ANALYZING CONSUMER MARKETING MODELS ON THE INTERNET

WENYU DOU and DENNIS BRISTOW
St. Cloud State University

Abstract: At the present time, a comprehensive picture representing the complete spectrum of consumer marketing models is nonexistent and there does not seem to exist an integrative framework that explains the varieties of such models. The purpose of the paper is to summarize and analyze various forms of consumer marketing models on the Internet. Three critical dimensions are identified as the underpinnings of the myriad Internet-based business models: (1) the number and heterogeneity of Internet users, (2) distinct types of customer needs, and (3) versatile functional roles of the Internet. The authors provide a framework to help marketers better understand the intricacies of online consumer marketing models. Finally, the manuscript offers guidelines for online consumer marketing ventures as well as entrepreneurial activities on the Internet.

Key Words: e-commerce, Internet marketing, on-line consumer models

INTRODUCTION

Jane Gameplayer wanted to play a game in which she could "wheel and deal" much like a broker on the New York Stock Exchange. But, in this game, instead of buying or selling stock in IBM or Amazon.com, Jane would actively trade the "stock" of political kingpins. In such a game, using "play" money, Jane would compete against other players who, like she, might be selling "shares" of Al Gore while trying to accumulate massive quantities of George Bush stock. Just as in the traditional stock market, "stock" prices in the game would change based on a politician's popularity as well as upon supply and demand of his or her shares. Jane

* Wenyu Dou, Assistant Professor of Marketing, Department of Marketing and General Business, G. R. Herberger College of Business, St. Cloud State University, 720 4th Ave. South, St. Cloud, MN 56301-4498. Tel: (320) 255-3424. Email: wdou@stcloudstate.edu

QUARTERLY JOURNAL OF ELECTRONIC COMMERCE Vol. 1/No. 4/2000, pages 289-304
Copyright © Information Age Publishing
ISSN 1528-3326 All rights of reproduction in any form reserved.
would win the game if the overall value of her political portfolio was greater than that of other players.

Until recently, would be players like Jane faced one nearly insurmountable problem: there was no simple way to find other players for this special game. Now, thanks to the Internet, consumers like Jane can play against others with similar competitive game-playing and political ideals. Politistock.com provides a convenient web-based platform that effectively and efficiently aggregates large numbers of political stock market players who use virtual currency (SoftMoney), provided by the site, to buy and sell the stock of political luminaries. Players who amass winning political portfolios are rewarded with prizes such as T-shirts or dinner with a listed political figure. To give the reader some indication of the size of the market interested in the political stock market game, consider this: although currently in its trial stage, politistock.com planned to go for full service on September 1 of this year and hopes to attract advertisers interested in reaching politically minded people (Ingersoll, 2000).

Welcome to the world of innovative consumer marketing models in the digital age! The growth of the Internet during the past five years—both in its user base and economic impact—has been phenomenal and well documented (e.g., DePrince & Ford, 1999). According to a recent study by Angus Reid (2000), the number of worldwide Internet users may reach 450 million by the end of 2000 and is likely to approach 1 billion by 2005. In addition, the worldwide e-commerce revenue was estimated to be about $495 billion in 1999 and may exceed $1.3 trillion by 2003 (ActiveMedia Research, 1999). The global Internet and the multimedia-enabled World Wide Web have unleashed a remarkable flurry of human creativity and has heralded an unprecedented era of innovative business models of consumer marketing, including selling-oriented e-tailers (e.g., amazon.com), portal or information-oriented sites (e.g., Yahoo.com), trading sites (e.g., eBay.com), community sites (e.g., geocities.com), virtual application sites (myfamily.com), and the latest genre—peer-to-peer “networks” such as Lightshare, a site which aspires to be the “the eBay of peer-to-peer” (Sanborn, 2000).

What is it that makes the Internet so conducive to the development of myriad online consumer marketing models? The authors of this manuscript suggest three such related factors: (1) the number of Internet users, (2) functional role versatility of the Internet, and (3) changing consumer needs. First, consider that the global interconnected computer network provides a platform that draws 450 million Internet users worldwide (Reid, 2000). The staggering size of the potential global market strongly suggests tremendous demographic, psychographic, and behavioral heterogeneity in the Internet user base. On the other hand, the Internet is also extremely effective in aggregating widely scattered potential customers with similar needs, wants, and desires. This has been repeatedly shown in the popularity of so-called “community” web sites such as geocities.com where even a small interest group (e.g., people who are interested in the Atlantis mystery) may find an audience set from all over the globe. Consequently, business ventures that target highly specialized audiences (e.g., hard core hot spices lovers) may become more viable as the Internet enables marketers to reach widely scattered markets at relatively low cost. In essence, the “critical mass” of consumers is much easier to achieve in virtual cyberspace than in the brick-and-mortar world.

A second factor related to the plethora of consumer marketing models is the functional role versatility of the Internet and the unique characteristics associated with the medium. For instance, with the ability to inexpensively store and organize vast amounts of information, the Internet ably serves marketers and consumers alike as a transaction medium (Peterson et al., 1997), content provider (Hofacker, 2000), transaction broker (Strauss & Frost, 2000), peer-to-peer network (Kover, 2000), interactive communities (Hagel, 1999),
or as a virtual platform for running net-based applications (Cohen & Haskins, 2000).

