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## **Building Relationships That Last: Integrating Public Relations Into Web Design**

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### **ABSTRACT**

*This paper explores the relationship between web site design, public relations strategy, and a consumer's intention to return to a web site. This relationship is defined through a model that explores the influence of information satisfaction, particularly when the web site design is congruent with the consumer's expectations. The public relations dimension extends the consumer web site design model by interjecting a long-term focus on relationship building that organizations will need to make electronic commerce a viable investment in information technology resources. This is significant because it recognizes the importance of developing loyalty and trust online.*

### **INTRODUCTION**

Electronic commerce via the Internet continues to intensify, providing a strategic blend of marketing, public relations, and technology. Projections on the expansion of electronic commerce have been consistently understated (Deplanque, 1999). The Internet has become a communication vehicle that can enable business-to-consumer and business-to-business electronic commerce. Its ease of use has resulted in rapid worldwide expansion. However, while some businesses thrive on the Internet, many have collapsed or are currently on life support.

Over the past five years, electronic commerce has exploded, with a significant technological impact on business strategy. But has it paid off? Estimates of current use and expectations for the future vary, but in each case, the actual use continues to exceed expectations. Most major companies have developed a web site presence that aims to boost bottom-line results, raising their awareness level or enhancing customer loyalty. For companies doing business on the Internet, effective web design, an e-commerce strategy, and relationship-building will affect their ability to compete.

It is vital for a company to have an integrated marketing, public relations, and information technology strategy to develop a lasting, value-added presence on-line. Public relations practitioners have found that technology can supplement tasks such as maintaining media lists, analyzing media clips, and obtaining immediate feedback on the impact of press releases. Specialization and targeting continue to be significant trends in public relations, and vast web-based databases support these trends (Wiesendanger, 1994).

Yet, it is not uncommon today for business executives to tout success on the Web, based solely on gross revenues and increased traffic to their web sites. While these two metrics are important indicators of success, the authors contend it is equally important to ascertain that customers are satisfied with their experience on the site, and that future sales are linked to customer trust, loyalty, and community-building. Relationship-building or humanizing the digital experience involves becoming interactive and having an intelligent dialogue with customers—in short, becoming connected to customers in multiple forums: on-line, by phone and direct mail, and with toll-free numbers. Interactivity is a building block that leads to lasting customer relationships. A relationship on the Web today competes with the handshake and the warm reception that customers are used to receiving in a showroom or retail store.

E-commerce marketers can learn from the marketing philosophy of the popular home-shopping TV channels, with their consistently boosted sales over recent years. Customer relationships in that medium are built entirely on interactivity—toll-free numbers flash on the screen; customers talk with the host; the blinking countdown clock warns viewers of a few minutes left to buy before the item is replaced on the screen; and money-back guarantees are stressed (Levinson, 1997).

The authors suggest that information satisfaction contributes to consumer satisfaction, which occurs when the product or service which a firm offers consistently matches consumer expectations. Of course, many on-line customers fail to hit the buy button before they leave a web site because it does not meet their expectations. Customer satisfaction also depends on relationship-building, finding the customers' shared values and helping them become loyal lifetime customers. Therefore, an effective electronic commerce strategy should match the desired consumer response with the web site design.

The consumer response web site design model was developed to provide a framework for describing the relationship between web site design and a consumer's intention to return to a web site (McCarthy & Aronson, 2000). We have extended this research to include a public relations dimension, to explain how to build long-term customer relationships. The theoretical basis for the model is explained along with its relationship to information satisfaction. The model purports that the public relations dimension provides a mechanism to build loyalty and trust and that will result in an increase in information satisfaction. This paper examines how information technology (IT) and public relations(PR) executives working together on e-commerce strategy can build meaningful long-term relationships with Web customers. IT web site design is enhanced by an integrated public relations strategy, thereby achieving a state in which customers not only return to the web site more often, but also have a more favorable image of the organization.

