

## A FRAMEWORK FOR ANALYZING THE POTENTIAL BENEFITS OF INTERNET MARKETING

Melody Y. Kiang  
Information Systems Department  
College of Business Administration  
California State University, Long Beach  
[mkiang@csulb.edu](mailto:mkiang@csulb.edu)

Robert T. Chi  
Information Systems Department  
College of Business Administration  
California State University, Long Beach  
[rchi@csulb.edu](mailto:rchi@csulb.edu)

### ABSTRACT

The Internet has provided a rare opportunity especially for small to medium sized enterprises. It moves organizations beyond the physical constraints of their traditional distribution channels and creates a world wide virtual community in which small and medium sized companies can compete with large enterprises. In this research, we focus on the use of the Internet as a virtual storefront where products are offered directly to customers. Our contention is that product characteristics play a major role in the successfulness of its marketing on the Internet. We reviewed benefits of online marketing along three channel functions and identified factors that impact the use of online marketing approach. A framework is proposed to help evaluate the chance for a company to succeed in e-commerce. Data of failed e-tailers in the last two years were collected and analyzed using the proposed framework.

**Keywords:** Internet marketing, product category, E-Commerce, E-Tailing.

### 1. Introduction

The tremendous growth of the Internet has created opportunities for consumers and firms to participate in an online global marketplace. The Internet has provided a rare opportunity especially for small to medium sized enterprises (SMEs). It moves organizations beyond the physical constraints of their traditional distribution channels and creates a world wide virtual community in which SMEs can compete with large enterprises. The potential of the Internet as a commercial medium and market has been widely documented in a variety of publications [Haffman et al., 1995; Jarvenpaa & Todd 1997]. However, the literature to date on electronic commerce is by and large anecdotal. Both successful and unsuccessful cases of Internet marketing have been reported. There are no proven successful models that can help the management to determine the benefits that Internet marketing could provide for their business. A Web site gives direct contact between the organization and the consumer. The rapid developments of online computing technology, some especially targeted at SMEs [Asian Business 2000], make it inevitable for businesses not to seriously consider the Internet as an alternative distribution channel to avoid losing competitive advantage.

Since 1993, the Internet has been used to support conventional sales and marketing activities; it matches buyers and sellers in a more cost-effective manner compared with traditional advertising and marketing. While transactions are taking place on the Internet, the current level of commerce is small relative to overall commerce in the United States. The phenomenal growth of the Internet community has begun to alter the way buyers and sellers exchange information and the structure of distribution. It breaks through the physical barriers traditionally placed on commerce and moves firms to a new commercial marketplace. In addition, the opportunity for buyers to examine or test the product or service and interact with the seller to receive additional information or support can be provided through the online service.

While many successful cases of the online marketing approach have been recorded in electronic commerce literature, a handful of failed cases have also been reported. Although the history of electronic commerce is not long, especially the use of the Internet as a virtual storefront, we believe lessons can be learned from previous cases.

Previous research has identified common problems of e-marketing strategies including failure to classify product characteristics, inappropriate channel selection, pricing, and promotion strategies [Larson 1998]. In this research, we focus on the use of the Internet as a virtual storefront where products are offered directly to customers. We contend that product characteristics play a major role in the successful marketing of a product on the Internet. If we can identify the factors that impact the use of an online marketing approach, we can build a model to help evaluate the chance for a particular kind of product to succeed in online marketing.

In the following, we first review the advantages of using the Internet as a new distribution channel for retailing versus traditional distribution channels. This is done through a thorough review of the literature in both traditional marketing channel selection and the new online marketing approach and identification of the key benefits of Internet marketing. A summary of the review is presented in Section 2. To better understand the type of products or services selling on the Internet, Section 3 gives the classification of retailing on the Internet. Then we determine the product characteristics that can benefit the most from those e-commerce advantages. Possible marketing strategic directions are also suggested. In Section 4, cases of failed online retail companies are collected and analyzed using our proposed framework. Section 5 concludes the project and suggests directions for future research.

