

Onderzoeksrapport Nr. 7809.

PRETESTING THE EFFECTIVENESS OF INDUSTRIAL
ADVERTISING MESSAGES

by

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Wettelijk Depot : D/1978/2376/13.

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MESSAGES

Unlike in the consumer marketing literature, the texts on industrial marketing are limited in number and in (apparent) degree of sophistication. This holds especially for industrial advertising and for the investigation of its effectiveness. Limited number of prospects and transactions, complexity of conscious deliberation processes, organizational nature of the incubation process preceding an industrial purchase, such are a few reasons for the relative dearth of conclusive research on industrial marketing. In addition, advertising is often only an appendage to the industrial promotional program and the effectiveness testing of advertising is a field of modest and slow progress.

This paper deals with the pretesting of industrial advertising messages diffused through (mass) communications media such as professional and trade journals¹. As with many contributions in this area, it is based on case-study experience and presents a normative framework derived from this experience. The first part deals with the nature of industrial marketing, the second presents a normative framework for pretesting industrial advertising messages, the third part discusses the case study experience.

I. A FRAME WORK FOR INDUSTRIAL ADVERTISING STRATEGY.

Industrial marketing is the commercialization of goods and services with industrial users, individuals or organizations, whose production activities are an intermediary step to the ultimate activities of the consumer.

(1) Mass communications is an inadequate term. Our interest centers on print media which are regularly published and distinct from the direct mail medium. The message is part of an editorial environment. The medium is directed to a larger group of isolated individuals receiving an identical impersonal communication.

The particular nature of industrial marketing derives from the fact that it

1. deals with the inputs to an activity at least one step removed from consumption
2. is directed towards a unit pursuing productive activities and striving to realize such goals as smooth production, sales maximization, market share maximization, technological progress, growth, profit, etc.
3. intends to facilitate transactions with organizations, organizational subunits and individuals within organizations.
4. tends to promote important and technically complex decisions with protracted predecisional and postdecisional processes.

This means that the industrial buyer's demand is a derived demand, that his motivations are partly those of a business firm and of the organization and its subunits. Several people may be involved in an industrial purchasing decision, which may be long in coming, technical in scope and bind the buyer and supplier for a long time.

For a better understanding, it is necessary to discuss the industrial market type, the types of prospects and the industrial advertising exposure context.

a. Types of industrial marketing situations.

In comparison with consumer marketing, where a distinction between convenience, shopping and specialty goods [1 , 2] may be adequate, industrial markets come in a variety of types and subtypes. The industrial equipment market concerns transactions in investment goods which are part of the production system. Heavy equipment and light equipment are two main objects transacted in this market. Semi-finished goods are purchased to be integrated in the end-product without or with minor modifications. Another market contains the transactions in manufactured goods to be integrated in the end-product after substantial modification or manipulation.

Maintenance products are those goods needed for the operation and maintenance of the production system without being incorporated in the end-product. Raw materials markets supply the industrial users with the goods to be subjected to a first transformation.

Besides the production process, which requires equipment, raw-materials, components and maintenance, industrial services are supplied to the production system and to the management system. These services, in turn, may require equipment and supplies for their normal operation and maintenance. Finally, some functions of the firm may be contracted out to suppliers of such services.

The characteristics of these markets are very diverse.

The heavy equipment market is characterized by infrequent transactions of high unit value. The emphasis lies on a system as well as on a product; the equipment is often custom-made after protracted discussions of specifications between buyer and supplier. The list of prospects is limited and can be made exhaustive. The number of decision makers per prospect is large and spans across most functional and hierarchical levels of management. Mutual confidence between the parties to the transaction looms large in importance; references bolster this confidence. Heavy equipment sales enhance the possibility of future supplies of complementary goods and services and even of heavy equipment.

The market for light equipment is characterized by more frequent transactions and replacements, with relatively low unit prices. The list of prospects is large and heterogeneous. Competition is more pronounced, while the supply may be organized through specialized distributors. This implies less direct or less permanent contact between manufacturer and buyer. The purchase decision may still involve several individuals, but is less likely to span across all horizontal or vertical levels of management. A number of tasks with the customer may be entrusted to a purchasing specialist.

Semi-finished goods have to fit either with the end-product (after minor transformations) or with the production process (after major transformations). In the first case, the accessories have a double market : the manufacturer of the end product (original market) and the user of the product (replacement market). Both markets will be the object of a separate market strategy involving a.o. different distribution and promotion approaches. In the original market the small unit price is compensated by the large size of the orders. Exact specifications, consistent quality, and timely delivery are important purchase criteria. While several individuals may influence the decision, the purchasing is often delegated to a specialist who has to take care of the sourcing in a competitive market. The list of prospects in the original market tends to be limited or to be dominated by a few important customers. The replacement market, when it is not the consumer market, contains a large number of prospects who are supplied indirectly through appropriate channels of distribution.

Supplies of raw materials are often mediated by a regional or world market where trading specialists meet and a market price is fixed. The buyer of raw materials is a specialist looking for market price of better and for consistent quality. While various decision influencers may bear on the purchasing decision, the purchaser's market expertise is an invaluable resource for the industrial customer.

