



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Using the WWW for Retail Food Sales: Discussion and Demonstration

Gregory K. White

Researchers at the University of Maine have been studying the marketing of specialty food and drink products on the Internet since the fall of 1995. We have surveyed both the firms which have established electronic sites on the World Wide Web (WWW) and the Internet users who visit them. Research findings from the project can be found on our homepage at <http://www.ume.maine.edu/~specfood>.

The use of the Internet for product marketing is a new phenomenon; its time is measured in months, not years. The newness of the medium combined with the fact that many sites have been designed and operated with in-house resources has led to a great deal of experimentation with the design of commercial sites. Little research has been conducted into the most effective means of generating sales through the Internet, and this project is the first academic research to focus on the food and drink industry. Our project is still in the early phases, but there are several observations which can be made about what users expect from food and drink sites and what affects their likelihood of purchase.

Food Marketing on the Internet

The number of food and beverage firms going on-line has increased tremendously over the past year. We identified approximately 100 businesses marketing food and drink on-line in October, 1995. Six months later the number of sites had grown to over 600. One year later there were several thousand -- beer and wine sites, alone, totaled more than 400.

Most food and beverage firms have experienced only limited sales to date, but use of the Internet for commerce appears to be growing. A recent report in the Wall Street Journal (Sandberg 1996) projected that on-line sales of food and drink products would reach \$39 million in 1996

and then double in 1997. Sales are expected to reach \$336 million by 2000.

Demographics of Food and Drink Internet Users

The demographics of the Internet population who are interested in food and drink sites are attractive to companies hoping to market their products on-line (Figure 1). Nearly two-thirds of the population have at least a four year degree. Their mean household income is approximately \$58,000 and their mean age is 37 years. For most of these characteristics food and drink Web users closely resemble the profile of the general Internet user as reported by the 5th GVU study. (Pitkow 1996) The food and drink population differs significantly from the Internet population as a whole with regard to gender -- men and women are much more evenly represented.

The population is also attractive because they are frequent purchasers of specialty food and drink products. In our initial demographic study, survey respondents were asked if they had purchased items from 25 specialty food and drink product categories in previous six months. (White and Cheng 1996) Eighty-three percent had purchased one or more of the products at a retail store. Approximately 44% had purchased a product by mail order and 12% had made a purchase from an on-line site (Figure 2).

In May through August, 1996, surveys asked participants to review selected commercial WWW sites and rate the sites on a variety of factors (transfer speed, ease of navigation, company and product information, graphics, order options, and overall appeal) as well as their likelihood of purchase. Again, they were much more likely to indicate a willingness to purchase a product from a retail store than from either a catalog or an on-line storefront. However, there appear to be several factors which contribute to an increased likelihood of making on-line sales.

Figure 1. Demographic Profile of Food and Drink Survey Respondents Compared to the General Internet Population

	Age	Gender	Income	Education
Food & Drink on the Internet Study	37	48% Male 52% Female	\$58,000	65% four year degree
GVU 5	33	69% Male 31% Female	\$50,000 - \$60,000	56% four year degree

Figure 2. Where Did Respondents Purchase Specialty Food and Drink Products in the Last Six Months?