## **REVIEW OF THE LITERATURE**

Web site design is beginning to mature as a component of an organizations overall information technology strategy. No longer are organizations racing to develop a web site presence, but instead must establish lasting relationships with their customers. To accomplish this it is important to establish a relationship between the information satisfaction that a customer perceives from a web site.

### **Information Satisfaction and the Web**

Consumer satisfaction occurs when the performance of a product or service matches the consumers' expectations. Spreng, MacKenzie, and Olshavsky (1996) extended this definition to include the concept of information satisfaction, which influences the overall feeling of satisfaction that a consumer experiences when given information about a product or service. The importance of information satisfaction increases when the buyer-seller exchange occurs in an on-line environment through electronic commerce.

Davis, Buchanan-Oliver, and Brodie (1999) identified the marketing interaction that transpires between business and consumer as the creation of real virtuality. Real virtuality states that users' interactions with electronic environments are enhanced by their cognitive experience, which is created not only by what is seen on the screen but also by the communication of the experience. Therefore, real virtuality is enhanced by the amount of information that is made available on a product or service.

Electronic commerce via the Internet is an enabling technology through which firms can provide customer-centric marketing. Sheth, Sisodia, and Sharma (2000) define customer-centric marketing as a strategy that seeks to satisfy the needs of individual customers rather than a mass market. Three reasons underscore the growth in customer-centric marketing. First is concern over the effectiveness of marketing activities by senior management. Second, market diversity increases the consumers' wants and needs. Third, new technologies have enabled marketers to better meet the needs of individual consumers. The degree to which people place their trust in the Internet as a means to motivate commerce will affect consumers' intentions to return to a web site. Singh and Sirdeshmukh (2000) proposed that competence trust has a significant influence on consumers' pre- and post-purchase decisions. Further, competence trust affects consumer satisfaction. Consumers, however, are concerned about doing business on-line. A report by the Boston Consulting Group (2000) noted that some 65% of on-line

customers bail out of a transaction before the final step. Information satisfaction then becomes a critical component to consider in the design of a web site, there must be a strategy that supports repeat customers.

### The Significance of Electronic Commerce

Electronic commerce has led to dramatic changes in the definition of a firm (Zwas, 1996). From electronic commerce over the Internet has emerged virtual companies that are capable of delivering products and services largely because they are able to create and maintain a network of business relationships.

The three significant benefits of using electronic commerce, as identified by Senn (1996), were: (1) reducing cost for routine business transactions; (2) collapsing cycle time to complete business transactions, regardless of geographic dispersion; and (3) eliminating paper and inefficiencies in handling paper. Senn further defined four business benefit criteria to evaluate the potential for electronic markets, including:

1. Extending the firm's reach
2. Bypassing traditional channels
3. Augmenting traditional markets
4. Boosting service and advertising

Extending the firm's reach refers to the firm's ability to reach any potential customer, regardless of geographic location. Bypassing traditional channels refers to the ability to reduce dependence upon intermediaries. Augmenting traditional markets refers to the emergence of new means for marketing products and services. Boosting service refers to the ability to utilize electronic commerce 24 hours per day. Advertising assumes special significance in an electronic commerce market. Firms are not constrained by boundaries of length, time, and place. Rayport and Sviokla (1994) proposed a model of electronic commerce consisting of three elements: content, context, and infrastructure. In the electronic marketplace, content is information-based, with a focus on electronic transactions. The context of marketing via electronic commerce changes from a real to a virtual environment that is available any time, any place. The infrastructure, where transactions occur, is completely different as well. Electronic commerce changes the context of product and place in its definitional context.

The use of the Internet as a channel of distribution enables interactive commerce to occur. Deighton (1999) defines the term *interactive* as consisting of two features of communication: the ability to address an individual and the ability to gather and remember that individual's response. When a consumer visits a web site, many exchange cycles can occur within a brief time period. Moreover, when a consumer returns to a web site, exchanges can resume where the previous exchange left off. In addition to time independence, one benefit to consumers is that they need not repeat previously-entered information to resume interrupted transactions.