Industrial services, while even harder to categorize than industrial goods can be characterized as control services, complementary services or substitute services. Alternative classifications of industrial goods and services are given by Alexander et al., 1970; and Standt and Taylor, 1965, [5, 6] Rosen [8]. Control services are hired from suppliers whose expertise and independence are valued. They are contracted in order to provide a critical assessment of the management, administration and production programs and processes. Since independence matters, the control and evaluation activities will often be imposed on the operational levels by the strategic management levels. The decision to hire outside control services

will often be made by one or a few top managers with little or no staff assistance. Confidence in the skills and independence of the supplier of these services (often bolstered by references) is a prime consideration, which may outweigh price competition. The list of prospects may be rather limited, with the prospects hard to reach. Substitute services are those services which the customer contracts out rather than performing them himself. The list of prospects may be rather large, the typical prospect being a medium-sized firm below the scale optimally required for such services. The decision maker or the technical expert within the potential customer organization may be hard to identify or missing. Integration of the substitute services with the operational flow looms large as a decision factor, while the economies to be gained by contracting out services is difficult to prove. Complementary services involve an addition to or extension of the activities performed within the potential customer firm. The prospect list is often hard to identify, except for those organizations which already belong to the customer list. All purchases of industrial services share the property that they are purchased rather infrequently, or are the outcome of infrequent decisions [3]. They are seldom left solely to a purchasing specialist, but rather by a functionally or hierarchically identified organization member of task force.

It is important not only to consider the type of market but also the kind of party involved on the purchase side of the industrial transaction. The purchaser is a buying specialist who will be a member of the buying subunit in an organization of some size. He should be informed of the offerings on the market and be able to secure timely supplies of specific quality at a reasonable price. His purchasing behavior is influenced by personal motivation, habits and by external criteria imposed on him by the total organization or by the source of the purchasing request [14, 15]. The trade-off between his own criteria and those of the organization may depend on the particular transaction. The purchasing specialist is involved in regular transactions requiring both routine and insight (inside information, knowledge of market and suppliers). His decision process is

routine except where important changes in external or internal conditions force him to engage in problem solving behavior, [16] or where an unusual purchase request is concerned.

Purchase originators are those members of the organization who initiate a purchase request. This request may be routine or exceptional and may differ in the extent to which specifications and preferred suppliers are indicated.

While not initiating or carrying out a purchase process, decision influencers have an orientation effect on sourcing, through their influence on technical or source specification. They may do this incidentally or as part of their permanent or temporary duties.

Purchase approvers review and approve proposed purchases. They do this routinely or exceptionally, eventually because of exception rules applying to transactions exceeding a given size.

Let us note that the distinction between the roles above gains considerable importance when considered in the light of East-West trade and of industrial cooperation. Where large projects are involved and where government steps in, the transaction becomes more clearly structured into stages of development of specifications, negotiations, contract making and implementation, while the influences are spread out over governmental authorities, consultants, suppliers and buyers [17].

A final consideration on the industrial advertising exposure context is in order. Industrial print advertising will mostly be inserted into trade and professional journals. These journals have the characteristics of being well targeted to particular segments in the audience. They are inserted in an editorial context which is germane, but often highly competitive. The issues have a protracted life; they may be circulated among the interested members of the audience. The exposure context is such that

exposure is not forced and allows leisurely processing of the content. The reader is generally involved in the editorial matter. He may be involved in the advertising messages as such or the involvement may spill over from the editorial to the promotional content. The foregoing means that the reader of trade journals, professional journals and even of general informational publications is in an information-search or information-processing mode. This mode may apply or carry over to the promotional content.

II. NORMATIVE FRAMEWORK FOR PRETESTING INDUSTRIAL PRINT ADVERTISING.

Industrial advertising is characterized by wide variety in communication tasks (situations) and targets. The remark that pretesting, while relying on a few principles and methods, will have to mix these in accordance to the situation [13] is especially relevant for this type of advertising.

a. Communications task and processes.

It is by now well documented that the communication affects the pre-dispositions and decisions of the audience in several ways, depending on the situation and the prospect . [9, 10, 11] A distinction is made between three decision hierarchies : the high involvement-learning hierarchy, the high-involvement dissonance hierarchy and the low involvement- self perception hierarchy. The high involvement hierarchy assumes a rationally disposed individual facing a (potential) decision situation. His acts are largely guided by his evaluation of the decision alternatives based on available and acquired information. Promotion and advertising fulfill the multiple tasks of informing the prospect, of shaping his evaluative assessments and of facilitating the decision making. The high involvement-dissonance hierarchy assumes a rationalizing individual, promotion and communication serves the purpose of bolstering the audience's confidence in the

adequacy of a choice already made. This "maintenance" function is realized by providing additional supporting information in order to strengthen the evaluation of the selected alternative, so as to foster loyalty.

The lower involvement-self perception hierarchy assumes an individual who is not motivated to search or acquire information nor to rationalize. Advertising mainly serves the purpose of making the prospect aware of the offer and of providing him with a concise symbol or meaning in order to facilitate his eventual interaction with the advertised product or service.

These three decision hierarchies may apply to industrial advertising. Compared to consumer convenience goods promotion, however, the rational mode is expected to occur more frequently because of the involvement inherent in the choice (important decision) or proper to the audience (decision-makers in the true sense of the term).

