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Planning, Managing, and Evaluating Web Sites for Business-to-Business Marketing

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Abstract

Despite the enormous growth of the World Wide Web and the media attention to it, little has appeared in the literature with regard to the role of marketing in developing and administering business-to-business Web sites. This article examines the opportunities and obstacles inherent with business-to-business Web sites and discusses the process for devising, overseeing, and evaluating such sites. A detailed original Web Site Assessment Tool is introduced, which focuses on five categories: the home page, overall site design and performance, text content, audio-visual elements, and interaction and involvement. The scoring mechanism is explained, as is the percentile score per category. Two case studies are used to apply this tool to the PC industry—one to show how various audiences would weight Web site elements differently based on their particular characteristics and needs and the other to show how the Web sites of 10 leading PC makers could be comparatively evaluated. The article ends with a series of managerial implications.

INTRODUCTION

The media has given the impression that the final consumer section of the World Wide Web is where the vast majority of electronic commerce takes place because of their focus on this sector. While business-to-business Web marketing brought in \$600 million in 1996, For-Profit Research reports that ultimate consumer revenues via the Web were just \$530 million. By the year 2000, Forester expects annual Web sales of \$7.2 billion from consumers and \$66.5 billion from businesses [24, p. 41]. This implies that B2B marketers have a huge opportunity online, provided they utilize the medium well. However, many industry professionals believe B2B web marketing is underutilized. "By bringing companies and customers together, the Internet thus promises to broaden markets, increase efficiencies, and decrease costs," say Spar and Busgang [38, p. 125]. Thousands of businesses have already joined the mad rush to the internet because of these astounding guarantees. However, the Internet has failed to fulfill its potential for many of those businesses. While doing business online has its share

of firsts and thrills, it also comes with its fair share of challenges and losses. Honeycutt, Flaherty, and Benassi [19, p. 65] claim that "downsides include dull Web sites, unreliable technology, and, one of the biggest concerns, security issues." Moreover, "75% of business Web sites do not meet customers' requirements and will need to be redesigned," as stated by the Gartner Group [12, p. What many websites lack is proper information design, which is the process of arranging and presenting data so that users can quickly and easily discover the specific information they need.

In light of the above, the article focuses on the following business-to-business issues: planning, management, and implementation.

BUSINESS-TO-BUSINESS WEB SITES: OPPORTUNITIES AND OBSTACLES

For B2B marketers and their clients, the Internet presents both advantages and disadvantages [10, 17]. Both must be taken into account in Web site strategy, management, and assessment if the Web is to live up to its full potential.

Opportunities

MULTIPLE MARKETING USES. The Web provides business-to-business marketers with numerous tools that aid in planning, organization, and control; research and intelligence; and marketing mix management. For example, more firms are building “intranets,” whereby employees access information quickly and in real-time [9]. The Business Research Group estimates that 80% of Web sites will soon be intranets; and Zona Research says intranet server revenue surpasses Internet revenue, with 1998 intranet revenues expected to hit \$8 billion [30].

ACCESS TO COMMERCIAL RESEARCH.

Many firms realize the Web is an excellent way to obtain marketing data. With online search engines, they retrieve primary and secondary data on a host of subjects including consumers, industries, products, and technology. One of the most aggressive efforts is from Lexis-Nexis, which has a huge information archive. The firm is making its entire library of more than one billion documents (“10 times larger than all of the data on the Internet combined,” according to a company press release) available on the Web to paying subscribers. The firm has 500 computer servers that manage data from 18,300 sources [5].

COMPETITIVE INTELLIGENCE. By visiting other sites, firms keep tabs on competitors, thereby gaining extensive product and service information, as well as public news on competitors’ current and future strategies [43].

CUSTOMER SERVICE. Firms find the Web quite helpful for customer support. Sites often have a technical area so users get answers to questions; access documents; download software, drivers, and patches; e-mail to the proper party; and communicate with online discussion groups. As a result, companies such as Sun Microsystems report that customer phone calls to the technical service area have dropped by 20% [28].

JUST-IN-TIME INVENTORY PLANNING.

