Exploring the Implications of the Internet for Consumer Marketing

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Past commentaries on the potential impact of the Internet on consumer marketing have typically failed to acknowledge that consumer markets are heterogeneous and complex and that the Internet is but one possible distribution, transaction, and communication channel in a world dominated by conventional retailing channels. This failure has led to excessively broad predictions regarding the effect of the Internet on the structure and performance of product and service markets. The objective of this article is to provide a framework for understanding possible impacts of the Internet on marketing to consumers. This is done by analyzing channel intermediary functions that can be performed on the Internet, suggesting classification schemes that clarify the potential impact of the Internet across different products and services, positioning the Internet against conventional retailing channels, and identifying similarities and differences that exist between them. The article concludes with a series of questions designed to stimulate the development of theory and strategy in the context of Internet-based marketing.

Throughout the 20th century, pundits and prognosticators alike have proffered visions of consumers shopping electronically. For example, 30 years ago Doody and Davidson (1967) articulated a vision of electronic shopping that incorporated a flexible, yet comprehensive, shopping and distribution system for grocery products, drugs, and sundries. Consumers shopped by means of computer-type consoles linked electronically to a central distribution facility that employed, among other things, electronic funds transfer to control costs. Automated order filling of frequently purchased goods was routine, and next-day delivery was standard. In addition to presenting what turned out to be a remarkably prescient vision of electronic shopping (one similar to the current business models of such firms as Peapod, Streamline, and ShoppingLink), Doody and Davidson also noted several implications of their vision, including structural changes in marketing channels and changes in the roles of advertising and packaging.

Ten years later, Isaac Asimov (1977:53), a leading science fiction writer and noted futurist, expressed a similar vision:

The year 2025 will see the "drive-in market," a kind of computerized convenience store. The customer will call the store by using his own computer, and make his grocery list. The order will automatically be picked off the shelves of a computerized warehouse, packed, and ready for pickup by car, or whatever mechanized vehicle we'll be driving in the next century. Only liquids will not be packaged this way.

The visions of Doody and Davidson and Asimov were extended by McNair and May (1978), Rosenberg and Hirschman (1980), and Schneiderman (1980), who shared the belief that electronic shopping would become the dominant mode of shopping. McNair and May (1978)
wrote that “some authorities expect that by early in the twenty-first century, almost all food and other basic household needs will be acquired through the use of in-home television computer systems, and shopping choices will be made after viewing assortments, selections, prices, and brands on the television screen, together with programming of the household’s customary wants, needs, customs, and habits” (p. 81). Rosenberg and Hirschman in particular believed that electronic shopping by consumers would irreversibly transform conventional retailing. Schneiderman (1980) went so far as to predict that by 1990, “American consumers will be buying fully one-half of all general merchandise without setting foot in a retail store” (p. 60).

In general, past visions of electronic shopping can be characterized as having enthusiastic presumptions regarding its pervasiveness and the influence it would have on marketing and consumer behavior. (Dooday and Davidson believed that their vision would be operational in the 1970s.) Moreover, all of these visions implicitly assumed that shopping and purchasing would be accomplished through single-source electronic sales channels, computer-based systems that were closed (i.e., proprietary) and, by implication, incompatible with each other. Beginning in the late 1980s, however, several observers realized that single-source electronic sales channels were evolving into electronic markets wherein multiparty exchanges could take place (e.g., Bakos 1991; Malone, Yates, and Benjamin 1989). These electronic markets, as epitomized by the SABRE and Apollo airline reservation systems, were envisioned as being operated by intermediaries, who could be buyers, sellers, independent third parties, or even multfirm consortia (Bakos 1991). Like single-source electronic sales channels, electronic markets were assumed to be based on proprietary computer systems that had restricted access. Most discussions of electronic markets also focused on technical issues in the context of business-to-business marketing; consumer marketing received little attention.

Objective

Despite the ongoing interest in electronic shopping and electronic markets, until recently no one appears to have acknowledged the existence of the Internet or speculated on what, if any, role it might ultimately play in consumer marketing. For example, even such respected visionaries as Hyde, Steidtmann, and Sweeney (1990) failed to acknowledge the existence of the Internet and foresee its potential impact on marketing to consumers. Similarly, despite undertaking a major investigation of the implications of emerging technologies for marketing practice, Deloitte & Touche (1990) completely overlooked the existence of the Internet. These oversights may be attributed to the fact that the Internet was not widely accessible for commercial or public use until approximately 1992, although it had been operational a decade earlier. As recently as 1994, the number of commercial users was only in the hundreds.

Interest in the Internet is unprecedented, and its use in marketing is increasing exponentially. (For a good summary of marketing applications on the Internet, see the special section Selling in Cyberspace in the June 17, 1996, issue of the Wall Street Journal.) Even so, most of what is currently “known” about the potential impact of the Internet on consumer marketing is based on anecdotes, experiential evidence, and ad hoc descriptive studies (e.g., Bredenberg 1995; Taylor 1995). With few exceptions (e.g., Alba et al. 1997; Berthon, Pitt, and Watson 1996a; Quelch and Klein 1996), little systematic attention or serious thought has been given to the major long-term implications of the Internet for consumer marketing.

Examining the Internet in the context of consumer marketing and consumer behavior thus seems appropriate at this time. In particular, the present objective is to address a deceptively straightforward question: What are some of the major implications of the Internet for consumer marketing? Before attempting to answer this question, however, it is necessary to provide a brief history of the Internet to detail certain aspects that relate to consumer marketing. This history will serve as a frame of reference for the discussion to follow.

From virtually any perspective, the Internet can be considered a market discontinuity in the Mahajan and Wind (1989) sense because it represents a “shift in any of the market forces or their interrelationships that cannot be predicted by a continuation of historical trends and that, if it occurs, can dramatically affect the performance of a firm or an industry” (p. 187). Consequently, analogous to any market discontinuity, it is not possible to predict precisely the specific impacts of the Internet, especially given the velocity with which Internet-related changes are occurring and the increasingly assertive and unpredictable behavior of consumers (cf. Fox 1995; Molenaar 1996:102 ff).

Therefore, rather than attempt to “peer” into the future, an attempt will be made to provide a rudimentary foundation or framework for future analyses and predictions. In addition, two Internet-related issues currently attracting the attention of both academicians and practitioners will be examined: market disintermediation and price competition. A major tenet of the article is that marketing implications of the Internet cannot be considered in isolation or limited to on-line commerce. All Internet-related marketing activities take place in the context of marketing activities in conventional marketing channels and must be considered in this context.

