ELECTRONIC RETAILING: MARKET DYNAMICS AND ENTREPRENEURIAL OPPORTUNITIES

Barton Weitz

ABSTRACT

The retailing industry has provided significant entrepreneurial opportunities that are growing even greater with the development of electronic retailing. Sales by electronic retail entrepreneurs have substantial growth potential. However, the growth of electronic retailing depends on whether or not electronic retailers provide superior benefits over existing retail formats. Some critical resources needed to successfully sell merchandise and services electronically are: (1) strong brand name and image, (2) customer information, (3) complementary merchandise and services, (4) unique merchandise, (5) presentation of information on web pages, and (6) distribution system to efficiently ship merchandise to homes and receive return. The long-term prospective for electronic retail entrepreneurs rests on their ability to exploit their advantages in designing web sites and collecting information about their visitors and the degree to which they can develop critical resources in brand name recognition and distribution systems.
INTRODUCTION

The retailing sector has stimulated and rewarded entrepreneurial activity. In 1999, over 60,000 new store-based retail businesses were started in the United States (Dun & Bradstreet, 2000). Well-known U.S. retailers continue to bear the names of the entrepreneurs who founded them a hundred years ago – James Cash Penney, Richard Sears and Alvah Roebuck, R.H. Macy, Al Neiman and Stanley Marcus, and C.R. Walgreen. Thirty years ago, some of the largest retailers in the U.S. – Wal-Mart (Sam Walton), The Gap (Donald Fisher), Home Depot (Bernard Marcus and Arthur Blank), and Circuit City (Richard Sharp) – were either small start-ups or did not even exist.

Now the Internet, the fastest growing technology in history, has the potential for dramatically affecting the structure of consumer goods and retail industries and significantly increasing entrepreneurial opportunities. By the end of 2000, 60% of U.S. household will have access to and regularly use the Internet (Cahners, 2000). Defining retailing broadly as selling goods and/or services directly to consumers, the low cost of entry has attracted over 10,000 entrepreneurial electronic retailing ventures ranging in size from Amazon.com with over $1.5 billion annual sales to niche retailers such as Dilmah’s offering teas from plantations in the highlands of Ceylon (http://www.dilmahtea.com) and Steel of the Night offering a complete line of steel drums (http://www.steeloftthenight.com). Electronic retailing entrepreneurs such as Priceline.com and Ebay have developed innovative business models.

The objective of this chapter is to examine the factors affecting the growth of electronic retailing and the impact of this new retail format on the retail industry. The first part of the chapter examines the issues affecting the demand for electronic retailing focussing on the benefits offered by this format compared to other nonstore and in-store retail formats. The second half of the chapter examines the impact of this new format on industry structure, the competitive dynamics of firms in the retail industry, and the factors affecting the degree to which entrepreneurial electronic retailers can exploit opportunities arising from the changes in industry structure.¹

DEFINITION OF ELECTRONIC RETAILING

Electronic retailing is a retail format in which the retailer and customer communicate with each other through an interactive electronic network (Levy & Weitz, 2001). Electronic retailers and their customers exchange text and graphic information electronically using an interactive network (See Hoffman & Novak, 1996 for a discussion of communications through electronic media.). Then
customers can order merchandise and services directly through the network and the merchandise is delivered to a convenient location, typically the customer’s home. Information services and digital products such as computer software and recorded music may be delivered directly through the interactive network.

The scenario in Exhibit 1 illustrates the unique features of electronic retailing – interactivity, personalization, information intensity, and global reach. In the scenario, Judy specifies the type of merchandise sought and then FRED, an intelligent agent, communicates with retailers around the world, locating a large group of alternatives. Using information about Judy’s personal tastes, FRED reduces the large number of alternatives down to a small set that is of most interest to Judy. Then Judy has access to extensive information about each of the alternatives. After Judy selects the merchandise she wants to buy, the retailer suggests accessories. Again the presentation of these accessories is personalized to Judy.

The electronic agent, FRED, in the scenario plays a critical role in facilitating the transaction. It queries the consumer’s and retailers’ databases to match the retailing offerings to the consumer’s needs. This scenario implies that the consumer, Judy, owns the electronic agent. However, these electronic agents may be owned and controlled by electronic retailers or independent third parties (see Maes, 1999).

**FACTORS AFFECTING THE GROWTH OF ELECTRONIC RETAILING**

In 1999, electronic retail sales were less than 1.4% of retail sales in the U.S. and even a smaller percent of retail sales in Europe and Asia. However, the annual growth of U.S. electronic retail sales was over 100% (Shop.org, 2000). If this growth rate continues, electronic retailing will have a major impact on the retail industry, significantly decreasing retail sales in stores.

As with any innovation, the critical factors affecting consumer adoption are: (1) the ease with which consumers can try the innovation, (2) the perceived risks in adopting the innovation, and (3) the benefits offered by the innovation compared to existing alternatives (Rogers, 1995).

*Ease of Trial*

To experience electronic shopping, consumers need to have access to the Internet and be able to easily locate electronic retailing sites, navigate through the sites to acquire sufficient information, and order merchandise. Thus, trialability is a function of Internet access as well as consumer computer skills and the construction of retailing web sites. As mentioned previously, the majority
**Exhibit 1. ILLUSTRATION OF ELECTRONIC RETAILING**

FRED: Do you wish to browse, go to a specific store, or buy a specific item?
Judy: Specific item
FRED: Occasion? (menu appears and Judy selects)
Judy: Gift
FRED: For whom? (menu appears on screen)
Judy: Dave
FRED: Type of gift? (menu appears)
Judy: Toy/Game
FRED: Price range? (menu appears)
Judy: $75-$100

[Now FRED goes out and literally shops the world electronically visiting the servers for companies selling toys and games in Europe, Asia, Africa, Australia, and North and South America.]