Marketing on the web dilutes the difference between large and small companies, enabling them to perform one-on-one marketing. Gillenson, Sherrell, and Chen (1999) define one-on-one marketing as the ability to use information about an individual to market specific products or services that are assumed to be of interest to that individual. While this is not a new concept, the use of the Internet has opened a new channel of distribution, based on the premise that if a company can develop a personal relationship with a consumer, the consumer will continue to buy more products or services from that company. Gillenson, Sherrell, and Chen (1999) define two categories of data as essential for enabling one-on-one marketing. The first is the variety of needs an individual consumer is looking to satisfy through the firm's products or services. The second is the *value skew* of the distribution of profits that current customers generate for the firm. Dividing the variety and value presents a customer differentiation matrix. This matrix of low to high value and skewness can help define the electronic commerce strategy for the firm.

One useful outcome of this approach is that a company can learn from the data it collects. If a company begins with the wrong electronic commerce strategy but effectively monitors and controls its web site, it can more easily make interim adjustments until it achieves the right mix of differentiation. Kalakota and Whinston (1996) determined it was necessary to examine the user's overlapping roles and technical perspectives to create an effective e-commerce strategy. Several areas must be evaluated to understand the effect of consumer response from e-commerce. The first is web site design. According to Gehrke and Turban (1999), various factors affect web site design, the most important factor being page-loading speed. Consumers who do business electronically do not want

to wait while web pages are downloaded. They recommend limiting the use of graphics, animated gifs, and files that require plug-in device drivers to maximize page-loading speed. Additionally, the use of plug-ins should be avoided because the average person does not want to download and install software in order to return and access a web site successfully. Nor should graphics be overlooked as an important way to distinguish between web sites. To effectively compete in an electronic commerce environment, a company's e-commerce strategy should address, among other issues, how it will handle graphics. One way is through the use of thumbnails, which can be expanded into larger pictures. With myriad options available to consumers who are doing business electronically, an effective web site strategy will consider the transmission speed that a consumer is likely to utilize and design appropriately.

The business content of the web site should contain clear concise language that readily describes the business. It should also include contact information via telephone and/or email for user follow-up. The web site content should be changed regularly to remain attractive for repeat customers.

Navigation efficiency refers to the easy use of the entire set of web pages. A well-defined web site should have no broken or non-existing links. Gehrke and Turban (1999) found that the use of frames garnered mixed responses. On the plus side, they break up the web page, provide more flexible functionality, and display the company logo across each page. Among the disadvantages are that frames are not supported by older browsers and make bookmarking more difficult. Frames can also add horizontal and vertical scrolling to a page. Whether or not frames are used, however, navigation should be consistent throughout a well-defined web site.

An e-commerce strategy should also define other factors that affect web site design. According to Gehrke and Turban (1999), these factors include the business content of the web site, navigation, efficiency, security, and customer focus. Shelanski (1999) notes that it is important to consider the existing telecommunications infrastructure when defining an e-commerce strategy. Because it is consumed at a rapid rate, telecommunications bandwidth should be considered when designing resource intensive web sites. Marketing to businesses that utilize T1 lines to access a company's web site may present different design options than marketing to consumers who access the web site via a 28.8 or 56.6 modem. Recent studies suggest that more than 75% of Internet traffic is HTTP-related. Network planning is critical to obtaining acceptable user response time (Kant & Yon, 1999).

It is important to consider what type of web server an organization needs to compete in an electronic commerce market. There is no one single type of web server. Web servers can be used as proxy servers, electronic commerce servers, or search engines that are image-intensive (e.g., on-line catalogs) and highly dynamic or primarily static (Kant & Yon, 1999). E-commerce consists of two domains: business-to-business inter-organization systems, usually implemented via electronic data interchange (EDI), and electronic markets that exist on the World Wide Web (Senn, 1999). The World Wide Web has been described as having two primary roles. First, it serves as a distribution channel that allows the quick delivery of products and services via the Internet. An example of this channel is [www.lbean.com](http://www.lbean.com) (1999): with it, a consumer can not only order goods, but also obtain an on-line view of exactly how they will look prior to delivery.