The rationalizing mode may occur in instances where the choice decision did not reveal a clearly superior alternative or where the customer is bound to face some disappointment following purchase. The low-involvement mode applies where advertising is not concerned with a particular product or service, but rather with the identity of an unknown or complex supplier.

These decision hierarchies tend to assign a different role to advertising and require a rather different communication process.

- in the high involvement, rational mode the emphasis lies first on communication of information, next on creating favorable evaluation and finally on helping elicitation of behavior. The prospect is favorably disposed to information and can be expected to adopt the learning mode once a message is judged relevant.

Therefore advertising messages should be designed less to attract initial attention; they should allow easy self-selection by the interested target segment (illustration, headline); they should facilitate the transmission of factual information (communication) and lead to positive evaluation (elimination of resistance to yielding, make use of communication principles

known to improve yielding in the learning mode). Behavior elicitation may be less relevant except if the message can elicit a proxy for the ultimately desired response (send for more information, request trial, etc.). Repetition is less likely to be useful in this context.

- in the high involvement-rationalizing mode, positive evaluation is likely to follow behavioral commitment spontaneously. Information consistent with these evaluations and with experience is likely to be sought out. As in the previous high-involvement hierarchy, gaining initial attention is a function less of the message than of the respondent. The advertisement should allow the prospect to self-select himself as a member of the target audience. The message must convey information (communication) which is consistent with the evaluation. Repetition with variation is more likely to pay.

- in the low involvement mode, positive evaluation should follow behavioral commitment due mainly to non-advertising stimuli. The task of advertising is to make the audience aware of the offer or of the advertiser and to establish a concise set of symbols or referents, eventually the purpose may also be to strengthen this set of symbols and their meaning or to alter them. In order to fulfill his task, the message must be able to capture initial attention and to convey "meaning-in-a-nutshell" to the uninvolved reader. It is important to ascertain that the desired "image" is communicated. Repetition is likely to be an important means for realizing these objectives.

The following table recapitulates the salient elements of the decision- and communication processes.

Decision hierarchy level	Hierarchy		
	high-involvement rational	high involvement rationalizing	low involvement self-perception.
knowledge	-import factual knowledge -information-receptive context -important task for advertising	-add consistent knowledge to positive attitudinal environment -context receptive for supportive information	-instill concise set of symbols or referents -context not receptive or neutral for information
evaluation	evaluation based largely on available and acquired information	-positive evaluation follows behavior -attitude to be bolstered by supportive information	-attitudinal sanction follows behavioral input -attitude sanctions established set of referents
behavior/choice	choice based largely on evaluation of alternatives	-prospect already committed to a choice	-behavioral input elicited by non-advertising stimuli -elicitation facilitated by awareness and availability of image

Table 1 : Principal decision-process characteristics of advertising according to hierarchy.

Communication process elements	Hierarchy		
	high-involvement rational	high involvement rationalizing	low involvement
initial attention	less important	less important	important
continued attention	important, respondent should be able to self-select	important, respondent should be able to self-select	hard to gain
symbolic communication	less important	less important	important; message should be able to communicate meaning concisely

communication of factual information	factual information important and sought for	less important information should be consonant	less important
yielding facilitators	important should be mobilized	less important; yielding already occurred	less important
yielding inhibitors	important, should be neutralized	less important, yielding already occurred	less important, critical reactions, e.g. source derogation to be prevented
repetition/retention	less important, except to increase reach	moderately important; maintenance and variety required	important, cognitive learning to be attained

Table 2 : Principal communication-process characteristics of advertising according to hierarchy.

b. Audience.

Some comments have already been made on the audience, its type of involvement and its exposure context. Careful targetting of industrial advertising is very important since the market potential and the need for information differs from individual to individual. Different communication approaches are to be used depending on whether the prospect is a purchaser, an initiator, a decision influencer, decision orientator or decision approver. The characteristics of these types are shown in table 3.

In addition, it is important to consider the impact of previous commitments to a supplier on the effectiveness of industrial advertising. Research on consumer convenience goods advertising shows that the test results of commercial messages are influenced by the respondent's loyalty to the brand or supplier [18]. Such effects could be even stronger in

<u>audience type</u>	<u>communication needs</u>
purchaser	-build up store of factual information on available suppliers and their offer
initiator	-suggest use of new products/services -evaluate alternative suppliers
influencer	-obtain factual information concerning offer of suppliers -create favorable attitude towards supplier
orientator	-create awareness of and positive attitude towards supplier (image)
approver	-create awareness of and positive attitude towards supplier.

Table 3 : Communication needs according to audience types.

the case of industrial advertising, where the commitment tends to be stronger, the exposure context, more, involving.

The main characteristics of the audience, insofar as they affect pretesting can be summarized as follows :

- it is important to test the communication with the (carefully specified) target group.
- the communications task to be fulfilled will differ according to the decision role of the target.
- the target will generally be receptive to the information, if the information search or information reception mode prevails. This will be less the case for (corporate) image advertising.
- previous supplier commitments and attitudes are likely to be potent determinants of advertising effectiveness.

c. Pretesting context.