No attempt will be made to quantify the potential impact of the Internet or forecast the rate at which Internet access and usage will diffuse. Given the brief history and (epidemic-like) expansion of the Internet, any attempt at quantification would require unacceptable levels of speculation and would detract from the present objective. The article will conclude, in accordance with the editorial guidelines set forth by Cravens (1997), with a series of questions regarding the Internet’s implications for marketing research, theory, and strategy.
INTERNET BACKGROUND

Throughout this article, the term Internet will be used in a generic or conceptual sense to refer to a type of global information infrastructure consisting of computer hardware and software that is characterized as both general and open. The Internet is "general" in that it was not designed for a specific set of services. Indeed, many of the currently available services, such as direct, real-time interaction, had not even been conceived when the Internet was designed. The Internet is "open" in that all specifications required to use it are publicly available; anyone who observes certain protocols can access and traverse it. As such, the Internet is the antithesis of the centrally organized and managed electronic sales channels and electronic markets previously discussed.

Conceptually, the Internet represents an extremely efficient medium for accessing, organizing, and communicating information. As such, the Internet subsumes communications technologies ranging from the written and spoken word to visual images. Levy (1996) believed the Internet would ultimately become "the medium by which we keep in constant contact with our families, watch television, dash off a note to a friend, check the traffic, read the newspaper, prepare a report for work, make a phone call, buy a book" (p. 52).

Technically, the Internet is a highly decentralized network of computer networks that includes backbone networks, wide area networks (WANs), and local area networks (LANs). It originated in the 1960s when the Department of Defense, through its Advanced Research Projects Agency (ARPA), funded research on linking computer networks that were currently incompatible and automatically rerouting information around damaged or nonfunctioning components of a network. One result was the ARPANET backbone network. Subsequently, other networks not affiliated with ARPANET were created, such as BITNET and Usenet, and the National Science Foundation funded the creation of a much faster backbone network termed NSFNET. Although NSFNET eventually absorbed ARPANET and other networks, it was superseded in 1992 by ANSNET, a backbone network owned and operated by a consortium of firms. At this juncture, the Internet, which by then had become an amalgamation of many networks, became generally available for commercial ventures, with the consequences being well publicized (Comer 1995).

One of the consequences was the emergence of the World Wide Web (Web or WWW), an Internet service that organizes information using hypermedia and, at the moment, seems to possess the most potential for marketing (cf. Ainscough and Luckett 1996; Hoffman and Novak 1996). Berthon et al. (1996b) characterized the World Wide Web as the combination of an electronic trade show and a community flea market.

As an electronic trade show, it resembles a giant international exhibition hall where potential buyers can enter at will and visit prospective sellers. They may do this passively by simply wandering around, enjoying the sights and sounds, pausing to pick up a pamphlet or brochure here, a sticker, key ring, or sample there. Some buyers might even become vigorously interactive in their search for information and want-satisfaction. They can talk to fellow attendees, actively seek the booths of particular exhibitors, carefully examine products and services, solicit richer information, and even engage in sales transactions with the exhibitor... ... As a flea market, the Web possesses the fundamental characteristics of openness, informality, and interactivity—a combination of a community and a marketplace. (p. 25)

Numerous initiatives are under way to make the Internet more efficient and effective, including Internet2 and Next Generation Internet. Moreover, the federal government seems committed to creating what is commonly referred to as the information superhighway, or National Information Infrastructure (NII), of which the Internet is but the first part. These initiatives obviously have significant implications for society as a whole and for marketing in particular.

Because of the rapidity with which Internet initiatives and related technologies are unfolding and evolving, it is necessary to make four broad assumptions to facilitate the present analysis. Although these assumptions are not critical to the analysis or the conclusions, they simplify the analysis and eliminate potential distractions.

Facilitating Assumptions

The first assumption is that eventually there will be near-universal access to the Internet, at least in the United States. Although Internet usage may never become as ubiquitous as television viewing, a large and broad cross section of consumers will be able to access the Internet for both business and pleasure. This will result in part because of governmental concern that without broad access to the Internet, society will be bifurcated into those who are informationally impoverished and those who are not.

The second assumption is that use of the Internet for marketing purposes will not increase overall consumer spending. This assumption is not unique to this article (see, for example, Shi and Salesky 1994). There is no intuitive reason why the Internet, or any service based thereon, will in and of itself cause consumers to spend more. Rather, use of the Internet in marketing to consumers will more likely result in a redistribution of revenues among channels or among members within a channel (e.g., Hagel and Eisenmann 1994).

The third assumption relates to infrastructure technologies. As Economides (1996) so aptly noted, structurally the Internet consists of substitutes made of complements. Information transmission can be accomplished by dedicated landlines, television cables, standard telephone lines, wire-
less satellite links, and so forth. Access devices can be portable or fixed and range from television set-top boxes, workstations, personal computers, and network or Internet computers to information appliances (e.g., voice recognition and natural language processors) that are today unknown. Hence, one infrastructure technology issue relates to what combination of transmission modes and access devices, if any, will ultimately prevail (or, perhaps more appropriately, dominate) in the marketplace. Regardless of the outcome, the basic impact of the Internet on consumer marketing is likely to be unaffected.

An additional infrastructure technology issue relates to what some have forecast as the imminent collapse or demise of the Internet due to switching and transmission capabilities becoming congested and overwhelmed because of an unmanageable number of users. Although this possibility exists, it is assumed that the problem will be overcome through market forces and technical advances. For example, usage-based or priority pricing has been suggested as a mechanism for managing Internet activity (e.g., MacKie-Mason and Varian 1995). Likewise, technical advances on the order of ADSL (asymmetrical digital subscriber line) or even unforeseen market discontinuities are likely to materialize as solutions to transmission speed and congestion problems. In brief, both of the infrastructure technology issues (as well as related technology issues) will most likely be satisfactorily resolved and hence will not significantly influence the impact of the Internet on consumer marketing.

The fourth assumption relates to the issue of transaction security and privacy on the Internet. Transaction security (and authorization) is currently a high-profile issue. In many respects, however, this issue poses few long-term problems. It will probably be solved through a combination of E-cash or digital tokens, encryption/decryption technologies, and new forms of personal identification.

A more important issue involves network privacy and what information consumers will be willing to share with others. Information on Internet transactions can be easily captured, and it is possible to track a consumer’s travels on the Internet in great detail. When a consumer’s transactions and travel information are linked to other information residing in a myriad of massive databases, no secret is safe. Consumers may be willing to provide information about themselves, but at a cost to the requesting entity. Hagel and Rayport (1997) predicted that companies will emerge to represent consumers and manage their information (i.e., negotiate on their behalf and obtain remuneration for the use of information). Ultimately, as Leibrock (1997) noted, the issue of security and privacy on the Internet is a societal one and, as such, must be resolved at that level (see also Bloom, Milne, and Adler 1994 for related perspectives). Currently, the Internet is like a frontier; there are few rules, and enforcement of the rules that do exist is frequently through vigilante-style justice (Spar and Bussgang 1996). Many technical, security, and privacy issues have yet to be resolved, and some will probably require government intervention. Still, the assumption is that such issues will be resolved and can therefore be ignored in the present analysis.

