Factors Influencing Consumers' Likelihood of Purchasing Specialty Food and Drink Products On-line: Results of Consumer Reviews of 12 Selected Sites

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A total of twelve companies marketing specialty food and drink products on the World Wide Web were identified for this study. Four each marketed coffee, salsa, and seafood. Over a three week period, 163 respondents completed a total of 973 site evaluations. While respondents preferred to purchase products from a retail store, the majority identified at least one product from the sites which they would likely purchase on-line in the next six months. Respondents who regularly purchase one of the products monthly or more often were significantly more likely to make an on-line purchase in the future than those who purchase the product less frequently. Respondents who rated the overall appeal of a company's WWW site as good or excellent were nearly six times as likely to say that they would be likely to purchase the product on-line than those who rated the site as fair or poor. While no single site characteristic stood out relative to the others as having a major influence on increasing the likelihood of making an on-line purchase, insufficient company and/or product information reduced consumers' willingness to purchase on-line and by mail order.

Estimates vary as to the number of people who regularly use the Internet, but there is consensus that Internet users are young, have higher than average incomes, and are highly represented in professional occupations (Pitkow, 1996). This profile of World Wide Web (WWW) users is of particular interest to specialty food and drink producers, as it closely resembles their consumers (Dietrich, 1990).

To date, commerce on the Internet has been limited, but is growing. The percentage of people using the Internet for shopping increased from 11.1% in October, 1995 to 14.2% in April, 1996 (Pitkow). Specialty food and drink companies are increasingly pursuing this emerging marketing option. A general search by the author identified approximately 100 specialty food and drink companies with a presence on the WWW in October, 1995. In March, 1996 this number had already grown to more than 600.

In light of this growth, researchers at the University of Maine have begun to examine the factors involved in marketing specialty food and drink products on the Internet. A previous study characterized the demographics and purchasing behavior of Internet users who visit food and drink sites on the WWW and participate in on-line food- and drink-related newsgroups (White, 1996). This population shared most of the demographic characteristics of WWW users in general, and over 12% of them had purchased at least one food or drink product on-line within the previous six months.

Overview

This project was designed to build on the previous study and begin to identify factors which influence consumer willingness to make purchases from commercial WWW sites. It focused on three areas: the consumers (demographics, previous purchasing activity, and their Internet connections), the products (food and drink category and price), and the WWW sites (transfer speed, ease of navigation, company and product information, graphics, order options, and overall appeal). It also examined Internet user attitudes toward making purchases by mail order and from retail outlets. This provides a means to distinguish the appeal of the products and the WWW site

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from the probability that they would make an on-line purchase.

A total of twelve companies marketing specialty food and drink products on the WWW were identified for this study. Four each marketed coffee, salsa, and seafood. These product areas were selected based upon differences in price and perishability. Individual companies were selected which varied in the design and operation of their sites. Some of the factors considered include whether the site is part of an electronic mall or independent, different ordering options, links to other regional or food sites of interest, recipes, contests, product photos, and use of background patterns or colors.

Methodology

Each company was contacted and, if willing to be included in the study, agreed not to modify their WWW site during the time the survey was conducted. The on-line survey was accessible to respondents from June 20th through July 11th, 1996. Respondents completed a registration form which contained demographic questions and additional questions concerning their purchases of coffee, salsa, and seafood during the previous six months. They were given an individual identification code and directed to one of 36 sites which provided instructions and links to a set of six company sites to be evaluated. The 36 were constructed so that the order in which respondents evaluated the companies was sufficiently varied that order bias would not be an issue. Each respondent was asked to evaluate only six of the twelve sites because of the time and personal cost incurred for their Internet connection. Chances at 100 T-shirts designed for the project were used as incentives for respondents to complete all six sites in their group.

