# A Two-Level Approach to Establishing a Marketing Strategy in the Electronic Marketplace

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### Abstract

This study concerns an analysis of what kinds of products are more suitable for distribution via the Internet than via traditional markets. The purpose of the analysis is to identify and fit marketing strategy to product in the virtual marketplace. The amount of product information needed by the consumer to reach a purchasing decision varies with the degree of consumer involvement with the purchase. We conjecture that two major factors affect the consumer's disposition toward online shopping: (1) the purchase involvement on the part of consumer, and (2) product information exposure provided by the Web. Therefore, in the virtual market products may be grouped into four categories. The implication of this is that online marketing functions at two levels. (1) Level-1: PNF (primitive network function), which is derived from the primitive network characteristics associated with the product's attributes fitting with the consumer's involvement. (2) Level-2: ANF (advanced network function), which is the marketing communication created by the virtual store to meet the demands of consumers purchasing online.

## 1. Background

### 1.1 The Characteristics of Networked Media

The features of networked media come from the primitive functional characteristics of the Web, such as real time interaction, one-to-one communication, and diverse means of communicating content. Compared with such media as TV, networked communication boasts some unique characteristics. Among the appealing features of Computer Mediated Environments (CME) [14] are low cost, high interaction, no space confines, personalized communication, and no

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time restraints. The networked communication format can be employed in the design of new products, in marketing strategy, and in the innovation of content in ways never before seen [7, 8]. Unlike traditional, it also provides new capabilities for communicating content. [4, 14, 26]. Accordingly, the basic issue for marketing effectiveness in the virtual market is how to utilize networked media to transform the consumer's three-stage buying process into electronic purchase processes and benefit both sellers and buyers with lower transaction costs than found in traditional markets [17, 18]. From the strategic standpoint, the Internet provides transaction value enhancement [3, 22, 23, 24], and new competitive paradigms [6, 13, 29].

### 1.2 The Networked Media Richness Theory

The media richness theory refers to the different levels of information content and context for media users [10,30]. Recent research distinguishes four retail formats in terms of their levels of richness of product information for consumers. Of these, according to the theory, the in-store format offers the highest level, followed by TV, the Web, and catalogs [2, 21].

If marketers are to meet consumer needs for information, then message delivery strategy will be concerned both with the content of the communication and with the creative form of the message [19, 32]. In the traditional situation creation, product attributes, consumption situations, and consumers are directly affected by the communication form of face-to-face interaction or physical surroundings. Delivery of communication content is made by sales clerks in physical stores or by consumers physically examining products through all their senses. In that context, it may then be asked what processes will enable virtual shops to deliver communication content, purchase, and consumption situation to consumers by the networked format and content? Some features of the communication

form under CME surpass traditional media in effectiveness of communication, such as one-to-one communication, the richness of the information link, the diverse means of communicating content, and high consumer interaction. But we must also take into account the factor of uncertainty over both product quality and online purchasing processes [1, 33] that comes from the lack of direct interaction by the face-to-face contact or physical surroundings provided in physical stores. In this study, we identify this kind of Internet communication problem as an example of low effectiveness in communication content delivery [19]. A higher level of uncertainty generally implies higher transaction costs than traditional channels impose, and will thus influence the disposition of consumers toward online shopping [17]. Hence the reason why the appeals of multimedia content still fail to attract consumers to shop online, a sufficient explanation for which the literature concerning the situational form has not so far given.