## 2. Pros and Cons of E-Marketing Approach

Channel selection is a complex task for both researchers and practitioners in marketing. Although Internet marketing has boomed in recent years, most companies have used it mainly for advertising or promoting corporate images. Not many companies have fully utilized the power of Internet marketing as a new channel for making transactions on the Internet. Besides the various technical obstacles, issues such as security of online trading, authentication, tax policies, etc., have yet to be overcome. The main reason that has prevented companies going online is the uncertainty involved as the Internet is an entirely new transaction channel. The existing research in channel design and selection has only considered the traditional channels, including direct and indirect marketing approaches. There are no documented results or research that provide a systematic method to guide evaluation, planning, and execution of the channel choice decision when it comes to Internet marketing. Although the Internet is an entirely new channel, it has many of the same characteristics as those of conventional channels. We believe studying the factors considered significant in conventional channel selection can also help in analyzing the behaviors of Internet marketing.

In the following, we identify the key advantages of Internet marketing recognized by companies participating in Internet marketing.

### The Advantages of Internet Marketing

Marketing activity occurs through three types of channels: communication, transaction, and distribution channels [Peterson 1997]. Although this study focuses on using the Internet as a new transaction and/or distribution channel, there are substantial interactions and overlapping among the activities performed by the three types of channels. Therefore, we need to consider the effect of Internet marketing on all aspects of marketing activities to be able to recognize the true benefits of Internet marketing. The extant literature in Electronic Commerce has documented various advantages for companies to sell directly on the Internet. These advantages can be classified into three channels based on the functions performed: communication, transaction, or distribution.

**Communication Channel: Exchange information between sellers and buyers.** The Internet is an extremely effective medium for accessing, organizing, and communicating information. Peterson, et al. [1997] have identified several unique characteristics of the Internet regarding communication: (1) the ability to store vast amounts of information that can be searched and disseminated in a cost-effective manner which is accessible by virtually everyone on the Net; (2) interactivity and the ability to provide information on demand; and (3) provide perceptual experiences that are superior to a printed catalog.

The Internet can provide timely information to customers because of its ability for instant communication, and its availability 24 hours a day, 7 days a week [Lane, 1996]. This means more interaction [Rosenspan, 2001], better customer services and quicker responses [Isaac, 1998]. The Internet can be used for both internal and external communications. For external communication, it can be used to communicate with both suppliers and customers. The ways of communication on the Internet range from the most basic form of electronic mail (e-mail) service, mailing lists, and newsgroups, to participating in chat-room activities. It also allows for easy follow-up on customers' needs and for expanding and adjusting marketing strategy accordingly [Marks, 1998]. As a plus, greater reliance on Internet communication usually results in lower long-distance phone and fax costs [Malazdrewics, 1996].

Another potential benefit of using the Internet is the ability to gather information about your customers via surveys and contests [Rendleman, 2001]. The information can be used to assist new product development and introduction [Higgins, 2001]. Companies can design and personalize advertising for each customer through "push"

technology [Peterson, et al., 1997]. The communication also helps with identifying prospects [Ebling, 2001], sales and relationship building [Ginovsky, 2001], and deepening customer loyalty [Kranzley, 2001].

Another factor that may be considered advantageous to certain types of products, but disadvantageous to others, is the fact that there is no actual face-to-face contact involved in the Internet communication. For the types of products that rely heavily on building personal relationship between buyers and sellers such as the selling of life insurance, and the type of products that requires physical examination, Internet marketing maybe less appropriate. On the other hand, the types of products that people feel embarrassed to purchase at traditional retail stores such as pornography tend to sell well online.

**Transaction Channel: Generate sales activities.** The Internet offers small businesses many potential benefits to help them compete more effectively against larger companies with improved visibility. For example, small companies that play in niche markets (i.e., sell specialized or unique products or services) in which buyers and sellers are small and geographically dispersed, can use the Internet to reach a much bigger customer base [Wellner, 2000]. One successful case is the Virtual Vineyards, a wine and specialty-food shop that exists only on the Internet ([www.virtualvin.com](http://www.virtualvin.com)). Cross-selling opportunities offered by the Internet has great potential for generating more sales transactions [Eichhorn and Helleis, 1997].

