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CONSUMER SEARCH AND PUBLIC POLICY

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"Consumer Search and Public Policy"

Public policymakers have typically adopted the view that consumers will seek "objective" information if the government acts to make it available. However, a number of studies have shown that consumers engage in very little overt search for information, even for expensive products such as major appliances and furniture (Claxton, Fry and Portis 1974; Katona and Mueller 1975; Newman and Staelin 1972). This lack of active search is often pointed to in explaining why government either through regulation or direct disbursement has failed to have the hoped for impact on consumer behavior.

One answer to why consumers frequently don't engage in more pre-purchase information search has been provided by economists, such as Stigler (1961), who have theorized that consumers use cost-benefit principles in deciding whether to search for information. The extent of search is believed to be determined by a marginal rule, i.e., search continues until the value of an additional unit of information equals its cost.

While useful as a theoretical framework, this approach is not particularly helpful to policymakers who seek to understand why consumers do not actively search new information and who strive to formulate programs which can provide useful information to consumers. Also, this economic-based approach ignores a second form of information acquisition often referred to as passive acquisition, where the consumer acquires information while doing some other activity such as watching a television program. Consequently, this article takes a broader view of consumer search by considering the total range of information acquisition strategies used by consumers and exploring the interrelationship among various information sources with the aim of developing a paradigm for better evaluating any public policy information program.

The outline of the paper is as follows. First we present the two basic methods by which consumers acquire information used for making purchase decisions, these being internal search, i.e., retrieving previously acquired information from memory and external search, i.e., actively seeking information. Next we discuss the implications of the empirical fact that a substantial amount of the information stored in memory and thus available for internal search was acquired passively. Finally we present the three major sources consumers use to acquire information via external search (i.e., third party consultants, seller controlled sources and direct inspection), and thus show how changes in the informational environment of any of these three sources may lead to changes in either the consumers' or sellers' behavior. Examples and policy implications are given throughout.

Types of Information Search

Most empirical studies conclude that the average reported external search for all but the most expensive durables is quite limited. Consumers normally visit only a few stores, rarely seek out "unbiased" third party sources such as Consumer Reports, and in general, do not seem to be active information seekers. One reason for the limited scope of external search is that consumers often have available a wealth of previously acquired information based on past experience and previous information acquisition which can be retrieved from memory through internal search.^{1/} Unlike the extensive costs usually associated with external searches, the cost of seeking internal information is limited to the cognitive effort of recalling the relevant facts.

Information stored in memory is of two types: that which has been actively acquired in the past and that which has been passively absorbed from the environment (See Figure). Consumers who engage in an active external search at any time can store the data in memory and retrieve it for later use through the internal search process. For example, once a consumer has ascertained the best unit price for dishwashing detergents at the local grocery store, he or she need not engage in an active price comparison again until relative prices change, because the information on the best unit price can be retrieved from memory.

Consumers may also acquire information through personal use of a product or service. Personal experience works best for inexpensive, frequently purchased commodities with no hidden health or safety risks. If the information obtained from repeated product experience is generally reliable, then the collective purchase decisions of consumers based on this source may be sufficient to maintain the competitiveness of markets for frequently purchased commodities (Salop 1979).

Even though past experience would seem to be the most used source for many repeat purchase non-durables, this does not always seem to be the case. For example, the sample preference distribution based on consumer blind taste tests of beer often differs substantially from the market shares for the beers implying that consumers use other information to select between brands in this product class. This phenomenon occurs for many inexpensive, repeat purchase products.

Also, some attributes are so difficult to measure that they may never be accurately gauged from the experience of the average consumer. Consider the problem of evaluating the performance of home insulation based solely on experience. Weather and fuel prices change from year to year, making before and after comparisons quite complicated. And if the insulation is installed before the homeowner moves in, no "baseline" data will be available for comparison purposes. Finally, since proper installation affects insulating ability, it may be impossible for the consumer to separate the actual quality of the product from the skill (or lack thereof) with which it was set in place. In this case, standardized disclosures of relative insulating abilities ("R-value") could provide better information on product performance, although they would not protect the consumer from losing R-value due to poor installation.

