THE PRODUCT WARRANTY AUDIT: A MODEL FOR EVALUATING AN IMPORTANT PRODUCT DECISION

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Abstract

Product warranties increasingly are being used by consumer and industrial manufacturers as product differentiation tools. A well developed warranty program involves a considerable investment which, as with any marketing decision, should be periodically evaluated. This paper presents a model for conducting a product warranty audit. Marketing management implications of the model and directions for future research also are highlighted.

Introduction

The process of marketing management involves many steps designed to plan, implement, and control the marketing effort. Although each stage of marketing management is equally important, the set of decisions involved in the control of marketing plans are not always given enough emphasis (Jaworski 1988; Merchant 1988). Yet evaluating marketing plans is so important that Goodman (1970) suggested that the position of marketing controller be established within an organization to oversee the evaluation process.

An integral part of controlling marketing plans is the marketing audit (Kotler, Gregor and Rodgers 1977). A thorough audit provides essential external and internal environmental information which is needed to plan and implement efficient and effective marketing decisions. The marketing audit also includes several specialized audits that can be used to evaluate marketing mix decisions, for example, product warranties. The impetus for these specialized audits is the increasing complexity of marketing itself (Quelch, Farris, and Olver 1987). One area in need of a specialized audit is the product warranty program.

Increasingly, consumer and industrial marketers are trying to create a competitive advantage by using warranties to differentiate their products (Koten 1984). The improvements in the power train warranties implemented by General Motors, Ford, and Chrysler illustrate how marketers seek to gain market share by using warranties to signal product quality (Levin and Guiles 1987). These programs are accompanied by a large investment. For example, General Motors' Bumper to Bumper Plus warranty program for 1989 carries an estimated cost of $500 million per year (Fortune 1988).

Since a warranty program has become an essential part of many firms' marketing plans, the program needs to be periodically evaluated. Wilkes and Wilcox (1976) proposed marketers conduct a product warranty audit to evaluate the effectiveness of their warranty programs. However, Wilkes and Wilcox (1976) did not discuss how to conduct such an audit. The purpose of the present paper is to address this shortcoming by providing a model for conducting a product warranty audit.

Product Warranties and Product Differentiation

There has been a movement in American business to differentiate market offerings around product quality. Garvin (1987) identified eight dimensions of this strategy: performance, features, reliability, conformance, durability, serviceability, aesthetics, and perceived quality. Product warranty decisions play an important role in differentiating a product based on product quality as they directly relate to the dimensions of reliability, durability, and serviceability.

Generally, consumers seem to view warranties as instruments that provide a measure of product performance or a method to seek redress if the product fails during the warranty period (Feldman 1976). Consumers may also look at warranty terms as a signal of product reliability (Weiner 1985). Marketers may use these perceptions to facilitate the differentiation of their products. Because of the pivotal role that the product warranty program may play in the formation of an image of product quality, it is imperative that the program be controlled. The product warranty audit could uncover potential problems that may reduce the effectiveness of a marketing plan that is built around a warranty program.

A differentiation attempt may include express, implied, and/or extended warranties. Express warranties represent a decision made by the marketer to support, in writing, a consumer or industrial product for a stated period of time. Express consumer product warranties are regulated at the federal level by the Magnuson-Moss Warranty Act. A major provision of the act requires express warranties to be labeled full (covering parts and labor) or limited (covering parts only). The act also empowered the Federal Trade Commission to promulgate rules requiring the full disclosure prior to purchase, the terms of an express warranty offered on consumer products with a retail price of at least $15.

An implied warranty of merchantability is part of any sales transaction according to the Uniform Commercial Code. Both consumer and industrial products have implied warranties. An implied warranty infers that a product will perform, over a reasonable period of time, functions which the product is designed to perform.