FRED: 121 items have been identified. How many do you want to review? (menu appears)
Judy: Just 5

[Fred selects the five best alternatives based on information about Dave’s age and preference for toys and Judy’s preference for non-violent, educational toys. The five toys appear on the screen with the price, brand name, and the retailer listed beneath each one. Judy clicks on each toy to get more information about the toy. With another click, she sees a full motion video of a child Dave’s age playing with the toy. She selects the toy she finds most appealing.]

FRED: How would you like to pay for this? (menu appears)
Judy: American Express
FRED: Etoys [the firm selling the toy Judy selected] suggests several books that appeal to children who like the toy you have selected. Do you want to review these books?
Judy: Yes

[The books are displayed on the screen. Judy reviews each of the books and decides to order one.]

FRED: Would you like this gift wrapped?
Judy: Yes

[The different designs for wrapping paper are displayed on the screen and Judy selects paper with a baseball motif.]

FRED: Just a reminder. You have not purchased hosiery in 30 days. Do you wish to reorder at this time?
Judy: Yes
FRED: Same shades?
Judy: Yes
of U.S. households will have Internet access by the end of 2000. While the early users of the Internet were male, more educated, and had higher income than the general U.S. population, as this innovation diffuses, the demographics of Internet users are beginning to reflect the general population. Women now comprise slightly less than half of Internet users which is important for electronic retailers because women do most of the shopping.

The acquisition of computer skills by teenagers and children suggests a bright future for electronic shopping. But it's not just teenagers and young adults surfing the web. In the U.S., adults over 50 years old are the fastest growing market going online now comprising almost 20% of the Internet users. Seventy percent of Americans in this age group have home access to the Internet. Studies have found that older consumers spend an average of 130 minutes a day online, almost 50% higher than any other age group (Media Metrix, 2000).

The lower levels of Internet usage in Europe compared to the U.S. may be due to greater costs incurred in sampling the benefits of the Internet and developing navigation skills. In the U.S., most people pay a flat rate for local telephone service, while Europeans typically are charged by the minute. Thus surfing the web for an extended period of time is much more expensive in Europe. Some other obstacles to the growth of electronic shopping and other forms of nonstore retailing in Europe are the unreliable postal service in some countries, the tax differences across countries, and the greater concern about credit card security among Europeans (Tagliabue, 1999).

**Perceived Risks in Electronic Shopping**

An initial concern of consumers was that credit card transactions were not secure when shopping on the Internet. But these security risks have not arisen in actual usage because almost all electronic retailers use sophisticated technologies to encrypt communications. The perception of risk is diminishing as credit card companies promote the use of their cards on the Internet and inform customers that they will not be responsible for security lapses (Caragata, 1999).

Privacy is another consumer concern that may inhibit the growth of electronic shipping. An important benefit provided by electronic retailers, that will be discussed in more detail subsequently, is tailoring presentations to the needs of specific customers. To exploit this unique interactive feature of the Internet, electronic retailers need to collect information about each customer's demographics, past purchase histories, and preferences. With this information, electronic retailers can target promotions to specific customers and suggest appropriate merchandise. While the use of this information provides benefits for customers, it also raises privacy concerns. To reduce these concerns, almost all
Internet retailers post information about their privacy policies on their sites and offer customers a choice about how their information is used (Culnan, 1999).

With access to the Internet increasing and technological developments reducing security risks, the primary factor determining the growth of electronic retailing will be whether the electronic format can provide sufficient benefits over existing retail formats to attract customers. The next section compares the benefits offered by store based and catalog retailers with those offered by electronic retailers.

Benefits of Shopping on the Internet

Although the electronic shopping experience described at the beginning of the chapter is appealing, current store and catalog retail formats effectively satisfy most consumer needs. A wide variety of stores are convenient to most consumers in the United States and consumers who can't get to a store easily have a wide selection of catalogs from which they can order.

Electronic retailing sales will grow only if the format offers consumer advantages over other existing retail formats. Exhibit 2 compares the benefits and costs to consumers of six retail formats: three store-based formats and three nonstore formats (the traditional catalog, the present electronic retailing offering, and the highly personalized and interactive electronic retailing offering described at the beginning of the chapter).

Entertainment and Social Experience. In-store retail formats provide more benefits to consumers than simply stocking and helping customers buy merchandise. For example, in-store shopping can be a stimulating experience for some people, providing a break in their daily routine and enabling consumers to interact with other people.

All nonstore retail formats are limited in the degree to which they can satisfy these entertainment and social needs. Even the most attractive and inventive web pages and video clips will not be as exciting as the displays and activities in a Disney or Niketown store. Note that Exhibit 2 indicates that supermarkets are less effective at providing these entertainment and social benefits than other store-based retail formats because most people view grocery shopping as a chore to be accomplished as quickly as possible.

Safety. Security in malls and shopping areas is becoming an important concern for women and elderly shoppers. Again, all nonstore retail formats have an advantage over store-based retailers by enabling customers to review merchandise and place orders from a safe environment—their homes.