Passively Acquired Information

Much of the information stored in memory is not the result of a special search process, but is taken in passively as part of the consumer's routine. Thus, an observer may find the consumer:

- noticing a message posted on an attractive billboard,
- passively observing a television commercial, or
- casually hearing about a product when a friend related a personal experience.

There are two specific ways the consumer can acquire information without actively seeking it: through "interrupts" or through "low-involvement" learning (Bettman 1979).

"Interrupts" occur when the consumer is confronted with a stimulus which is unexpected or novel (e.g., a new package design) or which "looks interesting" (e.g., a new food recipe). Consequently, the consumer notices and remembers the information even though he or she is not actively looking for it.

Information may also be acquired through "low-involvement" learning (Krugman 1965). While not a subliminal or subconscious process, information acquired in the "low-involvement" mode is obtained without the consumer seeking the information. In fact consumers are often unaware that they are absorbing it. The viewing of television commercials or listening to a radio message while driving are prime examples of low involvement learning.

Information obtained when the consumer has "low-involvement" with the message can lead to a different decision than if the same information had been obtained when the consumer was in a "high-involvement" state.

Consider the following example. One consumer, call him Mr. Jones, is interested in buying a car. He sees an advertisement for a particular brand of automobile and reads the ad with interest. Since Mr. Jones is in a "high-involvement" mode, many researchers currently believe that his general strategy for acquiring and evaluating the message is to question each piece of information. ~~More specifically before he decides whether or not to accept~~ each concept he will go through an internal process referred to as "counter-arguing," (Wright 1973).

Mr. Smith, on the other hand, is not interested in buying a car. He observes the same advertisement as Mr. Jones, yet since Mr. Smith is passively viewing the ad and may simultaneously be thinking about other things, he will not expend much cognitive effort to process the information. Consequently, he

will not engage in much counter-arguing. As a result of not counter-arguing, he is likely to have a more positive attitude toward the brand than Mr. Jones, who was actively seeking and processed the information in the same advertisement. This difference in attitude could lead to a different buying decision, especially if Mr. Smith finally decides to buy a car without conducting much external (i.e., high involvement) search (Mitchell, Russo and Gardner 1978).

Policy Implications

This model of the internal search process and the fact that consumers passively acquire information has a number of implications for policy planners concerned with assuring that consumers have an adequate amount of marketplace information.

First, since much internally stored information is initially obtained from advertisements, efforts to police false or deceptive claims are extremely important. In addition, since this internally stored product information is available through internal search at almost no effort or cost, consumers often have little incentive to actively seek out new product information. Thus, any efforts by policymakers to encourage consumers to seek out and use such informative sources as third parties or government disclosures, must be tempered by the fact that consumers find it easier to use the more readily available internal store of information.

Another implication of passive information acquisition is that the majority of consumers often learn about new concepts within a relatively short period of time (e.g., a few years) since information acquisition is not always related to product search. Thus, for example, consumers might quickly learn from advertising messages or word of mouth that R-value is the

way to rate insulation even though only a small minority are in the market for insulation. Consequently, government regulations which require a disclosure of a definition or explanation might best be terminated after a "short period" since the definition will be learned by most consumers.

Finally, to the extent that government seeks to provide information which will be used by consumers in future purchase decisions, it must consider the information processing mode of consumers exposed to the data. For example, most consumers who are listening or viewing a broadcast advertisement are not likely to be prepared for a high-involvement task such as processing detailed numerical data. Such disclosures may be ineffective in that consumers will not retain the information in memory for later use. On the other hand, if the presentation is perceived as novel, or of high utility, consumers are more likely to be "interrupted" (i.e., become attentive) and thus acquire the information in a more highly involved state.

External Information Sources

In addition to retrieving information from memory, consumers may also engage in external search. External information sources can be divided into three major classes:

- (1) direct inspection of the product;
- (2) "disinterested" third parties, i.e., those who have no personal stake in the outcome of the consumer's purchase decisions; and
- (3) seller-related sources, i.e., those who have some incentive to try to influence the purchase decision.

Use of each source depends, at least in part, on the type of product being considered and the consumer's stage in the buying process. A discussion of each of these sources will follow.

