Select Criteria for Evaluating Commercial Web Presence

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ABSTRACT

In this study, we set out to analyze the effectiveness of today's commercial Web sites, using select criteria considered unique to effective Web design. A random sample of 43 Virginia bank Web sites represented the study. Each site was evaluated based on the same criteria. The results show fragmentation in Web sites, ranging from those considered "mere presence" to sites that were loaded with multimedia, interactive audio and video, and truly effective customization, speed, and scalability. Few lessons can be learned for improving Web presence on the Internet.

INTRODUCTION

The Internet is fast altering the way banking is transacted. The financial services community is a sector that will see some of the most dramatic and swift change. Driving this transformation are three primary benefits: lower operating costs, newfound Internet-based services, and personalization. Allowing the customer to transact business over the Internet significantly reduces rising cost of human tellers. Automation of online banking procedures also enables banks to more efficiently serve a larger number of customers 24 hours a day, 7 days a week, year round. Personalization means easing the transition away from frequent personal contact and toward a more electronic banking environment. The personal touch of a handshake is beginning to give way as financial institutions create and harvest detailed databases on customer preferences. The overall goal is marketing the right service to the right customer at the right time and price.

What are today's customers looking for in Internet banking? They want flexibility, convenience, control of their accounts, empowerment, and customization. Banks are attempting to meet these demands and, in the process, are offering discounts on various services to attract and maintain customers in the evolving state of the industry. However, the Internet presents a challenge. Politicians are currently facing off over the legal aspects of electronic commerce, especially over the issue of taxation and regulation (Thibodeau 2000, p. 16 and Chandrasekaran 1999, p. E1ff). With this in mind, there is a strong movement toward consolidation, privacy, customization, interoperability, information management, and loyalty programs (Awad 2001, chapter 15). Smaller banks are concerned mainly with the competition from brokerage firms, mutual fund companies, and credit unions. This is where Internet banking could give the "elbow room" for banks in general to seek unique customers in an effort to improve the revenue side of the ledger.

Based on recent studies, electronic marketplaces improve information sharing between the bank and its customers and promote quick, just-in-time deliveries of services (D'Antoni 2000, p. 165 and Petersen 1999, p. R6). The Web site has been known to be one EC vehicle for the consumer-bank interface. Convenience for the consumer is a major driver to changes in the financial services industry. Control is another major driving factor. Instead of banks controlling the relationship with the customer, customers today can have more control of their banking needs via Internet Web sites that are increasing in popularity nationwide. See (http://www.eds.com/abouteds/homepage/home page digital economy.shtml.

Much debate has been relayed in the literature about what constitutes an effective Web site and to what extent Web design attracts the right type and volume of visitors. More specifically, what criteria should be considered in designing effective Web sites? With the maturing e-commerce, it is important that some standardization be used to identify an acceptable Web site.

In this study, we analyze the effectiveness of select Web sites in banking, using pre-tested

criteria. A random sample of 43 Virginia bank Web sites represented the study. Each site was evaluated based on the same criteria. AnswerThink Consulting Group (ACG) examined the level of development of 1,000 business Web sites. They measured the usefulness of Web sites in business processes by assigning each Web site to a particular Web generation. The five generations of Web sites are:

1st generation – home page, who we are, etc.
2nd generation – electronic catalog, data collection
3rd generation – interactive business transactions
4th generation – multimedia, work flow/BPR integrated
5th generation – delivery platform expansion, individualization

One conclusion was that fewer than 50 percent of the Web sites were properly equipped to handle electronic business. Nine percent has 4th generation Web sites and only 2 percent of the sample organizations had 5th generation Web sites (Coleman 1998, p. 12). In this study, the random sample of bank Web sites were evaluated in terms of color, content, ancillaries, category types, speed, services offered, consistency, and scalability, as well as the experience gained from this EC type of investment.