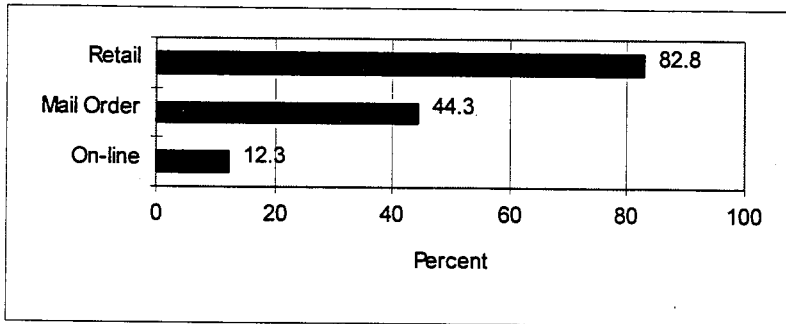


Figure 3. Likelihood of Purchase Related to Frequency of Purchase

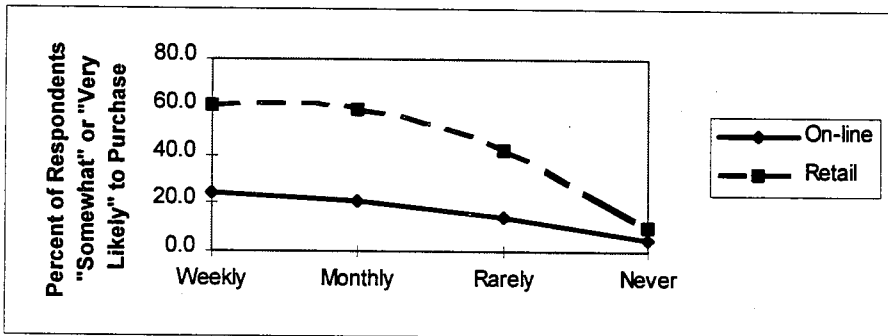
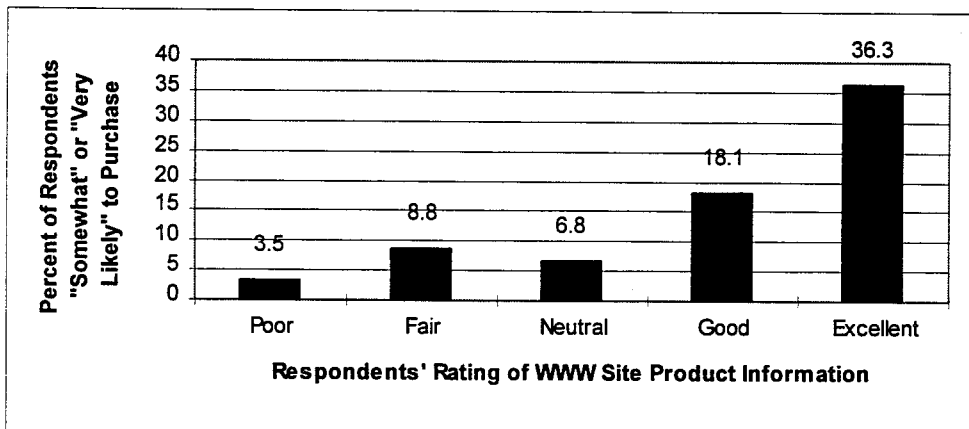


Figure 4. Quality of WWW Site Product Information and Likelihood of On-line Purchase



What do Consumers Buy On-line?

The same things they buy by catalog

The four most frequently cited products which had been purchased on-line were gourmet gift baskets, fancy coffee/tea/cocoa, condiments/relishes, and candy/chocolates. These four product categories also were among the top 5 of the list of those most frequently purchased by mail order. Conversely, only two of the products (i.e., fancy coffee/tea/cocoa and condiments/relishes) are included within the top 10 specialty food and drink products purchased from retail stores.

Items that they purchase with some regularity

Approximately 24% of respondents indicated that they were likely to purchase a product on-line if they normally purchased that product weekly or more frequently (Figure 3). The percent indicating a likely future purchase dropped to approximately 14% for products which are normally purchased "rarely" and 5% if they "never" purchase the product.

Items that are unique -- something that can not be found locally

The Web site must emphasize unique or outstanding characteristics of the product in order to convince viewers to place an on-line order.

What Makes an Effective Site?

Many of the basic points for developing an effective WWW site mirror those of print catalogs and advertisements, but some are specific to the unique aspects of the Internet technology. The technology offers an ever increasing number of options, or "whistles and bells," for the site designer, but the primary goal should be to develop a site that is user-friendly.

It must be easy to read and navigate

Colorful text and background images can add to the interest of a WWW site, but they must not detract from content. Potential customers, for example, are not likely to spend much time visiting a WWW site if they must strain to read yellow text on a white background.

Nor will they read a great deal of text. It has been estimated that an individual reads 25%

slower from a computer screen than from paper. (Nielsen, 1996) A good site is well-organized, providing only essential information on introductory pages and clear links to further detail.