Respondents came to the site in various ways, but all contact was made through the Internet. Some had previously completed an on-line survey of specialty food purchasing behavior and had volunteered to take part in the site evaluation study. Others followed links to the survey from a variety of food and drink WWW sites, food and drink e-zines (on-line magazines), and messages on food and drink newsgroups and mailing lists. They pre-registered at the project homepage between May 29 and June 20. Both groups were contacted by e-mail on June 20th, assigned to a group, given a corresponding ID, and told how to begin the evaluation. They followed links from their assigned group pages which led them to a standardized evaluation form with a link to the designated company's WWW site. People who came to the survey site while it was active completed the registration, were told to use their initials as an ID, and were directed to a group site which was changed daily in order to distribute their responses uniformly among the companies. These people, too, were directed from food and drink sites, e-zines, newsgroup postings, and word-of-mouth.

Respondents would explore each site and then complete the corresponding evaluation form. Each form was submitted when complete and received by the investigator as e-mail. A total of 163 people completed at least one site review; 973 site evaluations were completed. Many respondents requested the opportunity to review more than their six assigned sites. They were given instructions for rating the other six sites in the sample of companies. An F-test was used to test whether the mean scores for the second group of sites differed from the first set among those respondents completing more than one group. After determining that there was no significant difference between the scores, the data for all site reviews were merged. A more complete description of the methodology and tests of bias associated with the survey technique are presented in (White, 1996).

Respondent Demographics

Fifty-five percent of respondents were female. While this percentage is significantly higher than the proportion of females among the current general Internet population (Pitkow, 1996), it is consistent with previous research characterizing Internet users who were interested in food and drink sites (White, 1996). The modal response for age among males was 45-54 and for females 35-44 (Table 1). Again, this was higher than the general Internet population, estimated at an average of 31.9 years for women and 33.4 for men (Pitkow, 1996), as well as those users interested in food and drink sites (White, 1996).

Table 1. Respondents' Age by Gender.

	Male (N=74)	Female (N=91)	Total (N=166)*
	--------Percent--------		
< 17	0.0	1.1	1.8
18 - 20	2.7	1.1	0.6
21 - 24	0.0	6.6	5.4
25 - 34	28.4	33.0	30.7
35 - 44	27.0	33.0	30.1
45 - 54	31.1	20.9	25.3
55 - 64	8.1	3.3	5.4
65 +	0.0	1.1	0.6

*total includes respondent who did not indicate gender

Over 90% of all respondents have an education level beyond high school. (Table 2) Education was relatively constant among the Internet population as a whole, users interested in food and drink sites, and survey respondents.

Table 2. Education Level by Gender.

	Male (N=74)	Female (N=91)	Total (N=166)*
	--------Percent--------		
Did not graduate H.S.	4.1	1.1	2.4
Graduated H.S.	4.1	5.5	4.8
Some College or 2-yr. Program	31.1	35.2	33.1
Graduated College	27.0	36.3	31.9
Advanced Degree	32.4	22.0	26.5
Rather Not Say	1.4	0.0	1.2

*total includes respondent who did not indicate gender

The modal 1995 household income was in the range of $45,000 to $54,999. (Table 3) This is consistent with the previous survey of specialty food and drink consumers, but is slightly lower than the Internet population as a whole, estimated at $59,000 (Pitkow, 1996). Women were less likely than men to indicate their income.

Because WWW sites may appear differently to the viewer depending upon which browser they use, respondents were asked to identify their current browser. The majority used Netscape (78.4%), 7.0% used WebCrawler, 5.8% used Microsoft Explorer, 1.8% used Mosaic, and 7.0% used "other." Most were connected to the Internet at a speed of 28,800 baud or greater (66.3%). Specifically, 2.5% were at less than 14,400, 31.3% at 14,400, 46.3% at 28,800, and 20.0% at some higher speed.

Table 3. Respondents' 1995 Household Income by Gender.