Express and implied warranties are attached to the purchase of a product. Extended warranties are purchased separately from the product and cover parts, and possibly labor, for a period of time beyond the duration of the express warranty. Extended warranties have increased in popularity among consumers, retailers, and manufacturers. For example, in 1984 approximately 40 percent of new car buyers paid an average of $500 for an extended warranty (Plotkin 1985). The extended warranty business in the U.S. automobile industry alone is worth over $750 million annually (Rigg 1986). Consumer extended warranties also are covered by the Magnuson-Moss Act. In addition, most states regulate extended warranties under their insurance laws since the extended warranty is purchased separate from the product.

The complexities that are involved in implementing a warranty program make it essential that the program be controlled. The proposed product warranty audit is offered as a way of evaluating the objectives of a warranty program which may be overlooked in a general marketing audit.

The Product Warranty Audit Model

Wilkes and Wilcox (1976) suggested that a product warranty audit would motivate the marketer to adopt a proactive rather than a reactive approach to the evaluation of the warranty program. A warranty audit is a systematic, periodic, examination of the warranty program of the products offered by the marketer with the purpose of identifying problem areas and taking corrective action through modification of the warranty program. The audit process asks whether changes in the external and internal marketing environments, for example, changes in the materials used to make a product (e.g., metal versus plastic parts) or in methods of production (e.g., human labor versus robotics), may create quality control problems or signal a change in the image of a product. The audit must be able to detect these changes so that modifications to the warranty program can be made before the changes become problem areas.

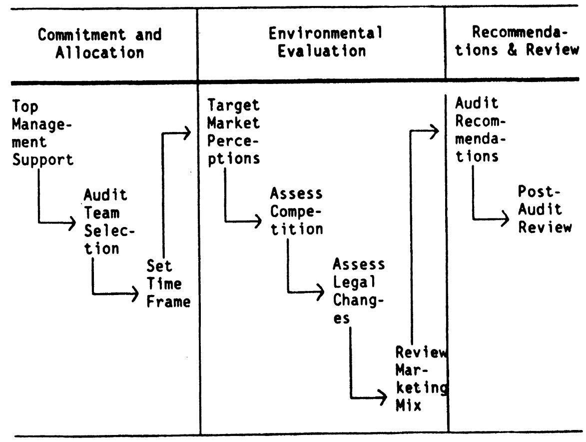
When the warranty program is emphasized in the marketing plan, it is imperative that the marketer's warranties reflect a clear expression of the product's position. To this end, the model in Figure 1 is offered as a means to analyze the various facets of a product warranty program. First of all, the marketer needs to ensure that the organization is committed to the audit process and allocates the correct and proper resources toward its completion. Secondly, the external and internal elements in the marketing environment need to be assessed as to their impact on the warranty program. Finally, provisions need to be established to ensure that the findings are used to correct or improve the warranty program. To be certain that the three objectives are met, the model in Figure 1 is presented as a three-phrase process.

Phase I - Commitment and Allocation Phase

Gain Top Mangement Support. The first step in conducting a warranty audit is to make sure top management is supportive of the diagnostic/prognostic examination. Without management support, the warranty audit will fail as a meaningful evaluative process. One way to ensure top management support of the audit is to position

FIGURE 1

WARRANTY AUDIT PROCESS



the audit as a financial benefit. The product liability costs that could result from breach of warranty lawsuits, excessive material and labor expenses caused by an uncontrolled warranty program and the failure to achieve a prescribed product image could be used to secure commitment to the audit.

Select Auditor Team. Since a warranty audit involves the legal environment of marketing, the warranty audit team should have some expertise in business law and marketing. The audit can be performed in-house by selecting members of the team from the legal staff and the marketing, finance, and production departments. The in-house process could be directed by the organization's product liability coordinator (Downs and Behrman 1986) or marketing controller (Goodman 1970) if these positions exist within the organization. The advantages of an in-house team are lower costs and familiarity with the organization's internal operations and marketing programs. However, if qualified personnel cannot be found within the organization, an outside consulting firm could be used. The outside consulting team has the advantage of impartiality but may cost more to implement.

