Consumer-Based Perceived Innovativeness: the Big Seven
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This paper explores the evolving literature on consumer-perceived product innovativeness distinct from the personality trait. Product innovativeness has been addressed in the literature mostly from the firm’s perspective in spite of the key role consumers have in selecting new products among competitive offerings and in determining their success. In doing so, we find that the factors thought to underlie consumer-perceived product innovativeness are in need for clarification because of the amount of different findings found. The goal of this exploratory story is to identify the underlying factorial structure of the concept of consumer-based perceived innovativeness in order to establish a base for scale development. Preliminary findings show that a seven-factor solution emerged as meaningful and interpretable with a level of variance explained of 61.4%. The conclusion of our study proposes that a new scale be developed and tested across different types of product categories. This scale would then be used in future research on perceptions of innovative products.

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and product evaluation questions. As predicted, the product was valued more highly when the production process allowed higher levels of intellectual investment. Moreover, results showed that identification and attachment mediated the impact of intellectual investment on product evaluation.

Next, we investigated how physical investment in the production process affects person-object relationship. Participants were randomly assigned to one of the three physical investment conditions: high, low, and none (control condition). In the high condition, participants were provided with all the supplies to make a picture frame from cardboard. In the low condition, the participants were given pre-made pieces that would be used to make the same frame. In both conditions, detailed step-by-step instructions allowed no creativity or choice. In the control condition, participants were given a pre-made cardboard frame and asked to examine it. To equate the time spent with the product, in the control and the low physical investment conditions, the participants worked on a filler task before evaluating the frame. Then, they answered the same dependent variables from the previous study. Results indicated that even low levels of physical investment enhanced product evaluation. Attachment to the product increased as the level of physical investment in the production process increased. However, identification didn’t differ among the three conditions. Physical labor alone doesn’t result in identification. Analysis indicated that attachment fully mediated the effect of physical investment on product evaluation. When consumers can invest their physical labor into the product through the production process, they become more attached to but not necessarily identify with the product.

We make several contributions to the literature. First, we operationalize identification with and attachment to a product in measurable terms. This enables us to measure personal relevance of products when consumers are involved in the production process. Next, we demonstrate that intellectual investment enhances product evaluation by enhancing both attachment to and identification with the product. On the other hand, we show that physical investment affects only attachment to but not identification with the product. Physical involvement alone doesn’t give the consumer the opportunity to reflect his/her taste, preferences, that’s his/her identity, through the product. Therefore, physical involvement affects product evaluation only through attachment. Furthermore, we show that attachment and identification are two different dimensions of person-object relationship.

**Selected References**


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Growing market competition in consumer goods has led to increased concerns regarding the competitive advantage conferred to firms offering innovative products. While insights from consumers are often used as starting point in the design process, what is thought to be innovative by a team of engineers and designers may not be perceived in the same way by target market consumers. Marketers would benefit by knowing more about the specific dimensions underlying consumer perceptions of innovative products.

Personal innovativeness as a personality trait has been addressed in the literature (Cotte and Wood, 2004; Manning et al., 1995; Midgley, 1977; Midgley and Dowling, 1978). The goal of this paper, however, is to clarify the construct of consumer-based perceived product innovativeness. Perceived product innovativeness from the firm’s and customer’s perspective has been addressed in previous research (Garcia and Calantone, 2002; Danneels and Kleinschmidt, 2001) but definitive construct dimensions have not been identified and systematically tested (cf. Calantone et al., 2006). In reviews of the literature, Danneels and Kleinschmidt (2001) as well as Garcia and Calantone (2002) identified many dimensions that may underlie perceived innovativeness. They noted that specific dimensions have not been employed consistently across studies. Our ultimate goal is to develop a standardized measure that can be employed across future studies so results of studies can be more comparable.

In their meta-analysis on antecedents of product performance, Henard and Szymanski (2001) specified product characteristics as a predictor of product innovativeness. According to the authors, product innovativeness can be defined as perceived newness, originality, uniqueness and radicalness of the product. Sethi et al. (2001) used two factors to define product innovativeness: a) novelty broken down into novel and original, and b) appropriateness broken down into useful and appropriate. Product innovativeness has also been confounded with product uniqueness as defined by customers (Danneels and Kleinschmidt, 2001; Troy et al., 2000; Ali et al., 1995). Uniqueness has also been viewed as a distinct measure of innovativeness in defining product advantage (Henard and Szymanski, 2001; Langerak et al., 2004). Conversely, product newness and uniqueness have also been used as sub-measures of product innovativeness (Salavou, 2005).

Positive product attitudes have been associated with new products perceived to be innovative (i.e., novel and useful to consumers; Troy and Davidow, 1998). It also appears that when the innovativeness measure includes a “meaningfulness” dimension it yields a stronger relationship with product success (Szymanski et al., 2007). In addition to novelty dimension, Fang (2008) found dimensions like “challenging existing ideas,” “creative and interesting,” underlying perceived product innovativeness. In one of the original studies identifying factors underlying perceptions of new product launches, Cooper (1979) identified product uniqueness superiority further broken down into newness, uniqueness, and superiority to meet customer’s needs, cost reduction and higher quality.

In sum, inconsistencies exist in the literature in terms of how to define the construct and dimensions underlying product innovativeness as perceived by consumers. The ultimate is our research to provide a tool that will allow more consistency across studies. In addition to using concepts identified in the reviews of the literature, in-depth interviews were conducted in order to gather the widest possible range
of adjectives related to perceived product innovativeness from the consumer point of view. Inspired by a methodology used by Li et al. (2008), 34 student interviewers were asked to conduct several in-depth interviews each. They were required to recruit campus across ages, genders and education among students and non-students of over twenty years of age. Based on a methodology used by Krishnan (1996) for generating brand associations, 340 participants were asked to provide top-of-mind thoughts using open-ended questioning. The initial set of statements/items was screened by faculty judges, independent of the study, to group the ones with similar meanings but also to eliminate redundant and non-relevant attributes in order to reduce the pool of adjectives to a manageable size (Bearden et al., 2001). As a result, a final list of 68 attributes was compiled.

A questionnaire was developed based on a 7 point bipolar Likert scale where the resulting set of 68 items was submitted to principal component analysis. The decision to use principal component analysis was driven by the fact that the theory behind consumer-based perceived product innovativeness has not been clearly conceptualized and sufficiently detailed regarding the relations between indicators and the construct (Gerbing and Anderson, 1988). A survey was conducted and the questionnaires administrated to a sample of 218 adults around a campus community of an American university. Participants were selected based on a wide range of ages, gender and education. After a series of iterations, an optimal 7-factor solution accounting for a significant 61.4% of the variance explained appeared to be meaningful and interpretable. The uncovered factors are in order: 1) Usability, 2) Novelty, 3) Desirability, 4) Newness, 5) Sophistication, 6) Uniqueness and, 7) Worthiness.

In conclusion, this study confirmed underlying dimensions of consumer-based perceived product innovativeness found in past research and, importantly, also uncovered distinct dimensions that have not been addressed in previous research. Results of our research confirm that consumer-based perceived product innovativeness is a multi-dimensional construct. The conclusion of our study proposes that a new scale be developed and tested across different types of product categories. This scale would then be used in future research on perceptions of innovative products.

**Selected References**