To have generality and thus enduring value, any analysis of the Internet’s long-term impact on consumer marketing must be relatively independent of issues that are likely to be resolved in the near term. Instead, it must incorporate general economic and behavioral factors relating to the Internet that are likely to influence the structure and performance of consumer markets in the long run.

PRESENT PARADIGMS

As Miller (1996) astutely observed, “People tend to see the future of the Internet largely through the same color glasses they wear today” (p. 50). It is therefore not surprising that most firms currently seeking an Internet “presence” tend to be preoccupied with the Internet’s communication and advertising potentials. Given the Internet’s ability to foster real-time bilateral and multilateral communication and interaction, it is not surprising that “chat rooms” have become exceedingly popular. Indeed, their popularity could be easily predicted from the experience of France’s Minitel service and even from the earliest precursor of the Internet, the Greek agora (Fleischman 1993). The need to socialize seems to be a powerful, culture-free motivator for a variety of behaviors; Lanham (1993) argued that the Internet (electronic communication) will bring back an ancient emphasis on interaction, individuality, and open debate.

The most common advertising uses of the Internet appear to be home pages and interactive brochures. The media are rife with reports of the types of advertising most likely to be effective on the Internet, how to measure advertising effectiveness, and how to integrate Internet advertising with an overall communications strategy (cf. Ainscow and Luckett 1996; Berthon et al. 1996b). Rust and Varkki (1996) went so far as to speculate that the Internet will functionally replace traditional mass media. Bank (1996) stated that the Internet is being transformed into a broadcast medium analogous to television, except that programming and advertising will be personalized for each user through “push” technology.

A second aspect of the Internet that has attracted attention is its potential in the marketing research arena. Scholars such as Burke (1996; Burke, Harlan, Kahn, and Lodish 1992) and Urban (Urban, Hauser, Qualis, Weinberg, Bohimann, and Chicos 1997; Urban, Weinberg, and Hauser 1996) have demonstrated the feasibility of using the Internet in various research situations, especially in the context of virtual stores and new product development. Numerous firms are attempting to take advantage of the capabilities it offers for communication and interaction by, for example, offering Internet-based focus groups and surveys (see, however, Hanson and Putler 1996 for a cautionary note on one on-line measure frequently used in Internet-related marketing research).

Other firms have attempted to harness the revenue generation potential offered by the Internet. Peterson (1997:11) opined that there are several approaches to generating revenue through the Internet. Many of these ap-
proaches—marketing products or services, charging fees for access to on-line content (e.g., on a Web site), charging fees for on-line transactions or links, providing technical services, and writing books and presenting lectures on using the Internet—are directed toward consumers. Peterson reported, somewhat facetiously, that of these approaches, writing books and presenting lectures seemed to be the only ones currently profitable, albeit at very low levels.

Eventually, most of the revenues generated through the Internet will probably be derived from marketing products and services to consumers (Shi and Salesky 1994). In theory, firms can use the Internet to generate revenues by selling more to existing customers and by attracting new customers. Both of these will occur because the Internet is not constrained by either location or time. A firm marketing its products or services through the Internet is, by definition, a global firm because consumers worldwide can access it (Quelch and Klein 1996). Similarly, marketing through the Internet has no time constraints; time zones have no meaning. Because of such characteristics, the Internet appears to be especially suitable for reaching thin markets—niche markets in which buyers and sellers are small and geographically dispersed, and the products or services are specialized or unique (e.g., rare collectibles). To date, however, revenues from marketing existing products and services to consumers are rather minuscule compared to total retail sales obtained through other channels. Firms that are successful in marketing through the Internet, such as Dell Computer Corporation, typically possess unique characteristics not easily generalized.

In brief, from the perspective of revenue generation, the Internet currently lacks such common appliances as the facsimile machine (i.e., broadcast fax) and the telephone (i.e., inbound and outbound telemarketing). The present value of the Internet for marketing to consumers probably resides more in its ability to reduce or eliminate costs (Phillips, Donoho, Keep, Mayberry, McCann, Shapiro, and Smith 1997) than in its ability to generate revenues. Its revenue-generating potential, however, will likely change as Internet access grows and firms gain more knowledge of its strategic, tactical, and operational implications for consumer marketing.

A FOUNDATION FOR ANALYSIS

As previously stated, the question motivating this article is deceptively straightforward: What are some of the major implications of the Internet for consumer marketing? Unfortunately, the answers to this question are not so straightforward. Although wide agreement seems to exist that the Internet will ultimately influence consumer marketing, there is little agreement as to exactly how the Internet will affect the structure and performance of consumer markets. This is partially because of the rigidity of the frameworks that have been used to analyze these markets. Extant literature on the structure and performance of conventional retail markets is both voluminous and sophisticated. Retailing activity has been studied from a variety of perspectives, including spatial modeling (e.g., Hotelling 1929), franchising (e.g., Gallini and Lutz 1992), vertical integration strategy (e.g., McGuire and Staelin 1983), entry deterrence (e.g., Judd 1985), pricing strategies (e.g., Thiss and Vives 1988), and market coverage (e.g., Boyer and Moreaux 1993), and it may be possible to extend some of these perspectives to encompass the Internet. Many insights gained from investigating conventional retail markets can be applied to marketing analyses of the Internet. Because the Internet possesses certain unique characteristics that have no counterparts in conventional retailing, it might also be necessary to construct specialized theories that would explain the mechanics and consequences of marketing to consumers through the Internet. However, any analysis or theory that does not recognize both the substitutability and complementarity of the Internet and conventional retailing methods will likely yield an incomplete view of the Internet’s competitive effects and overlook synergies derived from close coordination of it and conventional retailing.

It is tempting to undertake a comprehensive analysis that would address possible structural and performance changes in consumer markets due to the Internet. However, such an undertaking is overly ambitious and probably premature at this time, for reasons that have been amply discussed. Instead, it seems more fruitful to elucidate those factors that are likely to moderate the impact of the Internet on the structure and performance of consumer markets. Not only is this a more realistic and manageable undertaking, but it is also likely to be one that produces useful results. Therefore, as a starting point for a comprehensive analysis of the impact of the Internet on consumer marketing, it is first necessary to specify the characteristics of the Internet as a marketing channel and examine two broad categories of factors: channel intermediaries and product and service characteristics.

Internet Characteristics

As a marketing channel, the Internet has both unique characteristics and characteristics that are shared with other marketing channels. These characteristics include the following:

- The ability to inexpensively store vast amounts of information at different virtual locations
- The availability of powerful and inexpensive means of searching, organizing, and disseminating such information
- Interactivity and the ability to provide information on demand
- The ability to provide perceptual experiences that are far superior to a printed catalog, although not as rich as personal inspection
- The ability to serve as a transaction medium
- The ability to serve as a physical distribution medium for certain goods (e.g., software)
- Relatively low entry and establishment costs for sellers
No existing marketing channel possesses all of these characteristics. Even so, the present analysis may be relevant for future channels (as yet unknown) that may possess these characteristics.