THE EVALUATION CRITERIA

With the overwhelming support that electronic commerce and Web site design have had across industries, it seems obvious to focus on one industry and study its Web site quality and effectiveness. This study is based on a random sample of 43 commercial banks in the Commonwealth of Virginia. The following criteria were used:

- **Color scheme/general layout** A site visitor is known to form a first impression of a Web site within the first seven seconds. Color and general layout have a definite psychological impact on visitors accessing and staying on the site. See http://www.colorvoodoo.com. Color **red** symbolizes power, energy, and warmth, while color **blue** symbolizes trust, conservatism, security, and order. Color **green** means good luck, while

yellow symbolizes optimism, dishonesty, and betrayal. Many US banks use green to symbolize money. Color **purple** symbolizes mystery, cruelty, and arrogance, while color **orange** connotes balance and warmth. It may also signify a product that is inexpensive. Earthy **brown** symbolizes reliability and endurance, while **gray** represents intellect, modesty, sadness, and decay. It is the easiest color for the human eye. **White** represents purity, precision, and innocence. **Black** symbolizes power, sophistication, and unhappiness. An ideal layout is one with minimal text on a page and lots of white space. The Web site should be easy to navigate, with navigation bars on each page of the site. There should not be random pictures scattered throughout the site, as it gives an unprofessional look.

- **Type and shape of icons**. Shape is an extremely powerful (but overlooked) tool. It can motivate consumers, inspire visitors, and provide an enjoyable visit to the Web site. A circle represents connection, community, wholeness, endurance, and safety. It refers to feminine features like warmth, comfort, and love. Rectangles represent order, logic, and security. Finally, triangles represent energy, power, balance, law, and science. A circle and triangle in combination can result in a conveyance of energetic, dynamic community. Or combine a circle and a rectangle for warmth and security.

- **Page content**. Banks new to the Web have the misconception that once they put up a site, people will come and visit. This is far from the truth. Page content refers to how much text makes up a Web page. Studies found that users don't want to scroll up and down the page when looking for information. This means that Web sites should provide valuable, timely information, not lots of text. A popular site includes updated information, interactivity, fun, and freebies. Well-organized, edited, and timely original content set in an attractive, interactive, and consistent format are traits of great bank Web sites.

- **Services offered**. For this criterion, we look for unique services that the site

offers. It is not enough for banks to just list their services. They must go into some detail on all services and provide contact information in case of questions or follow up.

- **Primary focus**. We expect a bank Web site to have a primary focus. Take Oakley, Inc., the maker of designer sunglasses. The company's main focus is making glasses; yet, the company also produces side products like shoes, watches, and the like. It is the same with banks. All banks have a primary focus, whether it is home equity loans, auto loans, or CDs. On the side, they may offer personal checking accounts, savings & investment plans, etc.
- **Ancillaries**. In Web design, it is important to have links to do unique things for the visitor. For example, one banking ancillary is to evaluate one's current mortgage loan or help answer questions such as "do you qualify for an auto loan?" These ancillaries have been known to attract more customers who want more services or advice that are freely available.
- **Site classification**. Web sites were also evaluated based on five categories: Category 1 (mere presence) to category 5 (multimedia, interactivity, etc.). Category 1 sites offer the bare essentials such as hours, location, directions to the bank, a list of services, etc. The sites range from ugly, slapped on pages to well thought-out sites with visual appeal. But category 1 sites are purely informational. They barely "talk" or do much selling.

  Category 2 sites are more focused. They offer more detailed information (e.g. forms applications, etc.) and options that allow the visitor to send in data for services like loan applications, opening checking accounts, ordering American Express checks, etc. Category 3 sites involve greater interaction, using video and color to guide the visitor to primary buttons, links, or services. Category 4 sites use multimedia as well as workflow tools, and begin to show some personalization. Category 5 sites are highly customized sites and ones that offer advanced services that stretch across the Internet.

They also coach the visitor into making decisions, ordering products or services, and using electronic cash to consummate transactions.

- **Professionalism** This criterion looks for how professional the site looks in the eyes of the visitor. Neatness, spelling, and grammar are also considered.
- **Security**. On the security criterion, sites with firewalls, digital certificates, as well as SSL for information and transaction processing would rate high on the security scale.
- **Scalability**. Scalability is how easily a site can be updated. This involves use of simple structure, frames, XML, and design that lends itself to easy maintenance.

