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Business-to-Consumer Practices in Electronic Commerce

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Abstract

The innovative electronic commerce practices of Internet companies are openly discussed and carefully scrutinized. A great deal of information describing their use of the WorldWide Web is available. At the same time, very little information has been assembled to describe the manner in which well-established public corporations are engaging in electronic commerce through their Internet sites. This paper reports a field study in which the WorldWide Web-based electronic commerce practices of 100 public U.S. corporations were examined over a six-month period. The findings reveal that while a large portion of the companies participate in business-to-consumer electronic commerce, only a small segment capitalizes on the potential through the commerce models they have deployed.

Introduction

Many recently established “Internet companies” are built upon business models that are uniquely tailored to the business-to-consumer side of electronic commerce. Their innovative practices have led to impressive innovations in markets for books, music, travel arrangements, and more. Many of these firms have achieved dramatic levels of success, especially when measured by their market value.

While a great deal is known about the way Internet companies are using the Worldwide Web as a business tool, little research has been conducted to understand *business-to-consumer* electronic commerce in large established corporations. This paper reports the results of a study exploring electronic commerce models used in 100 corporations.

Background

The field of electronic commerce consists of two principal domains: (1) interorganization systems, aimed primarily at business-to-business relationships, and (2) electronic markets, which are at the heart of most business-to-consumer commerce [4,5]. Electronic markets have a much broader purpose, ranging from dissemination of information to facilitating actual exchange of products and services. In many Internet companies, business-to-consumer electronic commerce is synonymous with the Worldwide Web.

The Worldwide Web (WWW), as a commercial and marketing tool, has been described as having two principal roles [2]:

- A distribution channel—Products and services are delivered from a provider’s WWW home page, via the Internet, to the recipient’s WWW site.

- A medium for marketing communications—Companies deliver messages about their products, services, and the firm from their WWW home page.

As firms increase their use of the WWW, it is likely there will be changes in the manner in which they reach current and potential customers as well as the nature of the markets in which they participate.

Marketing, including that conducted via the WWW, is also undergoing a transformation from broadcast marketing, focused on markets as large masses, to interactive marketing, where efforts are more customized and responsive to individual needs [1]. Interactive marketing includes the capability to (1) address individuals, rather than broad groups, (2) capture individual responses, and (3) use captured information to further tailor responses to the individual. It follows, therefore, that the promise of interactive marketing is its ability “to put a more human face on marketplace exchanges without losing the scale economies of mass marketing” [1, page 151].

Highly publicized Internet companies have taken the leadership in marketspace [3]. In contrast, very little organized information has been assembled on the manner in which large, established corporations, who continue to operate in traditional marketplace environments, have adopted the Internet’s WWW for electronic commerce.

Methodology

To gain insight into the business-to-consumer electronic commerce models in use within large corporations, the Worldwide Web sites of the 100 largest U.S. public companies (based on sales) were examined. Before the investigation was launched, a selection of corporate WWW sites was visited for the purpose of validating the investigators’ understanding of corporate consumer-related electronic commerce activities. The pretest also served to test a protocol for characterizing and comparing a large number of company sites. (The pretest evaluations are not included in the sample.)

Each site in the 100-company sample was visited repeatedly over a six-month period. (Only those publicly accessible pages were studied. Intranet and extranet sites are not relevant to this investigation and were thus excluded.) The overall questions guiding the exploration of each site were as follows:

1. What business-to-consumer commerce models are at work at the WWW site of large, well-established corporations?
2. To what extent are these corporations using their WWW site for exchange, i.e., as a sales and distribution channel for their products and services?

Two investigators independently visited each site on multiple occasions over a six-month period. Each time, the purpose, characteristics, and capabilities of the WWW site were noted, along with any changes that occurred from the previous examination. During the investigation period, webmasters of the sites were also contacted to obtain information about the objectives, features, and capabilities behind development and operation of the company's site.

Findings

Eight-eight of the companies had an operating and publicly accessible site. Twelve of the companies had not created a WWW commerce site and did not do so during the period of this investigation (see Table 1).

Commerce Models

The investigators identified use of three distinct categories of business-to-consumer models. In order of frequency-of-use, the categories of commerce models identified are:

1. **Branding Models**—Aimed at increasing the visibility of the company or its products and services.
2. **Service Models**—Used by the company to support its customers or to augment products and services acquired earlier by any means, electronic or traditional.
3. **Exchange Models**—Offering of products and services that can be purchased from the firm's WWW site.

The choice of models varied between companies, with some using only one type while others applied multiple models in their WWW site.

Branding Models

The most frequently used electronic commerce model supported branding. All 88 company commerce sites examined during this investigation, whether in the manufacturing or service sector, uses at least a portion of its WWW site for branding purposes. The most frequently used branding strategy was to build the firm's image (Table

Table 1
Business-to-Consumer Commerce Model Usage

| Type of Firm | No. | Branding | Service Offering | Exchange | No Presence on Internet |
|--|-----|----------|------------------|----------|-------------------------|
| • Manufacturing | | | | | |
| - Discrete Manufacturing | 39 | 31 | 27 | 5 | 8 |
| - Process Manufacturing | 10 | 10 | 10 | 1 | 0 |
| • Service | | | | | |
| - Distribution, transportation & logistics | 5 | 5 | 4 | 3 | 0 |
| - Financial services | | | | | |
| - Healthcare | 20 | 19 | 19 | 5 | 1 |
| - Retailing | 1 | 1 | 1 | 0 | 0 |
| - Telecommunications | 16 | 13 | 11 | 5 | 3 |
| | 9 | 9 | 9 | 2 | 0 |
| Total | 100 | 88 | 81 | 21 | 12 |

2). Often firms used the site to distribute financial information and to display press releases to visitors.