Senn (1999) found that service models are used in an e-commerce environment to support customers or provide additional products or services. The types of services identified were: product/service updates, inquiry processes (usually through e-mail responses), frequently asked questions (FAQs), and transaction tracking. A good example of transaction tracking can be found on the United States Postal Service website (<http://www.usps.com/>). For an additional charge, a customer can receive a number with which to track the status of a mailed item. Exchange models are used to offer products or services for sale. The types of exchanges identified were on-line catalogs, targeted marketing, integrated sales, and integrated sales fulfillment. Targeted marketing seeks to influence customer behavior through customer profiles, customized information, and narrow cast messages. Integrated sales link front-end and back-end sales activities through the web site. For example, Dell Corporation has effectively integrated its entire sales operation through the Web and dramatically reduced its cost structure by integrating its operation with its supporting vendors. Dell automatically triggers UPS at three different times to pick up a PC, monitor, and software to synchronize their arrival at a customer's location. This integrated marketing strategy distinguishes effective e-commerce marketing and will become more widely used as companies expand into the e-commerce marketplace.

Web site performance management needs to be integrated into an e-commerce strategy (Jones & Kayworth, 1999). Firms with clearly-defined web objectives have firmer performance measures to evaluate the actual

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performance of their web site than firms without defined web site objectives. Jones and Kayworth (1999) recommended further research to measure the linkage between web site performance and achieving the firm's business objectives. Specific metrics can determine if the web site is achieving these objectives. Special performance considerations, such as web pre-fetching, may be needed. Web pre-fetching is a strategy of loading documents into a client's web site before the user has selected them for browsing, thus reducing the user's access time. Pre-fetching can be characterized as client-side or server-side, depending upon which device initiated the pre-fetch operation. The longer the estimated time to retrieve web pages, the more likely they will be pre-fetched. Web pages that are quick to fetch, dynamically generated or beyond certain limits will not be pre-fetched (Klemm, 1999).

### IMPLEMENTATION CONSIDERATIONS

Effective web site design can be more rapidly developed utilizing prototyping, which is useful for developing a proof of concept to quickly determine the web site's cost effectiveness. Jefferson (1999) described four steps in web site prototyping. The first step, define needs, involves identifying and articulating the client's description of what the users want. The second step, define ideas, extracts concepts from all of the participants and turns them into a meaningful entity. Step three, design, builds an entity that is the culmination of all ideas. The final step, deliver, is bringing specifications to the client to construct the application. This is based upon the assumption that once the prototype is developed (as part of the design step), the client will be responsible to transform it into a production-ready application (Jefferson, 1999). This can be useful in determining the cost benefits of web site development and support.

The rapid surge of electronic commerce has allowed existing industries, such as telecommunications providers, to expand their support services. As well, new industries, such as infomediaries, are better able to help consumers find businesses on-line for their own growth (Shelanski, 1999). New markets and increased electronic commerce have resulted in businesses transforming themselves to remain competitive. Full cybermarketing organizations that operate exclusively through the Internet have emerged rapidly (Turban, Lee, King, & Chung, 2000). A well-designed web site should result in developing a customer base that will more likely purchase goods and services on-line. Customers are expected to purchase more because of the complete, timely, and effective presentation of web site information (Jefferson, 1999). Malone, Yates, and Benjamin (1987) identified two significant marketing factors that affect electronic commerce. Time-specific assets have value if they reach users within a specified time period. The complexity of the product description determines the amount of detail information that a consumer needs to make a purchase decision. Together, these lead to the electronic integration effect, which occurs when information technology is used not only to speed communication but to change the processes that create and use information. The use of the Internet as a channel for electronic commerce capitalizes on these factors.

