ABSTRACT

Despite rapid and sustained development of electronic commerce, many companies doing e-business are still in the investment and brand-building phase and have yet to show a profit. However, as e-businesses shift their focus from building a customer base to increasing revenue growth and profitability, they should re-evaluate their current business strategies, if any, and develop strategies that provide a clear path to profitability. This study uses McCarthy’s four marketing mix model and Porter’s five competitive forces model to identify strategies for Internet companies that respond to the five competitive forces and thereby achieve a competitive advantage. The study provides significant new insights into the development and implementation of e-business strategies that contribute to increased profit.

Keywords: E-Business, Business Strategy, Marketing Mix, Competitive Forces, Profitability, Competitive Advantage

1. Introduction

E-commerce is fundamentally changing the economy and the way business is conducted. E-commerce forces companies to find new ways to expand the markets in which they compete, to attract and retain customers by tailoring products and services to their needs, and to restructure their business processes to deliver products and services more efficiently and effectively. However, despite rapid and sustained development of e-commerce, many companies doing e-business are still in the investment and brand-building phase and have yet to make a profit (Zwass 1998). Many e-businesses (or Internet companies) have focused on the visual attractiveness and ease of use of their Web sites as the primary method of increasing their customer base. However, as e-businesses shift their focus from building a customer base to increasing revenue growth and profitability, they should re-evaluate their current business strategies, if any, and develop strategies that provide a clear path to profitability.

This study uses McCarthy's (1960) four marketing mix model and Porter's (1980, 1985) five competitive forces model to identify strategies for Internet companies (or dot.coms) that respond to the five competitive forces and thereby achieve a competitive advantage. The overall goal is to provide significant new insights into the development and implementation of e-business strategies that contribute to increased profit.

This research is organized around two questions:
1) What impact does the Internet have on McCarthy’s four marketing mix (product, price, promotion, and place) and Porter’s competitive forces (the threat of new entrants, rivalry among existing firms, the threat of substitutes, the bargaining power of suppliers, and the bargaining power of buyers)?
2) What strategies can be derived from the four marketing mix that will affect the five competitive forces and thereby bring a competitive advantage to e-businesses?

2. Theoretical Background
2.1 McCarthy's Four Marketing Mix Model

According to McCarthy (1960) and Perreault and McCarthy (1999), a firm develops its marketing strategies by first identifying the target market for its products or services. It then develops a marketing mix—a particular combination of product, price, promotion, and place (i.e., distribution and delivery functions in the supply chain) designed to enhance sales to the target market. A unique mix of these elements in a given industry allows firms to compete more effectively, thus ensuring profitability and sustainability. For example, by coordinating various product offerings and associated price discriminations with sales promotions and effective logistics, a firm can increase its sales and profit. Since the Internet has a significant impact on the makeup of this marketing mix, Internet companies should develop strategies that take the unique nature of online marketing into account.
2.2 Porter's Five Competitive Forces Model

According to Porter (1980, 1985) and Porter and Millar (1985), a firm develops its business strategies in order to obtain competitive advantage (i.e., increase profits) over its competitors. It does this by responding to five primary forces: (1) the threat of new entrants, (2) rivalry among existing firms within an industry, (3) the threat of substitute products/services, (4) the bargaining power of suppliers, and (5) the bargaining power of buyers.

A company assesses these five competitive forces in a given industry, then tries to develop the market at those points where the forces are weak (Porter 1979). For example, if the company is a low-cost producer, it may choose powerful buyers and sell them only products not vulnerable from substitutes. The company positions itself so as to be least vulnerable to competitive forces while exploiting its unique advantage (cost leadership). A company can also achieve competitive advantage by altering the competitive forces. For example, firms establish barriers to deter new entrants from coming into an industry by cultivating unique or capital-intensive resources that new firms cannot easily duplicate. Firms also increase bargaining power over their customers and suppliers by increasing their customers’ switching costs and decreasing their own costs for switching suppliers. The five competitive forces model provides a solid base for developing business strategies that generate strategic opportunities. Since the Internet dramatically affects these competitive forces, Internet companies should take these forces into account when formulating their strategies.