Ordering and Getting Merchandise. Electronic retailing, like most nonstore retail formats, enables consumers to order merchandise from many locations at
**Exhibit 2. Relative Benefits Offered Consumers by Alternative Retail Formats**

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<th>Store-Based Retail Formats</th>
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<td>Benefit to Customers</td>
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<th>Factors Affecting Cost of Merchandise</th>
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any time of the day. However, consumers usually have to wait several days to get the merchandise. Thus, all nonstore retailers suffer in comparison to stores on this dimension.

The importance to consumers of getting merchandise immediately depends on the type of buying situation and merchandise. For example, a parent with a sick child will be unlikely to wait a day for a prescription to be filled and delivered by an electronic drugstore. Many items bought in a supermarket are perishable and must be taken home and stored in a refrigerator or consumed
shortly after they are purchased. Thus an electronic supermarket retailer must be able to deliver orders to customers shortly after they are picked from a store or warehouse.

**Number of Alternatives** As Exhibit 2 shows, a potential benefit of electronic retailing compared to other retail formats is the vast number of alternatives that becomes available to consumers. A person living in Columbus, Ohio, can shop electronically at Harrod’s in London in less time than it takes to visit the local supermarket.

Economic search theory implies that if there are N alternatives available in a market and the consumer considers only a subset n < N, the utility of the chosen (best) alternative from the subset increases with n (Stigler, 1961). However, there are strong diminishing returns associated with considering additional alternatives. As one examines additional alternatives, the potential increase in benefits offered by the next alternative is small. Since the cost of searching for and evaluating new alternatives continues to increase, a point is reached at which the expected cost of considering additional alternatives is greater than the potential increase in benefits. At this point, the consumer terminates the search for additional alternatives. Research also indicates that consumers reach this point quickly. Consumers rarely visit more than one or two outlets even when they are buying expensive consumer durables (e.g. Wilkie & Dickson, 1985).

Even though the search costs associated with electronic shopping are lower than with store-based shopping, simply providing the opportunity to consider a hundred alternatives versus five alternatives may not be a significant benefit to many consumers. They may find it too tedious and stressful to look through information on hundreds of products. Consider Judy Jamison’s search with FRED described in Exhibit 1. Does Judy really care if FRED found 10 or 121 toys initially?

**Assistance in Screening Alternatives** The consumer benefit afforded by the opportunity to inspect a greater number of alternatives with electronic retailing depends on the efficiency with which consumers can sort through this vast amount of information. In most product categories, consumers have prior beliefs and preferences about alternatives. They use this information efficiently by forming a small consideration set and then evaluating alternatives within this subset in more detail. The savings in search costs involved in using this two-step process often overwhelms the potential opportunity cost of overlooking the ‘best’ alternative that would have been uncovered by carefully inspecting the entire universe of alternatives (Hauser & Wernerfelt, 1990, Ratchford, 1982).

Note that both FRED and retail store buyers have access to the same universe of merchandise and screen that universe to offer an appealing subset. However, the assortment offered by a specific retailer is developed for the retailer’s target
market. Since there is significant heterogeneity across customers in the retailer’s target market, its customers must expend additional resources to form smaller consideration sets tailored to their needs. If they find the set provided by the retailer constraining, they may decide to visit another store.

Using agents, electronic retailers can use either a passive or active approach to tailor consideration sets from a much broader set of alternatives for specific individuals. The passive approach infers consumer preferences by analyzing search behaviors on the web site and past purchases. The active approach queries consumers about their overall likes and dislikes, decomposes these ratings to predict preference for new alternatives, and provides a small set for the customer to look at in detail.

As indicated in Exhibit 2, service-oriented retailers, like department and specialty stores, also have this capability to form personalized consideration sets. Often sales associates in these stores know what their preferred customers want, select a few outfits, and arrange to show these outfits before the store opens or even take the outfits to the customer’s office. FRED provides the same service as these super sales associates; however, FRED is never in a bad mood, is not paid anything to do its job, and is always available.

**Providing Information to Evaluate Alternatives in the Consideration Set.**

An important service benefit offered by retailers is providing information that helps customers make better purchase decisions. The retail formats shown in Exhibit 2 differ in the degree to which they provide information that enables consumers to maximize consumption utility net of price and search costs (Ehrlich & Fisher, 1982).

*Quantity of Information.* Retailers vary in the sheer amount of information provided about the merchandise they offer. For instance, some catalogs provide only a few specifications for each item, such as price, weight, and brand/model. Other catalogs provide much more details about each item carried. For example, Lands’ End not only provides color pictures but often gives extensive detail about the construction process, stitching, and materials. Store-based retailers also differ in the information they make available to customers. Specialty and department stores typically have trained, knowledgeable sales associates, while most discount stores do not. Knowledgeable sales associates are able to dramatically increase the usefulness of the information they provide through their face-to-face interaction with customers. They ask questions about a customer’s needs and provide specific information the customer seeks. However, the personal knowledge of sales associates working for store-based retailers is limited and the space available to self-service, store-based retailers and catalog retailers to provide information is limited to signs and packages on the shelves and the number of printed pages.
Electronic retailers have greater opportunities to provide information to their customers than specialty and department store retailers—they have the capability of providing as much information as each customer might want. Using an interactive communication channel, electronic retailers can respond to customers’ inquiries just like a sales associate would. Customers shopping electronically can drill down through web pages until they have enough information to make a purchase decision. In addition, the information in the electronic retailer’s database can be frequently updated and will always be available. On the other hand, store-based retailers may have a difficult time retaining knowledgeable sales associates, and in many cases it is not cost-effective for them to do so. The cost of adding information to an electronic retailers database, is likely to be far less than the cost of continually training thousands of sales associates.