The Determinant of Online Shopping Willingness – via Purchase Involvement with the Product and Networked Media Richness

In terms of the advantages and disadvantages of networked media, the kinds of products that consumers tend to purchase online is an important topic of inquiry. Sales of digital products will see increasing fundamental changes because they can be both produced and delivered over the network [31]. Products that are already in digital format or are capable of being digitized, and which thus allow consumers to search for, purchase, and evaluate them, are suitable for selling online [9]. Schwartz (1998) describes information-rich products as ones that take time to contemplate, and as the types of things that people will actively shop for online, such as books, music CDs, mutual funds, cars, and consumer electronics [28]. For high-involvement products, the Web offers a unique potential through the use of interactive agents to compare them across multiple retailers, i.e., a personalized search agent. Furthermore, information-intensive products and services have high information content and are better supported by rich media [21]. This explains why most top-selling products on the Web fall into the information-rich category that consumers will mull over [36] and evaluate. In contrast, most people fail to pay much attention to information-poor products and are not disposed to buy them online. The factors influencing consumers to shop online for specific products relate both to the characteristics of products and the network media. Even where the purchase involvement of products is high, the consumer remains reluctant to shop online if there is uncertainty over quality. Equally, if products can be easily presented on the Web, but the consumer involvement is low, the

consumer is still unlikely to choose Internet outlets over physical shops.

#### 2. Research Framework

The primary research questions of this study are: What kinds of products are suitable for distribution on the Web; what kinds do consumers shop for online; and what different marketing strategies should be developed for different products in the virtual marketplace?

To answer these questions, we refer to CME, Media Richness, and Purchase Involvement theory, and propose to examine the interaction between the following two factors.

- (1) The degree of *purchase involvement* with the product on the part of the consumer [16, 35]; in other words, the richness of product information needed by the consumer to reach a purchase decision [28].
- (2) The degree of *product information exposure*, according to the complexity of product description on the Web [20]; in other words, the richness of product information available to the consumer via



Figure 1. The Interaction between the Consumer, the Product, and the Web

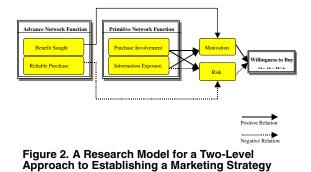
networked media [21].

The interaction of these is demonstrated in Figure 1.

For consumers, higher purchase involvement with a product generally implies stronger motivation to obtain information about its intrinsic attributes (e.g., specification, function, appearance) and its extrinsic attributes (e.g., price, brand, value). Because of the unique capability of the Web to allow comparison of similar products across multiple retailers, it dominates the major communication and transaction channels for such kinds of products compared with traditional channels. Although many high purchase involvement products are very likely to stimulate consumer willingness to buy online, it is not always true for product in this category; the degree of risk must also be considered. They can often sometimes constitute a high-risk transaction [37], including financial, physical, or psychological loss from the wrong selection of product or retailer. This is especially true of products of complex

description, with low product information exposure, or whose attributes and quality are difficult to examine online. If the level of motivation to surf the Web can not compensate the potential risk and loss, the consumer's willingness to buy online will be lowered.

The above analysis is not relevant to the Web marketing strategy across different retailers. This study proposes the development different marketing strategies for different products in the virtual marketplace. The twin aims of the strategies should be to raise consumers motivation to surf the Web and decrease risk. This is shown in Figure 2. Thus, the implication of the Web for consumer marketing (Web Marketing Communication) involves two levels. (1) Level-1: PNF (primitive network function), which is derived from the primitive network characteristics associated with the product attributes fitting with consumer involvement. (2) Level-2: ANF (advanced network function), is the Web marketing communication created by the virtual store to satisfy the consumer's wish [15, 26, 27], by raising consumer motivation to surf the Web and by



establishing reliable purchase environments, thus decreasing the level of risk.

## **3.** Level-1: Primitive Network Function (PNF) -- Purchase Involvement vs. Product Information Exposure

As mentioned in the preceding section, there are two major factors: (1) the degree of purchase involvement with the product (i.e., the amount of product information the consumer needs for making a purchasing decision), and (2) the degree of product information exposure on the Web (i.e., the degree of the product information richness over networked media). The relationship between these factors allow separation of products in the virtual market into four categories: High Purchase Involvement/High Product Information Exposure, High Purchase Involvement/Low Product Information Exposure, Low Purchase Involvement/High Product Information Exposure, and Low Purchase Involvement/Low Product Information Exposure. The category relationship is illustrated in Table 1. First, the features of the four product categories are listed and then an individual marketing strategy for each product category is delineated, showing how the differences in marketing effectiveness of product information richness and product information exposure over the Web are linked.