The use of the Web often enables firms to lower inventory investments and generate faster turnover. Intel and SAP recently created Pandesic to aid firms in fully integrated Web fulfillment (<http://www.pandesic.com/info/inventory>) [21].

THE WEB AS A SALES CHANNEL. The Web is an alternate selling channel for a growing number of firms. According to *Business Marketing’s NetMarketing*, among the publication’s top 50-rated business-to-business Web sites, 46% take orders and payments online, 52% take orders without payments, and 96% generate databases, leads, and partners [35].

SUPPORT FOR CHANNEL PARTNERS. For

firms with indirect channels, the Web is an information source, a “hot-line,” and a promotional outlet aimed at channel members. Sites can use a secure area for channel partners—entered by password. In that area, programs and incentives may be posted. This strengthens the relationship with channel members by providing two-way, current information. Sites with advanced capabilities let distributors search databases to check order status and conduct other inquiries. Some sites also let distributors place orders; and some incorporate hot links to key distributors’ Web sites as an additional cooperative marketing tool.

IMAGE ENHANCEMENT. Many business-to-business firms use sites to enhance branding, image, and loyalty.

RAPID GROWTH. PC use is increasing worldwide; and network computers will facilitate Internet access. By the year 2000, registered host computers will exceed 120 million [4]. Thus, the potential is enormous.

GLOBAL REACH. Marketers can reach users around the world and access information globally [34, 36]. The Web has virtually no spatial limits.

HARDWARE AND SOFTWARE NEUTRALITY. The Web crosses all platforms and is non-software specific. Anyone can access and offer data from anywhere using any type of computer equipment.

AROUND-THE-CLOCK PRESENCE. The Web operates 24 hours a day, 365 days a year.

Information is available to marketers at a moment’s notice. **ABILITY TO NARROWLY TARGET MARKETING EFFORTS.**

Firms can target audiences with tailored strategies. AMP, the electronics components supplier, allows large customers to use a password to get customized product and pricing data. Small customers can access AMP’s catalog, browse articles on the firm, obtain customer support, and learn about the firm’s preferred customer program [3].

COST-EFFECTIVENESS: A site can be built and kept fairly inexpensively, and its cost-saving abilities are many. Postage and printing costs are saved if users download/print data. Questions can be answered, cutting back on personnel and phone charges. Advertising can be presented quickly and at low cost.

UP-TO-THE-MINUTE INFORMATION. The Web is a dynamic medium. Information can be changed instantly, easily, and cheaply; so users can obtain the latest data available. **LINKAGE.** The hyperlinks connecting Web site to Web site maximize the reach and frequency of the marketing communications between sites.

INTERACTIVE, MULTIMEDIA VEHICLE.

The user can be engaged with a mix of text, graphics, audio, video, and interactivity. Thus, sales can be made directly, results and feedback filtrations and purifications systems, has won high marks for the user-friendly, interactive nature of its site [23].

Obstacles

TRANSMISSION SPEED. For a business user with a typical modem connection, waiting several seconds for a single page to appear is common. Downloading a picture can take up to a minute or more, and a short video clip even longer. This may limit creativity and try users' patience. Telecommunications firms are researching and enacting bandwidth-boosting options like ISDN and cable modems to improve Web speed and performance.

SITE CONGESTION. The Web's hyperactive growth has caused the most popular sites to be so full of visitors that entry may be denied or access cut off right in the middle of browsing a page.

LACK OF ORGANIZATION. The Web's lack of organization can mean wasted time for users—who may be so entangled in hyperlinks that departure and destination points are unclear [38].

WEB CULTURE. Because the Web culture is somewhat advertising/marketing averse, there is a challenge to marketers, who must cleverly convey messages without being too "promotional." **LACK OF SECURITY.** The Web is not policed adequately. Messages and credit card numbers can sometimes be intercepted. Though firewalls may protect internal data from theft, Web users have less recourse. Visa, MasterCard, and others are working to devise a better way to secure payments based on encryption technology. **SUB-OPTIMAL CONTROL BY INFORMATION PROVIDERS.** Although firms control their sites' contents, users control their look (by adjusting color, contrast, and so forth), as well as whether to enter and explore the site. **UNWIELDY URLS.** Site URLs can be long and unmemorable, impeding Web visits. **HTML PROGRAMMING LIMITATIONS.** HTML is not hard to master, but it is tedious, especially for designers who like the ease and flexibility of Macintosh publishing software. Java is reducing this problem.

