Hean percentage of respondents)

loss than 13% 29% 43% 16%

Siz	a	of	£	irm	
(\$	an	nua	1	sa	las

300 mm - 36	134	304	3/4	142
Over 5B	19%	32%	41%	8%

## Types of Additional Knowledge Needed

Another portion of the questionnaire sought information on the type of additional knowledge development which is required. In a decision area where further research is recommended, what direction should the investigation take?

For analysis purposes, responses were again partitioned on the basis of primary market served. Exhibit 6(a) shows the mean percentage of respondents perceiving the need for each of three types of additional knowledge development. For example, 18 percent of the respondents who serve primarily industrial markets felt that additional knowledge development efforts (without distinguishing between decision-making areas) should focus primarily on "conceptual and theoretical issues" rather than "applied models" or "measurement and analysis techniques."

In a similar manner, future knowledge development needs were examined in relation to the level of education of the respondent managers and the size of firm. As indicated in Exhibit 6(b), type of development recommended did not vary with eductional background. It is noteworthy, however, that corporate research managers possessing undergraduate degrees only were five times more likely not to perceive an additional knowledge need of any kind than were managers with graduate-level educational backgrounds. Data from Exhibit 6(c) reveals that size of firm, as measured by annual sales revenues, had little influence on respondents' perceptions of knowledge advancement requirements.

## A Closer Look: Combining Market Serviced and Type of Research

Exhibit 7 offers a composite look at the decision-making areas which respondents felt were most in need of further development work, when displayed according to type of development needed and primary market served. Specifically, the shaded cells are perceived by respondents to be relatively more in need of additional development work than the unshaded cells. When presented in this form, the data provide direction for future investigation. For example, to the extent that additional development is needed in the area of sales forecasting (See Exhibit 5), work should focus on the refinement of forecasting models. It is clear that type of market served



## EXHIBIT 7

#### Type of Knowledge Development by Marketing Decision Area

MANGET THEORY APPLIED & SERVED DEVELOPMENT MODELS TE CONSUMER TO CONSUMER THE CONSU	SASUREMENT ANALYSIS SCHNIQUES	NO FURTHER DEVELOPMENT REQUIRED
Barkot potential Industrial Ontimation Consumor Markot share Industrial Markot share Industrial Manalysis Consumor		
markot potential industrial getimation Consumer markot share Industrial analysis Consumor	CHNIQUES	REQUIRED
estimation Consumer market share Industrial analysis Consumor		
market share Industrial analysis Consumor		1
analysis Consumer	<i>1,4444</i>	
7-4-4-1-1	<i>((((((</i> ())))))	
competitive condi- Industrial		
tions in markets Consumer		
product attribute Industrial		
identification Consumer		
product Industrial		
positioning Consumer		
sales Industrial		
forecasting Consumer		
market Industrial		
segmentation Consumor		
concept testing Industrial		
of new products Consumor		
advertising/sales Industrial		
impacts Consumer //		
buyers brand Industrial		
choice Consumer		
price Industrial		
determination Consumer		
advertising/communi- Industrial ///////		
cation impacts Consumer		
salos cost Industrial		
analysis Consumor		
economic Industrial		
forecasting Consumer		
distribution Industrial		
cost analysis Consumer		
packaging Industrial		
offocts Consumor		

Inhis exhibit presents a summary of respondents' perceptions of the need for further knewledge development by tople and market type. Shaded colls were defined using the following decision rules. Column (a): those toples where more than 25% of the respondents felt future offerts were needed; Column (b):..more than 45%...; Column (d):..mere than 25% folt that no further efforts were required. Different cut-off levels r.fleet an attempt to emphasize those cells in greatest need of self-ditional work for each knowledge development type.

influences research managers' opinions, however. The decision area, "Advertising-Sales Impact," which was previously identified as highly in need of additional development by all respondents, is shown in Exhibit 7 as requiring different types of development. Marketing researchers from firms serving predominantly consumer markets perceive a need for work in concept and theory development. In contrast, managers from companies selling largely to in-

dustrial markets see the greatest need to be in improved measurement and analysis techniques. Column 4 in Exhibit 7 shows as shaded cells those decision-making areas judged to be least in need of additional developmental work.