Presentation of Information. Research shows that the way information about products is presented affects how consumers process the information and the quality of purchase decisions they make (Bettman & Kakkar, 1977). Consumers prefer flexible information presentations that enable them to compare alternatives on an attribute and examine all of the attributes for a single alternative (Bettman & Zins, 1979). For example, consumers like the attribute by brand matrices used by Consumer Reports to provide information about brands in a product category.

Product comparisons are difficult to make when shopping in stores because customers usually have to inspect each brand, one at a time, and then remember the different attributes to make a comparison. On the other hand, electronic retailers can easily present information in tabular formats that easily enables side-by-side comparisons. Category specialists attempt to make these comparisons easy by displaying brands in a category next to each other. Even though the brands and models are next to each other, it is still easier to make the comparisons when they are presented in the customized tabular formats that can be offered by electronic retailers.

Cost of Merchandise

Some experts suggest that electronic retailers will have much lower costs because electronic retailers do not have to spend money building and operating stores at convenient locations. However, electronic retailers, or their customers, will incur higher costs to deliver merchandise to homes, deal with the high level of returns, and attract customers to their web sites. It is quite costly to deliver merchandise in small quantities to customers’ homes. Customers presently absorb these costs expending their time and money going to stores to
pick out merchandise, take merchandise home, and then go back to the stores to return merchandise they don’t want.

In addition, electronic retailers incur significantly higher costs in informing consumers about the ‘location’ of their web site and their offering. For example, the marketing expenditures of store-based retailers are typically between 5 and 10% of sales, while electronic only retailers spend between 30% and 70% of sales on marketing.

Summary

Even though sales by Internet retailing are small now, electronic retailing has the potential for being a major retail format and realizing optimistic sales estimates in the future, because the format can offer consumers superior benefits to those offered by present in-store and nonstore formats. Due to the interactive nature of the electronic retail format, customers can have a selection of merchandise and information about the merchandise tailored to their needs. In effect, the electronic format has the potential for preparing an individually tailored catalog for the customer every time the customer goes shopping. Due to these individually tailored shopping experiences, customers will be able to make more satisfying selections of merchandise using the electronic format compared to other formats. The key to providing these individually tailored shopping experiences is the availability of information about the consumer and the use of electronic agents, like FRED, to match the retailer’s offerings with the consumer’s needs.

Electronic Retailing and Industry Structure

This section of the chapter focuses on the impact of electronic retailing on the structure of the retail industry. Some specific issues discussed in the section are: (1) the types of merchandise that will be sold effectively by electronic retailers, (2) the effect of electronic retailing on price competition, (3) the resources needed to effectively compete as an electronic retailer, (4) the potential winners and losers, and (5) the entrepreneurial opportunities in electronic retailing.

What Type of Merchandise Will Be Sold Effectively by Electronic Retailers?

Information economists distinguish between three product types – search, experience, and credence goods – based on consumers’ ability to determine product...
quality before or after they buy the product (Darby & Karni, 1973). Consumers can determine the quality and value of search goods prior to purchase, while the quality of experience goods can be assessed accurately only after one purchases and uses the product. For credence goods, quality cannot be known even after repeated purchase and use.

Although this classification scheme was initially applied to products, it is now clear that all goods have some combination of search, experience, and credence attributes. A search good is simply a product for which the most important consumption attributes are reliably predicted by attribute information available to consumers before they buy them. Thus the same product can be a search, experience, or credence good, depending on the importance of its benefits to the consumer and whether or not the consumer can make inferences about those benefits prior to purchase.

This trichotomy suggests that products with important search and credence attributes are most likely to be sold by electronic retailers because direct experience is not required, but experience products will continue to be sold primarily in stores. Using similar reasoning, electronic and catalog retailers should be more successful selling merchandise dominated by visual attributes. These retailers will be less successful with products when touch, taste, and smell are important for evaluating quality since these senses require direct experience consuming or sampling the product.

However, these conclusions fail to recognize the quality or usefulness of information is determined by the degree to which consumers (or their agents) can use the information obtained prior to purchase to predict their satisfaction from subsequent product consumption. The use of information to make predictions depends on consumers’ inference rules (Alba & Hutchinson, 1987; Broniarczyk & Alba, 1994) and consumers’ confidence in the reliability of these rules (Wright & Lynch, 1995). For example, when consumers initially purchase experience and credence goods, there is at first a low subjective correlation between observable product attributes prior to purchase and benefits at the time of consumption. However, brand names enable highly reliable inferences about consumption benefits after a single purchase of an experience good.

One implication of this observation is that ‘search’ attributes in one retail format might be ‘experience’ attributes in another. For example, the flavor of Ben and Jerry’s ‘Cherry Garcia’ might be a ‘search’ attribute at a Ben and Jerry’s store, that allows a consumer to taste the ice cream prior to purchase. However, it would be an ‘experience’ attribute when bought for the first time at a supermarket or from an electronic retailer that does not allow for tasting prior to purchase. Consequently, the Ben and Jerry’s store initially would have an informational advantage over the supermarket and electronic retailer.
However, once the consumer learns that ‘Cherry Garcia’ on the carton label reliably predicts experienced flavor, the supermarket and electronic retailer would no longer be at a disadvantage.