GLOBAL DIFFERENCES. Although a Web site can reach business-to-business customers around the world, there can be complexities in completing transactions. Millipore, a U.S. manufacturer of filtration products for purifying water and detecting contaminated gases, has different prices outside the United States. Thus, it has opted not to include price information at its Web site [11]. **SKEPTICAL BUYERS.** Web sales are a fraction of business-to-business revenues, as many

reviewed immediately, and repeat site visits encouraged—which enhances customer loyalty. The Pall Corporation, a maker of fluid

users are not yet inclined to buy. Security issues, a desire for personal attention, and the Web's newness are behind the hesitation. **RESISTANCE TO PAYMENT FOR WEB SERVICES.** The Web was devised as a way to communicate for free. Firms charging fees for site entry or for other services are often met with a poor response by Web users.

MEASUREMENT CHALLENGES. Unlike other media with regular, outside audits, the Web has not faced such reviews. It is hard to determine the audience reached and what effect given Web sites have on the audience. For example, although a 1997 study of the Internet's cost effectiveness by Penton Research Services, the publisher of specialty business magazines, found that the cost per business-to-business contact was \$0.98 on the Internet (compared with \$277 for an industrial sales call, \$162 for a trade show, \$1.68 for direct mail, and \$0.32 for a specialized business publication) [33], these figures are not widely accepted.

PLANNING AND MANAGING A MARKETING-ORIENTED WEB SITE

The Internet boom has caused firms worldwide to race to set up shop on the Web. In their haste to do so, Web site planning has often suffered, although site development tends to be uncharted water. Inadequate time may be given to learning about this medium—its unique traits, current audience, strengths, weaknesses, opportunities, and threats; its future potential; and its swift changes—and to marry the site to specific goals [8]. By 1996, two million firms had Web sites, with one-half of the total signing on in 1995–1996 [25]. According to the Yankee Group, by 1998, nearly 90% of *Fortune 100* firms would be using the Web in some form [2].

Successful site implementation comprises four major steps, each with major marketing implications. The first is Web planning, which includes determining whether and to what degree a Web site makes sense for a given firm, and setting proper goals. This step drives everything that follows. Second, the firm decides how it wants to gain Web entry. Third, site components are designed and placed on the Web. Fourth, the site is managed—including ongoing site promotion, site maintenance and updates, and evaluating performance.

A BUSINESS-TO-BUSINESS WEB SITE ASSESSMENT TOOL

Because the Web is becoming such a key tool for business-to-business marketers, both *internally* to develop strategy and communicate with employees and *externally* to interact with customers, mechanisms to assess site effectiveness are vital. Yet, as Buchanan and Lukaszewski (6, p. xiii) note, “companies now find themselves trying to manage Web sites without proper yardsticks.” Besides counting hits and trying to monitor Web-generated revenues; companies can evaluate their sites by conducting consumer surveys, reviewing e-mail correspondence, and compiling expert ratings. In 1997, for example, the editors of *Business Marketing* compiled a list of the 200 best business-to-business Web sites, including top ten and top fifty groupings. These experts reviewed the size of each firm’s Web staff, how the site was advertised, and

BACKGROUND AND RATIONALE FOR THE WEB SITE ASSESSMENT TOOL

To develop an assessment tool with broad business-to-business Web site validity, it is necessary to get down to the basics of Web usage. Business-to-business users generally turn to the Web for information, education (training), channel support/customer service, and/or on-line ordering [40, 42]. A Web site fulfills these needs by using a mixture of text, graphics, video, and audio in an interactive environment. The site must be designed to perform well—starting with the home page and continuing throughout.