Direct Inspection

Inspection is the direct observation by consumers of the commodity or service being offered for sale. Inspection can reveal product dimensions which are directly related to the item's ability to satisfy the customer's needs. For instance, a potential used car buyer may readily observe such material attributes as price, warranty terms, existence of rust, tire condition and the general external condition of the body.

Screening Devices

Used cars, like most other goods or services, however, have important attributes which are not easily determined by inspection. Consequently, consumers often infer these hidden dimensions from the inspection of observable attributes. These latter observable attributes are sometimes called signals or screening devices (Salop 1979).

The used car buyer, for example, may regard the car's exterior condition as a predictor of the vehicle's less readily apparent mechanical condition. The length of time a seller has been in business or whether the company was the first in the market can be regarded as a signal for the quality of merchandise. Uninformed consumers may purchase the brand with the highest market share since that brand has apparently been found to be satisfactory to the majority of other buyers. Heavy advertising may serve as a signal for quality, since it is felt by some that a firm will invest in advertising only if it sells a product which it believes will satisfy consumers

enough to induce them to become repeat customers (Nelson 1970). This would imply that only high quality brands will advertise.

Another common "screening device" is price. Consumers often infer the products quality by its price, i.e., cheaper goods are inferior and more expensive items are better. Thus, for example, the price of an unknown brand of tuna fish can become a shorthand indicator of its inherent value.

Effect of Signals on Goods Offered in Market

When inspection is a primary mode of information gathering, sellers are likely to respond by producing commodities that rate well on these observable "signals" while ignoring the unobservable dimensions. For instance, since some buyers use softness as a signal for the freshness of bread, sellers may respond by adding chemicals which keep the bread soft even though it is several days old instead of striving to always keep fresh bread on the shelves. Thus, the buyer's ability to observe an attribute (either prior to purchase or through usage) has a substantial impact on the types of products that are offered in the marketplace.

This market response to produce a product with sought after attributes will occur even though only a minority of consumers have the know-how or desire to look for a particular attribute. As long as the "experts" form a significant share of the market, sellers will compete by producing goods which are preferred along the dimensions values by the experts.^{2/}

Unfortunately, consumers' use of signals or screening devices can be exploited by sellers. For example, if some buyers use exterior condition to predict the mechanical soundness of used cars, dealers can concentrate on "sprucing up" the car rather than repairing mechanical problems. Or sellers might make bigger packages (keeping the contents the same) if, package size is used by consumers to predict content volume. Similarly, an inferior brand

could temporarily achieve wide distribution (a good proxy for leadership) by offering incentives to the retailer and thus obtain the patronage of consumers using market share as a signal of quality. The heavy advertising signal can also be readily manipulated by sellers, particularly if their products cannot be reliably evaluated through experience.

Policy Implications

Market response to screening devices, and the subsequent opportunity for seller manipulation, have some important implications for government information policies. First, to the extent that signals used by consumers do not accurately predict quality, mandatory performance disclosures (as in the FTC's proposed Used Car Rule) may help counteract possible seller exploitation of the signal. Second, when government provides information about a previously hidden attribute, the now observable dimension often becomes a screening device. Thus, care must be taken to standardize and disclose only those attributes which truly incorporate the needs and desires of consumers. For example, a newly disclosed standard measurement of "hi-fi" power might also be used by inexperienced consumers as a signal of quality even though power alone may not actually indicate the best sounding system. Likewise the standard used to measure the nutrient content of foods (e.g., the Recommended Daily Allowance) may be used to measure total nutritional quality even though the standard ignores the contents of the 50 or so trace elements also needed for a balanced diet.

Disinterested Third Parties

Acquiring information from disinterested third parties is the second major type of external information acquisition used by consumers. Information experts are frequently available for high priced, complex and infrequently purchased commodities. For example, home owners or buyers use a

variety of information brokers, such as

- an architect who provides planning advice on home renovation and expert knowledge in hiring and supervising contractors;
- house inspectors who assess the need for repairs; and
- an attorney who gathers material information and helps negotiate an advantageous purchase agreement.