A final element related to the Internet and the increase in consumer marketing models’ focuses on changing and evolving consumer needs. Indeed, the Internet has profoundly changed the composition of consumers’ needs as buyers move into an increasingly “digital lifestyle.” Customers in virtually every corner of the globe may experience needs that cannot or are unlikely to be satisfactorily met without the Internet. For example, a consumer seeking a personalized experience when shopping for a specific book title or a specific author is virtually guaranteed such treatment each and every time she/he logs onto amazon.com. Unfortunately, due to a variety of factors, such as heavy customer traffic, lack of customer-specific information, and overworked sales clerks, the same shopping excursion at a brick and mortar bookstore might not result in the same personalized attention.

The Internet may also be responsible for newly discovered consumer needs that have no equivalents in the traditional world. For instance, prior to the advent of the Internet, a consumer wishing to compare two or more different brands of compact disc players would, in all likelihood, need to travel either to a library or to several retail outlets in order to obtain the information necessary to make the desired comparisons. Another option might be to use the telephone to call several stores in order to solicit the input of sales personnel. Any of those options would require substantial effort on the part of the consumer and any such queries would need to be made during ‘business hours’. The Internet makes such comparisons between alternative products almost effortless for the consumer. By utilizing Internet sites such as pricewatch.com consumers can, with a few simple key strokes, and at any time of the day or night, on holidays and weekends, access professional product reviews and/or review unsolicited comments from actual users of the products in question.

Finally, the gigantic global information network also stipulates that Internet users need guidance and help in navigating the world wide web of information. Internet companies such as search engines and e-commerce (e.g., Excite), infrastructure builders (e.g., CyberCash), and authentication agencies (e.g., TrustE) developed to satisfy those newly developed needs of Internet users. Together, the three different types of needs undoubtedly provide brand-new motivations in searching of innovative consumer marketing models.

Based upon the three Internet-related factors outlined above, the authors of this manuscript suggest that consumer marketing models can be distinctly different from more traditional models and that innovative applications are likely to occur. Reviews of the relevant literature, visits to a variety of web sites, and attention to media reports shows that innovative applications of the new consumer marketing models have indeed occurred. High profile e-tailers (e.g., etoys.com), auction sites (e.g., onsale.com), community sites (e.g., village.com), and information sites (e.g., webmd.com) have garnered significant attention and media coverage. Unfortunately, less conspicuous models (e.g., web application sites such as mydocsonline.com) may not be prominently featured in news stories so their presences are sometimes overlooked. Accordingly, at the present time, a comprehensive picture representing the complete spectrum of consumer marketing models is nonexistent and there does not seem to exist an integrative framework that explains the varieties of such models.

Toward this end, the following sections of this manuscript address three key issues: (1) a summary and classification of the major dimensions underlying online consumer marketing models, (2) the development of an integrated conceptual model for understanding and evaluating online consumer marketing models, and (3) a discussion of the critical issues related to the application of the proposed framework.
CRITICAL DIMENSIONS UNDERLYING ONLINE CONSUMER MARKETING MODELS

In this paper, we investigate online consumer marketing models from the perspective of marketing opportunity analysis and suggest that the broadly defined online consumer marketing models should correspond to tangible marketing opportunities on the Internet. Following a stream of research in the marketing and entrepreneurship domain (e.g., Cadotte & Woodruff, 1994), we posit that a major challenge in the analysis of marketing opportunities is to identify the market structure and to quantify customer requirements. An analysis of product-markets usually consists of identifying buyers with similar needs and the products (goods or services) available to satisfy these needs (Srivistava et al., 1979). Several very fundamental insights can be gained from this characterization. First of all, a clearly identifiable group of consumers is instrumental in the delineation of an initially ambiguous product-market boundary. Second, a fundamental component in the identification of groups of consumers is the clear definition and comprehension of customer needs. Subsequently, and perhaps most important, the marketer must decide, based upon the identified needs of the targeted consumer group, which products to offer and how to position those products. In the context of web marketing, the marketer must be concerned not only with the product (e.g., a book) or a service (e.g., auto insurance) but also with which function of the Internet to utilize. This is true because the Internet itself is usually an integral part of the product or service offered to users by an online merchant. For instance, amazon.com is not just in the business of selling books from a website; rather, the company prides itself in building an impeccable and potentially unrivaled online shopping experience for book buyers. In addition, the competitive advantage of doing business on the Internet can only be derived by utilization of the unique features of the Internet. Therefore, we argue that to develop target market specific online consumer models, we have to understand the unique characteristics of the Internet for consumer marketing purposes. Each of these components of Internet marketing is discussed in more detail in the following sections.