**Channel Intermediaries**

Marketing activity occurs through three types of channels: distribution channels, transaction channels, and communication channels, each of which has a discrete function. The function of distribution channels is to facilitate the physical exchange of products and services. Transaction channels generate sales activities between buyers and sellers. Finally, communication channels enable the exchange of information between buyers and sellers. Although conceptually distinct, in the context of consumer marketing these channels frequently overlap, and channel members may be responsible for multiple functions.

The distribution function is typically more than facilitating physical exchanges. Frequently, it incorporates functions such as sorting, inventory holding, allocation, breaking bulk, and building up assortments (Alderson 1965). The existence of intermediaries in the distribution channel is supported primarily by the rationale of efficiency (Stern, El-Ansary, and Coughlan 1996). For example, assortment building of frequently purchased goods by supermarkets increases distribution efficiencies because the supermarkets carry out functions that are expensive or difficult to perform by producers and consumers.

The function of transaction channels is to facilitate economic exchanges between buyers and sellers. Although transaction channel intermediaries exist because of the efficiencies they provide, they differ from distribution channel intermediaries in that they assume some strategic control over marketing variables such as price and merchandising. Examples of transaction intermediaries include brokers, wholesalers, and retailers, some of which may never physically handle or take title to any product or service.

The primary function of communication channels is to inform buyers and prospective buyers about the availability and features of a seller's product or service offering; at times, they also allow buyers to communicate with sellers. Communication channel intermediaries generally create information for, and/or deliver information to, buyers and prospective buyers. They include advertising agencies and media, both broadcast and print, and are the consequence, analogous to intermediaries in other channels, of expertise and efficiencies offered.

Given that the Internet is a flexible, interactive, and efficient medium through which economic parties can communicate, the potential that it offers for efficiency improvements in channel functions will obviously vary across the three types of intermediaries. In particular, the specific impact of the Internet on the three types of channel intermediaries can be assessed by posing two questions. These questions implicitly assume that a firm wanting to replace a channel intermediary with its own Internet operation has the capability to do so efficiently. If so,

- Is an Internet operation a credible substitute for the function(s) of a traditional channel intermediary?
- Can the Internet operation significantly dominate the current performance of a traditional channel intermediary?

Figure 1 summarizes answers to these two questions for each of the three types of channel intermediaries.

Of the three types of channel intermediaries, the logistic functions of distribution intermediaries are probably the least dependent on the existence of a flexible, interactive, and efficient informational exchange between buyers and sellers. The added value created by a delivery service or a retailer providing a physical assortment to ultimate users seems quite robust in the presence of what might appear to be a near-perfect medium for producers. There is, however, a major exception—information goods that can be distributed through the Internet. Indeed, for goods consisting of digital assets (Rayport and Sviokla 1995), such as computer software, music, or reports, the Internet may be the ideal distribution channel because the variable cost of distributing them is nearly zero.

Transaction channel intermediaries will probably be more affected by the existence of the Internet because it will be possible for sellers (producers or manufacturers in particular) to efficiently interact with individual buyers and potential buyers. Given the lack of distance and time constraints, sellers can internalize the transaction functions previously handled by local transaction channel intermediaries in geographically dispersed markets. Internalization of the transaction function will, however, be mediated by the characteristics of the products and services marketed (see the following section).

Communication channel intermediaries will probably be the most affected by the existence of the Internet. By definition, the Internet has been designed to deliver information efficiently and foster connectivity. It is more flexible than existing mass media channels, potentially superior in targeting individual buyers and prospective buyers, and it enables direct interaction. Moreover, the Internet can offer communication options that have virtually no variable costs.

**Product and Service Characteristics**

The suitability of the Internet for marketing to consumers depends to a large extent on the characteristics of the products and services being marketed. It is therefore necessary to explicitly consider product and service characteristics when evaluating the impact of the Internet. This can be done by formally incorporating a product and service classification into any analysis. For example, it is possible to classify products and services as being either search or experience goods. Features of a search good can be evaluated from externally provided information, whereas experience goods need to be personally inspected or tried. If a good is a search good and its features can be objectively assessed using readily available information, the Internet could serve significant transaction and com-
### FIGURE 1
Channel Intermediary Functions and the Internet

<table>
<thead>
<tr>
<th>Channel Type</th>
<th>Intermediary Function</th>
<th>Are Internet Operations a Substitute?</th>
<th>Does the Internet Dominate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td>Logistic operations</td>
<td>No, unless the good is based on digital assets</td>
<td>No, unless the good is based on digital assets</td>
</tr>
<tr>
<td></td>
<td>Assorting</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sorting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transaction</td>
<td>Sales, including</td>
<td>Likely</td>
<td>Depends on the characteristics of the good</td>
</tr>
<tr>
<td></td>
<td>control over the sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Creating information</td>
<td>Possible</td>
<td>Possible</td>
</tr>
<tr>
<td></td>
<td>(e.g., role of ad</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>agencies)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Distributing</td>
<td>Very likely</td>
<td>Very likely</td>
</tr>
<tr>
<td></td>
<td>information to buyers</td>
<td></td>
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<td></td>
<td>(e.g., role of broadcast media)</td>
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</tbody>
</table>

munication functions and hence affect transaction channel and communication channel intermediaries involved with the good. If a good is an experience good, information about the good's features may not be sufficient for a consumer to engage in an Internet-based transaction. For a consumer wishing to experience the good prior to purchase, Internet-based marketing would seem to be a poor substitute for traditional transaction channels, where the good is available for inspection. However, a consumer might use a traditional transaction channel to experience the good and then revert to an Internet-based transaction channel when acquiring it. Additionally, as a communication channel, the Internet will be increasingly able to offer perceptual experiences that far transcend verbal descriptions of goods. Pictures of flower bouquets or fruits can be presented in great detail, and music from a CD can be sampled on-line. Finally, for routinely purchased experience goods in categories in which a consumer has considerable personal experience, the Internet may serve as an effective communication and transaction medium.

Although the search good—experience good dichotomy is useful, perhaps a better classification system is one in which products and services are categorized along three dimensions that are more relevant in the context of the Internet: cost and frequency of purchase, value proposition, and degree of differentiation. Goods vary along the first dimension from low-cost, frequently purchased goods (e.g., consumable products such as milk) to high-cost, infrequently purchased goods (e.g., durable products such as stereo systems). Even though this dimension is not strictly bipolar, it is still useful in that it illustrates differences in transaction and distribution costs depending on whether, and how, the Internet is used. In general, when purchase fulfillment requires physical delivery, the more frequent the purchase and the smaller the cost (e.g., milk), the less likely there is to be a good “fit” between a product or service and Internet-based marketing.