In some situations, electronic retailers might even be able to provide superior information about experience attributes compared to store retailers. For example, Judy, before she started to shop electronically, wanted to see toys before buying one for her son Dave. So she went to toy stores to look at the toys. But in the stores, the toys were not displayed, so she could only see a picture on the side of the box containing the toy. Now that Judy shops electronically, she can get superior information about experience attributes from the full motion video clip showing a child playing with the toy.

Finally, in some situations, consumers can not use information about important experience attributes. For example, when buying a gift, information about an important search attribute such as the smell of a perfume would not help the consumer infer the satisfaction experienced by the recipient of the gift.

The previous discussion suggests that consumers make inferences about product attractiveness based on information provided by retailers, and thus retail formats will compete on the information they provide as cues for these inferences. Electronic retailers will attempt to convert important experience attributes into search attributes. While store-based retailers will attempt to leverage their advantage in providing information about search attributes. In addition, the relative importance of search and experience attributes varies with the consumer’s prior experience and the buying situation. Brand name, a search attribute, plays an important role in purchasing products with important experience attributes when consumers have prior experience with the product. When buying gifts, the importance of information about experience attributes is diminished.

Thus, the critical issue determining what types of merchandise can be sold successfully by electronic retailers is the degree to which the electronic retailer can provide enough information prior to the purchase to make sure consumers will be satisfied with the merchandise once they get it. There are many buying situations in which electronic retailers can provide sufficient information even though the merchandise has important experience attributes.

**Will Electronic Retailing Lead to More Price Competition?**

Many store-based retailers offer similar assortments of branded merchandise and thus have difficulty differentiating themselves on the basis of their merchandise offering. However, price competition between retailers offering the same merchandise is reduced by geography. Consumers typically shop at the stores
and malls closest to where they live and work. With electronic retailing, consumers can easily search for merchandise across the globe at low cost. The number of stores that a consumer can visit to compare prices is no longer limited by physical distance.

To limit price comparisons, many present electronic retailers make it hard for customers to go from one Internet site to another. These electronic retailers use different interfaces so customers need to learn how to search through the offerings at each new site they visit. In addition, Internet retailers electronically can prevent intelligent agents like FRED from accessing their sites and collecting information about the products sold at the site, and using this collected information to compare the prices offered at different electronic retailing sites.

As mentioned previously, one key benefit of the electronic retail format is the ability to shop the world and easily compare alternatives from different retailers. Thus by making these comparisons difficult, electronic retailers are limiting the attractiveness and growth of the format. However, consumers eventually will insist on making these comparisons and will reward electronic retailers that offer this service by going to their sites. If FRED is not allowed in at a site, FRED’s owner will buy from competing sites that let FRED in.

Generally speaking, information that is easy to obtain or that can unambiguously discriminate among options tends to receive higher weight in the consumer’s decision process. Thus the concerns of retailers that electronic shopping will increase price competition is well founded because price information possesses both of these properties. However, just as in the debate on the economic effects of advertising (Mitra & Lynch, 1996; Rosen, 1978), electronic shopping also can reduce the cost and increase the discriminating power of information concerning merchandise quality.

An interesting parallel can be drawn between the introduction of electronic retailing and the development of discount stores forty years ago (Sheffet & Scammon, 1985). Discount stores offered consumers the opportunity to sacrifice personalized service in return for lower prices. The introduction of this new retail format resulted in attempts by department and specialty stores to minimize price competition through fair trade laws. Department and specialty stores argued that without some protection, discounters would drive them out of business and consumers would suffer. Consumers would no longer be able to discern differences in quality and would become more price sensitive. Sellers would adjust and compete on price rather than quality and consumers would suffer because of a lack of interest in providing superior merchandise and service. While discount store did increase price competition in some merchandise categories, many consumers continue to shop at retailers such as Nordstrom who provide superior information and services even though they charge a higher

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price. Thus no one retail format can dominate all segments due to consumer heterogeneity.

While consumers shopping electronically are able to collect price information with little effort, they can also review quality-related information about most search attributes and some experience attributes. For instance, an electronic retailer of custom oriental rugs can clearly convey real differences in patterns and materials used for construction. An electronic grocery service such as Webvan can allow the customer to sort cereals by nutritional content, thus making it easier to use that attribute in decision making.

If quality-related information is important to consumers and brands within a category are differentiated, electronic shopping may lead to less price sensitivity at the brand level and more sensitivity to search attributes associated with quality than does traditional store-based shopping (Lynch & Ariely, forthcoming). Thus, electronic retailers who carry unique merchandise and/or provide superior information about merchandise may face less rather than more price competition. On the other hand, retailers carrying “me-too” brands with limited services and primarily competing on price can expect more intense price competition with the diffusion of electronic shopping. In conclusion, the introduction of electronic retailing will intensify competition, but not necessarily shift the basis of competition from quality to price. By providing more information to consumers with minimal search cost, retailers with differentiated offerings will have a greater opportunity to educate consumers about the unique benefits they offer, and consumers will find it easier to access and compare the offerings of firms competing on price.

Electronic retailers will reduce the emphasis on price by providing better services and information. Because of these services, customers might be willing to pay higher prices for the merchandise. For example, Amazon.com provides customers with the table of contents and synopses of books, book reviews, and comments by the authors and people who have read the book. When you find an interesting book, their system is programmed to suggest other books by the same author or of the same genre. Finally, you can tell Amazon about your favorite authors and subjects and then receive e-mail on new books that might be of interest. The classic response to the question, “What are the three most important things in retailing?” was location, location, location. In the world of electronic retailing, the answer will be “information, information, information.”