## GENERALIZATIONS FROM THE FINDINGS

The findings of this study suggest a number of generalizations regarding the need for, and nature of, future marketing knowledge development. Clearly, these generalizations are limited by the set of decision topics investigated and the fact that they represent only practitioners' opinions. We might argue that practitioners, as the consumers of knowledge, might not reasonably be expected to direct knowledge development. But in the marketing discipline, and particularly among this sample of highly educated respondents, such an argument does not appear valid. The following generalizations seem to evolve from the data analysis.

Overall perceptions of *decision area importance* are similar for marketing research managers from firms serving both consumer and industrial markets.

Future knowledge development efforts should focus on decision areas which practitioners perceive as most essential to their respective organization's operating success. As indicated earlier in this paper, perceptions of the rank order importance of the various decision topics examined in this study (Columns a and c, Exhibit 1) did not vary between the two respondent groups surveyed. A Kolmogorov-Smirnov, two-sample test revealed no significant differences at the .05 level in the dispersion of group rankings. In addition, only minor differences were found in the patterns of respondents' relative importance ratings using the means of ranks (Columns b and d, Exhibit 1). As illustrated in Exhibit 5, when mean rank scores were partitioned into high, moderate, and low categories, the "high" importance category contained three decision topics in the opinion of industrial market suppliers. The pattern was reversed in the "low" importance category; that is, consumer market suppliers placed five topics in the low category while industrial suppliers listed four. In general, however, the range of decision

areas which research managers felt were most and least important to the success of their firms tended to be similar irrespective of the type of market served.

## Generalization 2:

The perceived need for additional knowledge development is greatest among research managers representing consumer market oriented firms.

The data suggest that research managers serving predominantly consumer markets tended to perceive a relatively greater need for additional knowledge development across all decision topics than did respondents serving primarily industrial markets. In particular, 14 of the 16 decisions areas were perceived to be in either moderate (7) or high (7) need of additional knowledge development by consumer market respondents. By contrast, industrial market respondents placed 9 of the 16 topics in the same two categories, and only 2 in the "high need" classification. The explanation for these findings is not obvious although one implication for future research activity seems clear. The fact that research managers from firms supplying consumer markets generally consider themselves to be "information poor" in several moderately or highly important decision areas suggests that future research efforts should focus on knowledge requirements clearly of interest to these firms.

## Generalization 3:

There exists a relatively high perceived need for additional development of marketing mix variables.

With only one exception, all marketing mix decision variables were judged to be either in moderate or high need of further knowledge accumulation (see Exhibit 5). This was true for research managers from both consumer market and industrial market oriented firms. In particular, respondents were consistent in their expressed desire for improved foundations upon which to base pricing decisions and choices requiring knowledge of advertising effects.

Knowledge development may take many directions and assume a number of different forms. For example, we might advance our understanding of buyer brand-choice decisions by formulating a comprehensive theory of buyer behavior, by investigating the extent to which purchase behavior can be accurately viewed as a stochastic process, or by reaching a consensus on how to operationally define attitudes and assess their impact on subsequent brand selection. What insights does the present study offer into the *type* of research which is most urgently needed?

## Generalization 4:

A clear picture of the preferential need for "measurement and analysis" development is projected.

Exhibit 6(a) shows respondents' opinions regarding the type of knowledge development required for the future, according to primary market served. Segment response patterns were quite similar. When considering all 16 decision topics together, marketing research managers expressed relatively little concern for improvement in "conceptual and theoretical" foundations. In comparison, twice as many industrial supplier respondents, and almost three times as many consumer supplier respondents, felt that primary emphasis should be placed on developing "measurement and analysis techniques."

## Generalization 5:

Significant differences appear to exist between practitioners' perceptions of knowledge development needs and the activities of many academic researchers.