In the medical profession, one physician can serve as a consultant by diagnosing the symptoms and then

- advise the patient on alternative specialists who could provide appropriate treatment; or
- prescribe drugs that the patient can purchase from a pharmacy.

Finally, periodicals such as Consumer Reports provide neutral price and quality information about a variety of products, many of which are lower priced and less technically complex than the above examples.

In each of the above cases the expert consultant acts (a) in the interest of the buyer, (b) is paid by the buyer, and (c) owes financial responsibility to the buyer. Moreover, since the disinterested information specialist makes it his business to sell the information he is able to 1) develop a body of knowledge more efficiently than individual consumers; and 2) spread the cost of production through the sales of many buyers. Finally, unlike advertisers and other interested parties, third party sources have no incentive to distort the facts or steer the consumer to a particular product. Given these advantages, government agencies may want to explore ways to stimulate the growth of this information source. However, any agency interested in this approach should be aware of some important limitations on consumers' perceived utility of third party consultants. These limitations may explain why this information market has not flourished spontaneously.

Reasons for Not Using Consultants

Theoretically, consumers seek information only if the perceived benefits exceed the costs. Unlike information which is passively acquired with no direct monetary cost and little or no cognitive effort, information from third party consultants costs the consumer both time and money. Even though information actively sought through direct inspection or seller selected sources entails real costs (e.g., the mental and physical effort of seeking out and processing the information and the higher cost normally associated with advertised products), these costs are less tangible than the price of hiring a consultant or paying for a subscription to a consumer magazine.

Second, information is a commodity whose worth can never be exactly known before purchase. Thus a consumer who sees little merit in gathering information may never discover that more information would have been valuable. In this context, one benefit of government required disclosures could be to alert consumers to the value of gathering further information. Thus, for example, a warning that a baldness remedy could have serious side effects may convince some to consult a doctor before undergoing a painful hair implant treatment.

Third, many consumers limit the number of alternatives they want to consider to reduce the cognitive effort of choosing between the alternatives (Staelin and Payne 1976). For example some home buyers purchase a house after exploring only a few alternatives. Either real estate agents are mind readers or these consumers are adverse to information gathering beyond any "rational" calculation of time and dollar costs. For these consumers additional information may increase their mental stress, and thus the

perceived benefits of seeking more information may not justify the cost. In other words, information experts can complicate the decision process, thus increasing rather than decreasing the consumer's cognitive effort.

There is a fourth reason for the limited use of third party sources. Buyers' initial knowledge and personal tastes and preferences often differ, and thus their informational needs also vary. If a consultant gives the same information to all customers, some of the data has little value to any particular buyer. Although tailoring the information to individual needs would increase the benefit to each consumer, this process is likely to be time-consuming and expensive, thus detracting from the efficiency of the information specialist.

This problem is illustrated by magazines like Consumer Reports, which provide summary ratings for products. The recommendations are more useful if the consumer places the same importance on the attributes as did Consumers Union in determining the summary rating. The alternative, also available from Consumer Reports, is an extensive matrix for each brand which provides separate ratings on a number of product features. While this approach provides the means for individualizing the information, it places the burden on the consumer to sort through the matrix to derive his or her own preferences.

In markets where consumer preferences are more uniform, information publications can be more effective. For instance, horseracing papers and stockmarket tout sheets appear to have ready markets. In both cases, consumers care only about a single attribute (i.e., income generation) rather than the multiple features relevant for the purchase of other commodities.

Finally, consumers who purchase information from a consultant are typically incapable of accurately evaluating the quality of the information.

For example an uninformed patient may not know whether doctor's diagnosis was correct or whether the symptoms simply disappeared on their own. The very fact that the consumer needs to seek advice implies that the buyer/seller relationship will be based primarily on trust. As a result, consultants are generally chosen on the basis of reputation, and consumers must hope that the mix of ignorance and expertise of all buyers will somehow lead to deserved reputations.

Although methods of assuring quality advice have been suggested their value is problematic. For instance, the consumer could hire one expert to recommend or evaluate another expert. This approach is not only expensive, but contains no inherent guarantee of achieving an optimal result. Another approach could be to devise a compensation scheme to give the consultant an incentive to perform well. There are difficulties posed by any such scheme since it assumes that the consumer understands the service well enough to design an effective compensation method.