**Keys to Success in Electronic Retailing**

Some critical resources needed to successfully sell merchandise and services electronically are: (1) strong brand name and image, (2) customer information,
(3) complementary merchandise and services, (4) unique merchandise, (5) the ability to effectively present information on web pages, and (6) distribution system to efficiently ship merchandise to homes and receive return. Exhibit 3 lists these critical resources with an assessment of the degree to which electronic-only (entrepreneurial ventures such as Amazon.com and E-toys), catalog, traditional store-based retailers, and merchandise manufacturers possess them.

**Strong Brand Name and Image.** The retailer’s brand name and image are important for two reasons. First, most shoppers only know the limited number of stores they patronize in their local area. However, electronic shoppers have access to over 100,000 locations they can visit. It is very expensive for electronic retail entrepreneurs to develop a high level of awareness to attract customers to their web sites. Electronic only retailers spend $42 to acquire a customer, while multi-channel retailers (store-based and electronic offerings) spend only $22 to acquire a customer (Shop.org, 1999).

Second, a trustworthy reputation is important for an electronic retailer. Buying merchandise over the Internet is risky because customers can rely only on visual and auditory, search attributes before making a purchase decision. Thus, electronic shoppers need to that trust the retailer will provide secure credit card transactions, deliver the quality merchandise described on its web pages, and maintain privacy of any information revealed by the customer. In addition, the web sites of electronic retailers probably do not provide the same signal of stability offered by the physical presence of a store.

**Collection and Utilization of Customer Information.** As mentioned previously, an important benefit provided by electronic retailers is tailoring their presentations to the needs of specific customers. Thus database marketing capability is an important resource for electronic retailers (cf. Blattberg & Deighton, 1991, Peppers, Rogers & Dorf, 1999). Electronic retailers have the opportunity to exploit this unique interactive feature of the Internet. All consumers who shop electronically can be identified at the individual level. Moreover, unlike other retail formats, consumer browsing can be tracked. A record can be constructed not only of what consumers bought, but also what they inspected and for how long. Using this information plus demographics, past purchase histories, and preferences, electronic retailers can target promotions to specific customers and suggest appropriate merchandise.

An extensive customer database is a critical asset for building loyalty with electronic shoppers for two reasons. First, using the database, electronic retailers will increase customer satisfaction with the shopping experience at their site. Second, each time a customer patronizes a particular electronic retailer, more information is collected and the electronic retailer gets to know the customer better. Thus, a cycle is created – customer satisfaction provides the opportunity
### Exhibit 3. Resources Needed for Success in Electronic Retailing

<table>
<thead>
<tr>
<th>Resources</th>
<th>Electronic Only Retail Entrepreneurs</th>
<th>Catalog Retailers</th>
<th>Store-Based Retailers</th>
<th>Merchandise Manufacturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong Brand Name and Image to Build Traffic and Reduce Customer Perceived Risk</td>
<td>Low Medium to High</td>
<td>High</td>
<td>Medium to High</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Availability of Customer Information to Tailor Presentations</td>
<td>Medium to High</td>
<td>High to High</td>
<td>Medium to High</td>
<td>Low</td>
</tr>
<tr>
<td>Complementary Merchandise and Services to Efficiently Solve Customer Problems</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Unique Merchandise</td>
<td>Low Medium to High</td>
<td>Medium to High</td>
<td>Medium to High</td>
<td>High</td>
</tr>
<tr>
<td>Presentation of Merchandise Information in Electronic Formats</td>
<td>High</td>
<td>Medium to High</td>
<td>Medium to High</td>
<td>Medium</td>
</tr>
<tr>
<td>Efficient Distribution System to Deliver Merchandise to Homes and Accept Returns</td>
<td>Low Medium to High</td>
<td>High</td>
<td>Low</td>
<td></td>
</tr>
</tbody>
</table>

To learn how to provide greater satisfaction. This cycle provides the basis of sustainable competitive advantage by creating switching costs. If customers break this cycle by switching to another electronic retailer, they will experience a decrease in satisfaction while the new electronic retailers acquire information and learns more about their needs and preferences. Insofar as information about the consumer is proprietary, sustainability ensues.

**Complementary Merchandise and Information.** The opportunity for an electronic retailer to make multiple-item sales is important for two reasons. First, when making multiple-item purchases from an electronic retailer, customers reduce their shipping costs. Second, the electronic retailer is in an ideal position to make recommendations to a customer based on the customer’s primary purchase and to offer a set of items that solves a customer’s problem. Remember how the electronic retailer at the beginning of the chapter suggested a book to go with the toy Judy ordered.
The Internet provides an opportunity to go beyond the traditional merchandise assortments offered by store-based retailers and provides tools and information to assist consumers in solving a problem. Virtual communities are examples of solution-oriented e-businesses (Hagel & Armstrong, 1998). For example, Garden.Com is a virtual community for gardeners. The web site includes a computer program that allows customers to develop plans for next year's garden and store and update the plans on the web site. When the plans are finalized, the customer can place an order for the plants and have them shipped by overnight delivery when they should be planted in the customer's climate zone. The site also offers gardening tools, articles written by well-known gardeners, books on gardening, a chat room in which customers can state their views on issues and ask and answer questions, and send emails to customers notifying them when there is a freeze forecasted for their area.

