Level of Consumer Involvement and New Product Development: A Conceptual Framework for the Moderating Role of Product Type

Nicholas Grigoriou
Lecturer
Department of Marketing, School of Business
Monash University
Malaysia
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Abstract

The concept of customer involvement (CI) in new product development (NPD) has shown to have a major effect in the design of new products. CI with a specific product has yielded rewards for manufacturers of both consumer and industrial goods in that CI involvement in NPD produces timely feedback regarding a product’s design.

CI is considered an important characteristic of consumer behavior and is conceptualized as the degree to which customers are engaged in different aspects of the pre-consumption and post-consumption process. This level of involvement differs depending on inter alia, the type of product.

We present a conceptual paper aimed at examining the moderating effect that product type has on the relationship between the level of consumer involvement in new product development and its antecedent factors such as the level of perceived risk in the purchase, the importance of the product to the buyer, and the purchase occasion.

We contribute to the extant knowledge of NPD by providing a theoretical framework upon which to empirically validate the relationship among the extant variables in the CI literature.

Keywords:
Introduction

New products are important contributors to an organisation’s growth, profitability and its ability to compete in the marketplace (Crawford and Di Benedetto, 2008; Landwehr, Wentzel, and Herrman, 2012; Largosen, 2005; Song, Kawakami, and Stringellow, 2010). The extant research on new product development considers the strategic decision of new product development from various perspectives. These include: external search effort among prospective consumers (Beatty and Smith, 1987), pre-purchase information seeking (Bennett and Mandel, 1969). However, the literature reveals an increasing emphasis been placed on understanding the level of perceived risk in the purchase decision (Campbell and Goodstein, 2001; Dowling, 1986; Kaplan, et al., 1974; Snoj, et al., 2004), and product importance (Beatty and Smith, 1987; Bloch and Richins, 1983; Keller and McGill, 1994; Neslin, 1981). The conceptual contribution of this paper is to identify the relationships among these variables and to propose a theoretical framework upon which to empirically validate these relationships in further studies. In doing so, we adopt Bloch’s (1982) definition of product involvement: an unobservable state reflecting the amount of interest, arousal or emotional attachment evoked by a product in a particular individual.

Literature Review

Customer focus has long been the mantra for market driven organizations. Organizations are constantly looking for ways in which to deploy resources in a manner that delivers an appropriate level of customer value amid tight competition and changing customer demands.

Historically, organizations have manipulated their marketing mix variables to deliver the optimum customer value expected by consumers (Kotler and Keller, 2009). Examples of using marketing mix variables to deliver a value proposition include delivering value through integrated marketing communications (Gronroos, 2004; Kliatchko, 2008; Schultz, 1992), distribution and supply chain management (Cooper, et al., 1997; Lambert and Cooper, 2000; Simchi-Levi et al., 2007), pricing (Grewal, et al., 1998; Kortge and Okonkwo, 1993; Kortge, et al., 1994), and branding (Christopher, 1996; Doyle, 2000; Schau, et al., 2009). Given the salience of delivering optimum customer value, consumer research has paid little attention to the importance of customer involvement (CI) in marketing strategy, specifically, how consumers could be involved in an organization’s new product development (NPD) (Kaulio, 1998). This is surprising given that involvement is regarded as a primary determinant of consumer behavior, and is characterized by the degree to which consumers are engaged in different aspects of the consumption process (Broderick and Mueller, 1999; Laaksonen, 1994).
Consumer Co-Creation in NPD

Marketers have long recognized the important role that new product development plays in developing marketing strategy and delivering customer value (Gupta and Wilemon, 1990; Primo and Amundsen, 2002; Schoonhoven et al., 1990; Smith and Reinertsen, 1998; Takeuchi and Nonaka, 1986). Successful new product development requires in-depth understanding of the customers, their situation, their needs and their wants (Lagrosen, 2001). This requires active interaction with the customers. Consequently, it is valuable to study how organizations involve their customers in their new product development process.

Despite the acknowledged importance of CI among scholars, little attention has been given to the role that consumers play in the creation of new products (Hoyer et al., 2010). As Ernst et al., (2010) assert, new technologies have provided consumers with more information than ever before. Consequently, consumers feel more ‘empowered’ in their relationships with value providers. One outcome of this empowerment, is that consumers desire a greater role in value creation (Hoyer et al., 2010). Co-creation of value is considered is an important manifestation of customer engagement (Van Doorn, et al., 2010).

