# COMPLEX PRODUCT-MARKET CHARACTERISTICS AND THEIR IMPACT ON THE CONSUMER CHOICE PROCESS: A GENERAL FRAMEWORK FOR MODELING CONSUMER CHOICE

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## ABSTRACT

In this paper, we integrate research on consumer information processing, context effects, and the consumer choice process to propose a general framework for modeling the consumer choice process in complex product-markets. Drawing on the phased decision-making literature, we propose that consumers construct consideration sets on the basis of non-compensatory rules and choose from among the brands in a consideration set on the basis of compensatory rules in an attempt to minimize uncertainty in the face of incomplete information. We identify five fundamental product-market characteristics and propose that consumers use memory and stimuli based information to form their unique perceptions of these fundamental product-market characteristics. We construct our proposed general framework on the basis of six propositions of consumer behavior that, collectively, attempt to explain the underlying processes that give rise to behaviors observed in the empirical literature.

In cases of high consumer involvement, consumers will mentally group similar brands into *clusters* according to importance-weighted attributes. We define *cluster size* as the number of brands the consumers perceives to exist in a cluster, *cluster variance* as the variance of brands in a cluster about the cluster center, and *cluster frontier* as the (possibly unoccupied) point in a cluster in which the best brand (as measured by the utility derived from the brand's attribute combination) would reside. Further, given that consumers will usually be unable to exactly measure brands' attributes, we define *brand variance* as the consumer's perception of the ranges over which a brand's true attribute levels reside. Lastly, we claim that the consumer will make greater or lesser use of the perceived product market characteristics depending on the ease with which a universe of brands can be distinctively clustered according to relevant attributes. We call this clarity of clustering *granularity.* Using these perceived product-market characteristics, we set forth and give support for the following behavioral propositions:

$P_1$ *The probability of consideration for brands in a cluster is a positive function of the cluster's size.*

$P_2$ *The probability of consideration for brands in a cluster is a negative function of the cluster's variance.*

$P_3$ *The probability of choice-given-consideration for a brand is a negative function of the distance between the brand and the cluster frontier.*

$P_4$ *The change in the probability of consideration given a change in cluster size is a positive function of granularity.*

$P_5$ *The change in the probability of consideration given a change in cluster variance is a positive function of granularity.*

$P_6$ *The change in the probability of choice-given-consideration given a change in the distance from the brand to the frontier is a negative function of brand variance.*

We show how a variety of observed context effects (the attraction effect, the substitution effect, the lone-alternative effect, extremeness aversion, the polarization effect, and tradeoff contrast) can be interpreted as following directly from these propositions. Further, extrapolating from the propositions, we show specific circumstances in which we would and would not expect these context effects not to be manifest. This framework offers two major contributions: one theoretical and one empirical. In terms of theory, the framework encourages scholars not to think in terms of distinct context effects, but to focus on refining our propositions into a unified theory of consumer behavior which would encompass, among other things, all context effects: those documented and those heretofore undocumented.[1] In terms of empiricism, the framework suggests directions for empirical methods. For example, the framework implies that experimenters can no longer consider the unconditional probability of choice, but rather should focus on the probability of consideration and the probability of choice-given-consideration as separate effects. Further, the framework implies that experimenters are obligated to account for such constructs as granularity, perceived technological constraints on the tradeoffs between attributes, implied cluster frontiers, perceived clusters, and brand variances.

References available upon request.

[1] For example, our framework implies a heretofore undocumented context effect which we might term the "dumbbell effect". We can imagine three brands, none strictly dominating another and each existing in its own cluster. If we add brands to the extreme clusters, we should observe for the middle brand a decrease in the relative probability of consideration and no change in the probability of choice-given-consideration. Thus, the unconditional probability of choice for the brand in the middle brand will decrease. This is counter to the outcome predicted by the substitution effect.