Policy Implications

A number of attempts have been made to design third party information systems (Maynes et.al. 1977). However, many of these efforts have failed due to one or more of the reasons just stated. Since the marketplace is not always capable of supporting such sources, government intervention or support may sometimes be required. An example of such intervention is the requirement that grocery stores be third party sources and provide unit pricing. In this case every consumer "hires" the retail outlet to provide the information (even though not all consumers use it).

One of the major difficulties facing third party sources is the high cost of delivering relevant product information. Consequently, there is a need

for systems which better deliver tailor-make information to specific consumers and/or deliver information which is viewed as reducing rather than increasing the consumer's cognitive efforts. Such systems will have to incorporate advancements in both new hardware technology and consumer information processing research. Thus, for example, third party sources might take advantage of computer and communication technological breakthroughs which would enable the use of home television sets as displays for pertinent information presented in a format designed to simplify the consumer's decision-making task.^{3/}

The need for advancements of this type points to another way the government could facilitate third party sources, i.e., provide research support for communication technology or consumer information processing research. An example is the now defunct National Science Foundation program to fund basic consumer information processing research.

Finally, it should be noted that another approach to facilitating the use of third party sources is to generate a consumer demand for such information. One way of doing this is for the government to issue relevant warnings which alert consumers to the need to seek more information. Third party sources could then be developed by the private sector to meet this new demand.

Seller-Related Sources

The consumer's third major source for external information acquisition is from the seller. Information from such interested parties may be communicated in a number of ways, including:

- sales personnel (in-store or in-home);
- advertising (print, broadcast or billboards); and

- free samples or other promotions.

Seller-provided information has three major characteristics which affects its relative value to consumers: (1) it is the least costly external source for consumers; (2) it is inherently one-sided; and (3) it combines factual data about products or services with non-factual persuasive appeals. Each of these characteristics, as well as constraints on sellers to provide non-deceptive information and specific methods used by sellers in advertising, will be examined below.

Least Costly Method

Sellers generally provide information about their market offering without charging the consumer separately for the information. Of course, all promotional expenses are ultimately included in the purchase price of the goods, but the information is available even if the good is not purchased. In fact, in some instances consumers are "paid" to receive the information in the sense that they are given free entertainment by commercial broadcasting in return for being exposed to the ads.

It should not be inferred, however, that ~~because~~ sellers "pay" to provide the information consumers do not value advertising. On the contrary, some sales catalogues are purchased by consumers and some specialty magazines may contain almost nothing but advertisements. In some European countries, where television commercials are clustered between shows, the commercial portions of the broadcast day receive high ratings. Moreover, consumers often actively seek out seller provided information (Newman and Staelin 1972). However, as mentioned before, much of this information is acquired more passively by consumers who view or listen to the media for reasons other than to acquire the sellers message.

Inherently Biased Information

An essential property of all information provided by interested parties is that it tends to be one-sided. Advertising may be literally true, in the sense that it does not make factually false claims, yet it is still inherently unbalanced. This is not surprising since sellers have a financial stake in the decisions consumers make as a result of the information provided. From the seller's point of view, the direct function of advertising is to increase sales not to "educate" consumers. For this reason, sellers have no incentive to provide a balanced view. Retailers who sell a variety of goods, on the other hand, may provide more neutral information because they are more concerned about customer satisfaction than selling particular brands.

One-sided presentations can be useful if the viewer has the skills necessary to determine that the information is not complete. Unfortunately, consumers often lack the cognitive skills or technical resources needed to correctly determine the veracity of the message. Children, in particular, may not have the maturity to understand the concept of advertiser bias. And the mode of acquiring the information directly affects the way it is evaluated. As noted above, consumers are less likely to "counter-argue" with a broadcast advertisement received in a low-involvement state.