Customer Needs

The construct of “customer needs” is a cornerstone concept in contemporary marketing thinking (Bristow & Amyx, 1999; Drucker, 1973, pp. 64-65; Kotler, 2000; Levitt, 1960). Hutt and Speh (1991) asserted that an organization’s competitive advantage is derived from that firms’ ability to satisfy the needs of consumers more fully and more rapidly than can competing firms. On the Internet, where, just as in the case of brick and mortar-based businesses, competition for the attention and business of online consumers is fierce, successful web-ventures must make consumer needs their number one priority (Dembeck, 1999).

While there have been many different categorization schemes of “customer needs” (e.g., Alderfer, 1969; Bristow & Mowen, 1998a, 1998b; Madsen, 1959; Maslow, 1943; McDougall, 1932; Murray, 1938), in the context of web consumer marketing, we find Day and Montgomeray’s (1999) classification scheme, in which customer needs are classified into current, latent, and emerging types, relevant for the purpose of this study. In this manuscript, each of those need types has been adapted as follows: current needs are labeled as existing needs, latent needs become Internet-enabled needs, and emerging needs are viewed as Internet-stimulated needs.

In this discussion existing needs refer to those customer needs, such as needs for information, entertainment or shopping, which were present prior to the emergence of the Internet economy. While traditional brick-and-mortar companies have generally been able to acceptably satisfy such needs, Internet ventures offer marketers a venue by which, at least in some aspects, those needs can be better met. For instance, a customer looking for a book
could shop at the B. Dalton Bookseller in the local mall. Another option would be to visit an e-tailer such as amazon.com. Shopping at amazon.com not only offers consumers the convenience of shopping at home but also provides a larger selection of books (e.g., 1,000,000 titles at amazon.com compared to 50-60,000 at B. Dalton Bookseller) from which to choose.

The second type of need adapted from the Day and Montgomery scheme, Internet-enabled needs, differ from existing needs in that this type of need could not be readily satisfied by traditional consumer models but are readily fulfilled via the Internet. For instance, consider Richard J., a Chicago resident who also happens to be a lifelong fan of major league baseball’s Chicago Cubs. While traveling on business in Costa Rica, prior to the existence of the Internet, Richard would probably not expect to hear a broadcast of his favorite team’s Thursday afternoon game against the arch rival St. Louis Cardinals.

Now, reconsider Richard J. and the impact of the Internet on his realized needs and expected satisfaction of those needs. Thanks to the net-based RealAudio technology, Cubs fans across the globe can tune into a digitized broadcast of the game, sent through the Internet. Loyal fans like Richard J. can enjoy local programming from virtually everywhere in the world—without the constraint imposed by geographic boundaries. Obviously, prior to the development of the Internet, such needs and the subsequent expectations of satisfaction of those needs, quite simply did not exist.

Another example of Internet-enabled needs concerns a common human desire to stay in touch with family members through the exchange of family photos. In the pre-Internet era, if a new father stationed in Germany wished to share a photo of his new daughter with her grandparents in Iowa, her aunt in Montana, and her uncle in Georgia, he had to depend on the postal service to deliver mail copies of the photo to the individual family members. In contrast, the Internet provides a much more convenient tool with which pictures of the newest member of the family can be shared with relatives scattered across the globe. Now with Kodak PhotoNet Online, that new father can upload and manage films so that grandparents, uncles, and aunt have almost instant access to photos of the baby.

The third type of need adapted from the Day and Montgomery scheme, Internet-stimulated needs, is developed through consumers’ experiences using the Internet and can only be satisfied via the Internet. Most companies that satisfy Internet-stimulated needs fall into one of two categories: those that manage or improve the efficiency of user online information processing or those that support technical aspects for online activities. In the first category, a search engine (e.g., excite.com) satisfies a web surfer’s need to locate and access specific information from the nearly measureless amount of material available on the web. For example, a shopper looking for the most reputable on-line electronics dealer can simply log onto Bizrate.com and find quality ratings of relevant Internet merchants. That same Internet shopper might decide to log onto Mysimon.com, an intelligent online shopping agent, in order to make price comparisons between hundreds of competing web vendors. Such sites effectively reduce the time and effort that online shoppers must devote to sifting through vast numbers of vendor sites.

The second category of Internet businesses that satisfy Internet enabled needs are those firms that provide technical infrastructure support for consumer-oriented e-commerce. Examples of firms providing such services include Cybercash, a firm that provides online shoppers an alternative to paying for on-line purchases with a credit card. By setting up a CyberCash account and spending the “Cyber-Cash” online, the Internet user can feel secure about buying products from various online merchants as there is no credit card number to be given out. Microsoft Passport is an online service that enables users to get one log-in name, password, and wallet. An Internet user with a Microsoft Passport account can quickly sign-in to participating web sites that adopt the
Passport technology using a single log-in name and password. The Password service also provides a "wallet" feature that enables faster online purchases for the users.

A summary of the three different kinds of consumer needs as related to the Internet is provided in Table 1, which reinforces the point that Internet-enabled or Internet-stimulated needs will be very difficult, if not impossible, for conventional marketing models to satisfy.

