

THE IMPORTANCE OF PRODUCT WARRANTY IN PRODUCT EVALUATIONS: CASE OF DURABLE GOODS

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ABSTRACT

Generally considered as an additional sales argument and a means of enhancing a product's value proposition; offering long-term product warranties is now regarded by some as an additional burden on companies and an element consumers no longer attach importance to. This paper elucidates to which extent Lebanese consumers consider product warranty as a determining factor when considering a durable good purchase. Its findings are based on the results of a consumer survey which takes as example a white goods purchase. And hence aims at enabling companies to decide on whether to invest in order to offer their customers extended warranty or rely on other factors as a means of attracting them.

Keywords: Product warranty, consumer behavior, durable goods

Mots clés: Garantie produit, comportement du consommateur, produits durables

INTRODUCTION

When making a purchase decision for a given product, buyers typically compare characteristics of similar models of competing brands. In the case where competing brands are nearly identical, it is very difficult to choose a particular product only based on product-related characteristics such as special features, price, perceived product quality and reliability, credit facilities offered by the manufacturer. In such circumstances, post-sale factors including warranty, parts availability and cost, service, maintenance, take on added importance in product choice. Among these factors, warranty is an element that is known to the buyer at the time of purchase. And therefore, it represents an important part of the marketing and sales argument most notably for new products (Murthy 2006).

The complexity of the products has increased significantly to meet the ever increasing needs and expectations of consumers. Researchers nowadays talk more and more about product services that are distinct from the pure products which consumers have grown accustomed to. For these types of products that are considered as a sum of parts, issuing a warranty comes with the additional complexity of defining the responsibility of each contributor including the raw material manufacturer, parts assembler, owner of the brand...

DEFINING PRODUCT WARRANTY

Product warrant can be defined as “a written assurance that the manufacturer of a product will guarantee the quality and reliability of a product in terms of correcting any legitimate problems with the product at no additional cost, for some expressed or implied period of time or use” (Pecht, 2006).

A warranty is an obligation attached to a product (item or system) that requires the warranty issuer (manufacturer or supplier) to provide compensation to consumers according to the warranty terms when the warranted products fail to perform their pre-specified functions under normal usage within the warranty coverage period. Based on this definition, a warranty contract should contain at least three characteristics: the coverage period (fixed or random), the method of compensations, and the conditions under which such compensations would be offered (Pham 2006).

Warranty policies can be classified into different categories depending on whether they involve reliability improvement which include guarantees on the reliability of the item and not just on its immediate or short term performance. Whether they cover a single item or group of items (cumulative warranty), are one-dimensional (limit on age) or twodimensional (limits on age and usage) as is the case for cars where both age and mileage are considered. Warranties can also fall into the basic or extended categories, for the former, the warranty is integral to the sale and as such factored into the sale price and the customer does not pay anything extra, as for the latter, it is optional and customers are required to pay an extra amount of money. (Blischke and Murthy, 1994 and 1996).

PRODUCT WARRANTY AS A COST ELEMENT

There are several different notions of warranty costs, they include warranty cost per product unit, warranty cost over some interval (for example, product life cycle) and warranty costs per unit time (warranty cost rate).

Warranty costs depend on product reliability and product usage. Whereby product reliability is the sole responsibility of the companies involved in the production process, while the product usage including intensity, mode and usage environment is dictated by the consumer. According to Blischke and Murthy (1994), warranty cost can vary between 1% and 10% of the sale price depending on the product and the manufacturer. For example, the total warranty costs for

General Motors and Ford were over 4 billion dollars each for 2006, Murthy and Jack (2007).

This cost represents a financial burden on companies but is only truly appreciated by customers if the given product fails to perform adequately and needs to be returned.

PRODUCT WARRANTY AS A MODERATING FACTOR IN PRODUCT EVALUATIONS

The effect of product warranty on product evaluations was studied by numerous researchers, in 1993, Ahmed and d'Astous undertook a study in Canada on three different types of products: cars, video recorders and T-shirts from various origins including Japan, South Korea, India, Italy and Russia, and found that the length of a product's warranty directly influenced product evaluations. As such, they noticed that the longer the warranty the stronger the impact on the product's evaluation. The authors also found that the effect of the product warranty was more important than other factors such as the product's country of manufacture in the case of video recorders. Furthermore, warranty was considered to be a risk reduction factor at the time of purchase and was found to increase the perceived value of the purchased product. Likewise, an extended warranty was considered by customers as being a sign that the manufacturer was confident of the quality of his product (Champagne *et al.*, 2001).

According to Cai *et al.*, 2004, consumers purchase decisions are greatly influenced by the intrinsic and the extrinsic cues of product. A buyer's decision can vary considerably due to the presence of warranty, as it represents an important extrinsic cue for the product especially in the case of electronic products (Cai *et al.* 2004).