Advertisers employ a number of distinct approaches in presenting their message. One common strategy is to communicate the intended function of the product, its efficiency in use, or its superiority over competing brands. Advertisements may also attempt to build a frame of reference for the brand so that subsequent information about the brand can be easily retained and recalled. Advertisers refer to this practice as establishing "brand awareness." Since

consumers often simplify the purchase decision process by limiting their choice to a few brands, brand awareness may increase the probability that the consumer will seek out more information about the brand if and when a purchase is made.

An ad may communicate an association or a brand image which can be retrieved from memory through recognition of the stimulus at point of sale (often this is done with the package design). Also some ads attempt to link a brand with a particular concept in the hope that this linkage will foster product usage. As a result much of the ad's "information" is communicated non-verbally causing consumers not to remember it specifically. For instance, subtle changes in lighting can produce positive or negative attitudes toward the subject matter. A dull scene could indicate pain such as a headache, followed by a subtle "brighten up" effect when the advertised remedy is taken. The soft resonant clicking sound of a luxury car door can implicitly communicate quality (O'Bryan 1978). Examples such as these led one advertising researcher to state:

There is no recall because recall is the word form of the picture. There is no recall because we have had only right-brain involvement. There is no left-brain involvement because no connections, associations, or thought occurred at the time of exposure (Krugman 1977, p. 9).

Other nonverbal techniques can be used to emphasize certain product features. White lights blended with a few red ones can highlight red lipstick so that the colors look more radiant than they would under normal lighting. Camera angles can convey increased speed or height some products such as toy.

cars or dolls. "Quick edits" (rapid cuts from one scene or shot to another) can also give the impression of speed (O'Bryan 1978).

The techniques may or may not be used deceptively by advertisers. Yet regulators must be at least conversant with advanced communication technology in order to gain a better understanding of the information environment in which consumers operate.

Combination of Facts and Influence

Advertising is a source of information which combines facts and influence in a unique manner. Historically, the law of deceptive advertising has distinguished between factual information which can be judged true or false and is thus amendable to regulation and seller's opinions (i.e., the persuasive elements of advertising) which have been virtually untouched. This legal focus of scrutinizing factual claims and virtually ignoring images or persuasion may have helped skewed the content of advertising toward the subjective and away from factual appeals. Until more is known about how consumers process information from advertisements both under high and low involvement learning, it is difficult to say with any conviction that ads are or are not deceptive. However, it is probably true that if current ads are deceptive when consumers are actively processing the message, they are most likely deceptive in information which they convey visually versus verbally.

Policy Implications

There are two major points to glean from the above discussion of seller-provided information. The most obvious one is that consumers may be persuaded to make decisions that they might not otherwise have made in the absence of such information or that they would make a different decision if they were given all the relevant information in an unbiased manner. Moreover, the ready availability of ads and the low involvement mode in which

many of them are received undercuts the incentive for consumers to seek out other more neutral information sources. Consequently, the policymakers should look for ways of enhancing the consumer's decision-making ability through such devices as:

- stimulating the growth of alternative information sources;
- encouraging the provision of reliable competing information through comparative ads;
- continuing to police sellers' claims for deception and unfairness.

The second major point is that sellers are skilled in presenting information so as to maximize the probability that a consumer will decide on purchasing the seller's brand. Consequently if a government agency seeks to improve the purchase decision process through information disclosures, it must understand the skills developed by the advertising industry. This means that it either has to develop the same type of knowledge about copy design and message impact or rely on performance standards and leave the actual implementation of the disclosures to the seller (Wilkie 1973).

Conclusions

This paper has outlined the two means by which consumers acquire information used to make a purchase decision. It was shown that much of the information used in internal search was originally acquired passively by consumers, often from seller generated sources. The ready availability of this information often precludes the consumer from seeking out new information just prior to purchase.