The Internet can also ease transaction processing, especially for handling complex orders [Andrews and Trites, 1997], thereby reducing paperwork, increasing efficiency [Long, 1997], replacing professionals tasks [Sandilands, 1997], hence reducing the transaction cost [McKim, 1997]. The online payment system minimizes the processing fee and allows for small-fee transactions for micro-services. This is especially advantageous for SMEs because most of their business is generated from low-volume orders, allowing them to better compete with large cap companies.

For business-to-business transactions, shortening the processing time also means the buyer can maintain a lower inventory level and reduce other related overhead for handling excessive inventory. The Internet allows for quick adjustment to market conditions which means it is possible to customize promotion and sales to individual customers [Hawn, 1996], allowing for flexible pricing (e.g., permits prices to change faster). The relatively low entry and establishment costs for sellers getting into online marketing is another important reason for considering the Internet as an alternative channel for SMEs [Peterson, et al., 1997].

**Distribution Channel: Physical exchange of products/services.** On-line marketing offers more choices and flexibility [Lamoureux, 1997] and, at the same time, eliminates huge inventories, storage costs, utilities, space rental, etc. [Avery, 1997]. People tend to associate Internet marketing with direct marketing because companies participating in online marketing usually shortened the supply chain [Edwards, et al., 1998] and reduced commission and operating costs.

The ability to serve as both a transaction medium and a physical distribution medium for certain goods is a unique feature of Internet marketing. Such advantages can be best realized by companies that provide digital products/services such as software, music, news, consulting services, online ticketing and reservations, tele-medicine, insurance, banking, stock brokerage, tax, and other financial service industries. Using the Internet as the distribution channel can reduce not only the delivery cost substantially, but also ensures instant delivery of products/services. Table 1 summarizes the advantages of the Internet grouped by the three channel functions.

Angehrn [1997] proposed a generic framework, the ICDT model, for understanding the strategic implications of the Internet. The ICDT model takes its name from the four virtual spaces of the Internet as identified by Angehrn. They are: a virtual Information space, a virtual Communication space, a virtual Distribution space, and a virtual Transaction space. The framework structure matches well with the three marketing activities we presented above except that the communication channel function is further divided into Information and Communication spaces. According to Angehrn, the information space considers only one-way communication of information and is used mainly for disseminating company information to the general public while the communication space allows for two-way communication but is relatively underdeveloped because businesses are still not sure what objectives it might serve. In the following, we will continue our discussion following the three channel functions framework.

### 3. Classification of Products/Services Selling on Internet

There is a broad range of products and services marketed on the Internet that range from consumable goods to durable goods, as well as online newspapers to business-wide consultation. Instead of modeling the problem at individual product level, we group the products into categories and analyzing the advantages of Internet marketing along each product group. This will provide a general picture regarding the effect of each factor (advantage) to the particular type of product. Once the classification grid is established, it can be used as the basis for analyzing individual product.

Table 1. Advantages of the Internet marketing approach grouped by the three channel functions

Channel Functions	Advantages
Communication	Improved product information Improved price information Availability of service, 24 hours a day, 7 days a week Lower cost of communication Interactivity and the ability to provide information on demand Real-time inventory update Online technical support Quick response of inquiries Customized orders Post-sale service No personal contact
Transaction	Virtual storefront can be reached by all Internet users Lower cost of transaction Allow microtransactions Reduce human errors Reduce procurement cycle time Lower inventory level and other related overhead Possible to customize promotion and sales to individual customers Flexible pricing Relatively low entry and establishment costs
Distribution	Reduced waiting time to receive product for digital products/services Lower cost of delivery for digital products/services Allow customers to track orders Reduced number of customer service representatives