Set Time Frame. A completion date of the current audit and an anticipated cycle for future audits should be established. The former deadline is important since an indeterminate audit date may result in the subordination of the audit recommendations in favor of what management perceives to be more pressing decisions. The latter timetable is necessary to insure a continued commitment to the warranty audit process as part of strategic planning.

Phase II - Environmental Evaluation Phase

Assess Target Market Perceptions of Warranties. The first step of the environmental evaluation phase of the warranty audit is to assess each target market's perceptions concerning the importance of warranties in the purchase decision. Several diagnostic questions may be asked to ascertain the importance of warranties. These include: (1) How intensely do consumers use the product?; (2) What is the price of the product?;

and (3) What is the expected operating life of the product? In addition, if extended warranties are being marketed, consumer motivations for purchasing them need to be determined. Answers to the above questions are necessary to properly position express and extended warranties in the promotion of the product in the sales transaction.

Examine the Competition. The audited warranty terms should be compared to the competition's warranty terms. Through this comparison the audit should look for any competitive advantage that the organization may possess or the direction a differentiation decision via a change in warranty terms should take. The diagnostic focus should be on both the amount of coverage provided by the warranty (i.e., full or limited) and the duration of the warranty coverage. Information on competitor warranties can be gathered from third party sources such as Consumer Reports as well as the sales force.

Note Changes in the Legal Environment. Although no changes in federal regulation of consumer product warranties are foreseen in the immediate future, court decisions involving breach of warranty should be reviewed and evaluated in terms of any change in a judicial test for breach of warranty. Since different states use different theories to govern product liability, a review of court decisions in every state in which the organization does business is necessary.

Currently, most states regard the warranty obligations of manufacturers and retailers as independent. Of the cases that explicitly discuss the issue, the majority find no seller liability under a manufacturer's warranty unless the seller specifically adopts the warranty. In many more cases, however, the courts fail to clearly confront the liability issue, yet allow remedies against sellers, particularly car dealers, with repair responsibilities under manufacturer warranties (White 1986).

Review Marketing Mix Decisions. The last step in the environment evaluation phase is to review the marketing mix decisions for each of the organization's products. Every express consumer product warranty should be compared to the standards and disclosure requirements established by the Magnuson-Moss Act to insure compliance with the Act. In addition, promotional materials should be checked for the communication of implied warranties. Specifically, the following illustrates what the audit should look for in the marketing mix.

• Product. An assessment of product reliability, durability, and serviceability should be made by examining the materials and workmanship used in producing each product. The results of this assessment should then be compared to the terms of the express and/or extended warranty to determine if the terms need to be modified. For example, a well-built product may be less likely to breakdown, and therefore, could be differentiated by providing express warranty terms that signal that the product is superior to the competition.

• Price. The image generated through the price of a product and the terms of its warranty should be consistent. Curtis Mathis televisions, which are noted for their reliability and are advertised as being expensive but also carry the best warranty in the industry, illustrates this consistency. To determine this consistency, the audit team may use focus groups to evaluate the price/warranty image for each product.

• Distribution. Retailers and dealers are a very important component of a warranty program. The audit team should query retailers on how warranty terms are communicated to the consumer. Comments such as, "Dealing with us is like dealing with the manufacturer," may suggest to the consumer that the retailer speaks for the manufacturer. Conversely, phrases such as, "This is one of several problems with this model" and "Breakdowns like this are common on this product" may erode customer confidence in the manufacturer and retailer.

The audit team also should evaluate the warranty service network. A problem may exist if it is not clear who is providing this service as consumer goodwill may be lost if the service is not performed satisfactorily and expeditiously. This may not be a problem if the organization owns its own service outlets. However, if a system of exclusive dealers or a service network of dealers who service a number of marketers' brands is used, the independent dealer may not provide service to the organization's satisfaction.

One way to improve the performance of a network of independent dealers is to establish a warranty reserve fund to make sure retailers and dealers are promptly compensated for performing warranty service. The accounting involved in managing the reserve fund also can be used to evaluate, via a contribution approach, the costs incurred by various outlets doing the warranty work.