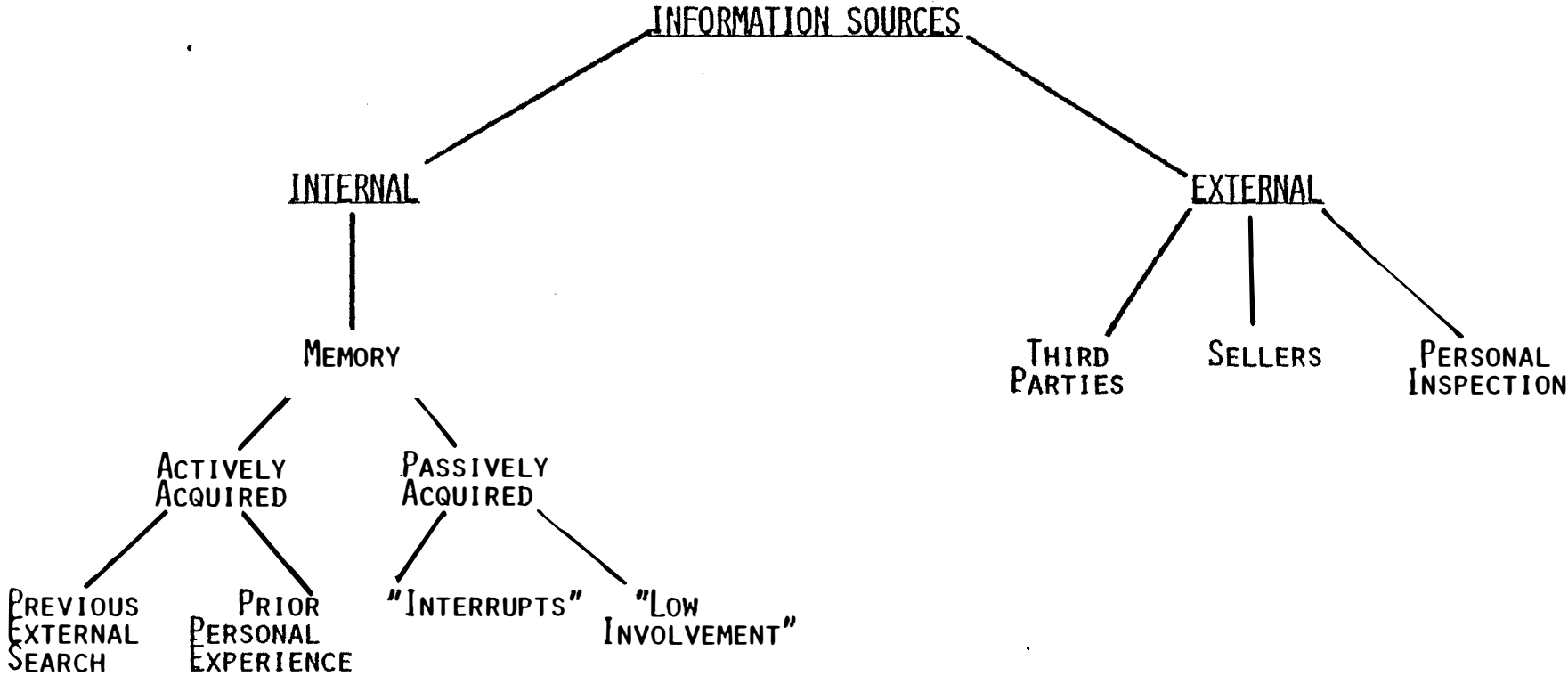
New information provided by the government often acts as a signal to consumers helping them determine the value of some unobservable attribute.

Consumers often use these signals in making their buying decisions. Consequently, sellers react to this purchase behavior and redesign their products to score higher along the signal. As long as consumer welfare is increased by this seller reaction, the government information yields some benefits.

Third party sources offer substantial benefits to consumers. However, there are a number of reasons why the availability of this type of source in many markets is currently limited. Consequently government intervention may be needed to help facilitate the availability of this source. A potential approach would have the government supporting research aimed at providing tailor-made information in an understandable format; this research will probably involve hardware development and behavioral studies on consumer information processing.

It was pointed out that seller generated sources are both easily obtainable and inheritantly biased. Government agencies should take both these factors into account when they consider providing new information. First, they should not expect consumers to automatically seek out and acquire new information just because it is now available since consumers often have previously acquired and stored considerable product information. Also, sellers are skillful providers of information using both verbal and nonverbal methods of communication. Consequently, government agencies interested in altering consumer purchase behavior through the provision of information must acknowledge that they are in competition with sellers for the attention of the consumer. This means that these agencies must either develop an expertise in communication skills or rely on performance standards and let the seller determine the best way to meet these standards.