The classification criteria of different products or services are still controversial. According to Peterson, et al. [1997], one way to group products or services on the Internet is by separating them into search or experience goods. Search goods are goods that can be evaluated using external information, whereas experience goods have to be personally evaluated. If a product is a search good, it is more suitable and likely to be marketed on the Internet. On the other hand, if a product is an experience good, then marketing this product on the Internet is less possible. This kind of classification gives us a clear and basic picture of product suitability for marketing on the Internet. Peterson, et al. [1997] also suggested that when products are expensive and infrequently purchased, an Internet marketer is more likely to carry such a product. However, the traditional retailer is favored when there is a need to personally inspect the product prior to purchase. Production customization considers factors such as adjustment, customization, and customer importance. As Peterson, et al. [1997] stated, Internet-related marketing can result in extreme price competition when products or services are incapable of significant differentiation. When the value proposition is intangible or informational (digital products), the Internet marketer is favored. In this study, we follow Peterson, et al.'s suggestion to arrive at the classification for search goods as shown in Table 2. We label each product group using a three-letter acronym that represents the values of the three dimensions. For example, the first category, DHF, stands for digital, high differentiation, and frequently purchased products.

Table 3 links the advantages of the Internet marketing demonstrated in Table 1 to the product/service category shown in Table 2. A check mark (x) in the box means the product group can benefit from that particular advantage of e-commerce. A question mark (?) means undetermined (could be either way depends on individual product). Among the three dimensions, value proposition has the dominant effect because digital products can take advantages of using the Internet for all three channel functions. The second important factor is the product customization potential of the products or services, and that is followed by the importance of product availability. According to Table 3, products belong to TLF group, tangible, low differentiation, and frequently purchased, will gain limited

competitive advantage and hence have the least chance for success on the Internet. It is followed by TLI group, tangible, low differentiation, and infrequently purchased products. All in all, for a given product or service, Table 3 can help to evaluate the chance of survival on the Internet by analyzing the product characteristics associated with the advantages of Internet marketing.

Table 2. Product and Service Classification Grid (Adapted from Peterson et al., [1997])

<i>Dimension 1 Value Proposition</i>	<i>Dimension 2 Degree of Differentiation</i>	<i>Dimension 3 Frequency of Purchase</i>	<i>Examples of Products and Services</i>	<i>Category</i>
Digital	High	Frequent	Online newspapers and Magazines	DHF
		Infrequent	Software packages	DHI
	Low	Frequent	Stock market quotes	DLF
		Infrequent	Automobile financing, insurance	DLI
Tangible	High	Frequent	Wines, soft drinks, cigarettes	THF
		Infrequent	Stereo systems, Automobiles	THI
	Low	Frequent	Milk, eggs	TLF
		Infrequent	Precious metal ingot of Known weight and purity	TLI

Table 3. Classification grid for analyzing the potential benefits of Internet marketing

<b>Channel Functions</b>	<b>Advantages</b>	<b>DHF</b>	<b>DHI</b>	<b>DLF</b>	<b>DLI</b>	<b>THF</b>	<b>THI</b>	<b>TLF</b>	<b>TLI</b>
Communication	Improved product information	X	X			X	X		
	Improved price information	X	X	X	X	X	X		X
	Availability of service	X	X	X	X	X	X	X	X
	Lower cost of communication	X	X	X	X	X	X	X	X
	Interactivity	X	X			X	X		
	Real-time inventory update	X	X			X	X		
	Online technical support	X	X	X	X		X		X
	Quick response of inquiries	X	X	X	X	X	X	X	X
	Customized orders	X	X			X	X		
	Post-sale service	X	X	X	X				
	No personal contact	?	?	?	?	?	?	?	?
Transaction	Virtual storefront	X	X			X	X		
	Lower cost of transaction	X	X	X	X	X	X	X	X
	Allow microtransactions	X	X	X	X				
	Reduce human errors	X	X	X	X	X	X	X	X
	Reduce procurement cycle time	X	X	X	X				
	Lower inventory level	X	X	X	X	X	X	X	X
	Customize promotion and sales	X	X			X	X		
	Flexible pricing	X	X	X	X	X	X	X	X
	Low entry costs	X	X	X	X	X	X	X	X
Distribution	Reduced waiting	X	X	X	X				
	Lower cost of delivery	X	X	X	X				

Table 3 gives us a general picture about the suitability of each product group to the Internet marketing approach. The purpose of this framework is not to provide universal rules to be applied to all products within same product category. Although products belong to the same category, most share some of the same characteristics but may still differ in certain aspects. The factors (advantages) identified in our framework can be used as the basis for evaluating each individual product.