	Male (N=74)	Female (N=91)	Total (N=166)*
	--Percent--		
< $15,000	4.1	2.2	3.0
15,000 - 24,999	1.4	12.1	7.2
25,000 - 34,999	4.1	8.8	6.6
35,000 - 44,999	12.2	13.2	12.7
45,000 - 54,999	13.5	7.7	10.2
55,000 - 64,999	10.8	14.3	12.7
65,000 - 74,999	13.5	4.4	8.4
75,000 - 99,999	16.2	9.9	12.7
100,000 +	12.2	7.7	9.6
Rather Not Say	12.2	19.8	16.9

*total includes respondent who did not indicate gender

Previous Purchase Behavior

Respondents were asked about the frequency and source of their purchases of coffee, salsa, and seafood within the past six months. (Table 4) Salsa was purchased from retail stores by the largest percentage of the respondents (88.6%), closely followed by seafood (86.1%) and coffee (80.1%). Coffee had been purchased by mail order by the largest percent (16.3%) of respondents (x^2 = .00), and salsa had the largest number of respondents (4.8%) reporting purchases on-line (x^2 = .02). Men were more likely to have purchased one of the three products on-line within the past six months (x^2 = .01).

Table 4. Percent of Respondents by Gender Reporting Purchase of a Product from Various Sources within Previous Six Months.

Product and Gender	Retail	Mail Order	On-line	Total from any Source
Coffee				
Total	80.1	16.3	1.2	87.3
Male	81.1	14.9	2.7	87.8
Female	79.1	17.6	0.0	86.8
Salsa				
Total	88.6	9.0	4.8	91.0
Male	83.8	13.5	9.5	89.2
Female	93.4	5.5	1.1	93.4
Seafood				
Total	86.1	0.0	0.6	86.1
Male	86.5	0.0	0.0	86.5
Female	85.7	0.0	1.1	85.7

Table 5 expands upon the respondents' purchase history by indicating the frequency with which they normally purchase the selected products. Since quantities were not specified, it cannot be determined, for example, whether the consumers were indicating the purchase of a cup of coffee or a pound of coffee beans. However, this does indicate that the modal frequency at which respondents purchase coffee is in the range of 2 to 3 times a month. For salsa the modal frequency is monthly, and for seafood it is 2 to 3 times a month. Thus, while salsa has been purchased by the largest proportion of the respondents, the purchase decision is made less frequently than for the other two products.

Table 5. Frequency of Purchases.

Frequency of Purchase	Coffee	Salsa	Seafood
	--------Percent--------		
Daily	19.5	0.0	0.6
Several Times a Week	11.0	4.3	9.6
Weekly	12.8	15.9	23.5
2 to 3 Times a Month	14.0	23.2	24.7
Monthly	16.5	17.7	14.5
Several times a Year	8.5	27.4	13.3
Almost Never	9.8	7.9	7.8
Never	7.3	3.7	6.0

Site Reviews

Respondents were asked to rate each site with respect to the speed at which it loaded, ease of navigating the site, information about the company, information about the product(s), graphics, order options, and overall site rating. Site characteristics were rated on a 1 to 5 scale (i.e., poor, fair, neutral, good, excellent). Respondents were also asked about the likelihood of making a purchase of a product from the site. This was measured on a 1 to 5 scale where 1 was very unlikely, 2 somewhat unlikely, 3 neither likely nor unlikely, 4 somewhat likely, and 5 very likely.

Generally the respondents found the sites easy to navigate and they were satisfied with the product and company information and loading speed. (Table 6) Respondents were most critical of site graphics, although even here only 20.6% rated them as low.

Respondents were asked to identify that product, if any, from each company's site which they would be most likely to purchase within the next six months. The survey listed each product available from the company's WWW site as well as the option "would not consider purchasing any product." Respondents identified a product in 49.4% of the site reviews. They were then asked to identify their preferred method for placing an order among those provided by the company. Ordering by telephone (1-800 or toll call) was the most preferred method (38.6%) followed by on-line ordering (30.8%), e-mail (8.1%), Fax (5.4%), regular mail (5.1%), and other (13.9%). On-line ordering was only marginally more popular in sites with a secure order form (32.9%) than those without security (28.9%).