In his recent study, Porter (2001) reemphasized the importance of analyzing the five competitive forces in developing strategies for competitive advantage: “Although some have argued that today’s rapid pace of technological change makes industry analysis less valuable, the opposite is true. Analyzing the forces illuminates an industry’s fundamental attractiveness, exposes the underlying drivers of average industry profitability, and provides insight into how profitability will evolve in the future. The five competitive forces still determine profitability even if suppliers, channels, substitutes, or competitors change (p. 66).”

3. Impact of the Internet on Marketing Mix and Competitive Forces

The Internet can dramatically lower entry barriers for new competitors. Companies can enter into e-commerce easily because they do not need sales forces and huge capital investments as they do in offline markets. As the number of people with Internet access increases, the competition for online business in many industries will also increase. According to the Department of Commerce’s ‘Digital Economy 2000’ report, in 2000 the number of people with Internet access reached an estimated 304 million worldwide, an increase of almost 78 percent over 1999 (Betts 2000). The Internet also brings many more companies into competition with one another by expanding geographic markets (Porter 2001).

The Internet changes the basis of competition by radically altering product/service offerings and the cost structure of firms (e.g., cost reductions in production, distribution, and transaction). The Internet also changes the balance of power in relationships with buyers and suppliers by increasing or decreasing the switching costs of these buyers and suppliers. By reducing customers’ search costs, the Internet makes price comparison easy for customers, and thus increases price competition (Bakos 1998). The price competition resulting from lowered customer search costs increases rivalry among existing competitors, reduces switching costs of customers, and thereby shifts bargaining power to customers. On the other hand, IT reduces menu cost—the cost of administering multiple prices for a number of different products or services—and, in part, facilitates price discrimination (Bakos and Brynjolfsson, 1997). The Internet creates new substitution threats by enabling new approaches to meeting customer needs and performing business functions (Porter 2001). World Wide Web (WWW) technology itself has produced new promotion venues. The Internet also facilitates an electronic integration of the supply chain activities, achieving efficient distribution and delivery. It also facilitates partnerships or strategic alliances by networking partners or allies.

4. E-Business Strategies for Competitive Advantage

This section considers the impact of the Internet on marketing mix and competitive forces, and suggests strategies for achieving a competitive advantage.

4.1 Product Strategy

On the Internet, consumers can easily collect information about products or services without traveling to stores to inspect products and compare prices. In the offline market researching product offerings can be extremely expensive and time consuming. As a result, consumers rely on product suppliers and retailers to aid them in the search, and the suppliers and retailers take advantage of this situation by charging higher prices (Allen and

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1 The ‘Digital Economy 2000’ report also indicated that online sales by retail establishments totaled $5.3 billion during the fourth quarter of 1999.
Fjermestad 2000; Viswanathan 2000). Consumers end up paying more and often not getting the product they really wanted. However, this is not the case for e-commerce. In the Internet market, a complete search of product offerings is possible at virtually no cost. Because consumers can easily compare prices and find close substitutes, companies are forced to lower prices. Companies cannot achieve competitive advantage simply by exploiting consumers’ search costs, as they did in the physical market.

An alternative is for companies to make consumers’ product comparison more difficult by differentiating their products from others. One possible competitive strategy is product bundling. Product bundling promotes the benefits of the whole package, thus keeping buyers from comparing individual items. For instance, Gateway started bundling its Internet services and computers in response to plunging computer prices (Sinha 2000). AOL, recently merged with Time Warner, is strengthening its bundling strategy by adding interactive and on-demand television, music on computer, and email on mobile phone to its existing services. By adding more services to a bundle, the company could command a higher price for its bundling service. Moreover, adding services to bundles is financially attractive because it is less expensive to sell an additional service to an existing customer than it is to attract a new customer (Schiesel 2001). This product (or service) bundling strategy counteracts the threat of product substitutes and rivalry among existing firms.