### FACTORS THAT INFLUENCE WEB RELATIONSHIP-BUILDING

#### Loyalty and Trust

Loyalty programs are being introduced to e-commerce marketing as a way to build relationships with customers. Affective and conative loyalty can influence customers' perceptions of products. Affective loyalty, for example, may influence how well customers speak about a product. Conative loyalty, on the other hand, may determine whether customers continue to buy products into the future. Methlie and Nysveen (1999) reported research findings with European banks on what determines loyalty when bank services move from the traditional marketplace to on-line commerce. They found that customer satisfaction, followed by brand reputation, had the greatest impact on both affective and conative customer loyalty. Two other determinants in the study, switching costs and search costs, had less influence on loyalty.

Readers of *The Wall Street Journal* typically have a strong loyalty to the printed version of the newspaper. Yet when customers buy an electronic version of it, they expect that the reading experience will match that of the printed version in delivering high-quality business news. The electronic version, of course, has a potential for greater success if customers remain satisfied and loyal. Organizations that choose to build a web relationship with their customers find it an effective way of developing brand loyalty. Manufacturers and retailers are also learning that treating their customers as faceless individuals jeopardizes their loyalty and future business (Braune, 1999).

Smith (2000) cites four loyalty drivers that influence customer buying decisions, which also apply to web sites and web entities: (1) product offering, (2) quality, (3) price, and (4) image. Most organizations understand the power of the first three—product, quality, and price. The image driver or relationship-building driver, however, determines whether an organization retains its loyal customers for the future. Smith (2000) stresses that companies need to work at creating e-loyalty. “What the web does for e-loyalty is make building relationships easier, faster, and cheaper” (p. 21). She contends that people who are loyal to each other can also be loyal to web sites.

Another strategy for building e-loyalty for a web site is intelligent dialogue, implying that Web interactions must sound, feel, and appear human to create successful relationships. Extending beyond merely providing web information such as flights on line, for example, the site must offer customers real-time valuable information about flight cancellations, ways to rebook, and a toll-free number for advice. In addition, this information must be delivered in a timely format attractive to the customers. The nature of intelligent dialogue is influenced by the type of product offered, the customer’s sex, education, and age, and the culture of the organization. It will also be based on research of customer values that influence buying decisions. Smith argues that the rationale for making e-loyalty work as a strategy on the web is based upon sound business principles: (1) retaining customers is more cost-effective than acquiring new ones; (2) loyal customers are typically more profitable as a segment based on lifetime purchasing value than non-loyal customers; (3) loyal customers defect less often; and (4) loyal customers are more likely to boost one’s brand and image. In sum, on-line customer loyalty can only be achieved with a close bond between seller and buyer. As active participants in the transaction, customers will often recommend the organization to friends, family, and co-workers.

### **Community Building On-line**

Just as the Industrial Revolution prompted people from their communities to find work and share interests with others, virtual communities are becoming the social organizing mechanism to unite consumers in the 21<sup>st</sup> century (Bressler & Grantham, 2000). Because customers apparently want to meet and share information in cyberspace, this development has triggered the need to expand on-line communities among members with common interests. This power of community-building is not lost on information technology and public relations executives who are challenged by trying to satisfy customers on-line. The Web is slowly becoming America’s collective “town square,” a place to buy products, find medical advice, join a club or self-help group, play games, trade items, and share information and news through e-mail and chat rooms. As part of an on-line community, customers are no longer limited to joining local neighborhood groups or buying locally; their reach has become national and global, while also choosing to remain anonymous or declare their identity on-line.

Community-building on the web is a relatively new public relations strategy which gained momentum once the Internet was launched and became a community of dialogue. For example, a company’s communication on the Web can elicit immediate response from customers, creating a wave of positive or negative publicity that directly impacts the organization’s image. Middleburg (2000) points out that on-line communications is strongly niche-oriented, the equivalent of going door-to-door and neighbor-to-neighbor in a grass-roots effort.

Kim (2000) suggests four categories of on-line communities: geography, demographics, topic, and shared activities. These categories provide a typology for sharing information and ascertaining and meeting customers’ common needs. It is important to note that on-line communities are not static and should evolve over time; I Village, for example, renamed itself the Women’s Network after it discovered that its members were interested in parenting, health, relationships, and money issues.