Before proceeding to the discussion of case study experience, a comment should be made concerning the research context. Pretesting consumer convenience goods messages is made difficult by several factors which are less prevalent in industrial promotion. The consumer tends to be less involved with the message and its object; the industrial buyer tends to be more involved. Consumer image advertising aims at cognitive shifts which are the outcome of a campaign rather than of a single ad; industrial advertising aims rather at communication of factual information [7]. The consumer is reluctant to admit that he might be influenced by advertising, he brings a role of source derogator and an alien role of consumer activist to the test situation; the industrial audience is involved in the message in an organizational, i.e. non-personal, way. He is familiar with advertising and promotion in his own firm. He brings a role of expert to the situation which is not out of line with his role of expert and his rational approach in being exposed to commercial communication.

Therefore, industrial advertising pretests need not be disguised and allows valid investigation of single-exposure effects.

Let us note, finally, that the target population may be hard to find for pretesting purposes. The targets may be limited in number or hard to gain access to [19].

III. CASE EXPERIENCE IN PRETESTING AN ADVERTISEMENT FOR INDUSTRIAL SERVICES

Case experience is evidence of a non-scientific nature. It leads to the formulation of hypotheses rather than to conclusive inferences. Yet, it is also one of the main sources of information on which managerial decisions are based. In the area of advertising pretesting, much insight from cumulative case experience is gained by practitioners. The academic researcher in this field soon learns that these insights are to be valued.

Our case experience deals with an advertisement for industrial services, namely computer services offered by financial institutions as a substitute or complement for administrative work performed by companies. The advertiser is a leading financial institution having a large share of the corporate customers. The service is not new in concept, but is rather new in the range of services offered by financial institutions. The prime targets are decision influencers and initiators in administration, finance, EDP or management.

The message is a full-page advertisement with a four-color illustration, headline, informative copy, sub-illustration and sub-headline. It is inserted in general information journals or professional journals directed at general and functional management.

The respondents for the pretest were selected from the target group according to a convenience sample.

a. Pretesting methodology.

Three types of pretesting were carried out, each on a sample of 25 respondents. The portfolio-method [13] exposes the respondent to a folder of potentially relevant industrial advertisements. Normal exposure and reading conditions are simulated. The respondent is probed for message recall and for evaluative comments after a short diversionary conversation intended to blunt immediate memory.

The jury method [13] requires the respondent to comparatively assess a number of potentially relevant industrial advertisements on a set of evaluative scales. In contrast to the foregoing methods, the Target-Plan method [12] uses only the pretested message as stimulus. The message is shown successively for a very brief interval (10"), a moderately short interval (60") and for unlimited time. Appropriate questions follow each of these exposures in order to test what has been noticed, what interpretation is given and what evaluative comments are elicited. The advertiser supplies the researcher with his "communication targets" to be checked in the test.

The presumed properties of the pretesting method w.r.t. the communication and decision process are outlined in table 4.

Communication Process effects	Methods		
	Portfolio	Jury	Target Plan
gain initial attention	+ recall of advertisement	- direct evaluation of impact	+ short exposure degree of communication
gain continued attention	+ recall of advertisement, extent of recall	+ direct evaluation of interest relevance	+ interest in further exposure, direct probing for relevance
communicate concise symbolic meaning	+ recall of main argument	+ direct evaluation of image-building potential	+ short exposure interpretation of stimulus
communicate factual information	+ recall of arguments	+ direct evaluation of information transmission	+ medium exposure recall of arguments
facilitate yielding	- spontaneous or elicited comments	+ direct questioning of facilitating reactions	+ unlimited exposure comments
neutralize yielding inhibitors	- spontaneous or elicited comments	+ direct questioning of inhibiting reactions	+ unlimited exposure comments
yielding	- elicited comments	+ direct questioning of yielding reactions	+ unlimited exposure probing
facilitate behavioral intention	+ spontaneous or elicited comments	+ direct questioning of facilitation	+ unlimited exposure probing
retention	+ recall of message	- direct questioning of memorability	+ short and medium exposure extent of recall
<u>Decision process effects</u>			
awareness	+ recall of message, source object	- direct questioning of awareness change	+ direct probing of awareness change
factual knowledge	- recall of message components	- concise check on communicated information	+ check on communication targets
image	- recall of main arguments	- concise check on communicated symbol	+ check on image perception
.../...			

attitude/attitude change	- spontaneous or elicited evaluation	+ direct questioning on attitude/attitude change	+ probing of attitude/attitude change
behavioral intention/intention change	- spontaneous or elicited intention	+ direct questioning on intention/intention change	+ probing of intention/intention change

Table 4 : Measurement characteristics for three pretest methods w.r.t. communication and decision process elements.

Table 4 makes the extent to which a method is able to gauge particular responses by means of a +(good), -(bad) or +(advantages and disadvantages).