	Hi Information Exposure	Lo Information Exposure	
Hi Purchase Involvement	Personal Computer Car Rental Securities Trading Hotel Reservation Book	Mobile Phone Music CD Sofa Sedan Life Insurance	
Lo Purchase Involvement		Vegetables Fish Lipstick Cologne Shoes	

**Table 1. Examples of Electronic Product Category** 

# **3.1** The Degree of Purchase Involvement with the Product

The most popular products trading on the Web, such as books, music CD, and mutual funds, belong to the high purchase involvement category. From transaction cost considerations, it is not conceivable that consumers will shop online for low purchase involvement products such as convenience goods [17, 32]. Thus, this study proposes that the degree of purchase involvement with the product is related to consumer willingness to shop online. We have indicated that the higher the level of purchase involvement with a product the stronger the willingness to purchase online. However, there are some exceptions. For example, it is not easy to imagine a consumer deciding to buy a car online rather than from a traditional car dealer. Obviously, other factors of influence over consumer purchase decisions and over whether or not to shop online are involved.

### **3.2** The Degree of Product Information Exposure on the Web

The primary difference between online and physical store shopping is found in the information in the *content of the communication* and the *creative form* of the message [32]. In traditional markets, product attributes, consumption situations, and consumers are directly affected by *face-to-face* communication or by the *physical surroundings*. In stores, the communication content

delivery is made by sales clerks or by consumers physically examining the product. With online shopping, however, communication, purchase, and consumption situations are all virtualized or networked. According to the media richness theory, the uncer*tainty* over the quality of products and over purchasing procedures on the Web arises from the lack of face-toface interaction of the communication content or of the environment that physical stores provide. A higher level of uncertainty generally implies higher transaction costs than traditional channels impose, which thus will affect to some extent consumer attitudes toward Internet shopping. Therefore, the second factor that influences consumers to buy online rather than in physical stores is the degree of product information exposure provided by the Web, that is, the level of product information, the complexity of product description, or the degree of certainty over product quality.

Having considered then both *the degree of purchase involvement with the product* and *the degree of product information exposure on the web*, this study proposes that the amount of product information needed for a consumer purchase decision will vary with the degree of purchase involvement. How to utilize the masses of information about products that networked media communicate to meet consumer information demands, and how to take advantage of the networked media's ever increasing means and powers of communicating content that are not available to traditional media are the key factors for developing different strategies for different products.

# **3.3** The Characteristics of the Four Product Markets

High Purchase Involvement. With high purchase involvement products, the consumer often spends much time and effort seeking information, evaluating alternatives, and pondering purchase decisions [36, 37]. The Web provides a unique mechanism that offers a variety of ways of conveying information, personalized search engines, and comparisons of product attributes across retailers [34]. Thus, sales of such products will benefit from the consumer's high motivation to adopt Internet shop online. However, high purchase involvement implies the high risk that consumers perceive attached to these products. It is because high purchase involvement products can possibly impose greater financial, physical, or psychological losses than attach to low purchase involvement products that the consumer will pay more attention to the entire purchasing process. Thus, the challenges to virtual retailers are to deal with the high risk perceived by consumers and the uncertainty over the purchasing process.

Low Purchase Involvement. Low purchase involvement products are those to which consumers devote less time and effort. Basically, from purchase cost considerations, the consumer is not likely to actively surf the Web for them. So, with these products the challenges for Web retailers are the low cost and the competing pattern of high frequency of purchase in traditional outlets. On the other hand, the advantage of such products is that consumers, perceiving low risk, could conceivably be more favorably disposed to purchasing them online.