**Functional Roles of the Internet**

The authors suggest that six unique functions provided by the Internet—(1) the capacity to serve as a virtual marketplace, (2) the ability to aggregate consumers with highly diverse or specialized needs, (3) the capability to serve as a digital publishing outlet, (4) the power to facilitate transactions, (5) the ability to provide consumers with a virtual application platform, and (6) the ability to serve as a decentralized network—allow and encourage marketers to use the Internet for a wide array of marketing purposes. The following section of the manuscript provides a detailed discussion of each of those functions.

**The Internet/WWW as a Virtual Marketplace**

This is probably the most common type of on-line consumer marketing model (see, e.g., Peterson et al., 1997). An example is Blue-light.com—the online store for K-Mart, Inc. Under this scenario, consumers can purchase goods (e.g., personal computers from cdw.com) or services (e.g., financial services from quicken.com) by logging onto this virtual marketplace. The web site is designed as in a virtual store format and the users' interests lie primarily in purchasing products or services from the site just as they would do from a more traditional brick-and-mortar store or service outlet.
The Internet/WWW as an Aggregation Medium

Geocities.com, which claims to be the ultimate electronic community for web surfers with distinct interests, aptly illustrates this second unique marketing function provided by the Internet. The site has 41 themed "communities" ranging from Beja, devoted to discussions of sport utility vehicles to NapaValley, where consumers can log on and discuss food and wine. This type of site is generally created and promoted to attract surfers with similar interests and to enable them to interact in cyberspace. Most of the so-called "community" web sites utilize this function and usually do not rely on revenue from selling products to the visitors, but on the advertising revenue generated from the web sites. As evidenced by the following examples, such sites are becoming increasingly common on the Internet: Dejanews.com aggregates web surfers with similar interests (e.g., statistical programming) into specific discussion groups; Heat.net aggregates online gamers seeking to play games with other on-line surfers; Parentsoup.com aggregates otherwise quite heterogeneous parents from all over the world into a single community web site where they can share experiences and issues related to parenting.

The Internet/WWW as a Digital Publishing Outlet

One of the biggest advantages of the WWW is its amazing capability to store and sort a nearly infinite amount of information (Hoffman & Novak, 1996; Plamer & Griffith, 1998). Further, the multimedia information (e.g., text, audio, video) is digitized so that information can be easily indexed, searched, and disseminated (Hanson, 2000). A web site can differentiate itself from print media (e.g., a newspaper) by providing the most comprehensive coverage of a certain topic so that web surfers designate it as the information hub. For instance, ecommercetimes.com is devoted exclusively to news and stories about e-commerce. Gamespot.com is dedicated to providing consumers with information related to games. Live365.com, an Internet radio hub, unites radios stations, broadcasters, and independent artists who use the platform to disseminate their music to listeners worldwide. Personal shopping agent web sites, such as msi-mom.com and jungle.com, can also be classified as digital publishers as the sites collect pricing information through shopping "robots" searching the web for related merchants and their offers. The end result of the exhaustive search is that online consumers now have an abundance of pricing information from different online vendors so they can narrow their vendor choices accordingly.

The Internet/WWW as a Transaction Facilitator

Auto-by-tel.com, a web site that brings potential automobile buyers and auto dealers together, functions as a "cybermediary" (Matraburu et al., 1998) and is designed to resolve differences between buyer and seller. This and similar sites may collect sales commissions from either or both parties in the exchanges. Other examples include priceline.com where consumers can log on to haggle with merchants over the price of a variety of products and services, from airlines to hotels to groceries. Apartment.com unites apartment-seekers, real estate companies, and moving companies so interested parties can pursue potential transactions among themselves. eTrade.com provides an electronic stock-trading platform on which stock traders can reach deals with publicly trading companies. Online incentive web sites, such as iwon.com, attempt to match bargain-seekers with firms seeking new prospects via the online channel, and is yet another example of web sites functioning as transaction facilitators.
The Internet/WWW as a Virtual Application Platform

The virtual application platform model, where the web serves as a central storage/processing “nerve cell” that can be accessed and controlled from anywhere in the world, represents perhaps the most unprecedented functional role performed by the Internet. An example of such a model is the Yahoo My Calendar feature that eliminates the need for consumers to buy and carry a scheduling book since users can simply log on from anywhere to check and arrange their schedules online. At connected.com, corporate users can back up their servers or hard drive on the Internet and retrieve information by simply logging into the web site. Itslost.com provides a virtual lost-and-found headquarters for monitoring and tracking lost or found items from anywhere in the world. For instance, if a traveling executive’s lost suitcase was found in New York while she is staying in a Texas hotel, the web site would arrange the found item to be delivered directly to the executive’s Texas hotel as per her instructions.

Tasks that can be completed at a “virtual application” web site may range from pure information storage/retrieval to complex tasks such as running office productivity applications online (e.g., mydesktop.com). This innovative function of the Internet seems most appropriate for mobile professionals or for people who need to collaborate with others online (e.g., in team projects at cephren.com).