Some Strategic directions for marketing can be derived from Table 3. For instance, digital products can take the most advantage of online marketing approach. Therefore, e-tailers should try to provide digital product/service to customers if all possible. For example, e-tailers that sell music and video online should allow customers to download products instead of shipping the actual CDs or tapes to them. Online banks should convert all documents to digital format to allow customers to submit applications and perform transactions online in order to take full advantage of e-commerce. Products with high degrees of differentiation also can benefit more from online marketing approach. E-tailers can improve the customizability of their product to distinguish their product from other e-tailers' in order to prevent pure price competition. For example, online auto dealers can allow customers to design or customize their own cars for their special needs. Online grocery stores can be specialized in supplying ethnic foods from a particular country or region. Companies that carry products of the last two categories (Tangible, Low differentiation, and Frequent/Infrequently purchased) can use the framework to redirect their marketing strategies. The framework helps management to identify potential benefits that the Internet can provide; therefore, the management could target their marketing efforts in those key areas. For instance, to improve communication aspect of the channel function, the company should focus on providing quick response to inquires and ensuring availability of the service. For improving transaction channel function, the company needs to emphasize on reducing human error, inventory level, and transaction cost, and allow flexible pricing. Different marketing strategies can be devised to achieve those objectives. A well-designed order form can greatly reduce possible typing error and cut down transaction cost. A built-in FAQ page helps to answer common customer questions and incurs no extra handling cost. Online grocery stores may implement flexible pricing policy to allow price adjustment according to inventory level and demand changes. This will help to keep the company inventory level down and minimize cost due to expired perishable goods.

**3. Data Analysis**

We have collected data (<http://www.upside.com/graveyard>) of pure online retail companies (B-to-C) failed in the last two years (years 2000 and 2001). There were a total of forty-seven failed e-tailers identified. We group the companies by the type of products they sell as categorized in Table 3. Among the forty-seven failed e-tailers, fourteen of them belong to TLI (Tangible, Low differentiation, Infrequently purchased) group and they sell products such as used computers, used cars, furniture, jewelry, health, and home improvement products. Fifteen failed e-tailers belong to the TLF (Tangible, Low differentiation, Frequently purchased) group and their products include toys and baby products, cosmetics, drug and prescription refill services, and used CDs. Ten failed e-tailers belong to DLI (Digital, Low differentiation, Infrequently purchased) group and four failed e-tailers belong to DLF (Digital, Low differentiation, Frequently purchased) group. Table 4 summarizes the number of failed e-tailers in each category and Table 5 shows the number of failed e-tailers along the three dimensions. The strong impact of the value proposition and degree of differentiation dimensions on the success of e-tailers as suggested by the data collected concurs with our framework presented in Table 3.

Table 4. Number of failed e-tailers by category

Category	DHF	DHI	DLF	DLI	THF	THI	TLF	TLI
Number of failed e-tailers	1	1	4	10	0	2	15	14

Table 5. Number of failed e-tailers by the three classification dimensions

Tangible/Digital Product	Low/High Differentiation	Infrequently/Frequently Purchased
31	43	27
16	4	20

**5. Conclusion**

The rapid developments of online computing technology make it imperative for companies to seriously consider the Internet to avoid losing competitive advantage. A Web site gives direct contact between the organization and the

consumer. However, product characteristics play an important role in whether the organization may benefit from utilizing the Web as a means of direct sales [Shanklin and Griffith, 1996].

The emphasis of this research is concentrated on practical decision problems that impact a wide range of companies. Due to the complexity of the problem, we have limited the scope of this research to focus only on the product characteristics and their effects on the success of Internet marketing. When making channel selection decisions, we need to consider all the factors in the marketing mix – product, promotion, price, and distribution – as a whole. Other factors that may impact the performance of Internet marketing include: 1) the firm's current distribution structure and channel relationships; 2) the size of the company; 3) the promotion strategies; and 4) the pricing structure, etc., that are specific to individual companies. Future research can study the cases of individual companies to evaluate and design channels that would help with the successful launch of new products.

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