**High Information Exposure.** High product information exposure concerns the information about a product reaching the consumer via the Web and whether it is rich enough to allow the consumer to examine how well the product's attributes fit the requirements. One advantage of this property is that the consumer is highly motivated to surf the Web in pre-purchase activity. A second is that it makes consumer evaluation of product quality easier and therefore reduces risk at the purchase decision stage.

Low Information Exposure. Low product information exposure has two major characteristics: Firstly, there are circumstances where describing a product's intrinsic attributes on the Web proves so difficult as to make physical examination necessary, and thus consumer motivation to surf the Web is much reduced. Secondly, it may be equally difficult to evaluate quality on the Web, thus challenging the Web retailer with high risk to the consumer.

Weighing the degree of the consumer's purchase involvement toward a product and the degree of product information exposure on the Web, this study analyzes four sorts of product markets to illustrate the challenges and advantages and considers consumer motivation and perceived risk. Table 2 summarizes the characteristics of electronic product markets in the virtual marketplace.

	Motivation	Risk	Challenges	Advantages
Hi Purchase Involvement	High	High		Motivation: 1.Suitable for diverse ways of conveying information and personalized search mechanisms on the Web
Lo Pur- chase Involve- ment	Low	Low		<u>Risk</u> : 1.The low risk perceived by the consumer toward the product 2.The high possibility to try online purchase
Hi Product Information Exposure	High	Low	Not available <u>-</u> challenges related to the product and media	Motivation: 1.Suitable for examining the products on the Web to see if they exactly fit consumer wishes <u>Risk</u> : 1.Suitable for evaluating the quality of the product on the Web
Lo Product Information Exposure	Low	High	they fif conclimer wiches	Not available advantages related to the product and media

Table 2. The Challenges and Advantages in Electronic Product Markets

## 4. Level-2: Advanced Network Function (ANF)– The Implications of Internet Consumer Marketing Strategy

PNF analysis is not relevant to Web marketing strategy across different retailers. It is only concerned with demonstrating the influence of consumer purchase involvement and product information exposure on online purchase willingness, based on an analysis of motivation and risk. This study proposes different marketing strategies for different products in the virtual marketplace aimed at increasing motivation and decreasing risk. In this section, we introduce the second level of analysis to explore the implications of Web consumer marketing strategy -- ANF (advanced network function). ANF is the Web marketing communication provided by virtual stores to raise consumer motivation and provide reliable purchase environments where risk is decreased. This is shown in Table 3.

Table 3. The Benefit Sought and Reliable Purchase in Electronic Product Markets

	Benefit Sought	Reliable Purchase	
Hi Purchase Involvement	1.Product related knowledge learned	mitment of Web retailer	

Lo Purchase Involvement	quently nurchase	<u>Risk</u> : Low Risk
Hi Product Information Exposure	Motivation: 1.Real time interactive service of- fered 2.Expert support for purchase de- cision	<u>Risk</u> : Low risk
Lo Product Information Exposure	Motivation: 1.Comprehensive information about price difference and brand differentiation	-

## **4.1 A Marketing Strategy of Four Product** Markets

**High Purchase Involvement.** With high purchase involvement products, the consumer tends to be well informed about products including product specification and usage. Mostly, the need is for a customized product and personalized service with, additionally, highly responsive after-sales services. Moreover, the potential shortcomings of this category, such as the high perceived risk toward the product or retailer, can be offset by the Web retailer's brand commitment.

Low Purchase Involvement. For the low purchase involvement product category, consumers are seeking time and cost saving. Therefore, providing some substitute functions such as one-stop shopping, bundle of products mix, and efficient distribution channels can satisfy the consumer's wish to purchase such goods and increase motivation to surf the Web.

**High Product Information Exposure.** Although this category has the advantages of ample product description and more consistent product specifications on the Web, the business model is easily replicated by competitors. Thus, difference is found not so much in the

product across retailers but in the consumer/retailer relationship, so that the quality of purchase decision support offered by the virtual retailer is a significant factor in the benefit sought on the Web by the consumer.