The Internet as a Decentralized Network

Recent media coverage has brought this relatively novel application of the Internet, which actually goes back to the original intention of the Internet without the World Wide Web, to the attention of consumers across the globe (Lardner, 2000). In this scenario, which relies on peer-to-peer technology, a participating Internet user can search for, find, and swap any digital file (e.g., music, video, document, recipe, etc.) stored in other Internet users’ hard drives. The first highly publicized example of consumers utilizing this functional role of the Internet was Napster, whose popular peer-to-peer software allowed users to swap music files in MP3 format. Even though the company’s business operation was recently judged to be illegal in court (Lomes, 2000), leading technology companies such as Intel believe that the potential of peer-to-peer technology may prove to be a viable online business model in the future as it completely obviates the need for a centralized trading web site (Norr, 2000). Instead, Internet users can find files without the mediation of any cybermediary, which may take a cut of the transaction or forces the users to view advertising.

Of course, the major functional roles outlined above are by no means exhaustive as the online world is a fairly complex domain and it is highly unlikely that anyone could enumerate all the possible roles that could be played by the Internet. In fact, even the biggest search engine (Google, in terms of web coverage) could index only a little over half (56%) of the total 1 billion indexable web pages currently in existence (SearchEngineWatch.com, 2000), a reality that takes on added importance when one considers that 7.3 million new web pages are added to the Internet every day (Cyveillance, 2000). Nonetheless, we believe this classification framework of the business roles of the Internet and WWW does provide a good starting point to categorize commonly encountered functions of the Internet. In Table 2, a summary comparison of the five web-based functional roles of the Internet is provided.

ANALYZING ONLINE CONSUMER MODELS

The preceding pages of this manuscript presented a discussion of the different types of online consumer needs and major functional roles of the Internet and WWW. In this section, the authors investigate the linkage between
TABLE 2

<table>
<thead>
<tr>
<th>Main Site Purpose</th>
<th>Virtual Marketplace</th>
<th>Digital Publishing</th>
<th>Transaction Facilitator</th>
<th>Virtual Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sell products/services</td>
<td>Pull in users with similar interests</td>
<td>Amass and present comprehensive information about a specific topic</td>
<td>Pair sellers and buyers</td>
<td>Let users manage digital applications from virtually anywhere</td>
</tr>
<tr>
<td>Major Source of Revenue</td>
<td>Sales</td>
<td>Advertising Sponsorship</td>
<td>Advertising Sponsorship</td>
<td>Commissions</td>
</tr>
<tr>
<td>Emphasis on Interactions Among Users</td>
<td>Light</td>
<td>Heavy</td>
<td>Light</td>
<td>Light</td>
</tr>
<tr>
<td>Importance of Offering Comprehensive Information</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Emphasis on managing Complex Seller-Buyer Interactions</td>
<td>Light</td>
<td>N/A</td>
<td>N/A</td>
<td>High</td>
</tr>
<tr>
<td>Site Capability in Enabling Central Storage/Processing for Users</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Types of customer needs and functional roles of the Internet for online consumers. Finally, it is asserted that such linkages often lead to the discovery and development of online consumer marketing models.

**How Functional Roles of Internet Fit Types of Online Consumer Needs**

As discussed previously, the authors contend that online consumers’ needs can be divided into three distinct classes: (1) existing needs, (2) Internet-enabled needs, and (3) Internet-stimulated needs. Further, in order that on-line marketers might make the most effective use of the Internet, it is crucial that online companies scrutinize the fit of different functional roles of the Internet in the satisfaction of those needs. To provide insight in this area, the authors examined the extent to which each functional role of the Internet could reasonably be applied to satisfy each of the different on-line customers need types. A summary of that examination and exemplary marketing models and websites are presented in Table 3.

As can be seen Table 3, a marketer could adequately satisfy online consumers’ “existing” needs by developing a web site that performs the role of virtual marketplace, aggregation, digital publisher, or transaction facilitator. In each situation an existing need would probably be better satisfied by a site that served any of the four roles (e.g., the convenience of shopping online). On the other hand, it should be noted that virtual applications and peer-to-peer technology do not appear to have a clear fit with existing needs as the benefits promised by those two specific functional roles of the Internet are beyond the normal expectations of pre-Internet age consumers.