Another strategy is innovation or the introduction of niche products, which also counteracts the threat of product substitutes, new entrants into the market, and competition among existing firms. By using the direct access to consumers enabled by the Internet, companies can collect information, identify target consumers, and better introduce products or services to meet consumers’ needs. Companies can also collect information on new products desired by small segments of the market. By creating products that meet the needs of consumers in these niche markets, companies can command higher prices (Sinha 2000). Another strategy associated with niche products or innovation is customer-centric strategy. Compared to a product-centric strategy, which pushes products to consumers, customer-centric strategy pulls information from consumers to improve and customize products (Viehland 2000).

An expansion into related product lines can also be a good strategy. According to Porter (1987), the expansion into related product lines can exploit transfer of skills or sharing of activities such as promotion and distribution, which will lead to competitive advantage. Sharing can lower costs by achieving economies of scale and effectively utilizing company resources such as market information, managerial or technical expertise, and knowledge. Like traditional companies, Internet companies can also expand their product line into areas related to their existing product lines. For example, Amazon.com recently started selling personal computers in addition to its existing line of electronic products such as disk drives and memory (Hansell 2001). Amazon.com holds no computer inventory and has computers shipped directly from a computer distributor to its customers. This allows Amazon.com to save inventory-holding costs. However, such expansion cannot bring increased profits to Amazon.com without effective utilization of its existing customer base and information, and managerial or technical knowledge of e-business.

4.2 Price Strategy

The Internet enables consumers to compare prices, products, and services across suppliers. For example, by logging onto price-comparison sites like Pricescan.com and shopping agents like Bottomdollar.com, consumers can readily compare the prices and features of more than 10,000 products available on the Web (Sinha 2000). This leads to increased price competition and lowers the prices of products or services. According to Bakos (1998), lower search costs for price and product offerings in Internet marketplaces promote price competition among sellers. The Internet thus significantly affects competition, and intensive price competition can eliminate sellers’ profits.

To overcome these threats, companies have to employ appropriate pricing strategies for selling products over the Internet. Sellers can employ a price discrimination strategy that makes it difficult for buyers to compare the prices of alternative product offerings (Bakos 1998). By collecting information about buyers, companies can perform more effective price discrimination. For instance, Staples.com charges different prices for different markets by asking customers to enter their zip codes before they can obtain prices. Sinha (2000) suggests two strategies for price discrimination: price lining and smart pricing. Price lining refers to the practice of offering the same products or services at various price points to meet different customers’ needs. For example, American Online charges five different rates that vary according to subscriber usage. Smart pricing refers to the practice of charging various prices from market to market, depending on market conditions and differences in how customers value the product (e.g.,

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2 Like product bundling, product unbundling can also be a possible competitive strategy for producers and sellers of information goods only when transaction and distribution costs are significantly lowered. For example, the components of newspapers, books, software, or music CDs (e.g., articles, chapters, modules, or single music tracks) can be sold individually.

3 Porter (1996) also argues that the fit among activities substantially reduces cost or increase differentiation. According to him, strategy is not only about how to configure individual activities, but also about how to combine or relate activities. Competitive advantage comes from the entire system of activities.
the pricing strategy of Staples.com). Bundling can also be thought of as a type of price discrimination since it reduces the heterogeneity of choices facing consumers and thus their willingness to pay for individual items (Bakos and Brynjolfsson 1997). In bundling, a single price is applied to a bundle. If consumers' demands remain heterogeneous even after bundling, then a mixed bundling strategy, which charges different prices for different bundles, can be applied.