Graphics, too, must be well planned. Quality graphics attract a visitor's attention, provide company and/or product information, and can be good "road signs" for navigating a WWW site. However, numerous and/or large graphics slow the speed at which the site loads, detracting from a site's overall appeal. Until the technology enables higher speed data transfer, WWW sites must compromise. One solution is to provide "optional" graphics -- those which a visitor can choose to open. For example, a salsa company's site provides links which open graphic representations of each of their labels. Thus, a consumer can access nutritional information and a list of ingredients if they desire, but visitors who are not interested in this information do not have to wait for the large graphics to load.

Good Product Information

It is clear from reviewer comments that while an emphasis on product information may not be sufficient to generate sales from an on-line site, if consumers consider this information to be inadequate, sales are unlikely (Figure 4).

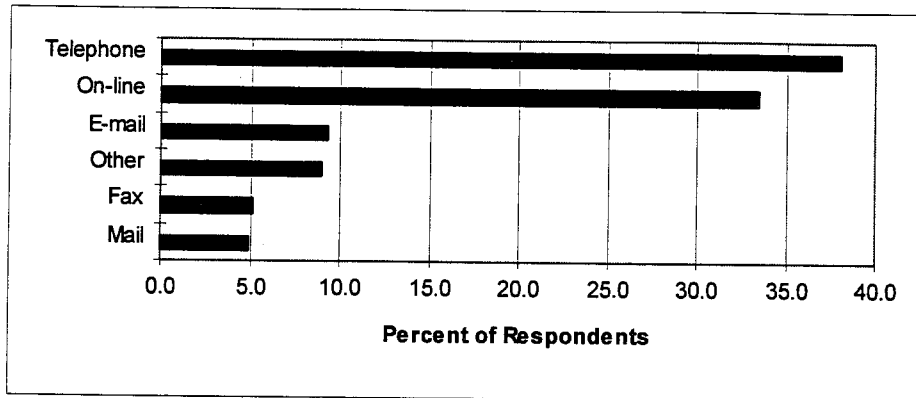
Good Shipping Information

Full information about the shipment of the order should be available. This includes the various shipment options, cost, shipment time, and special handling and packaging if the product is perishable. The site should also clearly indicate if shipment outside the country is available, and, if so, the specifics for such shipment.

Multiple Order Options

Companies currently have a variety of order options: secure or unsecure on-line order, telephone, fax, e-mail, etc. Our research indicates that consumers did not have a significant preference for secure on-line ordering compared to unsecured. Many individuals, however, are reluctant to provide credit card information on-line, regardless of the security provided. What appears to be most important is that multiple order options are available so that individuals can select the option which makes them the most comfortable.

Figure 5. What Order Options were Respondents Most Likely to Use?



Things to consider adding to the site

Reviewers positively responded to sites which included aspects which make the site fun, interesting, or informative. They enjoy and are more likely to return to sites that provide them with something of value. Examples of such things include links to other sites, recipes, and contests.

Things to consider excluding from the site

Reviewers have reacted negatively to sites which have included required registration, particularly before the person can view product offerings. While this information may be somewhat useful to the firm, it is a major deterrent to attracting potential consumers. Another problem which we have noted is requiring large minimum orders. Small quantities are generally preferred by consumers who may have no previous experience with a company or its products.

References

- Nielsen, Jakob (1996), "Interface Design for Sun's WWW Site," Sun Microsystems. <http://www.sun.com/sun-on-net/uidesign/designstory.html>
- Pitkow, Jim and Colleen Kehoe (1996), "Fifth Gvu WWW User Survey. High Level Summary and Trend Analysis," October. Gvu Center, College of Computing, Georgia Institute of Technology.
http://www.cc.gatech.edu/gvu/user_surveys/
- Sandberg, Jared (1996), "What Do They Do On-Line?," *The Wall Street Journal*, December 9, 1996, R8.
- White, Gregory K. (1996) "Factors Influencing Consumers' Likelihood of Purchasing Specialty Food and Drink Products On-line: Results of Consumer Reviews of 12 Selected Sites," *Journal of Food Distribution Research*, October.
- White, Gregory K.; Cheng, Hsiang-tai (1996) "Purchase Behavior of On-line Specialty Food and Drink Consumers: Results of an Electronic Survey," Proceedings of the International Meeting of the Academy of Marketing Studies, Maui.