On-line consumers’ Internet-enabled needs could be effectively satisfied by each of the six functional roles served by the Internet. For instance, consumers’ needs about finding experts worldwide on almost any topic can be effectively satisfied by online expert sites such
<table>
<thead>
<tr>
<th>Type of Need</th>
<th>Functional Role of the Internet/WWW</th>
<th>Fit Assessment</th>
<th>Exemplary Marketing Model</th>
<th>Website Example</th>
<th>Major Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Marketplace</td>
<td>Good</td>
<td>E-tailer</td>
<td><a href="http://www.egghead.com">www.egghead.com</a></td>
<td>Convenience Selection of products</td>
<td></td>
</tr>
<tr>
<td>Aggregator</td>
<td>Possible</td>
<td>Aggregator</td>
<td><a href="http://www.duluthsuperior.com">www.duluthsuperior.com</a></td>
<td>Ease of comparison shopping</td>
<td></td>
</tr>
<tr>
<td>EXISTING</td>
<td>Digital Publishing</td>
<td>Good</td>
<td>Information Hub</td>
<td>Platform for local groups to communicate and share ideas</td>
<td></td>
</tr>
<tr>
<td>Transaction Facilitator</td>
<td>Good</td>
<td>Trading</td>
<td><a href="http://www.classifiedtimes.com">www.classifiedtimes.com</a></td>
<td>Up-to-date information on a public platform</td>
<td></td>
</tr>
<tr>
<td>Virtual Application</td>
<td>N/A</td>
<td>Specialty Shop Online</td>
<td><a href="http://www.hothothot.com">www.hothothot.com</a></td>
<td>Digitized information for easy retrieval</td>
<td></td>
</tr>
<tr>
<td>Peer-to-Peer</td>
<td>N/A</td>
<td>Community</td>
<td><a href="http://www.seniors.com">www.seniors.com</a></td>
<td>Buy items that may be difficult to locate in local area</td>
<td></td>
</tr>
<tr>
<td>INTERNET-ENABLED</td>
<td></td>
<td></td>
<td></td>
<td>Connect to worldwide users who share similar interests</td>
<td></td>
</tr>
<tr>
<td>Virtual Marketplace</td>
<td>Possible</td>
<td>Online broadcaster</td>
<td><a href="http://www.eurotv.com">www.eurotv.com</a></td>
<td>Watch foreign TV programs without a TV or dish network</td>
<td></td>
</tr>
<tr>
<td>Aggregator</td>
<td>Good</td>
<td>Community</td>
<td><a href="http://www.exp.com">www.exp.com</a></td>
<td>Find experts worldwide on almost any topic</td>
<td></td>
</tr>
<tr>
<td>Digital Publishing</td>
<td>Possible</td>
<td>Online consultants</td>
<td><a href="http://www.accountminder.com">www.accountminder.com</a></td>
<td>Manage all kinds of personal information under one roof</td>
<td></td>
</tr>
<tr>
<td>Transaction Facilitator</td>
<td>Possible</td>
<td>Online consultants</td>
<td><a href="http://www.exp.com">www.exp.com</a></td>
<td>Gain access to files stored at other Internet users' hard drives</td>
<td></td>
</tr>
<tr>
<td>Virtual Applications</td>
<td>Good</td>
<td>Online Application Provider</td>
<td><a href="http://www.accountminder.com">www.accountminder.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer-to-Peer</td>
<td>Good</td>
<td>File sharing systems</td>
<td><a href="http://www.imesh.com">www.imesh.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet-Stimulated</td>
<td>Virtual Marketplace Aggregator</td>
<td>N/A</td>
<td>Possible</td>
<td>Magnet of Online Users</td>
<td><a href="http://www.iencentral.com">www.iencentral.com</a></td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------</td>
<td>-----</td>
<td>----------</td>
<td>------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td></td>
<td>Digital Publishing</td>
<td>Possible</td>
<td>Cybermediary</td>
<td><a href="http://www.auctionwatch.com">www.auctionwatch.com</a></td>
<td>Monitor market information across competing websites</td>
</tr>
<tr>
<td><strong>INTERNET-</strong></td>
<td><strong>Transaction Facilitator</strong></td>
<td>Good</td>
<td>Infrastructure enablers</td>
<td><a href="http://www.digicash.com">www.digicash.com</a></td>
<td>Secure online payments</td>
</tr>
<tr>
<td>STIMULATED</td>
<td>Virtual Applications</td>
<td>Good</td>
<td>Online activity management</td>
<td><a href="http://www.walletonline.com">www.walletonline.com</a></td>
<td>Organizes bookmarks and passwords</td>
</tr>
<tr>
<td></td>
<td>Peer-to-Peer</td>
<td>Good</td>
<td>Personal computing resource</td>
<td><a href="http://www.mojonation.net">www.mojonation.net</a> optimizer</td>
<td>Creates a digital marketplace for the exchange of extra bandwidth with other Internet users</td>
</tr>
</tbody>
</table>
as exp.com. Another example could be senior consumers seeking medical or retirement information, which, thanks to the Internet, can be easily located and accessed at seniors.com. These examples aptly illustrate the versatility and applicability of the Internet and WWW as powerful tools with which on-line marketers can effectively and efficiently meet the needs of on-line consumers, especially needs of which, prior to the advent of the Internet, consumers were simply not aware. In fact, it is in this domain that the Internet can be relied upon for building innovative business models that cater to the deep level needs of consumers. For instance, the introductory scenario in this manuscript provides a good example of how the aggregator function of the Internet was applied by a marketer to satisfy a consumer’s Internet-enabled need (i.e., at pollistocks.com).