According to Kim (2000), communities on the Web have humanized the on-line experience by letting individuals use message boards that provide a live link or a feeling of personal involvement with the organization. Real-time chatting is another form of customer interaction. New software for real-time chatting allows for synchronous communication among residents in different parts of the world. Companies can also schedule special on-line events for their customers, thus attracting a crowd of compatible consumers to their web site. Furthermore, to build strong relationships with customers on the Web, companies should offer real-time support and guidance. A live support option is a good complement to FAQs (frequently asked questions) because it can increase the probability that customers will return to the site to purchase more products or services.

One of the best ways to ensure success on the Web is to understand the qualities that a community values the most. In the auto sector, for example, price, design, and service are important, while in the fashion industry, style, brand, and freedom of choice are drivers that influence buying habits. Effective public relations strategies allow the organization to express these qualities through web design, image, language, and feedback. To stand out from the competition, organizations must communicate a distinctive persona. In the final analysis, e-marketers need to understand that content alone may lure visitors to a site initially, but their decision to stay is tied in with discovering a community that shares their values. For example, the community aspects of the Women’s Network define its shared values. Its “better health” section resembles a visit to a local spa with experts offering health-related advice. Whether an auto company promotes a fan club for its most famous car brands or movie stars contact their on-line fan clubs around the world, the power of community shapes both image and brand, and humanizes the Web’s digital experience.

**E-COMMERCE WEB SITE DESIGN MODEL (WITH PR INTEGRATION)**

The E-commerce web site design model (Figure 1) provides a framework to explain the type of marketing and *public relations integration* needed to support consumer satisfaction. The model assumes that consumers in a B2C (business-to-consumer) environment access web sites either because (1) they seek information about a specific product or service; (2) they require specific choices about products or services, including complimentary or substitute products; or (3) they seek to make on-line purchases. Electronic commerce web sites attempt to satisfy consumers’ needs through one of four classifications of integrated marketing-technological strategy. These four classifications—introductory, informative, interactive, intelligence—explain how an organization chooses to organize and present its web site as well as what consumers desire and how they will respond. Organizations seek to optimize responses to the desired goal of the web site when they have an effective integrated marketing plan. Each classification represents a specific set of design characteristics for web sites (see Table 1).

**Table 1. Web Site Classification**

<b>Web Site Classification</b>	<b>Desired Response Definitional Criteria</b>
Introductory	Firms in this category establish a web site identify their products and services.
Informative	Firms in this category use their web site to direct customers to specific locations, including other web sites, in order to complete transactions purchases.
Interactive	Firms in this category design web sites that interact with consumers, primarily in the form of transaction processing. Consumers are given immediate feedback once a purchase transaction has been completed.
Intelligence	Firms in this category utilize intelligent agents to build and maintain customer profiles. Web sites are personalized to respond to individual consumer needs.

Each web site classification should have a public relations dimension to build customer loyalty and enhance the probability that the customer will frequently return to the site to buy products. Every customer interaction is an opportunity to make a sale or make a friend. The public relations dimension can build support for a site in three important ways: credibility, cachet, and community. Credibility is a value-added process because it generates an audience’s willingness to believe that the business will be successful (Middleburg, 2000). Cachet (or buzz) provides a special feeling from the site that intrigues consumers enough to return to it. Key influencers can drive traffic to a site with a mere mention in a major magazine, national newspaper or network. Finally, community consists of on-line customers who dialogue with the organization through e-mail or other feedback mechanisms and share their interests and concerns about the organization’s products or services. For example, Sony and Yahoo have strong public relations dimensions on their sites that help build customer trust and loyalty.