Retailers are ideally suited to offer these solution-oriented web sites for their customers. They are skillful at putting together merchandise assortments, a skill that most manufacturers lack. In addition, retailers typically have more credibility than manufacturers when suggesting merchandise since they offer an assortment of brands from different suppliers.

Since electronic retailers can assemble the extensive information and resources available on the web, they have an advantage over store-based retailers in offering this set of services. Traditional merchandising is limited by physical constraints. Floor space and shelf space limit the number of complements that can be placed in close proximity to any given product. However, the Internet allows nearly unlimited cross-referencing via hyperlinks.

One might suggest that electronic agents can put together complementary bundles of products from multiple suppliers. However, to accomplish this task, the agents would need to possess an extremely broad knowledge base, such as information on what ties and shirts go together and what ingredients are needed to make a good Brunswick stew. Even without the presence of electronic agents, electronic shopping offers retailers an opportunity to merchandise their wares in ways not previously possible.

**Unique Merchandise** — By offering unique merchandise, electronic retailers differentiate themselves from competition and reduce the potential price competition in the low-search cost Internet shopping environment. Basically, if a firm is the only retailer selling a specific model or brand, customers can not easily compare their price with the prices offered by other electronic retailers.

Three approaches for offering unique merchandise are: (1) private label merchandise, (2) branded variants or co-branded merchandise, and (3) pre-packaged assortments. Electronic retailers can differentiate themselves by developing their own private-label merchandise that they sell exclusively. For example, the merchan-
disse sold at the The Gap, Victoria Secret, and Lands’ End can only be bought from these retailers.

Electronic retailers can also work with manufacturers to provide ‘branded variants’ that they sell exclusively (Bergen, Dutta & Shugan, 1996). For example, Sony sells VCR at Wal-Mart and Circuit City that look the same but have different models numbers and slightly different features.

Finally, electronic retailers can offer unique merchandise by selling bundles of complementary products. For example, an electronic retailer could sell a gift baskets with branded wines, cheese, fruit, crackers, and utensils. While the components of the bundle could be acquired from different retailers and manufacturers, the bundle would be a unique product.

As indicated in Exhibit 3, manufacturers and some catalog and store-based retailers presently sell unique merchandise. Typically, electronic retail entrepreneurs have not developed this capability.

Presentation in Electronic Formats - Traditionally, some store-based retailers have used store design and atmosphere to differentiate their offering from competing retailers. The design of web sites in terms of the download time, ease of navigating through the site, and sensory experiences may play a similar role for electronic retailers.

Electronic retail entrepreneurs, having been immersed in Internet technology, have considerable skills in this area. Catalog retailers and some store-based retailers engaged in direct mail and catalog activities have presentation skills similar to those needed in electronic retailing.

Efficient Distribution. As mentioned previously, when customers shop at retail stores, they bear the cost of transporting merchandise from stores to their homes and bringing unsatisfactory merchandise back to the store. When buying from an electronic retailer, the cost of home delivery can significantly increase the total cost incurred by the customer (Sawhney, 1999).

Catalog retailers have very efficient systems for taking orders from individual customers, packaging the merchandise ordered for shipping, and delivering it to homes. Electronic-only retail entrepreneurs often lack the infrastructure that store-based and catalog retailers have. Recognizing the importance of these distribution systems, they are hiring executives from traditional retailers to build their own systems.

Manufacturers and most store-based retailers lack the appropriate systems for shipping individual orders to households. Their warehouse systems are designed to fill large orders from retail firms or stores and deliver truckloads of goods to retailers’ warehouses or stores. However, store-based retailers with broad market coverage can use their stores as convenient places for electronic shoppers to pick up their merchandise and return unsatisfactory purchases.
Distribution costs and systems play a particularly important role in the growth of electronic grocery shopping. Since many items sold in supermarkets are perishable, deliveries must be made when someone is at home to put the perishables in a refrigerator or freezer. Some electronic supermarkets such as NetGrocer avoid the problem by only selling nonperishable merchandise and shipping it by standard package delivery firms. Peapod and Webvan commit to make deliveries within a 30 to 120 minute window and charge extra for this service. Others like Streamline address this problem by installing refrigerated storage boxes with touch-pad security enabling deliveries to garages and other secure locations outside the home.

*Potential Winner and Losers in Electronic Retailing*

This section examines the degree to which retailers using different formats have the resources outline in Exhibit 3 to effectively compete in cyberspace.

*Catalog Retailers.* As indicated in Exhibit 3, catalog retailers are best positioned to exploit electronic retailing. They have order fulfillment systems and database management skills needed for effective electronic retailing. Also, the visual merchandising skills necessary for preparing catalogs are similar to those in setting up an effective web site. However, catalog retailers vary in the uniqueness of their merchandise. For example, Lands’ End has greater opportunity for profitable electronic retailing because it sells high-quality, private-brand merchandise that can only be bought from them. On the other hand, Spiegel’s opportunities may not be great because it sells primarily branded merchandise, that is susceptible to price comparisons.

*Store-Based Retailers.* The Internet provides an attractive opportunity for some store-based retailers to expand their customer base with relatively low cost and risk. Local and regional retailers can become national and international retailers’ overnight by simply putting up a web site. Electronic retailing is particularly attractive to firms with strong brand names but limited locations and distribution. For example, retailers such as Harrod’s, Gumps, Saks, Bloomingdale’s, and Nieman Marcus are widely known for offering unique, high-quality merchandise but require customers to travel to England or major U.S. cities to buy many of the items they carry. Interestingly, most of these stores currently possess an effective mail-order catalog operation.