O’Hern and Rindfleisch (2009) define co-creation as: a collaborative new product development activity in which consumers actively contribute and select various elements of a new product offering. In light of this, Bolton and Saxena-Iyer, (2009) distinguish between co-production and co-creation. They refer to co-production as customer participation within organization-defined parameters (citing Bowen, 1986), that is, co-production implies that work is transferred from the organization to the customer. Co-creation on the other hand, involves the customer’s participation the creation of the core offering itself. This occurs through shared inventiveness, co-design, or shared production of related goods, and can occur with customers and any other partners in the value network. This line of reasoning is based upon consumers having different motivations for wanting involvement in co-creation of a product. These motivations include: desire for lead-user status (von Hippel, 1986), financial rewards (von Hippel and von Krogh, 2006), desire to be a (product) innovator (Moore, 1991), and the desire for social benefits (Nambisan and Baron, 2009).

Based on the motivations highlighted above, for empowered consumers to desire product (value) co-creation (involvement) with marketing organizations, the product being co-created must have a level of importance to the consumer (Metcalf and Frear, 1993)

The Role of Product Importance in CI

At the core of the marketer-consumer interaction is the notion of exchange. The product being exchanged has a significant effect on intensity of the interaction process (McQuiston, 1989). The more important the product is to the consumer (at the point of purchase and consumption), the more intense the desire to be involved in the co-creation of that product. In light of this
congruence, Bloch and Richins (1983) define product importance as: *the extent to which a consumer links a product to salient, enduring, or specific goals*. It is relevant to note that the importance of a product is not an inherent characteristic that the product has, it is the consumers’ perception of importance. Therefore, product importance perceptions are influenced by social roles, consumer needs, and personality traits.

In the context of the theoretical frameworks provided by Bloch and Richins (1983), we hypothesize that:

H1: The greater the perceived importance of the product to the consumer, the greater the consumers’ desire to be involved in the new product development process.

*The Role of Perceived Risk in CI*

Decision theorists define *risk* as the situation where a decision maker has a priori knowledge of both the consequences of alternatives and the probabilities of their consequences (Dowling, 1986). Early conceptualization of risk was offered by Bauer (1960) as having a two-dimensional structure, namely, uncertainty and adverse consequences.

Prior studies of perceived risk among consumers in a product purchase situation report that perceived risk is a multidimensional construct (Snoj, et al., 2004). A consistent theme in the literature is that consumer behavior involves some level of risk, which when accompanied by uncertainty in a product’s performance (post-purchase) results in consequences such as incongruence between product performance and expected benefits (Sweeney, et al., 1999).

To assist in the understanding of the multi-dimensional nature of consumer risk, Murphy and Enis (1986) identified five consumer risk constructs:

- *Social risk* – the risk that the consumers’ status may among peers may change as a result of the purchase
- *Physical Risk* – the risk of harm in using the product
- *Financial Risk* – the feeling of having lost money if the product does not perform to expectation
- *Psychological Risk* – the risk of choosing the wrong product and the possible negative consequences on the consumers’ ego, and
- *Functional Risk* – the risk that the product will not work as expected.

In a later study, Mumel (1999) added *time risk*, that is, the risk of spending too much time searching for a suitable product if that product does not perform to consumer expectations.

Since consumers’ perceptions of risk are central to their evaluations, choices, and behaviours (Dowling, 1999) it is hypothesized that such risk creates a CI intensity in new product development, such that:
H2: The greater the level of perceived risk among consumers towards a given product purchase, the greater the consumers’ desire to be involved in the new product development process.

The Role of Product Type in the CI-NPD Relationship

The type of product being considered for purchase has previously been found to influence the correlation between the level of product involvement consumers have and their level of product knowledge (Park and Moon, 2003). Notably, the extant literature reveals that products can be classified into two types, namely, utilitarian products and hedonic products. Utilitarian products emphasize function and product performance (Mittal, 1989; Zaichowsky, 1987), whereas hedonic products reflect pleasure and self-expression (Babin, et al., 1994). To provide a deeper understanding of how these two product types influence CI, Babin, et al., (1994) suggest that hedonic products provide a feeling of pleasure on consumption, whereas Engle, et al., (1993) posit utilitarian products are oriented towards solving a specific problem.