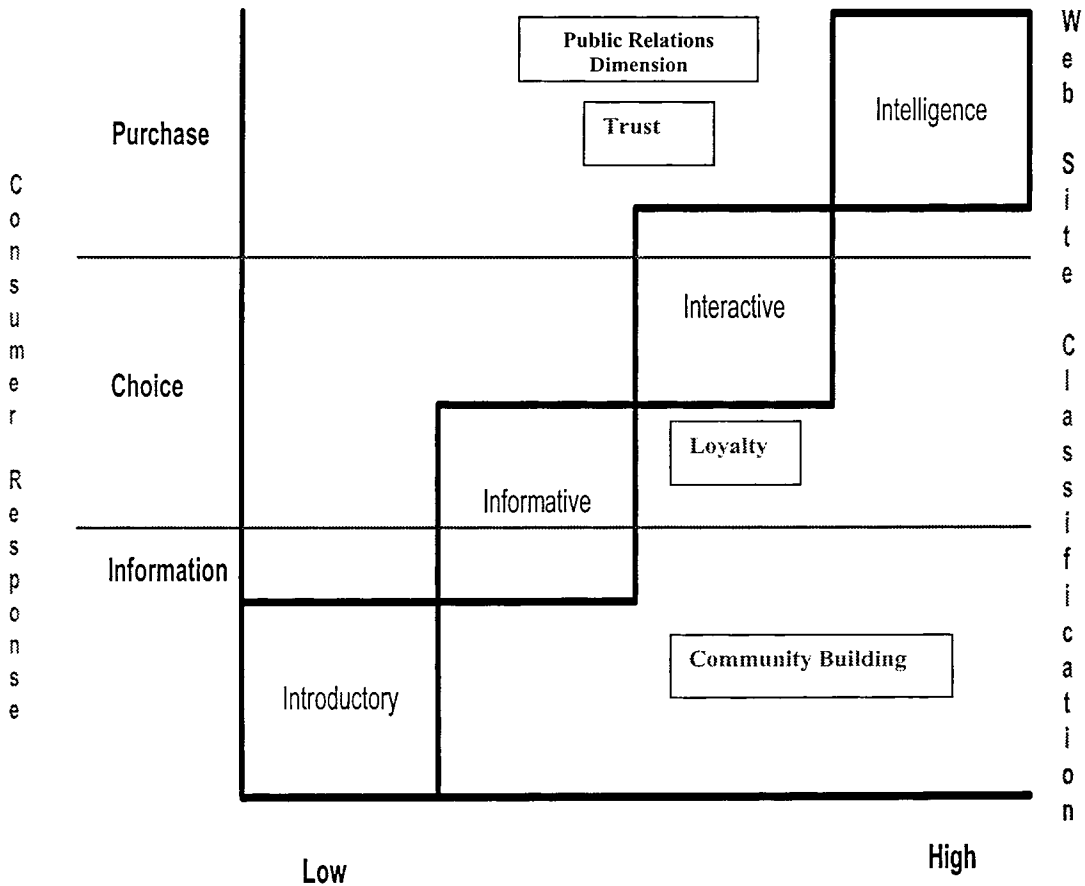


**PUBLIC RELATIONS STRATEGY DIMENSION**

The introductory site might have a distinctive logo, a tailored message from the CEO, an annual report or press releases to help build good will and customer loyalty. The informative site may choose to use testimonials from satisfied customers or celebrities who have used the products or services. The customer may be directed to other sites for more information about the products or services with well-placed graphics and key targeted messages.

The interactive site may include a video message from the CEO or a video that shows how the transaction is completed and the product will be delivered. A pledge or endorsement similar to the Good Housekeeping Seal of

**Figure 1. Model of E-Commerce Web Site Design**



Approval may be used to build credibility or trust. It also includes ways to humanize the digital experience and build strong communities that share common experiences.

The intelligence site has options for personal customer feedback and opinions, including a money-back guarantee with the option to talk with a representative on an 800 number if necessary to close the sale. Community dialogue options and cachet are for important to lure customers back to this site.