Self-service, store-based retailers such as some category specialists and general merchandise discount stores compete primarily on price and depth and breadth of assortments. These retailers are particularly vulnerable to competition from electronic retailers.

For example, the Internet makes it easier for customers to find prices at other sites by simply opening a new window in their browser. In the future, Internet tools that make the customer's life easier will be the most popular. In contrast, using the Internet to help the customer in a transaction is still an untapped potential.
from electronic retailers. They offer few informational benefits and sell branded merchandise. However, the vulnerability of these self-service, store-based retailers depends on their strategy and merchandise offering.

For example, Toys ‘R’ Us has extensive coverage nationally (and increasingly internationally). Toys ‘R’ Us’ electronic sales cannibalize its in-store sales, making electronic retailing less attractive to them than to an entrepreneur such as eToys or even a store-based retailer with less market coverage such as F.A.O. Schwartz. However, when an electronic toy retailer such as eToys entered the market, Toys ‘R’ Us needed to react quickly because eToys may offer a wider selection at lower prices. In addition, toys are ideally suited for sales over the Internet because electronic retailers can provide information superior to the information provided in a store as illustrated by the scenario at the beginning of the chapter.

Home Depot is similar to Toys ‘R’ Us in terms of national coverage but less vulnerable to an electronic home improvement center because its customers frequently want immediate delivery and specialized advice from experts. Customers often go to a home improvement center for specific components or tools that are difficult to match from a distance or for a product to match something they have like paint colors. The hand-holding services from Home Depot’s expert sales associates cannot be duplicated electronically. Finally, bulky do-it-yourself merchandise is expensive to ship directly to homes.

In conclusion, some store-based retailers are more vulnerable to competition of electronic retailers than others. The impact of electronic retailing on the various retail formats depends on the nature of the merchandise sold and the needs of customers.

Electronic-Only Retail Entrepreneurs. While electronic-only retail entrepreneurs such as Amazon.com have been highly valued by investors, Exhibit 3 suggests that they presently do not possess some of the resources needed for long-term success. As mentioned previously, most of the major retailers have not actively sold merchandise electronically, largely due to their concern over cannibalizing in-store sales. However, if and when they decide to exploit this channel, store-based retailers have some significant resources that can be used to compete effectively in the emerging channel. National chains such as Circuit City have strong brand names and reputations, relationships with vendors, skills in editing assortments, and local stores for displaying merchandise and providing information and services. Thus, the long-term prospective for electronic retail entrepreneurs rests on their ability to exploit their advantages in designing web sites and collecting information about their visitors and the degree to which they can develop critical resources in brand name recognition and distribution systems.
Manufacturers and Disintermediation. Retailers are concerned about disintermediation because manufacturers can get direct access to consumers by establishing a retail site on the Internet. But, as indicated in Exhibit 3, manufacturers lack some of the critical resources to sell merchandise electronically. Retailers are more efficient in dealing with customers directly than manufacturers. They have considerably more experience than manufacturers in distributing merchandise directly to customers, providing complementary assortments, and collecting and using information about customers. Retailers also have an advantage since they can provide a broader array of products and services to solve customer problems. For example, if consumers want to buy a dress shirt and tie directly from the manufacturers, they must go to two different Internet sites and still can’t be sure that the shirt and tie will go together. Finally, if manufacturers start selling direct, they risk losing the support of the retailers they bypass.

Summary

The success of electronic retail entrepreneurs, store-based retailers, and consumer product manufacturers in electronic retailing will be determined by the degree to which their strengths and weaknesses match the capabilities required to build competitive advantage (Aaker, 1989). Electronic retail entrepreneurs are the first firms selling merchandise and services over the Internet. However, catalog and store-based retailers have significant resources that can be applied to electronic retailing.

As competition in electronic retailing increases, electronic and store-based retailers should react by emphasizing attributes of their offering for which they have a comparative advantage (Hauser & Shugan 1983). Thus, electronic retail entrepreneurs should (1) focus on selling merchandise and services that are information intensive and can be delivered at low cost; (2) capitalize on their relative advantage in providing information tailored to the needs of specific customers; (3) develop unique merchandise to reduce price competition; and (4) provide complete solutions for consumers involving information, services, and products. In addition, they need to build a trusted brand names and fulfillment infrastructure. On the other hand, these entrepreneurs can expect store-based retailers to: (1) focus on merchandise that has important experiential attributes that are ‘search’ attributes in a store but ‘experience’ attributes to electronic shoppers, (2) emphasize the non-informational benefits of shopping, and (3) complement their in-store business with an electronic offering.
CONCLUSION

Electronic retailing has the potential for dramatically changing retail industry structure and providing new entrepreneurial opportunities. The development of this new retail format will be a function of the degree to which electronic retailers provide benefits to consumers relative to stores and catalogs. To provide these superior benefits, electronic retailers need to exploit the unique ability provided by the Internet to tailor the presentation of merchandise and services to specific customer needs.

Entrepreneurs have been the first firms to exploit electronic retailing opportunities. However, store-based and catalog retailers have some important assets for competing effectively in this new format. The ultimate success of electronic retail entrepreneurs will be the degree to which they can exploit their unique skills and develop the necessary brand image and fulfillment skills.

NOTES


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