Lastly, as seen in Figure 3, the transaction facilitator, virtual application, and/or peer-to-peer functional roles of the Internet could be applied by marketers seeking to satisfy on-line consumers’ Internet-stimulated needs. For instance, web sites that specialize in organizing online games (i.e., aggregators) cater to the needs of consumers who want to play online-based games that may involve hundreds of others online gamers. Transaction facilitators such as Digicash provide secure payment solutions for consumers who need to purchase online. Virtual application vendors such as walletonline.com solve the problem of managing and remote-accessing online users’ web site bookmarks and passwords. Digital publishing companies such as auctionwatch.com serve the need of online auction users who need to monitor bids at multiple online auction web sites. Of course, the virtual marketplace role of the Internet would probably not be applicable to the satisfaction of Internet-stimulated needs as consumers’ shopping needs may be innate and not generated through their online experiences.

How Online Consumer Marketing Models Emerge

The authors’ in-depth exploration of the relative fit between the specific types of on-line consumers’ needs and different functional roles of the Internet and WWW provides a foundation from which clearer understanding of online consumer marketing models can be derived. In essence, through the careful selection and application of one or more functional roles of the Internet, the authors propose that marketers can develop an on-line consumer marketing model designed specifically to satisfy one or more of the three types of consumer needs discussed earlier in this manuscript. In fact, even a cursory survey of the potential combinations of the three types of online customer needs and the six Internet functional roles, as presented in Table 3, reveals eighteen genres of consumer models. Even if three possible combinations are removed from the consideration set (i.e., virtual application or peer-to-peer for existing needs, virtual marketplaces for Internet-stimulated needs), there still exist 15 different genres of online consumer marketing models that can be developed or pursued. Further, as presented in this manuscript, the classification of consumer needs related to the influence of Internet represents only a first-level categorization suggesting that there would be different forms of specific needs within each broad category (e.g., as shown in Table 1). Consequently, the actual number of possible online consumer marketing models that could be developed would be much greater than the fifteen noted above. Finally, any one type of the online consumer marketing models could be applied to a variety of consumer segments, thus generating different model variations. For instance, to satisfy existing information needs of various consumer groups, companies could develop digital publishing/content site for college students (e.g., internweb.com), computer professionals (e.g., cnet.com), or football fans (e.g., nflplayers.com).
Building More Complex Online Consumer Marketing Models

While it has been shown that the linkage between a specific type of online consumer need and one functional role served by the Internet/WWW could lead to a viable online consumer marketing model, it is important to note that such discussions provide only a relatively simplistic glimpse of a much more complex overall picture. When one considers the fact that online marketing ventures can be, and often are, designed to satisfy multiple types of online consumer needs by exploiting, at times, multiple functional roles of the Internet, the extent of that complexity becomes more apparent.

A good example of an online venture adopting this multi-needs/multi-function approach in developing online consumer models is Yahoo! When Yahoo! was started in 1995, it was primarily a simple directory of web sites designed to meet the Internet-stimulated needs of pioneering Internet users who needed an index of available web sites. Overtime, Yahoo! has grown to cater to other types of consumer needs by performing different Internet functions. For instance, Yahoo! Yellow Pages serve as a digital publisher to satisfy existing needs of online consumers. Yahoo! Auctions satisfy the Internet-enabled needs of consumers by performing the transaction facilitator function. Yahoo! Geocities is a cyber community that aggregates Internet users worldwide who may share similar interests (e.g., Taoism or professional screen writing). Yahoo! Photos applies the Internet’s virtual application capability to satisfy users’ Internet-enabled needs for sharing with relatives or friends worldwide in online photo albums. This rapid evolution of the original Yahoo! site and the subsequent growth of myriad Yahoo! consumer marketing models, each designed to meet a specific need of on-line consumers, vividly illustrates the point that careful selection and matching of different Internet functional roles with various consumer needs can produce a profusion of online consumer models.

ISSUES AND IMPLICATIONS

Thus far the manuscript has presented an investigation of the broad spectrum of on-line customer needs and the potential impact of the Internet and the World Wide Web on the satisfaction of those needs. Six functional roles of the Internet were explored and the interaction of each of those roles with online customer needs and the subsequent development of various online consumer marketing models was discussed. The authors now move to a discussion of the implications of that interaction for two types of audiences: online consumer businesses and entrepreneurs who plan for future online businesses.

Implications for Online Consumer Ventures

Although many extant online business ventures may have been conceived without a thorough analysis of the matching of customer needs with Internet functions (e.g., through an entrepreneurial inspiration or gut instinct), the authors strongly recommend that, in today’s highly competitive, rapidly evolving, and increasingly complex Internet world, coupled with consumers who are increasingly Internet savvy, future online marketers use a more systematic approach when developing an online consumer model. The reasons for such admonitions are many. First, such a systematic approach would help venture managers adhere to the marketing concept with its focus on the clear definition of consumer needs, and the subsequent interaction with the ability of specific functional roles of the Internet to satisfy those needs, in the development of online business models. The boundaries of a business model so delineated would in fact be unambiguous and would thus be much more readily subjected to formal evaluation and analysis.