We note the following

1. Portfolio Method. This method has the advantage of its rather natural exposure context. Only responses strong enough to overcome the forgetting process are elicited. The procedure may be low in reactivity, especially if the responses are made in writing (in our case study responses were made verbally to the interviewer). The Portfolio method is hypothesized to be more adequate for assessing responses lower on the communication and decision hierarchies. It allows comparative assessment of messages. On the negative side, the method yields only limited information (some messages are not recalled, the extend of further responding per recalled message is low) and is less adequate for probing a range of responses which are potentially relevant. It should be more appropriate for messages in the rationalizing or low involvement mode. Finally, the method does not easily allow quantification of responses. This may hinder further analysis of the results.
2. Jury Method. This method forces unnatural exposure on the respondent, who is to act as an expert. This role may be appropriate only when the

message fits in a rational mode of communication. The method is suited to delve deeper into the communication and decision process. It lends itself to quantification and is the least reactive of the three systems. It is well suited to comparative assessment of messages. On the negative side, it is less adequate to gauge the reactions lower in the communication or decision hierarchy and it does not allow for the flexibility needed to investigate responses of interest to one particular message (e.g. targets, image components).

3. The Target Plan-method is easily the most reactive of the three systems, due to the direct interaction between respondent and interviewer. From table 4 it is seen to be adequate or reasonably adequate for gauging a wide spectrum of responses, as long as those do not require natural exposure. It is especially adequate for testing decision-process effects either in reality or as perceived by the respondent. Such is mainly due to the flexibility of the semi-structured interview, allowing extensive probing tailored to a specific message. This advantage trades off with the limited opportunity for comparative assessment and for quantification. A major drawback lies in the necessity for synthesizing and interpreting the responses. The method is suited for several communication modes (high involvement, low involvement), with a comparative advantage in testing image-building messages.

b. Pretesting results.

We will first deal with the results from each method separately, and then attempt to derive conclusions. Because of the nature of the data, the jury Method results will account for a large part of the discussion.

- Portfolio method.

The portfolio test was chronologically first. Since the tests were carried out during the campaign, this test suffers least under the disturbing effects of message familiarity.

The test message was best in spontaneous recall (table 5) when compared with other messages in the portfolio (the position of ads in the portfolio was rotated systematically). On the other hand, correct recall of advertiser and his service jointly occurred less frequently. Familiarity with the advertiser and novelty of the service for the advertiser may explain these results to some extent. Problems in communication of information, resulting in lower awareness and knowledge may also account for the results.

Advertisements	advertiser and/or service	advertiser only	advertiser and service/product
Test ad	21	17	4
A	17	11	6
B	13	7	6
C	13	13	0
D	10	1	9
E	6	2	4
F	2	1	1
G	1	1	0

Table 5 : Unaided recall of messages in the Portfolio method (N = 25).

The concise interpretation of the message given by the respondents concerns the pictorial and verbal components of the message. While the format elements are judged as eye catching and evaluated positively by about half the interviewees), it appears that the respondent has difficulties in meaningfully structuring the pictorial elements. This may lead to the negative evaluations by an important minority of respondents. Total absence of recall is noted for the headline. While the message does attract initial attention (a less important function in the information search mode), it tends to show some weaknesses in the identification of its potential relevance to prospects. Absence of recall is noted for the

sub-illustration and the sub-headline. The latter elements, while not detracting from the message's communication task, do not seem to play a constructive role. Of the 25 respondents, 4 are able to summarize the gist of the message, 8 respondents give only an approximation and the remainder fail to give an adequate summary. These data confirm the likelihood of limited "communication-in-a-nutshell" or of difficulties in respondent self-selection.

Spontaneous recall of factual information results only in limited information. Only 12 of the 25 respondents are able to recall some arguments (some of them did not read the message), while the other interviewees play back only one or a few striking elements, or even vague or erroneous content arguments. The target reactions (specified by the advertiser in view of the Target Plan system) account for a very small share of the already restricted amount of content recall. A further check on the target reactions (aided recall) shows some what better results for factual information transfer. Copy elements have an average correct recall of 45 %, an average faulty recall of 17 % and a don't know percentage of 38 %. Elements communicated in the headline and subheadline have scores of 71 %, 6 % and 23 %. Some specific copy elements have low correct recall with a high proportion of don't know answers. The content of the message, the copy, is evaluated positively by a majority of respondents. Thirteen respondents express interest for the service advertised in the message, eleven respondents express lack of interest.

Concluding for the portfolio test, one observes that the respondents are positively disposed towards the message, even though a large minority is not interested in the service as such. The message performs well in terms of catching initial attention, which may be due to the incongruous illustration. The headline does not play a constructive role in the communication process. The communication of factual information is not unqualifiedly positive, but this aspect of the results is affected by the varying

degree of readership and interest in the sample of respondents. Finally, the sub-illustration and sub-headline do not play a constructive role in the communication process.

- consumer jury method.

The test advertisement was assessed comparatively with five industrial product service messages selected from the same journal in which the test message occurred. Six-point semantic differential scales were given to the respondent with the request to rate messages within scales (rating scales within adverts enhances halo effects). The concepts or traits hypothetically measured by the scales are listed in table 6.

Table 6 : Constructs measured by semantic differential scales.