Advertising and promotion, both aimed at increasing the company's visibility, differed by the level of activity required by the site visitor. Promotion activities required the visitor to take action to obtain information about the company's products or services (e.g., print a "cents off" coupon or receipt of a product sample). These sites applied the principles of interactive marketing described earlier. In contrast, where dissemination of information about products and services was passive (i.e., the visitor need not invoke any action) it was categorized as advertising.

Service Models

Integration of service models into the WWW sites of the corporations in this sample was very high. Nearly all companies—81 of the 88 operating WWW sites—provided some form of online services to the visitors. As Table 3 indicates, the most frequent form of service consisted of information on product updates (including "fixes and recalls"). Approximately 1/2 of the company sites also included an e-mail response link.

What is striking is that few firms have taken advantage of the powerful capabilities of Internet technology to provide rich forms of information as an element of their service capabilities. There were few instances where drawings, schematics, or animated descriptions were provided about using, updating, or testing the usability of products. Moreover, even though full multimedia presentations are within the scope of service support, most companies were not using this capability.

Exchange Models

Exchange models describe the features of a corporation's WWW site for sale of products or services. Four previously identified [6] business-to-consumer exchange models served as a guide to assessing the sales exchange capabilities of the sample sites.

Table 2
Business-to-Consumer Branding Models

| Type of Branding | Frequency For 88 firms |
|---|------------------------|
| Image Building Information aimed at enhancing the perceived "good will" of the company, including financial reports and stockholder information, public relations information. | 94% |
| Advertising Product or service information designed to stimulate sales is presented to consumer; no interaction by consumer is needed. | 87% |
| Interactive Promotions Product or service information or "give away" designed to stimulate sales behavior is presented to consumer upon interaction with the system; interaction is needed to obtain information. | 39% |
| Targeted Promotions WWW site includes capability to identify repeat visitors and present customized promotional information. | 26% |

The exchange model was the most *infrequently* used by the companies in this study. Only 21 firms were able to support market exchange transactions on their site. The majority of those companies were, as expected, in service sectors. The largest industry segments using the WWW site for exchange transactions were retailing and financial services.

Table 3
Business-To-Consumer Service Models

| Type of Service | Frequency For 81 firms |
|---|------------------------|
| Product/service Update Information Information on new models, versions, or releases of company products | 54% |
| Inquiry Processing (e-mail Responses) Responses to specific questions entered at WWW site by consumer | 51% |
| Most Frequently Asked Questions Answers to frequently occurring problems or inquiries | 28% |
| Transaction Tracking Transaction tracking Inquiry handling | 12% |

Within the manufacturing sectors, six of the firms were able to process exchange transactions through their WWW site. In each instance, the company was using the WWW site to bypass its traditional sales channels [5] by enabling customers to buy direct.

5.0 Conclusion

In general, most large corporations do not apparently treat the use of the WWW as an externally-oriented strategic resource. Although many sample firms have established a WWW site (perhaps only to claim its existence) they do not appear to leverage its capabilities for business advantage. Only a few companies use the most powerful of the branding and service models. Even fewer have developed

Table 4
Business to Consumer Exchange Models

| Types of Sales Exchange | Frequency For 21 firms |
|---|------------------------|
| Online Catalogs Provides information to assist buying process; conducts routine transaction handling | 43% |
| Targeted Marketing Customer profiles used to provide customized marketing and sales | 28% |
| Integrated Sales "Buy" activities trigger "back-end" processes | 19% |
| Integrated Sales & Fulfillment "Front-end" and "back-end" applications linked for fulfillment purposes; may involve systems of external firms | 10% |

strategies to capitalize on the exchange capabilities inherent in the Internet's WWW. Above all, it is evident from this study that traditional large corporations, in contrast to Internet companies, have not devised new business models to leverage the combination of their skills and assets using the Internet's innovation potential for electronic commerce.

6.0 References

1. Deighton, John, "The Future of Interactive Marketing," *Harvard Business Review*. 74,6 (November – December 1996) pp. 151-152.
2. Hoffman, Donna L., Thomas P. Novak, and Patrali Chatterjee, "Commercial Scenarios for the Web: Opportunities and Challenges," *Journal of Mediated Communications*. 1,3 (1995).
3. Lee, Ho Geun, "Do Electronic Marketplaces Lower The Price of Goods?" *Communications of the ACM*. 41,1 (January 1998) pp. 73-80.
4. Malone, T. J., J.Yates, and R.Benjamin, "Electronic Markets & Electronic Hierarchies," *Communications of the ACM*. 30,6 (June 1987) pp. 484-497
5. Senn, J. A., "Capitalizing on Electronic Commerce: The Role of the Internet in Electronic Markets," *Information Systems Management*. 13,3 (Summer 1996) pp. 15-24.
6. Senn, J.A., "Electronic Commerce and Market Systems: Business-to-Consumer Commerce Models," Teaching Note, (1999) Georgia State University.