Preferences Between On-line, Mail Order, and Retail Purchases

After indicating the likelihood of actually purchasing the identified product within the next six months from the electronic site, respondents were asked the hypothetical question "How likely would you be to purchase that product from a retail store in your area (if it were available) in the next six months?" Another question asked about the likelihood of purchase by mail order.

Respondents appear to mirror the general Internet community in that for every vendor in the survey they would prefer to purchase products from a retail store in their area (Pitkow, 1995). (Table 7) They were nearly 2.7 times as likely to indicate that they were willing to purchase products at a retail store than they were to purchase them on-line or by mail order (x^2 =.00). Respondents were equally likely to purchase on-line or by mail order.

Despite this preference for retail purchases, 57.7% of the respondents identified at least one product which they would likely purchase on-line within the next six months, and 20.2% of respondents were likely to make an on-line purchase from any given company.

Table 6. Overall Ratings of Site Characteristics.

Rating Group	Loading Speed	Navigation Ease	Company Information	Product Information	Graphics	Order Options	Overall Site Rating
			-------Percent-------				
Poor/fair	16.9	9.2	14.6	14.1	20.6	17.9	16.6
Neutral	13.3	13.3	20.1	15.4	28.8	23.0	24.7
Good/excellent	69.8	77.5	65.2	70.5	49.9	59.0	58.5

Table 7. Overall Ratings of Likelihood of Making a Purchase within Next Six Months.

Rating Group	Purchase On-line	Purchase by Mail Order	Purchase at Retail Outlet
		-------Percent-------	
All companies			
Very/somewhat unlikely	67.8	66.9	32.6
Neither likely nor unlikely	11.7	12.0	12.8
Somewhat/very likely	20.2	20.7	54.0
At least one company			
Somewhat/very likely	57.7	56.0	89.8

Factors Related to Likelihood of Purchase

The study evaluated the importance of demographics, product characteristics, and WWW site characteristics relative to the stated likelihood of making a purchase of a site's product within the next six months.

Demographic factors influencing likelihood of purchase

Both age and gender were significant factors in the likelihood of electronic, mail order, and retail purchases. Men were more likely to make an on-line purchase than women (x^2 =.04) (Table 8), and older men were more likely to purchase on-line (28.2%) than younger men (13.5%) (x^2 =.00). Older women were more frequently likely to purchase at retail stores (59.1%) than men or younger women. However, men and women were equally likely to identify at least one item they would purchase on-line in the next six months. (Table 9) Thus, women indicated a willingness to make on-line food purchases, but they are less likely to purchase on-line from any given company.

The influence of household income on the likelihood making a purchase was evaluated by grouping respondents into those earning less than $35,000, from $35,000 to $64,999, and $65,000 and over. There was no significant difference based upon household income for any of these groups.

Table 8. Likelihood of Purchase Related to Gender and Age.

Age and Likelihood of Purchase	On-Line Purchase		Mail Order Purchase		Retail Store Purchase	
	Male	Female	Male	Female	Male	Female
			-------Percent-------			
< 35 years old						
Very/somewhat unlikely	69.9	74.9	72.3	67.7	29.5	39.1
Neither likely nor unlikely	16.8	13.5	15.2	9.4	19.6	13.3
Somewhat/very likely	13.5	11.7	12.5	22.9	50.9	47.6
35 years old and above						
Very/somewhat unlikely	64.5	64.0	67.5	64.9	33.7	27.0
Neither likely nor unlikely	7.3	13.3	8.2	16.9	9.6	13.1
Somewhat/very likely	28.2	22.7	24.3	18.5	56.7	59.1

Table 9. Gender of Respondents Likely to Make a Purchase within the Next Six Months from at least One Site.