Any assessment tool has five components: categories (broad areas to be investigated); factors (specific elements comprising each category); weights (importance placed on each category and factor); ratings (scores assigned to each category and factor); and total score (an overall compilation based on both weights and ratings).

n

$$\text{Total score} = \sum_{i=1}^n \text{Rating of factor } i \times \text{Weight of factor } i$$

Based on a detailed literature review, the tool devised for this paper used five broad categories as the basis for a successful Web site: home page, overall site design and performance, text content, audio-visual elements, and interaction and involvement. Also based on the literature review, the key factors within each category were then enumerated to measure each category. The result is the Web Site Assessment Tool shown in Table 1.

Because assessment is situational in nature, weighting each category and factor should be keyed to four main elements: Web site goals, the target market, the Web-related hardware and telecommunications available to the target, and the goods/services involved. These are some questions to address to correctly weight the tool:

Web site goals: Which of these goals are set for

site functionality (e.g., customer support, ability to order, and so forth) [31]. Sun Microsystems has a feedback button on many of its Web pages so visitors can critique specific pages via professionally constructed surveys [20]. 3Com uses software from Time Direct to review the performance of online ads and change banners, e-mail, and Web sites [39]. Nonetheless, a comprehensive mechanism for systematically assessing the various components of a Web site (the home page, overall site design and performance, text content, audio-visual elements, and interaction and involvement) has not yet been introduced. That is why we devised an original Web Site Assessment Tool that lets a firm objectively and quantitatively measure the cumulative effect of the features of its Web site.

The first step is to identify the broad categories, and the factors within them, that are critical to a Web site’s effectiveness. The categories and factors are then weighted (in this instance, based on a total of 100 points); the greater the number of points, the more important the category/factor. Weighting depends on certain conditions, which are discussed shortly. After weighting is completed, assessors review a site and rate the factors. (In this instance, factors are rated from 0 to 10, with 10 being excellent). Ratings are multiplied by the points (weights) assigned to the factor for a factor score, and factor scores are summed to get category scores and a total score. To measure the site in percentage terms, the actual score is divided by the maximum score. (In this instance, the maximum score is 100%; the lowest score is 0%, and an average score is 50%). The measurement methodology is derived from the Fishbein attitude model [14]:

the site: awareness of the company and its products, customer service, online sales, channel support, repeat visits, compelling format, feedback, and so forth?

Target market: Is the business-to-business target market a large corporate user or a small business user? Is it customers or channel partners? What are the major demographic and behavioral/usage factors for the target?

Web-related hardware/telecommunications available to the target: What equipment is available to the target? Does it limit speed, visuals, and response time? Is Web access at the user’s fingertips or does he or she have to actively seek it (i.e., use a colleague’s PC, etc.)?

Good/service: What product is involved? This drives content, especially whether it is information-

education-, support-/service-, and/or online ordering-based and whether it has a lot of text or visuals.

- A marketing communications manager for a networking manufacturer seeks Web-based data on potential ad agency candidates. The focus of the content to this user is information. Audio-visual elements play a critical role, as the manager will want to view a creative portfolio. From an interaction perspective, a customer inquiry mechanism, customized surveys, and e-mail are essential. Home page and design/performance are also important. This user probably has outstanding access to the Web.
- A purchasing agent at a financial services company wants to buy new PCs for the sales department. For this user, the information value of content is critical. Educational value is important if the agent is not savvy about PCs as they relate to selling. The buyer probably
- wants to see what products look like, but it is unlikely audio and video are major factors. E-mail, customer inquiries, and surveys are helpful. Site

These examples further clarify how the preceding elements affect the category weighting: design/performance and the home page play a key role. Equipment can run the gamut—from a PC with limited RAM and POTS access to a T1 connection with a RAM-heavy PC.

- From the above, it is clear that hardware/telecommunications varies greatly, reinforcing the need to do all possible to maximize speed. The home page, overall site design and performance, text content, audio-visual elements, and interaction and involvement are all target market- and goods/services-dependent. Thus, their features could fluctuate considerably by firm and situation.
- The Assessment Tool has a mechanism for converting each category's raw score to a percentile score, as with the total scoring system. It is the Actual Category Score/ Maximum Category Score. This provides category scores that can be compared with a site's overall score; and categories requiring improvement are indicated.

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