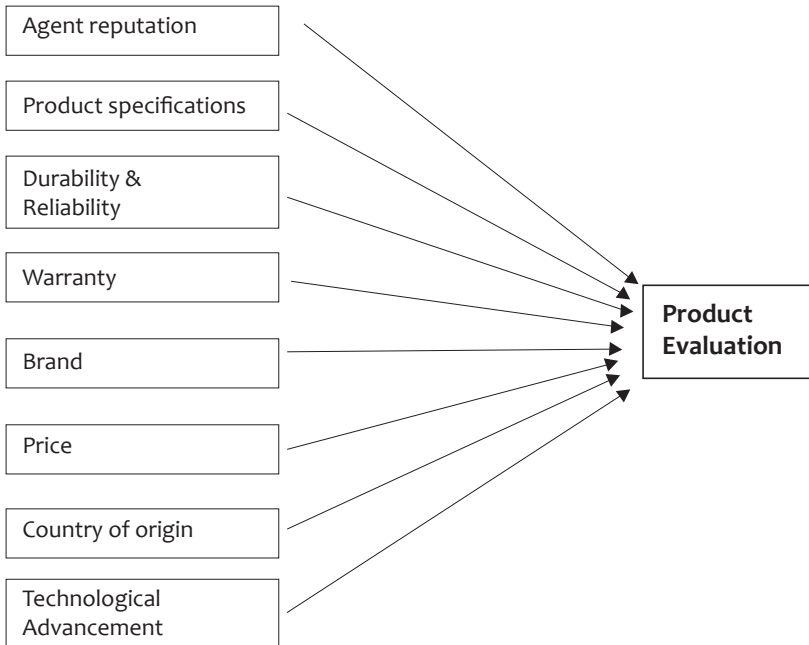
For durable goods in general and white goods in particular, warranty is especially important as this type of product is mostly bought with the intention of being kept for a long period of time, and is often associated with costly and complicated repairs.

PRODUCT WARRANTY VS OTHER FACTORS INFLUENCING PRODUCT EVALUATIONS

Apart from product warranty, and according to the conjoint analysis used by Ettenson, *et al.* (1988) product cues such as quality and price were found to exert a strong effect on consumer product evaluations.

While according to Verlegh and Steenkamp (1999) a series of both intrinsic and extrinsic product attributes which include brand, price, durability and reliability, warranty, product features, agent reputation and after sales service, technological advancement, and the country of origin were the factors that played a role in customer product evaluations.

Figure 1: Factors Affecting Product Evaluations



METHODOLOGY

In the aim of shedding light on the importance of product warranty in product evaluations a customer survey was conducted. Consumer surveys are considered to be the optimal method for collecting a large amount of information in a short period of time. They have been used time and again to test for consumer attitudes, behaviors and opinions. Critics of this method have however warned researchers against the reliance on a convenience sample of respondents made of university students which in many cases leads to biased results.

As a representation of durable goods, the survey focused on white goods. Knowing that white goods are infrequently purchased, and to ensure that the participants in the survey were representative enough of consumers faced with such decisions in real-life, the scope of the survey was limited to Lebanese consumers who show an interest in white goods.

Based on data obtained from the World Bank, the population of Lebanon in 2012 stood at 4,424,888 individuals, with an average number of individuals per household of 4.3. Knowing that white goods are purchases for the home, we considered our actual population to be the total number of households which is

approximately equivalent to 1,029,044. Given the very high penetration rate of essential white goods such as refrigerators in the country, (98.7% in 2004¹) we found all households to be concerned by the purchase of this type of product at one time or another, which justifies the use of the total number of households as our population.

Taking into account a confidence level of 95% and a confidence interval of 3, the required sample size stood at 1,066 individuals. These individuals were randomly chosen from the phone book and contacted by telephone -no two individuals from the same household were questioned. Out of the 1,066 individuals contacted, 200 met the eligibility criteria mentioned below, and agreed to answer the questionnaire in full.

FINDINGS

Following the validation of the measurement model, the structural model was tested, and showed that the impact the different factors exerted on the general evaluation of a product varied greatly between one factor and another. The warranty appeared to have only a slight influence on product evaluations and which although significant was not strong (path coefficient=0.159; t value=2.338).

Amongst the factors that appeared to have an importance were: the brand (path coefficient= 0.366; t value=6.794), the price (path coefficient=0.25; t value=4.532), the product features (path coefficient=0.266; t value=4.544) and the technological advancement of the product (path coefficient=0.348; t value=9.927). Whereas durability and reliability (path coefficient=0.15; t value=2.256) only appeared to have a very little influence, and agent's reputation and country of origin had virtually no influence on the global product evaluation (path coefficient=-0.001 and 0.043; t value=0.156 and 0.462 respectively). This leads us to conclude that warranty has a weak influence on product evaluations, and is a factor consumers give moderate importance to when evaluating a white good.

LIMITS

The limits of this research include the sample size and location of the survey which was confined to the inhabitants of Beirut, Lebanon. Another limit is the type of product studied – white goods – which might not be representative of all durable goods. In addition to the limit related to the mode of administration and the length of the questionnaire which prevented the collection of more in-depth information.

1. Ministry of Social Affairs, Central Administration for Statistics, and the United Nations Development Program, The National Survey of Households Living Conditions 2004, Beirut

CONCLUSION

This study highlighted the role played by warranty in product evaluations and showed that this attribute has a moderate influence which surpasses that of the agent's reputation, durability and reliability and the country of origin. As such it shows that despite the general trend for fast and disposable consumption (clothing, information and technology), consumers looking to buy durable goods still consider warranty as a factor when evaluating a product.

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