Gender	Purchase On-line	Purchase by Mail Order	Purchase at Retail Outlet
	-------------Percent-------------		
Females	56.7	58.9	89.9
Males	58.9	50.7	89.0

Product characteristics as a factor in likelihood of purchase

The mean price of products identified across all sites was $17.99 (median = $10.00). Respondents were most willing to buy the product on-line when the price was less than $10.00 (41.1%). (Table 10) Respondents were least likely (23.1%) to purchase products over $20.00 on-line ($x^2$ =.00). In contrast, price is not a significant factor in determining the likelihood of making a purchase from a retail store. Respondents' comments suggest that this may be a function of consumers' willingness to accept some risk with an unknown product or company when the price is small. Several respondents suggested that companies consider offering free samples or small sample packs to encourage initial purchases. Further study of consumers motivation is necessary to determine how successful these strategies might be.

Table 10. Likelihood of Product Purchase On-line or from Retail Store as a Function of Product Price (Percent of Respondents Identifying a Product They Would be Likely to Purchase).

Price Range and Product	Purchase/ On-line	Purchase/ Retail Store
Under $10		
Very/somewhat unlikely	40.2	7.0
Neither likely nor unlikely	18.7	13.1
Somewhat/very likely	41.1	79.9
$10 - $20		
Very/somewhat unlikely	39.1	10.2
Neither likely nor unlikely	23.0	15.9
Somewhat/very likely	37.9	73.9
$20 and over		
Very/somewhat unlikely	60.2	13.9
Neither likely nor unlikely	16.7	11.1
Somewhat/very likely	23.1	75.0

Salsa was most likely to be purchased from any source. (Table 11) It is also, of course, the lowest priced product among the foods in this sample, the most frequently purchased item in the previous six months, and has none of the perishability concerns of fresh seafood. There was no significant difference between respondents' likelihood of purchasing coffee and seafood at a retail outlet, but they were approximately 40% more likely to consider purchasing coffee on-line than seafood. There was no significant difference in preferences between mail order and on-line purchase.

Table 11. Likelihood of Purchase by Product Categories.

Product Category	On-Line Purchase	Mail Order Purchase	Retail Store Purchase
		-------------Percent-------------	
Coffee			
Very/somewhat unlikely	70.8	67.2	36.9
Neither likely nor unlikely	9.8	10.8	14.1
Somewhat/very likely	19.1	21.7	48.4
Salsa			
Very/somewhat unlikely	56.6	53.8	17.8
Neither likely nor unlikely	14.5	15.4	10.7
Somewhat/very likely	28.6	30.5	71.2
Seafood			
Very/somewhat unlikely	75.6	79.2	42.6
Neither likely nor unlikely	10.8	10.2	13.7
Somewhat/very likely	13.3	10.6	43.0

Table 12. Frequency that the Respondent Normally Purchases a Product Compared to the Likelihood of Purchase from Web Site Companies.

Frequency of Actual Purchase and Likelihood of Purchase	On-Line Purchase	Mail Order Purchase	Retail Store Purchase
		Percent	
Daily through weekly			
Very/somewhat unlikely	61.3	62.5	23.0
Neither likely nor unlikely	12.8	11.9	15.2
Somewhat/very likely	25.9	25.6	61.8
2 to 3 times a month through monthly			
Very/somewhat unlikely	63.3	62.7	24.4
Neither likely nor unlikely	14.5	14.9	13.1
Somewhat/very likely	22.2	22.4	61.9
Several times a year through almost never			
Very/somewhat unlikely	77.9	75.7	46.8
Neither likely nor unlikely	8.2	8.7	10.7
Somewhat/very likely	13.9	15.5	42.4
Never			
Very/somewhat unlikely	93.9	91.7	83.0
Neither likely nor unlikely	2.0	4.2	8.5
Somewhat/very likely	4.1	4.2	8.5

Respondents' normal frequency of purchasing coffee, salsa, and seafood was compared to their likelihood of purchasing from the four companies marketing each of those products. (Table 12) There is no significant difference between the responses of those who purchase "daily through weekly" and those purchase "2 to 3 times a month through monthly." However, there is a significant difference (x^2 =.00) among the responses for each purchase option of those who purchase monthly or more often and those who purchase "several times a year through almost never" and "never." As might be expected, regular consumers of the selected products expressed a much greater likelihood of purchasing a company's product via any purchase option than those who use the product less frequently. Frequent consumers of the product expressed an equal willingness to purchase from the companies on-line or by mail order.