1. Eye catching message
2. Visually pleasing message.
3. New learning through message
4. Interesting message
5. Informative message
6. Credibility
7. Source derogation-continued attention
8. Retention
9. Personal relevance (connection)
10. Curiosity
11. (Creation of) favorable attitude to service
12. Clarity-case of understanding
13. (Creation of) favorable attitude to advertiser
14. Recognition
15. Positive evaluation of service
16. Message familiarity
17. Image building impact
18. Support arguing - counterarguing

The mean evaluation scores and their standard deviations are reported in table 7, p. 22. The test ad is seen to be rated most favorably in comparison to other advertisements, except in terms of its informative character (2nd rank) and of its credibility (4th rank).

Table 8 shows the variance between means, the average variance of the mean scores and the ratio of the later to the former, which may serve as a crude reliability, or discriminatory power index, for the scale (or rather as the complement of reliability or discriminatory power, the maximal reliability being 1.00).

Table 8 : Variance between means, average variance of the mean and discriminatory power for 18 ratings on 5 stimuli (N = 25).

scale #	variance of means	average variance of mean	discriminatory power
1	.606	.073	.12
2	.549	.055	.12
3	.277	.096	.35
4	.169	.061	.36
5	.241	.071	.29
6	.240	.063	.26
7	.430	.064	.15
8	.670	.087	.13
9	.520	.079	.15
10	.488	.082	.17
11	.150	.041	.27
12	.227	.066	.29
13	.128	.059	.46
14	.419	.072	.17
15	.110	.050	.45
16	.244	.107	.44
17	.288	.060	.21
18	.213	.046	.22

Scales which discriminate less reliably between messages are those measuring new learning, expression of interest, supplier preference, positive product evaluation and message familiarity. Scales discriminating rather reliably are those measuring initial and visual impact, continued attention, memorability, personal relevance, curiosity thoughts and supplier recognition.

Table 7 : Mean Evaluation scores and standard deviations.

	<u>Test advertisement</u>		<u>Advertisement A</u>		<u>Advertisement B</u>		<u>Advertisement C</u>		<u>Advertisement D</u>	
	<u>μ</u>	<u>σ</u>	<u>μ</u>	<u>σ</u>	<u>μ</u>	<u>σ</u>	<u>μ</u>	<u>σ</u>	<u>μ</u>	<u>σ</u>
hing message	<u>1.615</u>	(0.752)	2.885	(1.451)	3.269	(1.313)	3.923	(1.129)	3.423	(1.653)
pleasing message	<u>1.923</u>	(1.093)	3.615	(1.416)	3.577	(1.238)	4.115	(1.107)	3.2	(1.472)
ning	<u>3.462</u>	(1.679)	3.769	(1.583)	4.154	(1.642)	4.231	(1.632)	4.462	(1.174)
ing message	<u>2.654</u>	(1.413)	3.231	(1.070)	4.154	(1.156)	3.731	(1.402)	3.962	(1.076)
ive message	2.731	(1.402)	<u>2.192</u>	(1.266)	3.269	(1.313)	2.962	(1.183)	3.654	(1.495)
ity	3.5	(1.449)	<u>2.615</u>	(1.169)	3.154	(1.084)	3.154	(1.317)	4.115	(1.243)
erogation-continued										
	<u>2.28</u>	(1.137)	3.423	(1.172)	4.154	(1.223)	3.76	(1.451)	3.88	(1.301)
	<u>1.962</u>	(1.248)	3.269	(1.888)	4.0	(1.265)	4.346	(1.294)	3.846	(1.567)
relevance	<u>1.808</u>	(1.167)	3.269	(1.614)	3.154	(1.515)	2.692	(1.192)	4.0	(1.497)
	<u>2.5</u>	(1.334)	4.154	(1.515)	4.462	(1.334)	3.923	(1.573)	4.231	(1.394)
attitude to service	<u>2.462</u>	(1.139)	3.0	(0.894)	3.346	(0.892)	3.231	(1.070)	3.615	(1.061)
omprehensibility	<u>2.538</u>	(1.421)	2.692	(1.258)	3.423	(1.102)	2.885	(1.071)	3.808	(1.524)
attitude to advertiser	<u>2.769</u>	(1.306)	2.808	(1.132)	3.385	(1.134)	3.577	(1.102)	3.538	(1.363)
on	<u>1.92</u>	(0.977)	2.885	(1.479)	3.32	(1.282)	3.808	(1.415)	3.423	(1.474)
evaluation of service	<u>2.038</u>	(1.280)	2.115	(1.033)	2.538	(1.029)	2.423	(0.945)	2.962	(1.280)
amiliarity	<u>2.808</u>	(1.550)	3.423	(1.963)	4.0	(1.442)	4.231	(1.632)	3.538	(1.529)
lding impact	<u>1.923</u>	(0.796)	2.615	(1.525)	3.654	(1.129)	3.5	(1.334)	3.038	(1.216)
ounterargument	<u>2.24</u>	(1.200)	2.8	(1.118)	3.28	(0.980)	3.24	(1.091)	3.56	(0.961)

Other scales are intermediate in reliability. While the evidence is tenuous, as it depends on the sample of messages and of respondents, it is not at all conflicting with what was mentioned above concerning the measurement properties of the jury Method.

More information on the structure of the reaction process is gained by an analysis of the pattern of associations between responses for each advertisement. Table 9 shows the most pronounced loadings and other statistics for a principal components factor analysis (Kaiser extraction, varimax rotation, for the five advertisements. The factors represents separate response dimensions which summarize the most important part of the structure underlying the respondents' reactions. The number of factors necessary to account for most of the underlying structure given an idea of the complexity (dimensionality) of the response pattern.