Goods vary along the second dimension according to their value proposition, whether they are tangible and physical or intangible and service related. As previously discussed, Internet-related marketing is particularly well suited to certain types of intangible or service-related goods (i.e., those based on digital assets). To the extent that the value proposition is intangible, the greater the frequency of purchase or use of a good, the greater the advantage of the Internet as a transaction and distribution medium.
The third dimension reflects the degree to which a product or service is differentiable. In particular, it reflects the extent to which a seller is able to create a sustainable competitive advantage through product and service differentiation. Internet-related marketing can result in extreme price competition when products or services are incapable of significant differentiation. This can happen when they are perceived as commodities, partially because other factors that might moderate competition (e.g., store location) are absent and partially because of the relative efficiency of price searching engendered by the Internet. However, when products or services are capable of significant differentiation, the Internet can serve as an effective segmentation mechanism for guiding buyers to their ideal product or service. For example, consider a prospective buyer in the market for computer virus protection software. This product would be classified according to the present scheme as one that is relatively expensive, infrequently purchased, has an intangible value proposition, and is relatively high on differentiation. Searching on the Internet enables the prospective buyer to obtain information on various competing products, possibly sample the products for free, and select the one that best meets his or her requirements. Consequently, sellers have an opportunity to charge a higher price, taking advantage of the good fit between buyer requirements and product characteristics. In a conventional retail setting, such detailed search and personal sampling is costly. Willingness to pay is tempered in this setting by uncertainty regarding how well the product meshes with the buyer’s requirements. In such instances, Internet-related marketing may result in higher margins than conventional retailing.

Although the three dimensions are continuous, for expository ease they can be dichotomized, as has been done in Figure 2, which illustrates products or services for each of the resulting eight cells in the classification scheme or grid. When considered in conjunction with the conceptualized channel intermediary functions, the classification scheme or grid suggests several implications for marketing through the Internet.

The function conceptualization and classification schemes, although insightful, are only a useful starting point. They do not predict or explain either the structure or performance of consumer markets. To understand their implications for evaluating the impact of the Internet more fully, it is necessary to address consumers’ information and brand acquisition strategies in the context of category or brand choice decisions and choice of seller platform (i.e., whether it is Internet-based).

CONSUMER DECISION SEQUENCES

A rich melange of theoretical and strategic considerations emerges when the Internet and conventional retailing channels are treated as parallel, coexisting systems that are both complementary and competing. Each system offers communication, transaction, and distribution opportunities. In such a situation, the structure of a consumer market and its performance is mediated by (1) consumers’ choice of communication, transaction, and distribution channel(s); (2) the product or service offering(s) being marketed; and (3) the specific sequence of decisions followed by consumers in carrying out their purchasing functions.

Specifically, consumers have the choice of (1) whether to focus on a product or service category or a brand at any stage of the information acquisition process, (2) whether to use the Internet or conventional retail channels for information acquisition, and (3) whether to use the Internet or a conventional retail channel for the final transaction and brand acquisition. Note that the competition between manufacturers ceases and shifts to the retail level once a consumer has focused on a brand. Figure 3 presents a framework containing various decision sequences that consumers might follow when acquiring a particular product or service. For simplicity, only two channels, Internet and conventional fixed-location retailing, and two activities, information search and brand acquisition, will be considered. The specific decision sequences used by consumers clearly influence the nature and intensity of competition among sellers—both horizontally (e.g., retailers vs. retailers, manufacturers vs. manufacturers) and vertically (e.g., retailers vs. manufacturers). Thus, it is important to incorporate consumers’ alternative decision sequences into any analysis of consumer market structure and performance.

Consider first the case of a consumer who begins the acquisition process with a brand already selected (Figure 3A). This situation may occur because the consumer has become aware of the brand through advertising, a personal recommendation, or prior experience. With the manufacturer predetermined, competition for this consumer is limited to retailers. Further, because the brand choice is clearly defined, the consumer will probably focus on price information and brand availability when conducting a search. The transaction could take place in either channel. Note that as long as the brand’s manufacturer is not vertically integrated into retailing, substantial brand equity is probably required for strong performance in the context of the Internet as a transaction channel. (Empirical research by Jarvenpaa and Todd 1997 suggested that, contrary to “common wisdom,” all sellers are not equal on the Internet.) By indicating a brand choice at the beginning of the search process, the consumer forces retailers that stock the brand to compete on price by comparing their offerings across channels, thus promulgating intense price competition. Manufacturers are protected from this competition when the consumer selects a brand at the outset of the process.

What happens when brand choice is not clear at the outset and the consumer shops for a brand as well? In Figure 3B, brand choice is made after a consumer searches a single channel, whether Internet or conventional. For such a consumer, competition among manufacturers is limited to a single channel. If this consumer decides to shop for a low price, however, retailers will be forced to compete across channels. For example, a consumer in the market for a television set may decide on a particular brand...
<table>
<thead>
<tr>
<th>Dimension 1</th>
<th>Dimension 2</th>
<th>Dimension 3</th>
<th>Examples of Products and Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low outlay, frequently purchased goods</strong></td>
<td>Value proposition tangible or physical</td>
<td>Differentiation potential high</td>
<td>Wines, soft drinks, cigarettes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differentiation potential low</td>
<td>Milk, eggs</td>
</tr>
<tr>
<td></td>
<td>Value proposition intangible or informational</td>
<td>Differentiation potential high</td>
<td>On-line newspapers and magazines</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differentiation potential low</td>
<td>Stock market quotes</td>
</tr>
<tr>
<td><strong>High outlay, infrequently purchased goods</strong></td>
<td>Value proposition tangible or physical</td>
<td>Differentiation potential high</td>
<td>Stereo systems, automobiles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Differentiation potential low</td>
<td>Precious metal ingot of known weight and purity</td>
</tr>
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<td></td>
<td>Value proposition intangible or informational</td>
<td>Differentiation potential high</td>
<td>Software packages</td>
</tr>
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<td></td>
<td></td>
<td>Differentiation potential low</td>
<td>Automobile financing, insurance</td>
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</tbody>
</table>

after collecting information through the Internet but may then seek to consummate a transaction through either the Internet or a conventional retail channel.

Figure 3C presents the scenario of a consumer delaying a brand choice until completing a search of both the Internet and conventional retail channels. In this instance, the consumer possesses all relevant information on product attributes, including price, before making a purchase decision. For this consumer, manufacturers and retailers compete across both channels. Hence, competition is very broadly based.