A second reason for marketers to utilize a systematic approach to the analysis of online consumer models is that such an approach would facilitate the identification of alternative business strategies. For instance, instead of
using the Internet only as a virtual marketplace (e.g., hothothot.com) to satisfy the Internet-enabled needs of consumer who are devoted to hot spices (e.g., need to buy hard-to-find hot spices), a firm could add a “community” section to its web site in order to meet the Internet-enabled needs for interactions among hot-spice lovers around the world. In short, such a community corner on the firm’s site would enable customers to exchange usage tips or chat about unusually spicy specimens. Another option would be for the company to set up a “Portal of Hot Spices” section where lovers of hot spices could find hyperlinks to related web sites with information about hot spices, such as web sites that provide cooking recipes using hot spices (e.g., spicechef.co.uk). This amounts to using the digital publishing function of the Internet to satisfy users’ needs for quickly sifting through hot-spices related information on the Internet—a need that is stimulated by their Internet patronage.

Implications for Internet Entrepreneurs

This work may also prove to be a useful decision guide for would-be entrepreneurs, offering several potential benefits from a variety of sources. First, understanding the “fit” between types of online consumer needs and functional roles performed by the Internet may provide a solid foundation from which entrepreneurs might uncover a wide and complex array of entrepreneurial opportunities based on possible online consumer marketing models. Instead of following a haphazard or instinctual route of idea generation, the astute entrepreneur will be able to examine assorted combinations of online consumer marketing models based on the matches between customer needs and Internet functions. For instance, an entrepreneur might decide to set up a community web site (i.e., an aggregator) to satisfy the Internet-enabled needs of re-entry/non-traditional college students who want to discuss issues such as how to juggle the pressures of family and school life and find support from others who have similar experiences. While some bigger Universities may have similar support organizations, the insights generated by a potentially global user pool and the emotional support is not likely to be rivaled by those rendered through any local support organization. In addition, the web-based communication among users is not limited by time or space constraints, which may provide a better incentive for re-entry students, who often feel time-pressured in dealing with work, family and school life, and to participate and contribute in all areas. In fact, these are promises offered by back2college.com.

A second benefit to be realized by entrepreneurs is that the adoption of such a matching perspective might also help the entrepreneur refine his/her original venture idea through a contingent evaluation of other models that the entrepreneur might not have previously considered. For instance, an entrepreneur could experiment with the original value proposition (i.e., the community web site for re-entry college students) of the venture by asking the following question, “How can I satisfy a different type of need (e.g., need to manage work, study projects, home finances from a central location)?” By seeking to answer such a contingency question, the entrepreneur could effectively broaden the scope of his/her creative spectrum. The site might claim to be an online document management center for non-traditional students seeking the convenience of managing work, study, and home information. Hence, the entrepreneur could, at the very least, compare the attractiveness of the new venture value proposition with his/her initial “great idea.” Given that venture capitalists report that more than 75% of entrepreneurs are biased toward their own ideas (Hills, 1984), the contingency approach could certainly prove helpful.

Finally, the contingency approach might very well help the entrepreneur develop a backlog of ideas, which could offer tremendous value if the original idea fails to achieve expectations or unforeseen problems arise. Simil-
larly, an entrepreneur’s pool of venture ideas could be used to supplement the original proposition once a site is fully operational (e.g., Yahoo’s expansion from an information-central to an online marketplace).

DISCUSSION

This study represents a first step in the development of a better understanding of the many existing online consumer marketing models. The authors have proposed a classification scheme that relates online customer needs to versatile functional roles of the Internet. This perspective will help managers decide to which types of consumer needs they plan to cater and to systematically match those needs to the functional roles of the Internet. The resultant analysis provides a solid benchmark for managers to use as they contemplate the design and function of their firm’s web site and how each of the six Internet functions might be used to meet different genres of consumer needs. Additionally, a concise model was developed in an effort to provide web marketers with a systematic analytical tool designed to better match online consumer needs with specific Internet functions. That systematic approach, in addition to helping marketers develop and consider a variety of online consumer marketing models, provides a starting point for furthering a more in-depth understanding of the complexity of Internet marketing as well as practical implications for managers and entrepreneurs.

The manuscript also suggests several avenues for related research. For instance, the current framework is drawn from analysis of consumer marketing on the Internet. As such, some of the models discussed may not be applicable to business-to-business marketing on the Internet. While the current study identified six major types of Internet functional roles, the authors add the caveat that such a classification scheme is certainly not exhaustive. As the Internet grows and evolves, as consumers usage, understanding and needs change, new functional roles of the Internet are virtually certain to emerge. Researchers are encouraged to monitor the intriguing and dynamic Internet marketing arena and to systematically investigate the resultant relationships between on-line consumer needs and emerging roles of the Internet. Finally, while the current framework proposes that matching online consumer needs and functional roles of the Internet will help web marketers systematically analyze potential online consumer models, our work does not predict whether those models will be successful in the real world. This is certainly an interesting and valuable question that is worthy of additional research.

As the Internet and e-commerce continue to grow and become more complex, Internet consumer marketing models will continue to become more varied and multifarious. It is necessary that a concise framework be developed to explain the broad spectrum of possible models. The article provides a useful framework for online venture managers and entrepreneurs to use as a systematic tool for the evaluation and identification of relevant consumer marketing models.

REFERENCES


ity, Marketing Intelligence and Planning, 16(6), 375-386.