Low Product Information Exposure. It is obvious that the *intrinsic* attributes of products with low product information exposure are difficult to describe on the Web. Accordingly, *extrinsic* attributes, such as detailed price information and brand differentiation can enhance the attraction of such products to consumers. Another risk of this category is uncertainty over quality, but this problem can be overcome by offering well-known brands of products.

The above analyses are based on the following major concerns: (1) the degree to which the *benefit sought* by the consumer is satisfied, or to which the consumer is motivated to surf the Web, and (2) the establishment of *reliable purchase environments* on the Web to decrease the risk apprehended by the consumer. Listed in Table 4 is a summary of the marketing strategies for the four sorts of product markets in the virtual marketplace.

	Strategy to Raise Motivation	Strategy to Reduce Purchase Risk	Web Marketing Communication Strategy	Core Competitors
Hi Purchase Involvement/ Hi Information Exposure	1.Personalized service 2.Decision sup- port information 3.Product differ- entiation	1.Ally or link with well known Web site [28] 2.Quick consumer service	1.Web shop commitment [29] 2.Product differ- entiation	Internet shops
Lo Purchase Involvement/ Hi Information Exposure	1.Comparison in- formation 2.Realtime inter- action 3.Lower product price	1.Quick con- sumer response	1.Lower pur- chase cost 2. Added value service on the web	Internet shops
Hi Purchase Involvement/ Lo Information Exposure	1.Product knowledge shar- ing [12] 2.User group communication [23]	1.strong brand image 2.Ally with tradi- tional mass me- dia	1.product brand commitment [29]	Physical stores
Lo Purchase Involvement/ Lo Information Exposure	1.Lower product price 2.Bundle of products offered 3.Efficient distribution	1.Hi exposure on the web 2.Dominating physical distribu- tion system	1.Cost and time saving purchase 2.Attractive product mix of- fered	Physical store

Table 4. Marketing Strategy for Electronic Product Markets.

## 5. Conclusion -- MANAGERIAL IMPLI-CATION

The kinds of products suitable for distribution over Internet are determined by two major factors: (1) *Product Purchase Involvement*, and (2) *Product Information Exposure*. The first of these (Product Purchase Involvement and Product Information Exposure -- PNF) constitutes what affects consumer willingness to shop online, while the second concerns the outcome, that is the purchase decision, which depends on the marketing strategy of the Web business design -- ANF. So, this study proposes two levels (PNF and ANF) of evaluation, one to predict the degree of consumer willingness to shop online and the other to develop different marketing strategies for different product categories.

One of two crucial issues for Internet marketers is how to employ PNF values by using the advantages of CME to motivate consumers and decrease their apprehension of risk. The advantages of CME include low cost, high interaction, no place confines, personalized communication, and no time constraints. While PNF values affect consumer *willingness* to shop online rather than in physical stores, ANF values influence the *choice* of virtual retailer. The other key issue is how to utilize PNF values to create the networked communication, purchasing environment and consumption situation that are necessary for marketing products specifically associated with networked situations with benefits sought by consumers. Accordingly, PNF constitutes the major influence on consumer willingness to adopt online shopping, while the consumer's final purchase decision depends on the Web business design --ANF. Integrating the marketing effectiveness of PNF and ANF will enable prediction of the degree of consumer willingness to shop online.

This two-level approach allows a better understanding, as follows: (1) The interaction between the degree of consumer involvement with a product and the degree of product information exposure on the Web is a predictor of consumer willingness to choose online shopping over shopping in physical stores. Note that this interaction is not relevant to Web business designation. (2) The Web marketing strategies of Internet retailers must take into account both consumer involvement with products and product information exposure on the Web. (3) The twin purposes of Web marketing strategies are to consider the motivation and the risk caused both by consumer involvement with products and product information exposure on the Web, and to utilize that motivation and risk to enhance consumer online shopping willingness.

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