PRELIMINARY RESULTS

In the analysis of color and layout, we found high presence of blue, where blue represents trust that is appropriate for banking. Sixty-eight percent of Web sites included high presence of blue as well as green. After brief interviews with Web site designers, we deduce that green is used as reference to money and to US currency.

With regard to icon shapes, we found broad use of rectangles and significant presence of triangles (67%). The most effective icons were supported by Java script, which added a great deal of convenience (e.g. pop-up menus) and aesthetic appeal to navigation.

In terms of page content, it was found that Web sites were more cluttered and text-heavy on sites of smaller banks (79%) and complex services were only offered on the larger more advanced sites. Ancillary tools such as calculating or refinancing mortgage varied widely across Web sites, depending on the category of the site. For example, 46 percent of category 4 and 5 sites provided more ancillary tools than category 1 and 2 sites, which were heavy on text content.

Speed, consistency, and scalability were among the highest rated criteria (72-85%) for the sample. This was in contrast to the lowest rating on site personalization. It was evident that a bank rarely tried to take advantage of customer information by personalizing the site, based on the customer's preferences and behaviors. Only 14 % of the banks provided personalized, customer-

oriented approach to Web site surfing. One conclusion is that category 4 and 5 sites (larger banks) are more likely candidates for major site improvements or personalization, as they learn to better leverage customer databases.

In terms of the Web site classifications, only 16% of the sites were category 4-5, representing 7 out of the 43 banks included in the study. Thirty-seven percent were category 3 (medium-size banks), and 47% were category 1-2 sites, which were small banks. One preliminary conclusion is that most banks are in their early phases of relying on e-commerce for banking services. Category 4-5 sites, where there is heavy reliance on lending and specialized services, require advanced, real-time databases capable of interactively expediting services quickly and directly with the site visitor, regardless of location or time of the day. This level technology turned out to be more unique to large-size banks than medium-size or small banks.

With respect to security, only 19 percent of the Web sites were considered adequate on security protocols. They were heavy on lending via the Internet. Security standards were measured, based on whether the Web site used firewalls, digital certificates, as well as SSL for transaction processing. In contrast, 53 percent of the sites had virtually no security standards. The Web sites were simply advertising presence.

CONCLUSIONS AND IMPLICATIONS

This exploratory research set out to determine the effectiveness of Web sites in commercial banking. One preliminary conclusion is that the Internet is definitely altering the way banks transact business. Allowing customers to transact business via bank Web sites reduces costs of traditional bank tellers, automates online banking procedures, and allows banks to serve a large number of customers 24 hours a day, 7 days a week, year round.

In addition to lower operating costs and the advent of new services via the Internet, the bank's ability to personalize banking relationships is bound to ease the transmission away from on-site trips to the bank and toward a more electronic banking environment. The personal touch of a handshake is giving way as financial institutions create and harvest detailed databases on customer preferences. An

emerging goal is marketing the right service to the right customer at the right time and price. Likewise, customers look for flexibility, convenience, empowerment, and customizations. Banks are meeting the challenge by the way they approach Web site design and the growing scalability of such sites with advancing technology.

Based on the sample, another conclusion of this study is that financial institutions in the Commonwealth of Virginia tend to be highly fragmented. Web presence is clearly defined by the niche market to which the bank is catering and the technology used. One of the unanticipated findings was the geographic propensity toward the rural lifestyle in Virginia. Smaller local banks can thrive in this market with little or no Web presence, as the population they serve does not have ready access to the Internet. As the banking market consolidates and the "local bank" becomes a thing of the past, more comprehensive Web-based services are being offered to Virginia banking consumers from the larger more established banks. These services are also more prevalent in the metropolitan areas of the state due to the increased familiarity with Web technology.

Finally, these preliminary findings alert us to the importance of revisiting the conditions that determine how a bank wants to be represented on the Internet, the goals and potential of e-commerce to serve the revenue side of the equation, and the impact of larger banks continuing to acquire smaller banks and the resulting effect on e-commerce in banking. Assessing the status of e-commerce in banking via Web site evaluation is interesting, but factors like the ones just sited are additional variables to consider in a later study.

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