Note that the existence of large numbers of consumers who are channel loyal—that is, who confine their information search and product acquisition activities to one channel—will moderate competition between the Internet and conventional retail channels. Channel loyalty can therefore effectively serve as a segmentation mechanism. At the same time, the existence of large segments of
FIGURE 3
Some Possible Consumer Decision Sequences

FIGURE 3A
Customer begins with brand choice
- Information acquisition regarding availability and prices of chosen brand across retailers in conventional retail channels
  - Subsequent search on the Internet
    - Brand acquisition from conventional retailer
    - Brand acquisition from Internet retailer
  - Search confined to conventional retail channels
    - Brand acquisition from conventional retailer
  - Information acquisition regarding availability and prices of chosen brand across Internet retailers
    - Subsequent search in conventional retail channels
      - Brand acquisition from conventional retailer
    - Search confined to the Internet
      - Brand acquisition from Internet retailer

FIGURE 3B
Customer begins with category choice
- Information acquisition regarding brands and prices across retailers in conventional retail channels
  - Information acquisition regarding brands and prices across Internet retailers
  - Brand choice decision
    - Possible alternative channel search for availability and prices of chosen brand
      - Brand acquisition decision

FIGURE 3C
Customer begins with category choice
- Information acquisition regarding brands and prices across retailers in conventional retail channels
  - Information acquisition regarding brands and prices across Internet retailers
  - Possible alternative channel search for brand information, prices, and availability
    - Brand choice decision
    - Brand acquisition decision
<table>
<thead>
<tr>
<th>Dimension 1</th>
<th>Dimension 2</th>
<th>Dimension 3</th>
<th>Likely decision sequences</th>
</tr>
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<tbody>
<tr>
<td>Low outlay, frequently purchased</td>
<td>Value proposition tangible or</td>
<td>Differentiation potential high</td>
<td>(Example: Wines, soft drinks, cigarettes)</td>
</tr>
<tr>
<td>goods</td>
<td>physical</td>
<td></td>
<td>• Brand choice likely after retail search.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Subsequent price search on the Internet is unlikely.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Final acquisition likely in retail store.</td>
</tr>
<tr>
<td></td>
<td>Differentiation potential low</td>
<td>(Example: Milk, eggs)</td>
<td></td>
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<tr>
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<td>• Brand choice likely after retail search.</td>
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<td></td>
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<td></td>
<td>• Subsequent price search in retail channels is unlikely.</td>
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<td></td>
<td></td>
<td></td>
<td>• Final acquisition likely on the Internet.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Example: Stock market quotes)</td>
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<td>(Example: Stereo system, automobiles)</td>
</tr>
<tr>
<td>goods</td>
<td>physical</td>
<td></td>
<td>• Brand choice likely after search of both channels.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Price search likely in both channels.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Final acquisition may occur in either channel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Comment: The need for personal product inspection may strongly influence the decision process in this case.)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Differentiation potential low</td>
<td>(Example: Precious metal ingot of known weight and purity)</td>
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<td>• Price search likely in both channels.</td>
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<td></td>
<td></td>
<td></td>
<td>• Final acquisition may occur in either channel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Comment: If prices are comparable, the Internet may be convenient for the final delivery of such products in the near future.)</td>
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<td></td>
<td></td>
<td>Differentiation potential low</td>
<td>(Example: Automobile financing, insurance)</td>
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<td>• Price search likely in both channels.</td>
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<tr>
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<td></td>
<td></td>
<td>• Final acquisition may occur in either channel.</td>
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</table>
livery cost is a smaller proportion of the cost of the product. An Internet marketer therefore might be more likely to carry such a product. This likelihood, however, is counterbalanced by the probable need to personally inspect the product prior to purchase, and hence the traditional retailer is favored. Again, however, when the value proposition is intangible or informational, the Internet marketer is favored. Services such as automobile loans are easily arranged through the Internet, and software can be sampled, purchased, and distributed electronically. In general, it is expected that consumers will use traditional retail channels and the Internet jointly for high-value, infrequent transactions.

Collectively, the channel intermediary function conceptualization, product and service classification scheme, and consumer decision framework provide a foundation for analyzing the impact of the Internet on consumer marketing, especially in the situation when conventional retail channels are still a powerful presence. The channel intermediary function conceptualization focuses attention on where and how the Internet will likely substitute for and/or complement conventional channel intermediaries. The product and service classification scheme indicates that the impact of the Internet is sensitive to the nature of the products and services being marketed. The consumer decision framework emphasizes that consumers may use the Internet and traditional retail channels differentially to seek information, make brand choices, and take delivery of a product or service. All three influence the nature and degree of competition in a consumer market and, when applied in concert, enable meaningful, precise predictions of the impact of the Internet in specific marketing situations.

EQUILIBRIUM MARKET STRUCTURES

Early visions of electronic marketing predicted the decline in importance of, and in some instances even the demise of, traditional channel intermediaries as consumers become able to directly access manufacturers. These predictions are still being made primarily on the basis of the Internet's offering flexible, low-cost information exchanges between consumers and manufacturers and the subsequent loss of location and time as bases of sustainable strategic advantage. Benjamin and Wigand (1995), for example, maintained that the Internet has the capacity to "eliminate retailers and wholesalers entirely" (p. 62).

These predictions are effectively conjectures on the equilibrium structures of consumer markets, and although they possess prima facie validity, they are probably too general. For example, the predictions do not seem to take into consideration that a market is a complex phenomenon consisting of a profusion of product and service categories with widely varying characteristics that are coupled with a mixture of consumers, retailers, wholesalers, manufacturers, and assorted other intermediaries bound together through a multitude of formal contractual and distribution agreements and informal arrangements. Nor do they appear to appreciate the fact that "equilibrium" is a sophisticated construct that imposes strong conditions on the stability of the strategies of all market participants.

It may well be that the Internet will eventually lead to structural changes in some consumer markets. As previously argued, under certain conditions the Internet will probably cause some degree of disintermediation or vertical integration compared with conventional retailing channels because of the distribution, transaction, and communication functions it can facilitate for some products and services. Even so, the Internet may also lead to more channel intermediaries than currently exist, such as rating services, automated ordering services, and order consolidation services (Sheth and Sisodia 1997).

A strategic reason for manufacturers to use transaction intermediaries is that doing so shields them from competing directly with each other. McGuire and Staelin (1983) showed analytically that if two competing products are highly substitutable, the respective manufacturers may be better off using independent retailers to protect themselves from possibly ruinous price competition, even though they lose control of retail prices. Similar results were advanced by Coughlan (1985), although Moorthy (1988) argued that McGuire and Staelin's conclusions held only in situations where prices are strategic complements, such that when one retailer raises the price it charges for a product, other retailers follow. Finally, Choi (1991, 1996) extended McGuire and Staelin's results to situations in which there are multibrand retailers and several manufacturers. Although some of the assumptions underlying these analyses need to be modified for the Internet, the underlying intuition, that manufacturers can protect themselves from competing directly with each other by a process of reintermediation, is especially appealing in the context of Internet-based marketing.

Despite its considerable advantages in efficiently providing information and facilitating transactions, the Internet will not lead to complete disintermediation in the foreseeable future for reasons that are economic, behavioral, and psychological. For instance, a single carton of milk will probably continue to be purchased at the nearest supermarket or convenience store because the distribution and transaction costs of such items are considerable as a proportion of the price paid. Of course, larger bundles of groceries may be amenable to Internet-based transactions.