Table 1 illustrates how dealer outlets could be evaluated. The net warranty service expense incurred for each outlet is computed as a percentage of the total sales for brand A through each outlet. In the example, the labor and materials warranty expense of brand A (reimbursed less nonreimbursed expenses) for Outlet #3 is 1.8 percent higher than the average. Outlet #3 should be examined closely to determine what corrective action might be taken (e.g., providing training, tracing material and shipping costs, or dropping the outlet from the service network). Conversely, the lower than average costs incurred by Outlet #2 is positive and may be due to an intensive in-house training program established by the management of Outlet #2 beyond the 0.1 percent of sales allocated by the manufacturer. The cost position of Outlet #3 in the areas of diagnostic analysis and repairs may be improved by attempting to transfer the labor program used at Outlet #2.

• Promotion. Since implied warranties can be interpreted as express warranties when they are part of the copy of an advertisement, focus groups should be used to assess whether advertisements for a product are guaranteeing some-

TABLE 1

WARRANTY EXPENSE ANALYSIS AS A PERCENTAGE OF SALES

	Dealer Outlet 1	Dealer Outlet 2	Dealer Outlet 3	Total
Total Sales of Brand A	$200,000	$100,000	$150,000	$450,000
Net Warranty Expense of Brand A as a percent of Sales				
Labor	1.6%	1.2%	3.0%	2.0%
Training	0.1%	0.1%	0.1%	
Diagnostic Analysis	0.5%	0.3%	1.2%	
Actual Repairs	1.0%	0.8%	1.7%	
Materials	0.8%	0.8%	2.0%	1.2%
Shipping	0.1%	0.1%	0.5%	
Defective Parts	0.5%	0.5%	1.0%	
Parts Complementary to Defective Parts	0.2%	0.2%	0.5%	
Total	2.4%	2.0%	5.0%	3.2%

thing that is not also contained in the product's express warranty. Furthermore, if express warranties are used in sales presentations and advertisements, they must meet federally established disclosure requirements. Therefore, the diagnostic questions asked by the audit team need to focus on these aspects of promotion.

Phase III - Recommendations and Review Phase

Audit Recommendations. After the preceding phases have been completed, the audit team should formulate recommendations specifying correc-tive action that is necessary in the marketing plan and mix. Recommended changes in warranty terms (e.g., changing the duration or coverage) should always be based on a cost/benefit analysis. For example, extending the duration of a warranty will increase the chances it will need to be repaired. Consequently, warranty service expenses will increase. If, on the other hand, the anticipated benefit of increased consumer goodwill due to increased sales does not exceed the expected added warranty service expense, then the change should not be implemented.

Post Audit Review. If the product warranty audit recommendations are not implemented and subsequently evaluated, the audit would represent nothing but a drain on the resources of the organization. At the beginning of the next audit cycle, the previous audit should be reviewed by the new audit team before they start the process again. The marketing information system can be used to monitor the results of the changes in the warranty program.

Marketing Management Implications and Directions for Future Research

The product warranty audit represents an additional step that marketers should consider when performing a broader based marketing audit. Implementation of the proposed audit model would allow marketing managers to evaluate an important, but often overlooked, product decision. Managers may derive many benefits from the audit including: (1) The improvement of customer goodwill by ensuring the warranty decision and other marketing decisions are consistent in the servicing of customers' needs, and (2) The ability to more effectively and efficiently develop marketing plans.

As more is learned about how consumers view warranties, the warranty audit should result in incremental improvements in the planning of product decisions and marketing strategy. The development of the warranty audit as a diagnostic and prognostic tool can be influenced by investigating several issues related to warranties. These include: (1) How a warranty interacts with other product cues to change a consumer's perception of a product?; (2) Whether warranty segments can be identified based on product usage rate?; (3) Does a warranty communicate information about the reliability of a product?; and (4) How warranties interact with other decisions, such as promotion and distribution, made in the marketing program. Manufacturer, retailer, and consumer perceptions of extended warranties and the identification of the factors that motivate consumers to purchase extended warranties also need to be investigated.

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