The test advertisement needs six factors for identification of the underlying structure. It has the highest complexity of all messages tested by the jury method. An analysis of the loadings leads to the tentative interpretation of the response dimensions as (1) interest/personal relevance (2) impact, (3) informativity/positive evaluation, (4) recall (recognition/familiarity, (5) clarity/credibility and (6) image building effect. The first factor accounts for a large share of the explained variance, stressing the importance of interest and message relevance both for communication and for pretest respondent selection.

Advertisements A, B and C have five factors in their factor solution. Message A advertises a well know visual presentation aid and includes substantial copy as well as a picture and return coupon. Its headline is short and powerfull, its copy is informative. The factors can be labeled as (1) continued attention/relevance, (2) impact and recognition, coupled with positive product evaluation (3) informative, clear, (4) credibility/familiarity and (5) new learning.

Table 9a : Factor loadings for the test advertisement.

	<u>FACTOR 1</u>	<u>FACTOR 2</u>	<u>FACTOR 3</u>	<u>FACTOR 4</u>	<u>FACTOR 5</u>	<u>FACTOR 6</u>	<u>COMMUNALITY</u>
1. eye catching message		0.72					0.68
2. visually pleasing message		0.74			0.42		0.90
3. new learning through message		0.50					0.36
4. interesting message	0.41	0.79					0.96
5. informative message	0.41		0.73				0.91
6. credibility					0.47		0.44
7. source derogation-continued attention	0.82						0.80
8. retention	0.48			0.60			0.78
9. personal relevance	0.75						0.77
10. curiosity	0.80						0.72
11. favorable attitude to service	0.70		0.60				0.92
12. clarity-comprehensibility			0.73		0.47		0.90
13. favorable attitude to advertiser			0.62				0.71
14. recognition				0.84			0.74
15. positive evaluation of service			0.81				0.76
16. message familiarity				0.48			0.27
17. image building impact						0.90916	0.86
18. support-counterargument arguing		0.42	0.68				0.78
% explained variance	39.6	14.6	8.7	8.2	5.7	5.6	

Table 9b : Factor loadings for advertisement A.

	<u>FACTOR A</u>	<u>FACTOR 2</u>	<u>FACTOR 3</u>	<u>FACTOR 4</u>	<u>FACTOR 5</u>	<u>COMMUNALITY</u>
1. eye catching message		0.46				0.51
2. visually pleasing message		0.71				0.69
3. new learning through message					0.98	0.99
4. interesting message	0.55			0.56		0.71
5. informative message			0.58			0.43
6. credibility				0.79		0.77
7. source derogation-continued attention	0.61					0.53
8. retention	0.58					0.64
9. personal relevance	0.74					0.64
10. curiosity	0.80					0.70
11. favorable attitude to service	0.63					0.59
12. clarity-comprehensibility			0.84			0.73
13. favorable attitude to advertiser	0.44		0.59			0.70
14. recognition		0.75				0.86
15. positive evaluation of service		0.82				0.71
16. message familiarity		0.44		0.54		0.53
17. image building impact			0.40			0.62
18. support-counterargument arguing		0.55		0.47		0.79
% explained variance	37.3	12.5	11.1	7.8	6.8	

Table 9c : Factor loadings for advertisement B

	<u>FACTOR 1</u>	<u>FACTOR 2</u>	<u>FACTOR 3</u>	<u>FACTOR 4</u>	<u>FACTOR 5</u>	<u>COMMUNALITY</u>
1. eye catching message				0.91		0.87
2. visually pleasing message				0.50		0.42
3. new learning through message			0.49			0.32
4. interesting message	0.57			0.61		0.82
5. informative message			0.77			0.73
6. credibility					0.76	0.63
7. source derogation-continued attention	0.89					0.83
8. retention			0.70			0.64
9. personal relevance	0.75					0.67
10. curiosity	0.63					0.56
11. favorable attitude to service	0.61	0.41				0.76
12. clarity-comprehensibility	0.42	0.46				0.58
13. favorable attitude to advertiser			0.60			0.46
14. recognition		0.63				0.57
15. positive evaluation of service		0.75				0.62
16. message familiarity					0.59	0.58
17. image building impact		0.55		0.56		0.72
18. support-counterargument arguing		0.49			0.75	0.89
% explained variance	36.9	12.1	10.3	8.6	6.4	

Table 9d : Factor loadings for advertisement C

	<u>FACTOR 1</u>	<u>FACTOR 2</u>	<u>FACTOR 3</u>	<u>FACTOR 4</u>	<u>FACTOR 5</u>	<u>COMMUNALITY</u>
1. eye catching message			0.67			0.61
2. visually pleasing message			0.44	0.40		0.44
3. new learning through message	0.80					0.68
4. interesting message	0.66		0.42			0.73
5. informative message	0.54					0.40
6. credibility		0.41		0.53		0.50
7. source derogation-continued attention	0.74					0.74
8. retention	0.47		0.52		0.65	0.99
9. personal relevance				0.85		0.74
10. curiosity	0.92					0.93
11. favorable attitude to service	0.76					0.84
12. clarity-comprehensibility		0.50		0.40		0.61
13. favorable attitude to advertiser					0.70	0.67
14. recognition			0.57		0.57	0.80
15. positive evaluation of service		0.76				0.61
16. message familiarity		0.44				0.50
17. image building impact			0.62			0.58
18. support-counterargument arguing		0.79				0.85
% explained variance	39.0	13.2	10.0	8.0	6.2	