Exhibit 7 displays the finding that buyers' brand choice, as a decision topic, does not rank among those subjects that are thought to be high in terms of the need for additional conceptual and theoretical knowledge development. In Exhibit 3, buyer brand choice is not one of the subjects that is moderate or high in terms of importance and need for additional knowledge development. Yet academicians continue to place a disproportionate emphasis on these areas of research. The results of this study suggest that a mismatch between academic effort and practitioner need does exist. Some disparity here is desirable because of differing roles. However, the reasons for this mismatch deserve empirical investigation.

Until such investigation occurs, academics should recognize and be sensitive to these apparent effort allocation differences.

## CONCLUSION

The purpose of this study was to examine the views of corporate research directors regarding the present state of knowledge development in key marketing-decision areas. It was hoped that survey results would offer useful feedback about the directions which future research activity, in both the academic and business communities, should take. Opinions on the importance of individual decision topics, the perceived need for additional knowledge development in these areas, and the type of development required were recorded in an effort to isolate subjects for which future research is likely to be managerially relevant and productive.

The findings indicate that practitioners perceive that substantial additional knowledge development should occur in the marketing-decision areas studied. Where further research is recommended, a strong tendency toward more sophisticated measurement and analysis methodologies is indicated. However, the data suggest that the extent and type of research effort prescribed vary according to the specific decision-making subject and primary market-orientation of the responding research manager.

#### NOTES

<sup>1</sup>A more critical appraisal of the contributions of academic research is offered by William G. Ryan, "Management Practice and Research—Poles Apart," Business Horizons, June 1977: 23-29.

<sup>2</sup>For a discussion of the interface between academicians and business managers, see George S. Day, "When Do The Interests of Academics and Managers Converge?" Business Horizons, June 1979: 48-54.

## REFERENCES

Greenberg, B.A., Goldstucker, J.L. and Bellenger, D.N. 1977. "What Techniques are Used by Marketing Researchers in Business?" *Journal of Marketing*, 41 (April), 62-68.

- Holbert, H.B. 1976. "Research: The Ways of Academy and business." Business Horizons, 19 (February), 36-8.
- Holmes, J.H. 1973. "Profitable Product Positioning," M.S.U. Business Topics, (Spring), 27-32.
- (spring), 27-32.

  Kotler, P. 1968. "Mathematical Models of Individual Buyer Behavior." Behavioral Science. 13 (Iuly), 247-287.
- Kotler, P. 1976. Marketing Management. Englewood Cliffs, N.J.: Prentice-Hall, 303-
- Kover, A.J. 1976. "Careers and Non-communication: The Case of Academic and Applied Marketing Research." *Journal of Marketing Research*, 13 (November), 339-44
- Mallen, B.E. and Silver, S.D. 1964. "Moderα Marketing and the Accountant." Cost and Management, (February), pp. 75-85.
- Moore, W.L., Pessimier, E.A. and Little, T.E. 1979. "Predicting Brand Purchase Behavior: Marketing Application of the Schonemann and Wang Unfolding Model." *Journal of Marketing Research*, 16 (May), 203-10.
- Myers, J.E., Greyser, S.A. and Massy, W.F. 1979. "The Effectiveness of Marketing 'R & D' for Marketing Management: An Assessment." Journal of Marketing, (January), 17-29.
- Ostheimer, R.M. 1977. "The Two Worlds of Marketing." Journal of Advertising Research, 17 (February), 7-11.
- Reibstein, D.J. 1978. "The Prediction of Individual Probabilities of Brand Choice." Journal of Consumer Research, 5 (December). 163-168.
- Tavernier, G. 1975. "Controlling the Soaring Cost of Distribution." International Management, 30 (August), 12-15.
- Trout, J. 1976. "Marketing in the '70s: Product Positioning." Conference Bord Record, (January), 41-44.
- Urban, G.L. 1975. "Perceptor: A Model for Product Positioning." Management Science, 21 (April), 858-871.

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