Figure 1



FOOTNOTES

- 1/ There is some empirical evidence that supports the hypothesis consumers seek out and use more sources of information than they indicate when asked to list all sources used during the search process (Newman and Lockman 1975). Thus reported search as measured by consumer surveys may be an underestimation of actual external search.
- 2/ If higher quality costs more to produce, and thus sells for more, the uninformed consumer may opt for the lower price and thus not benefit from the market's response to the expert minority. Note that the observed attribute, price, might act as a useful signal to the non expert in this situation since it would accurately predict the quality level of the commodity along the other attributes.
- 3/ Already some pay cable T.V. systems have experimented with "commercial" channels, which, for example, organize the food advertisements for local retail stores so that consumers can find out at a glance the lowest price of beef in town on a particular day.

SELECTED REFERENCES

1. Bettman, James R., An Information Processing Theory of Consumer Choice, Reading, Mass., Addison-Wesley, 1979.
2. Claxton, John D., Joseph N. Fry and Bernard Portis, Journal of Consumer Research, 1, December 1974, pp. 35-42.
3. Federal Trade Commission, "Consumer Information Remedies," June 1979.
4. Katona, George and Eva Mueller, A Study of Purchase Decisions on Consumer Behavior, in Lincoln H. Clark, ed., Consumer Behavior: The Dynamics of Consumer Reaction, Volume 1, New York, University Press, 1955, pp. 30-87.
5. Krugman, Herbert E., "The Impact of Television Advertising: Learning without Involvement," Public Opinion Quarterly, 29, Fall 1965, pp. 349-356.
6. _____, "Memory without Recall, Exposure without Perception," Journal of Advertising Research, 17, August 1977, pp. 7-12.
7. Mitchell, Andrew, J. Edward Russo and Meryl Gardner, "Chronometric Analysis: An Introduction and Application to Low Involvement Perception of Advertisements," in H. Keith Hunt, Ed., Advances in Consumer Research, Volume 5, Ann Arbor, Michigan, Association for Consumer Research, 1978, pp. 581-589.
8. Nelson, Philip, "Information and Consumer Behavior," Journal of Political Economy, 78, March-April 1970, pp. 311-329.
9. Newman, Joseph W. and B. D. Lockman, "Measuring Prepurchase Information Seeking," Journal of Consumer Research Vol. 2 No. 3, December 1975, pp. 216-222.
10. Newman, Joseph W. and Richard Staelin, "Prepurchase Information Seeking for New Cars and Major Household Appliances," Journal of Marketing Research, 9, August 1972, pp. 249-257.
11. O'Bryan, Kenneth, "Advertising: The Science of Art," special report prepared for Federal Trade Commission, January 20, 1978.

12. Maynes, E. Scott, James N. Morgan, Weston Vivian and Greg J. Duncan, "The Local Consumer Information System: An Institution-to-Be?" The Journal of Consumer Affairs, 11, Summer 1977, pp. 17-33.
13. Pitofsky, Robert, "Beyond Nader: Consumer Protection and the Regulation of Advertising," Harvard Law Review, 90, February 1977, pp. 661-701.
14. Salop, Steven, "Parables of Information Transmission in Markets," in A. Mitchell, ed., The Effect of Information on Consumer Market Behavior, Chicago, Illinois, American Marketing Association, 1979, pp. 3-12.
15. Staelin, Richard and John Payne, "Studies of Information Seeking Behavior of Consumers," in John Carroll and John Payne, eds., Cognition and Social Behavior, Hillsdale, New Jersey, Elbaum and Associates, 1976, pp. 185-202.
16. Stigler, George, "The Economics of Information," Journal of Political Economy, 69, June 1961, pp. 213-225.
17. Wilkie, William L., "Consumer Research and Corrective Advertising: A New Approach," working paper, Cambridge, Mass: Marketing Science Institute, October 1973.
18. Wright, Peter, "The Cognitive Processes Mediating Acceptance of Advertising," Journal of Marketing Research, 10, February 1973, pp. 53-62.