Table 9e : Factor loadings for advertisement D

	<u>FACTOR 1</u>	<u>FACTOR 2</u>	<u>FACTOR 3</u>	<u>COMMUNALITY</u>
1. eye catching message	0.66			0.65
2. visually pleasing message	0.41	0.72		0.70
3. new learning through message		0.64		0.45
4. interesting message		0.78		0.73
5. informative message		0.71		0.66
6. credibility		0.71		0.60
7. source derogation-continued attention	0.45	0.60		0.59
8. retention	0.79	0.41		0.85
9. personal relevance	0.71			0.55
10. curiosity	0.75			0.70
11. favorable attitude to service	0.63	0.55		0.81
12. clarity-comprehensibility	0.75			0.70
13. favorable attitude to advertiser			0.65	0.61
14. recognition			0.97	0.98
15. positive evaluation of service	0.51			0.38
16. message familiarity	0.32			0.23
17. image building impact	0.82			0.68
18. support-counterargument arguing	0.42	0.70		0.69
% explained variance	50.2	11.2	8.4	

The factor analysis of the responses to industrial advertisements is quite instructive and goes a long way towards supporting our confidence in several hypotheses advanced in this text. Except for message D, which is less informative and more image-building than the other advertisements, the structure underlying the responses is rather differentiated. The test message and ads A and B list interest and personal relevance, a respondent self-selection response, as most important. That this is not the case for message C is possibly due to the universal relevance of the message and to the relative lack of familiarity with the supplier. Visual or short-term impact is listed as a separate reaction in most instances, as would be expected for industrial ads. Information transfer occurs as a separate factor combining communication and persuasion processes. Finally, credibility (often coupled with familiarity) is obtained as a process in its own right, moderating the yielding processes.

The general impression derived from the consumer jury method is that the test message compares favorably with a sample of four messages belonging to the same category of advertisements. Potential weaknesses are indicated by the lesser performance on the dimensions of informativity and credibility. Problems in unsatisfactory communication have already been alluded to in the discussion of the portfolio results. The credibility problem is caused skepticism as to the ease of introducing any computerized services. The analysis shows that quite a number of evaluative scales have adequate discriminatory power, and that these are mainly concepts expected to be measured best by means of the jury method. The factor analysis reveal a structure of expected complexity and identity. With respect to the test ad, the factors reveal the response dimensions of relevance, impact, information-persuasion, recall, credibility and image. This is in line with previous evidence of (1) problems with identification of relevance, (2) repeated comments on impact, (3) positive evaluation of information, (4) good message recall. The credibility factor identifies a new potential weakness of the message. The image-effect, finally is not unexpected for a widely known advertiser in an oligopoly situation.

- Target Plan Method.

The test advertisement was presented individually to a group of 25 respondents. A very brief and a limited exposure, each followed by adequate questioning was subsequently extended into a discussion with the message in full view. The test was organized as the last of the series and suffered under sharply increased message familiarity.

Short exposure results confirm the absence of "instant communication" for industrial advertising. The test ad seems to suffer from poor identification of the service offered and of its relevance when briefly exposed. Those already familiar with the message are better able to reproduce the essence of the message. This provides some reassuring posttest information. Problems with the interpretation of visual components and with headline (content) playback discovered in the folio test are confirmed. Limited exposure results also confirm the portfolio findings the message content is generally recalled by means of a few isolated copy components. Evaluative responses to the format and copy elements are positive. The target reactions are generally well reproduced. Spontaneous comments skeptical of the ease of introducing computerized service are not infrequent.

The Target-Plan method has in general confirmed the findings in the previous two test procedures. To some extent this is a welcome replication; we should also acknowledge that the Target Plan method could be used more extensively to borrow on its strengths as discussed in table 4. Its use in a target-response testing mode and especially in the verification of target-response patterns can be useful. For this purpose trained and experienced researchers and interviewers are a prerequisite.

c. Conclusions.

This study was aimed at the properties of advertisements and of advertising pretesting methods in the framework of industrial marketing. A conceptual and normative perspective was established, based on our knowledge of consumer goods advertising research and of industrial marketing. The evidence presented in the article is based on a case study and used to explore rather than test broad hypotheses. The results concerning both messages and pretest methods are encouraging and show that clear hypotheses can be developed for conclusive statistical testing.

The important conclusions for the researcher are that

1. the communication process in industrial marketing is of a specific and variable nature.
2. the identify, role and needs of the audience should be kept in mind when creating a message and when testing it.
3. the pretest methods applied in consumer advertising research are suited for industrial advertising, if a mix of methods is used with emphases put on specific components of the mix, depending on the communication situation.
4. there is some confirmation of the role to be assigned to each method of pretest research in the investigation of particular elements of the communication and decision process.

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