Companies can also protect profits by achieving cost leadership in a particular market or industry. If sellers cannot price discriminate, the lowest price sellers can charge is the marginal cost of production. As competition intensifies, companies may have to lower their production costs to protect profits. Or companies may have to improve their product or service offerings with added values. Even in intensive price competition, better products or services will raise customers' switching costs and still command higher margins. For example, OfficeDepot.com provides added value to customers' order process (Gulati and Garino 2000). Each contract customer has a customized view of the OfficeDepot.com site. When logging on, the customer's employees are automatically assigned an authorization level that limits what they can buy and how much they can spend. With this value-added service, OfficeDepot.com can protect its profits. By eliminating paper purchase orders, the authorization system also benefits customers by reducing their purchase order costs and thus keeps them from switching to other suppliers.

4.3 Promotion Strategy

One of the reasons why many dot.com companies do not realize profits is that they spend a great deal of money for mass marketing to promote their e-brands to consumers. One television executive recently said, "The dot-coms spent like drunken monkeys trying to build their brands. They were willing to pay any price. They were unsophisticated and in a hurry" (Elliott and Rutenberg 2000). The recent demise or downsizing of so many Internet start-ups has had a significant effect on television network revenues (Carter 2000).

Traditional mass marketing using television commercials, trade allowances, discounts, coupons, and sweepstakes is no longer successful in the Internet market, even in consumer-packaged-goods segments, where rival products now differ very little, since consumers can easily acquire information on the price and characteristics of products (Sealey 1999; Hoffman and Novak 2000). Sales promotions with coupons and discounts seldom build customer loyalty to brands because customers conclude that the lower prices are a fair reflection of the company's costs. When the promotions are over, customers evidently believe the regular prices are excessive and turn to rival products (Sinha 2000). Thus mass marketing and sales promotions result in expensive, inefficient brand management.

To manage e-brands effectively and efficiently, companies have to employ promotion strategies different from those used by traditional marketing. One tactic is to build a direct link with consumers and enter into a dialogue with them about products (dialogue-based marketing or one-to-one marketing). This allows companies to provide customers with information about their products, collect information about their customers, and engage in data mining. They can then customize products to meet customer needs and offer promotions tailored to specific customer groups. This process helps build a base of loyal and profitable customers (Sealey 2000). Allan and Fjermestad (2000) also argue that the benefits of personalized promotions will be greatest when customers are interested in detailed product information or the product is marketed as state-of-the-art. The Internet encourages companies to employ this marketing based on direct, personalized relationships with customers (so-called 'relationship marketing').

According to Sealey (2000), the Internet also provides customers with an unprecedented degree of control over the entire marketing process. As consumers become proficient at using the Internet, they will only buy products that precisely match their needs. Thus, companies must formulate customer-centric promotion strategies that respond to this new customer power. Allen and Fjermestad (2000) suggest that brand management will be successful only when it is associated with beliefs and experiences such as feelings, associations, and memories. Thus, Internet promotion must also focus on presenting information about the experiences and beliefs of consumers associated with each brand.4

Another promotion strategy for gaining competitive advantage is revenue-sharing marketing strategy (Hoffman and Novak 2000). A revenue-sharing marketing strategy is an affiliated marketing program with partners based on commissions. For example, Amazon.com launched its affiliate program in 1996 and now has some 400,000 affiliates. CDnow.com (the pioneer of revenue-sharing strategy), REI.com, and Dell Computers also have strong affiliate programs. As the Internet continues to mature, companies can seek out specific segments of potential customers and the corresponding Web sites, and then establish revenue-sharing marketing programs with Web sites

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4 Evans and Wurster (1999) argue that brand-as-experience is far better suited to e-commerce than brand-as-belief. According to them, brand-as-belief is vulnerable because a credible competitor can undermine belief in the brand. However, brand-as-experience can be enhanced by richer channels of communication. Where brands are defined as experience rather than belief, the evolving medium will strengthen them.
that can deliver those potential customers.\textsuperscript{5} Compared to traditional mass marketing, revenue-sharing programs allow companies to keep track of purchases made by customers and draw a direct line from marketing (expenses) to sales (performance). However, traditional marketing mechanisms such as television commercials are still important in that they can attract off-line customers. Thus, Internet companies need to find a good balance between Internet promotion (one-to-one or many-to-many marketing) and traditional mass promotion (one-to-many marketing).