The utilitarian or hedonic attribute of a product is based on a consumer’s subjective judgement about the product’s value. Therefore, the relative importance of the product type differs depending on the consumer. Hence, a product may have both hedonic and utilitarian attributes.

As noted earlier, product type influences the correlation between level of involvement (CI) and the product knowledge. The literature is unclear as to whether product type influences the relationship between new product development and CI. Despite this, scholars (Alam, 2002; Matthing, et al., 2006; Ostrom et al., 2010) posit a future research need to understand the involvement of customers in collaborative product innovation (and therefore product development) processes. What is still unclear is the influence that product type has on the CI–NPD relationship. Given the role product type had on the product knowledge-product involvement relationship reported in Park and Moon (2003), we posit product type moderates the CI-NPD relationship. In adopting Cavana, et al.’s., (2000) definition of a moderating variable, we further posit that product type (either hedonic or utilitarian) has a strong contingent effect on the CI-NPD relationship such that:

H3a: Hedonic products moderate the relationship between CI (perceived risk and perceived product importance) and NPD
H3b: Utilitarian products moderate the relationship between CI (perceived risk and perceived product importance) and NPD

Conceptual Methodology

Conceptual advances are critical to the vitality of the marketing discipline, yet recent writings suggest that conceptual advancement in the field is slowing (MacInnes, 2011). Whilst scholars have yet to agree on a universal definition of conceptual research, MacInnes (2011) posits the following definition:
conceptualisation involves ‘seeing’ or ‘understanding’ something abstract, in one’s mind. Conceptual research contributions have four main goals (MacInnes, 2011). These are:

1. **Envisioning** (identifying or revising)
2. **Explicating** (delineating or summarizing)
3. **Relating** (differentiating or integrating) and
4. **Debating** (advocating or refuting)

In addition to the MacInnes’s work on conceptual research in marketing, other scholars have advocated the use of conceptual research studies. These include *theoretical reviews* (Aulakh and Kotabe, 1993), *methodological analysis* (Malhotra et al., 1996), *theory development* (Goldberg, et al., 2001), *reviews of empirical literature* (Kirmani and Rao, 2000), and *theory application* (Ericksen and Kushner, 1999). In light of these approaches, this paper adopts MacInnes’s explication approach in that we offer a new conceptual perspective of CI in NPD by highlighting the missing moderating variable of product type and its potential importance to understanding the CI-NPD relationship.

**Proposed Theoretical Model**

In Figure 1 we propose a conceptual model for empirical testing. The model depicts the stochastic relationships between the key variables identified in the literature. In doing so, we present a hypothetico-deductive model by suggesting predictions that may be experimentally tested. We aim in further studies to validate whether the predicted theorized association among the stated variables exists and the relative strength of those theorized relationships.

**Figure 1. Level of Consumer Involvement in New Product Development: A Theoretical Framework**

![Diagram of the theoretical model](image)

**Independent Variables**
- Product Importance $H_1$
- Perceived Risk $H_2$

**Dependent Variable**
- Level of Consumer Involvement in NPD

**Moderating Variable**
- Product Type
  - Hedonic $H_{3a}$
  - Utilitarian $H_{3b}$
Conclusions and Recommendations

To gain a better understanding of how product co-design with the customer may be integrated into an organisation’s new product development processes, this conceptual paper identifies two important variables that affect the level of CI consumers desire in the NPD process. The identification of these variables is born out of the extant literature on consumer/user involvement, the perceived risk in product purchase (and consumption), and relative product importance to the purchaser. In addition, the variable product type (either hedonic or utilitarian) is posited to have a moderating effect on the NPD and CI relationship.

Despite its increased importance, CI in NPD still remains an under-researched area. While we believe our research has provided useful insights into the nature of CI in NPD, we recognize the need for additional studies in this area. This would commence with the empirical validation of our model. Additional studies might examine the CI-NPD relationship using industrial (that is, business to business) products to determine whether the variables proposed in our paper apply in industrial product markets. Further, future studies may focus on comparing different types of consumer products to determine whether there are different levels of CI-NPD intensity across different consumer product categories.

References


