A FRAMEWORK FOR EVALUALTING WEB-BASED CUSTOMER CARE ALTERNATIVES

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Abstract

Web-customer care framework, usually a 2 x 2 two matrix, with customer service options arrayed in four quadrants along two dimensions, is discussed. The purpose of the framework is to help identify current care mix in light of customer assistance and communication needs. Using the framework, management can analyze the advantages and disadvantages of different web-hosted customer assistance alternatives in order to improve customer care efficiency.

Introduction

Although the Internet may have begun as a United States Department of Defense experiment in computer-mediated communication, it is increasingly home to electronic commerce and online customer support. By 2004, experts predict three percent, or $233 billion, of U.S. retail business-to-consumer (B2C) sales will be Web-hosted (Pastore, 2002). Business-to-business (B2B) sales are projected to grow even faster. According to eMarketer's *E-Commerce Trade and B2B Exchanges* report, by 2004 U. S. wholesale e-commerce will grow over the next two years from $823.4 billion to $2.4 trillion (Cyberatlas, 2002).

The surge in online trade will drive a corresponding increase in pre- and post-sale customer contact. Today much of that customer care is delivered through telephone call centers. According to a recent Purdue University survey, over 15 billion customers contacted North American businesses for some type of support in 2000. Of these contacts, 85 percent were handled by phone, three percent by email, and two percent through Websites. Other channels such as on-site service counters accounted for the remaining ten percent (Fletcher, 2002).

By 2005, the total number of North American customer contacts is expected to double to 30 billion. This substantial increase in contact volume will be accompanied by a dramatic shift in the service mix. Although the telephone will continue as the dominant customer service response platform, the contact percentage will drop from 85 to 45 percent. Customers handled through Websites, on the other hand, will rise from 2 percent to 25 percent. Email will increase from 3 percent to 20 percent (Fletcher, 2002). As the combined internet-facilitated service response mix grows from 5 percent to 45 percent, the Internet will become an increasingly important channel for customer assistance.

e-Service

Contrary to the hype, migrating customer service to the Internet is more than a simple exercise in hyper-text markup language (HTML) coding or providing customers the organization's email address. In fact, moving customer assistance to the Web, dubbed e-Service, can increase customer call volume significantly. Carstensen (2001) estimates that "customer inquiries can jump by as much as 300 percent after a company takes it business online" (p. 2).

A simplistic strategy of "webifying" the customer assistance process by hosting a few simple HTML pages to offload customer service calls often backfires. As a customer care channel, the Internet promises reduced customer support costs but not without introducing a whole series of operating issues. For one, in a web-hosted assistance environment, the customer is not physically present, and which may complicate communication and increase the cost of providing pre- or post-sales services. Secondly, e-consumers bring with them a different set of expectations than a traditional bricks and mortar customer. For the e-consumer, "online" often means anytime, anywhere satisfaction with less than two-second delays. More than one major retailer has failed to live up to this higher standard, often requiring the web site to be "downed" for redesign shortly after initial launch (Singer, 2000). What is needed is a complete strategy for integrating the Internet as one of many customer care channels. Before implementing such a strategy, an audit of the existing customer service mix is essential. This article develops a web-customer care framework for evaluating Internet-enabled customer assistance in light of customer service levels and communication needs. Results of a customer service mix audit based on the framework should provide a baseline snapshot for management to improve the efficiency of web customer care.

Categories of Web-enabled Customer Care

Computer-mediated customer support is a communication-intensive activity. The customer support representative (CSR) may actively assist customers (full service) or encourage customers to serve themselves (self-service) by accessing readily available information. The dialog between the CSR and customer (or between the customer and the company-provided information) may be immediate (synchronous) or delayed (asynchronous).

One way of examining Web-based customer service options is along the two dimensions of customer

assistance level and communication synchronicity. In the Web Customer Care Matrix (Figure 1), the degree of customer assistance is plotted on the y-axis and the degree of communication synchronicity on the x-axis. The 2 x 2 matrix yields four general categories of Web-based customer service. In the following discussion, the nature of customer care afforded in each labeled quadrant will be explored. Following this, the advantages and disadvantages of e-Service over other customer care channels will be examined. As most online customer care begins with attempts to provide self-serve common answers, the lower left quadrant will be considered first.