A plethora of research (e.g., Berkowitz, Walton, and Walker 1979; Forman and Sriram 1991) shows that many consumers view the shopping experience as a source of enjoyment and an opportunity for social interaction. For these consumers, the process of shopping adds value to the products and services they purchase and variety to their lives, and consequently they may never use the Internet for shopping. Other consumers may decide not to use the Internet in their shopping and purchasing activities for reasons that include lack of access, technophobia, and inertia. Still other consumers, as discussed previously, will use Internet resources for certain aspects of purchasing while retaining conventional retailers for other aspects.

In sum, the structure of a consumer market depends on a variety of factors, but in general it evolves from the
<table>
<thead>
<tr>
<th>Decisions of Internet market participants</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Consumers</strong></td>
<td></td>
</tr>
<tr>
<td>• Search strategies</td>
<td></td>
</tr>
<tr>
<td>• Joint use of Internet/conventional retail channels</td>
<td></td>
</tr>
<tr>
<td>• Aggregation of buying power</td>
<td></td>
</tr>
<tr>
<td><strong>Retailers</strong></td>
<td></td>
</tr>
<tr>
<td>• Decision on on-line transaction vs. on-line information provision</td>
<td></td>
</tr>
<tr>
<td>• Coordination of Internet with traditional retail channel</td>
<td></td>
</tr>
<tr>
<td>• Facilitation/obstruction of consumer coordination between the two channels</td>
<td></td>
</tr>
<tr>
<td>• Stocking policies (exclusive/multiproduct)</td>
<td></td>
</tr>
<tr>
<td>• Pricing decisions and price-matching promises</td>
<td></td>
</tr>
<tr>
<td>• Depth and pattern of information presentation to consumers</td>
<td></td>
</tr>
<tr>
<td>• Nature of contractual relationship with manufacturer</td>
<td></td>
</tr>
<tr>
<td>• Nature of contractual relationship with (possible) information brokers</td>
<td></td>
</tr>
<tr>
<td><strong>Manufacturers</strong></td>
<td></td>
</tr>
<tr>
<td>• Degree of vertical and horizontal product or service differentiation</td>
<td></td>
</tr>
<tr>
<td>• Degree of vertical channel integration (sell directly to customer/use independent retailer)</td>
<td></td>
</tr>
<tr>
<td>• Nature of contracting relationship with retailer</td>
<td></td>
</tr>
<tr>
<td>• Pricing policy to retailers</td>
<td></td>
</tr>
<tr>
<td>• Coordination of information, product availability and pricing between Internet and conventional retail channels</td>
<td></td>
</tr>
<tr>
<td>• Nature of contractual relationship with (possible) information brokers</td>
<td></td>
</tr>
<tr>
<td><strong>Other intermediaries</strong></td>
<td></td>
</tr>
<tr>
<td>• Information brokers: decision on charging consumers, retailers or manufacturers (or a combination of these participants) for information provided</td>
<td></td>
</tr>
<tr>
<td>• Decision on pricing structure for information: payment for purchases made or for information provided</td>
<td></td>
</tr>
<tr>
<td>• Decision on who operates information brokerages: consumer associations, retailers, or manufacturers</td>
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</table>

decision-making processes of market participants. For example, Balasubramanian (1997) showed empirically that the incidences of catalogs and fixed-location retail outlets vary widely across product and service categories. This variation depends in part on consumer perceptions of the categories as well as on their shopping experiences, the perceived need for future channel interactions, and the average dollar amount per purchase. Similarly, decisions of market participants and other moderating variables (e.g., products and services) influence the impact of the Internet on the structure of consumer markets. Figure 5 contains examples of such decisions and moderating variables. Although the Internet may influence both the structure and performance of certain consumer markets, the
extent to which this occurs will be a function of numerous factors, both controllable and uncontrollable. Except for extreme cases, such as when digital assets are being employed in a service, the Internet will probably not eliminate or serve as a substitute for conventional retail channels.

THE INTERNET AND PRICE COMPETITION

For homogeneous, commodity-type, or completely substitutable goods, it can be expected that the Internet will foster Bertrand-type competition. It is easy to point out conditions that lead to this expectation (see Tirole 1989, chap. 5, for conditions that generally facilitate Bertrand-type competition). In the context of an Internet-based market, there are large numbers of buyers and sellers (geography is not relevant) who possess near-perfect information on product and service attributes, including price. Market entry and exit are nearly costless, as are searches and transactions.

Under these conditions, the Bertrand model of competition predicts that firms will price at their marginal cost and that no firm can make positive profits because of intense price competition. This is paradoxical because it is not obvious why firms would enter or continue to compete in a market if it is not profitable to do so. Although theoretically appealing, the model's predictions may not hold for Internet-based marketing for several reasons.

The model assumes that firms interact only once and therefore anticipate that unilaterally undercutting competitors' prices will result in large demand effects and create more profit than charging the same price as competitors. Hence, a firm will undercut the price of its competitors, who in turn have the same incentive to undercut that firm's price, such that every competitor ends up pricing at marginal cost. However, it is unlikely that competitors who interact with each other over time and who realize their mutual dependencies will display such destructive pricing behavior. Specifically, in repeated interactions a firm not only should take into account the (mostly positive) present effects of undercutting competitors' prices, but it should also take into account the likelihood of invoking a long-term price war.

The model assumption that consumers have full knowledge of the availability and prices of competing products and services also may not hold, even though by definition the Internet provides virtually costless information. If consumers decide not to seek information on all available products and services, competition will reflect this fact. In a classic article, Stigler (1961) argued that consumers who value time will stop searching when the marginal benefits of search no longer outweigh the marginal costs; the implication of this argument is that, in general, full search across many alternatives will occur only when it is completely costless. Zettelmeyer (1996, 1997) proposed that firms use search cost as a control variable to reduce competition, even if it is costless to let consumers search their offerings. This logic seems to apply to the decisions of several marketers to not post prices on their Internet sites.

Finally, the model assumes that competing products and services are completely undifferentiated. This is a very strong assumption because it can be argued that firms will always be able to find a nonprice basis for differentiation (e.g., warranties, postsale service, image, and so on). Even minute differences in differentiation, such as how price is bundled with other offering attributes, may allow firms to price at higher than marginal cost.

In brief, the conclusion that the Internet is likely to promote intense price competition for products and services that are very substitutable may be overly general. Not only are firms likely to be strategic about letting consumers use the Internet as a source of near-costless information, but they are also likely to create at least minimal differences, whether physical or perceptual, between their products and services and competitively products and services and will recognize the interdependent nature of competition over time. Consequently, some consumers may be willing to pay higher prices for products and services marketed through the Internet because of its increased selection and convenience (cf. Rayport and Sviokla 1994). Even so, the advent of sophisticated and inexpensive search engines, shopping agents, and robotic software is likely to revolutionize the search processes of consumers and ultimately increase the level of competition for highly substitutable products and services. Finally, although most discussions of the impact of the Internet on competition emphasize the Internet's use as an electronic market, it was argued earlier in this article that whatever occurs on the Internet will also affect conventional retailers. The opportunity that the Internet offers consumers in terms of increasing choice sets by making a larger number and wider variety of competing firms available may of itself foster price reductions by conventional retailers.