Organizations competing in the world of e-commerce must develop e-commerce strategies to guide and maintain their web site development. These strategies should define which type of e-commerce web site classification the organizations employ and they should be updated as organizational needs change. Organizations that rely heavily on e-commerce will more likely utilize interactive and intelligence-based web site designs. The e-commerce web site design model postulates the following:

P<sub>1</sub>: Consumer response is affected by web site design.

P<sub>2</sub>: An organization's web site design is affected by its dependence upon e-commerce as a channel of distribution.

P<sub>3</sub>: Consumer satisfaction increases when the web site design classification matches the desired response.

Consumer satisfaction is an important determinant in evaluating electronic commerce as a long-term strategic technology that benefits and enhances the firm. As part of that strategy, a well-designed public relations dimension would enrich customer satisfaction and loyalty. By integrating public relations into web site design, organizations can strengthen their relationships on the web; build brand awareness that promotes loyalty in their customers' hearts and minds; and create on-line communities that share values with the company.

#### RESEARCH IMPLICATIONS AND RECOMMENDATION FOR FUTURE STUDY

Today, a strong Web presence is becoming more imperative than traditional marketing communications tools such as fancy brochures, direct mail, and select advertising. The e-commerce web site design model provides a framework for analyzing how a web site design with a public relations dimension impacts consumer satisfaction. Further empirical testing is planned to validate the relationship between web site design classification and consumer satisfaction. Additionally, a sampling of web sites will be conducted to support the web site classifications. In particular, one method will sample web sites by industry type to assess the significance of industry type.

Data mining on the Web is an emerging technology. Companies highly dependent on electronic commerce and utilizing intelligence-based web sites are interested in evaluating consumers' purchasing and browsing patterns (Hedberg, 1999). Future work will focus on evaluating consumer satisfaction through data-mining as a means of creating intelligence-based web sites as well as on public relation strategies that support data mining-based web sites. Schlosser (2003) found that imagery impacts consumer intention to return to a web site, this future work will consider image mining in addition to text mining.

Grunig and Hui-Huang (1998) contend that the most important attributes of measuring good relationships are trust, understanding, credibility, behavior, mutuality of control or conflict avoidance, and maintenance of that existing relationship between an organization and its key constituencies. If organizations are serious about understanding the type of experience their customers are having on their web site, they should employ qualitative and quantitative gathering techniques such as exploratory customer focus groups, representative mail and telephone surveys of current and lapsed customers, and in-depth interviews on customer buying habits. Qualitative focus groups can also be utilized with on-line user groups to learn which values and buying habits customers consider important. Quantitative mail and telephone surveys should follow to confirm statistically the findings of the focus groups.

An easy method for keeping track of customers' opinions and behaviors on the Web is through feedback loops, both conversational and behavioral. Kim (2000) points out that conversational feedback includes e-mail, message boards, chat sessions, and interviews, while behavioral feedback includes page hits, time spent on site, message boards and chat sessions, and responses to direct marketing. Feedback loops provide excellent clues to how effectively a web site offering matches the needs and values of its key constituencies.

Zemke and Connellan (2000) suggest additional ways that organizations can learn about their e-commerce relationships with customers. First, customer advisory panels for B2B customers are useful, particularly if organizations are trying to build long-term relationships. Second, employee surveys measure how well organizations are delivering quality service on the Web. Finally, mystery shoppers (employees or consultants) can be used to test the Web site experience by buying a product and reporting their experiences.

Finally, Microsoft's Usability Guidelines (MUG) can be a valuable metric to assess the quality of a firm's Web presence. These guidelines are organized into five major categories: (1) content, (2) ease of use, (3) promotion, (4) made for the medium (personalization), and (5) emotion (affective) (Keeker, 1997). Agarwal and Venkatesh (2002) developed a heuristic evaluation procedure using the MUG guidelines with 1,475 users who rated multiple web sites from four sectors engaged in electronic commerce: airlines, on-line bookstores, automobile manufacturers, and car rental agencies. They noted that the evaluation procedure as well as the usability metric exhibited good properties. Three of the categories—promotion, made for the medium, and emotion—have public relations aspects directly related to building relationships that support customer satisfaction.

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