4.4. Place Strategy

For most companies, place refers to the supply chain (or value chain). The place aspects of the marketing mix are closely related to the distribution and delivery of products or services. The Internet and its associated application software have significantly changed the way companies’ products or services are delivered by reducing transaction and distribution costs.

One way for companies to differentiate their products from rival companies is faster and more efficient delivery of products to their customers. The Internet allows companies to jump over parts of the traditional supply channel. Direct sellers like Dell Computer do not rely on wholesalers and retailers to deliver their products to consumers. Instead, they contract with third-party providers such as FedEx and UPS, which provide fast, efficient delivery because they have superior logistical expertise and economies of scale in distribution (Bakos 1998). Delivery providers such as UPS also have programs to set up e-commerce sites for businesses that ship with them (Gosh 1998).

Another strategy related to faster and more efficient delivery is integration of online and bricks-and-mortar businesses (clicks-and-mortar strategy). E-businesses (particularly e-tailers) need fully automated distribution warehouses to meet demand from shoppers on the Internet. For example, Amazon.com leased a new 322,560 sq. ft. distribution center in Fernely, Nevada in late 1998 (\textit{New York Times}, January 8, 1999). By investing in physical assets such as a warehouse, Amazon.com can compete more effectively with Barnes & Noble. The Gap also recently leased a new 424,000 sq. ft. warehouse near its existing 270,000 sq. ft. warehouse in Ohio to accommodate the growth of Web sales (Deutsch 2000). In a related development, Amazon.com recently started to sell toys on its so-called co-branded Web site, forming a partnership with Toysrus.com in which Amazon.com handles merchandising and order fulfillment and Toysrus.com handles purchasing (Tedeschi 2000). Amazon.com also made an arrangement for Ingram Books, a large distributor, to ship certain books directly to its customers. This arrangement could cut in half the cost of fulfilling book orders (Hansell 2001).

Table 1 summarizes e-business strategies in terms of product, price, promotion, and place that can achieve competitive advantage by responding to the five competitive forces.

5. Choice of E-Business Strategies

A look at e-business strategies composed of the five competitive forces and the four marketing mix (Table 1) shows that there is no single optimal business strategy for e-commerce because the sources of competitive advantage differ across different industries or markets. By the same token, in industries or markets where different levels of competitive forces are present, certain combinations of product, price, promotion, and place strategies may not work for gaining competitive advantage.

In industries or markets where the threat of new entrants, rivalry among existing firms, and threats of substitutes are significant (commodity markets in most cases), only certain combinations of appropriate product, price, promotion, and place strategies can succeed in achieving a competitive advantage. For example, Internet companies in commodity markets cannot rely on price discrimination strategies because products are basically identical, and customers are able to seek the lowest price for each product by comparing many competitors. In this situation, companies must reduce costs in order to maintain market share and profits, which they can do by forming partnerships with suppliers and distributors, expanding into related product lines, deploying customer-centric promotion strategies, or building strong e-brands based on experiences and beliefs. On the other hand, in industries or markets that are concentrated and have differentiated products, threats of new entrants and/or product substitutions are relatively weak. In these differentiated markets, Internet companies can capture most of the value generated in the market by building strong product brands, adding unique features to their products or services, setting up revenue-sharing systems, and strengthening their strategies alliances.

The same e-business strategies may not work for all Internet companies. For example, expansion of its product offerings by selling personal computers may be effective for Amazon.com, whose business focus has moved from selling books to providing convenient online shopping for a great variety of products (as shown in its e-commerce trademark, Earth’s Biggest Selection\textsuperscript{TM}). The same strategy may not work, however, for online book sellers such as

\textsuperscript{5} Revenue-sharing marketing is ‘many-to-many marketing’ or ‘performance-based marketing’, compared to traditional mass marketing that is ‘one-to-many marketing’ or ‘impression-based marketing’.
barnesandnoble.com because such an expansion strategy could undermine its brick and mortar counterpart, Barnes & Noble, whose business focus is on selling books and information-based products. To capitalize on the recognized brand value of Barnes & Noble, barnesandnoble.com should retain its focus on information-based products and services, not general consumer items like personal computers. According to Porter (2001): “Having a strategy is a matter of discipline. It requires a strong focus on profitability rather than just growth, an ability to define a unique value proposition, and a willingness to make tough tradeoffs in choosing what not to do” (p. 72).