RESEARCH QUESTIONS

Currently, one Internet conclusion is incontrovertible. No one can predict with certainty what the ultimate impact of the Internet will be on consumer marketing. There is virtually no information on how, or to what extent, consumers will use the Internet in the context of marketing or what new marketing paradigms will prove viable. It is already clear, however, that the Internet is changing the rules by which marketing is conducted and evaluated, and new consumer market structures will emerge in the next century as a consequence of the Internet or whatever succeeds it. Research conclusions and theories that have addressed such fundamental issues as imperfect information (e.g., Schlee 1996), information acquisition (e.g., Hauser, Urban, and Weinberg 1993), and retail location (e.g., Wolinsky 1983) will have to be carefully reconsidered in light of the Internet, and the consumer information systems envisioned by Beales, Mazis, Salop, and Staelin (1981) and Thorelli and Engledow (1980) must be visited anew. Moreover, from a regulatory and legal perspective, questions as to what constitutes a monopoly, unfair com-
petition, or antitrust activities need to be addressed in light of a marketplace unfettered by geography or time.

The analysis reported in this article has spawned more questions than it has answered. Therefore, it seems appropriate to conclude the article with a series of questions that might motivate and guide the development of research on the Internet, as well as research on the Internet's implications for marketing theory and strategy. The questions are not meant to be either exhaustive or exclusive. Rather, they are illustrative of the types of questions that need to be answered before a comprehensive understanding of all the marketing implications of the Internet is possible. For expository ease, the questions are organized around the themes of consumers, retailers, manufacturers, other channel intermediaries, and social planning.

**Consumer-Oriented Questions**

- How will the availability of automated search and information presentation mechanisms on the Internet affect the way consumers search for information and their subsequent decision making? In particular, how are optimizing and satisficing search processes affected?
- In what way are information and product or service acquisition strategies dependent on the specific characteristics of the product or service sought?
- What are the central reasons for selecting the Internet instead of a conventional retail channel for any component of the product or service acquisition process? What factors influence the implicit trade-off made when choosing one alternative over the other?
- How do consumers navigate the Internet and conventional retail channels during the search and acquisition process? How is the sequencing of decisions determined? How is the sequencing affected by the nature of the product or service sought?
- The Internet facilitates communication among consumers. Will this lead to an aggregation of buying power in the form of cooperative buying organizations?
- The Internet facilitates mass customization in some product and service categories. Mass customization can be interpreted as the availability of widely differentiated goods and services so that offerings can be tailored to suit individual demand. What are the implications of such a match between consumer needs and product characteristics on demand for products and services? What are the corresponding implications for product variety? Will mass customization lead to a lower emphasis on the advertising and promotional elements of the marketing mix?

**Retailer-Oriented Questions**

- The efficiency of the Internet may catalyze intense competition in some instances. The traditional spatial differentiation between retail stores, which strongly moderates competition, is nonexistent on the Internet. At the same time, the Internet offers fresh avenues for product and service design and distinct possibilities for consumer segmentation. What are the new avenues of sustainable differentiation possible on-line so that the value creation process is sustained and debilitating price competition is avoided?
- How can retailers coordinate their activities between the Internet and conventional retail channels? Should product offerings, price levels, and warranties differ across channels? If so, how?
- To what extent and in which directions should retailers facilitate consumers' attempts to coordinate their behavior across channels?
- What should be the nature and detail of product and service attribute information (including price) presented to consumers on-line?
- How can retailers segment and price discriminate between on-line shoppers?
- Should Internet retailers stock a single manufacturer's product in each category, or should they stock products from multiple manufacturers? How should the contracting agreement with manufacturers for on-line sales be designed?
- On-line sales could be supported by new promotion mechanisms. How should they be designed? What are the potential outlets of on-line advertising? Should (some) consumers be paid to visit on-line sites? How should new measures of store loyalty and brand loyalty be defined?
- Internet-based shopping malls offer one form of retail aggregation on-line. To what extent should retailers be aggregated? When is it profitable to be aggregated with similar retailers so that consumer demand is first drawn to the aggregation and then divided among retailers? How can competition be moderated between similar retailers in an Internet mall?
- The Internet facilitates the collection of information on consumer characteristics and search processes. How should such information be collected and used? What are the privacy issues involved?

**Manufacturer-Oriented Questions**

- To what extent should manufacturers be vertically integrated on the Internet? What are the advantages and disadvantages of selling directly to consumers? Under what conditions should independent manufacturers be used to buffer manufacturers from direct competition with each other?
- How should pricing and promotional policies to on-line retailers (or direct to consumers) be determined? How should contracts with retailers be designed? How should contracts with new intermediaries (e.g., information brokers, search engines) be designed?
- What degree of vertical (range of superior/more expensive and inferior/less expensive products and
services) and horizontal (range of products and services of different types, not necessarily superior or inferior to each other) differentiation should be pursued? How should these offerings differ from those of the same manufacturer sold through other means? What are the new dimensions of differentiation possible that would create sustainable competitive advantage?

Other Channel-Intermediary-Oriented Questions

- The Internet is likely to generate information brokers and category-specific shopping search engines. How should such services be designed and priced?
- Should such information services be paid for by the manufacturer, retailer, or consumer? Should payment be contingent on use or on final successful transaction?
- If the information brokers search across manufacturers and retailers within a particular product category, how should searches be designed and executed to present unbiased and objective information to consumers?
- Who should own and operate information brokerages and search engines? Should they be independently owned or owned by manufacturers, retailers, or consumer associations?

Social-Planning-Oriented Questions

- How will the Internet affect the structure and performance of product and service markets? How will any consumer, retailer, or manufacturer surplus be redistributed? What will be the final impact of the Internet on social surplus?
- To what extent should efficiency be promoted to foster competition? Ruinous competition can lead to market exit by sellers, which then leads to concentrated, less competitive markets.
- How can the Internet’s efficiency and information collection capabilities be balanced against genuine concerns about consumer privacy?
- How should the Internet be regulated to make it a safe and reliable transaction medium for consumers?
- Existing laws designed to keep product markets healthy and competitive are implicitly grounded in the spatially distributed nature of current markets. The rules of competition are substantially different on-line. How should existing regulations be adapted and new ones be designed to ensure the health and competitiveness of on-line markets?

Numerous questions must be asked and answered before the Internet can be effectively and efficiently applied in consumer marketing. It is hoped that this article will stimulate the questioning process.

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REFERENCES


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