***Self-serve Common Answers* (Quadrant 1)**

For organizations exploring e-Service, "Low interaction—Delayed communication" (illustrated by the lower left quadrant) is extremely attractive, representing the lowest cost customer service solution possible. Cost per service transaction averages only $0.24 (Read, 2001). In this category, customers take care of themselves using knowledge bases.

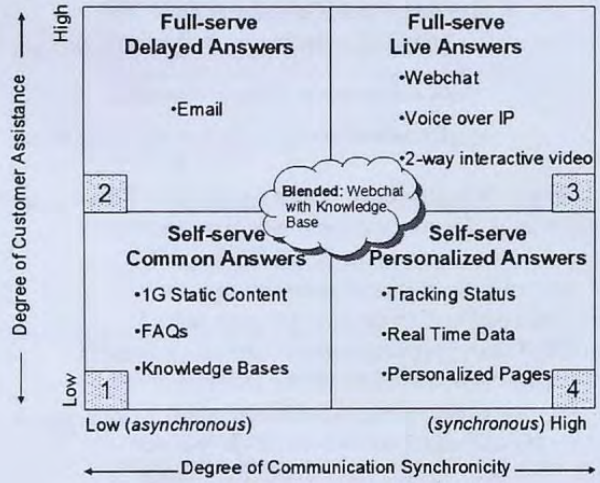

Figure 1 Web Customer Care Matrix

A knowledge base is a database of answers to common questions. Knowledge bases may be structured or unstructured. Structured knowledge bases are organized into a question and answer format (FAQs). Unstructured knowledge bases are repositories of customer interaction such as email correspondence with customer service or postings on an electronic bulletin board. Such repositories are indexed by key-word.

Quadrant 1 of the Customer Contact Matrix is often the starting point for organizations moving some of their customer support to the Web. Typically, the organization will create and host some sort of static (unchanging) Web page, something along the lines of an electronic version of a marketing brochure. Information usually includes little more than the contact information such as organizational name, address, and telephone number. This kind of Web presence usually generates more questions than it answers. Self-serve, common answer Web pages are very easy to create but not very effective.

A much better approach is to have some kind of info base of common questions and answers. Early forms included FAQs – Frequently Asked Questions. Characteristically, this included key product questions with short answers, something along the lines of: *Do you have a socially conscience mutual fund that invests exclusively in environmentally friendly companies? What is the best spotting telescope to use for high-country bird watching? How do I import the address file from my palm-sized computer into the address book on my cell phone?* Often the questions were listed at the top of the Web page and hyperlinked to the answers further down the page. (Hyperlinks are those words or phrases that once clicked with a computer mouse, cause the screen cursor to "jump" to another location on the page or a different page entirely). Questions would be sorted alphabetically or by the frequency they were asked. For common questions, FAQs were both efficient and effective. For many sites, FAQs are the primary form of self-serve knowledge base.

The problem with static Web pages is that, in order to find an answer, customers often have to read through the entire list of questions until they locate one that matches. Second generation (2G) FAQ sites are more efficient, employing a "search" engine that allows customers to query the knowledge base for one or more key terms. Third generation FAQ sites add "self-learning" knowledge bases to the 2G multi-word searches. A self-learning knowledge base is an online repository of the collective wisdom regarding the product or service that constantly updates itself based on customer inquiries.

Delayed Answers (Quadrant 2)

When customers cannot get the answers they need from self-serve sites, they often turn to email, an asynchronous high-assistance service option. Using manual knowledge bases and email management software, Customer Service Representatives take turns responding to customer-initiated inquiries. Though most Web customers expect a 24-hour turnaround, all too often the response time for email is no better than surface mail, if there is a response at all. Further, because email relies on one-way communication, the possibility of miscues and misunderstanding is high. The "High interaction—Delayed communication" quadrant is neither very effective nor efficient. The average cost per service transaction is estimated at $5.00–twenty times that of Web self-service (Read, 2001). According to leading customer service consultants "large volumes of email result from customers NOT being able to find answers they need on your Web site" (Gianforte, 2000). Rather

than being an effective customer care solution, email is often a symptom of an ineffective self-serve option.