6. Concluding Remarks
It is extremely difficult to value Internet companies because most of them have few assets and make little profit (De Figueiredo 2000). There are a number of reasons why many Internet companies have been unsuccessful at making a profit: heavy spending on mass marketing, intensive price competition, lowered customers' search and switching costs, increased customer power, and lowered entry barriers. However, the main reason is that most Internet companies do not have business strategies that provide a clear path to increased profit.

In this study, we used McCarthy's four marketing mix model and Porter's five competitive forces model to identify strategies likely to bring a competitive advantage to Internet companies. By understanding the impact of the Internet on marketing mix and competitive forces, e-business managers can adopt appropriate strategies for meeting the unique challenges of e-business. This study provides e-business managers with a framework to help them systematically analyze and develop successful strategies to address the problems of doing business online.

Although this study addresses the need for unique strategies for different Internet companies, further research is required to address the problems faced by traditional firms when they compete against e-business companies. The possible questions to be raised are: When traditional companies enter into e-commerce, what strategies should they implement? How much integration should take place when traditional and online businesses merge? For traditional firms, one of the most serious challenges to going online is deciding how much to integrate their traditional operations with online business (Gulati and Garino 2000). The problem is that integration provides the benefits of cross-promotion, shared information, purchasing leverage, and distribution economies, but this often comes at the expense of speedy decision-making, flexibility, and creativity. Other challenges to integration include price competition and avoiding the problem of online and offline businesses cannibalizing each others’ customers. Faced with these challenges, traditional companies need to develop unique business strategies in order to compete against Internet companies. In any case, corporate managers who best understand the impact of the Internet and e-commerce on marketing mix and competitive forces will be best prepared to meet the challenges of the e-business marketplace.

Table 1: E-Business Strategies for Competitive Advantage: Product, Price, Promotion, and Place Strategies Responding to Five Competitive Forces

<table>
<thead>
<tr>
<th>Threat of New Entrants</th>
<th>Product</th>
<th>Price</th>
<th>Promotion</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Differentiation (e.g., Bundling)</td>
<td>Price Discrimination (e.g., Price Lining and Smart Pricing)</td>
<td>Customer-Centric Promotion Strategy (One-to-One Marketing or Relationship Marketing)</td>
<td>Outsourcing or Strategic Alliances</td>
<td></td>
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<tr>
<td>Niche Products or Innovation</td>
<td>Cost Leadership</td>
<td>Brand Appeal Based on Experiences and Beliefs</td>
<td>Clicks-and-Mortar Strategy (Integration of Online and Offline Businesses)</td>
<td></td>
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<tr>
<td>Customer-Centric Strategy</td>
<td>Value-added Products or Services</td>
<td>Revenue-Sharing Marketing (Many-to-Many Marketing or Performance-Based Marketing)</td>
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<tr>
<td>Expansion into a Related Product Line</td>
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<td>Rivalries among</td>
<td>Product</td>
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<td>Outsourcing or</td>
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**REFERENCES**

Betts, M. “It's Official: There really is a 'Digital Economy','' *Computerworld*, June 2000.
In business, a competitive advantage is the attribute that allows an organization to outperform its competitors. A competitive advantage may include access to natural resources, such as high-grade ores or a low-cost power source, highly skilled labor, geographic location, high entry barriers, and access to new technology. Competitive advantage is the leverage a business has over its competitors. This can be gained by offering clients better and greater value. Advertising products or services with