Live Answers (Quadrant 3)

The upper right quadrant of the Customer Care Matrix illustrates synchronous, high-assistance service. Care options in this category include Web chat, voice over Internet protocol (VOIP), and two-way interactive video. All are more expensive than email. Webchat, for instance, averages $7.00 per service transaction (Read, 2001).

Webchat, sometimes referred to as "Live Chat" is an adaptation of the "chat room" technology popular for years with on-line services such as AOL (America On-line). With Webchat, the customer service representative communicates live (in "real time") with the customer who needs assistance. All messaging is text-based—both parties type questions and responses. Often, a complete transcript of the chat session is available to the customer for review.

For customers with poor keyboarding skills, two-way interactive video or internet phones provide synchronous communication with the Customer Service Representative. Two-way interactive video requires that both the service rep and the customer have special hardware and software. Hardware requirements include microphone, video camera, and a high-speed Internet connection; software requirements include an application to handle the network meeting, something like Microsoft's NetMeeting. Voice over Internet protocol, like interactive video, also requires special hardware and software. Since such infrastructure (the enabling hardware and software) is not commonly available on all personal computers, the use of such technology to assist customers is still relatively rare. As video cameras, built-in microphones, and broadband Internet service become more commonplace, two-way interactive video may one day replace Webchat as the preferred mode for interactive, real-time assistance.

Self-serve Personalized Answers (Quadrant 4)

The lower right quadrant of the Customer Care Matrix represents synchronous, personalized service—customized real-time data about the customer's specific problem. An example would be up-to-the minute tracking information on the delivery status of an online purchase. Per transaction costs for this customer assistance category would be slightly higher than generic Web self-service, well under $0.50 per query.

Personalized self-serve solutions rely on real-time tailoring of Web content to the customer's individual needs. Web pages are dynamically adjusted (frequently changed) based on the customer profile. For instance, when a Platinum-level frequent flyer checks her itinerary on the Web, she might see flight status, the in-flight meal menu, and an airport map showing her where the Platinum Club lounge is located in relation to her arriving gate. Economy class flyers, on the other hand, would only see flight status. Such personalization often exceeds customer expectations, engendering an almost religious loyalty to those organizations so attuned to customer needs.

Blended Service

Some organizations use blended Web-service approaches that combine technologies from multiple quadrants. In the Customer Care Matrix, blended approaches are depicted loosely as clouds. A prime example of blended e-Service is Microsoft's coupling of Web chat and knowledge databases to address the needs of its MSN Internet Service customers. As service reps assist customers via Webchat, they often partition the customer's Internet browser into two windows. One window captures the two-way text messaging; the other window is used to present potential solutions from Microsoft's extensive knowledge databases in the form of clickable Web links.

Conclusions

Today's Web-mediated customer service offers a low-cost alternative for many common customer service transactions. Getting answers to frequently asked questions, checking the status of an order, or even researching the details of an invoice are easy tasks for Internet-enabled customer care service centers. e-Service is an effective and low cost solution for self-serve customer assistance regardless of communication synchronicity (Quadrants 1 and 4). At $0.24 per service transaction, Web self-service costs about half that of menu-based telephone interactive voice response ($0.45), Read, 2001). The case for e-Service is not so clear for full service customer assistance.

When two-way communication is required, email ($5.00 per transaction) is only marginally more cost-effective than a traditional telephone call ($5.50 per transaction), Read, 2001). As an asynchronous medium, email (Quadrant 2) suffers from response delay not inherent in a direct conversation with a customer service representative. Synchronous e-Service (Quadrant 3) such as Webchat is even more expensive than telephone assistance and requires customers with good keyboarding skills. Long term, look for Webchat to be replaced with superior interpersonal communication technologies such as Voice over Internet or two-way interactive video. In the meantime, a portfolio of self-serve options coupled with full-serve email appears to provide the best e-Service

customer assistance mix. E-business leader Michael Dell (2000), CEO of Dell Computers, best summarizes this position:

"Within Dell, for example, about one third of our technical-support activities, about 75 percent of order status transactions, and almost 50 percent of sales are enabled by the Web. We are moving these transactions online because customers told us they want faster, more efficient support for routine interactions. Over the phone, these transactions cost between $3 and $10 each, but the Internet lowers the cost to zero in most cases," (p.33).

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