Site Appeal and Likelihood of Purchase

Likelihood of purchase was also evaluated with respect to respondents' overall rating of the site and each of the six site characteristics (i.e., transfer speed, ease of navigation, graphics, company information, product information, and ordering options).

Overall site rating

Those who rated the overall appeal of the site as good or excellent were nearly six times as likely to say that they would be likely to purchase the product on-line than those who rated it fair or poor (x^2 =.00). (Table 13) The effect of the overall rating on retail purchase was not as strong, but a good or excellent site increased the likelihood of purchase by nearly 70% over those rated fair or poor. It is clear that a site which is poorly rated is unlikely to generate either on-line or mail order sales, but it still may attract limited sales of the product in a retail store.

While a favorable rating on any of the six WWW site criteria was related to a greater likelihood of on-line purchase, no single characteristic stands out as having a significantly larger positive effect than the others. (Table 14) It appears, however, that insufficient company and/or product information has a negative effect on consumers' willingness to purchase on-line. For example, respondents were approximately twice as likely to make an on-line purchase from a company whose site loaded too slowly or was difficult to navigate than they were from a site with insufficient company information.

Table 13. Overall Site Rating Compared to Likelihood of Purchase.

Overall Site Rating and Likelihood of Purchase	On-Line Purchase	Mail Order Purchase	Retail Store Purchase
		---Percent---	
Poor/fair			
Very/somewhat unlikely	91.1	86.7	49.7
Neither likely nor unlikely	3.9	5.3	11.1
Somewhat/very likely	5.2	7.3	37.9
Neutral			
Very/somewhat unlikely	81.7	82.8	40.0
Neither likely nor unlikely	11.8	9.3	15.2
Somewhat/very likely	6.6	7.9	44.8
Good/excellent			
Very/somewhat unlikely	56.0	55.3	24.9
Neither likely nor unlikely	14.1	15.3	12.2
Somewhat/very likely	29.9	29.4	62.9

Table 14. Site Characteristic Ratings Compared to Likelihood of On-Line Purchase.

Site Ratings and Likelihood of Purchase	Loading Speed	Navigation Ease	Company Information	Product Information	Graphics	Order Options
			---Percent---			
Poor/fair						
Very/somewhat unlikely	84.3	83.3	86.6	86.4	82.4	84.8
Neither likely nor unlikely	1.9	3.6	6.7	6.1	7.4	4.8
Somewhat/very likely	13.8	13.1	6.7	7.6	10.1	10.3
Neutral						
Very/somewhat unlikely	74.8	82.1	74.5	77.5	70.9	77.9
Neither likely nor unlikely	16.3	8.9	11.2	14.8	13.6	14.9
Somewhat/very likely	8.9	8.9	14.4	7.7	15.5	7.2
Good/excellent						
Very/somewhat unlikely	62.7	63.8	61.8	62.2	60.3	58.6
Neither likely nor unlikely	13.3	13.3	13.1	12.5	12.5	13.3
Somewhat/very likely	24.0	22.8	25.1	25.4	27.2	28.2

Table 15. Site Characteristic Ratings Compared to Likelihood of Retail Purchase.

Site Ratings and Likelihood of Purchase	Transfer Speed	Navigation Ease	Company Information	Product Information	Graphics	Order Options
			---Percent---			
Poor/fair						
Very/somewhat unlikely	40.1	40.2	45.9	37.7	40.0	35.0
Neither likely nor unlikely	11.5	11.0	11.3	11.5	12.4	14.7
Somewhat/very likely	47.1	48.8	42.1	50.0	47.6	50.3
Neutral						
Very/somewhat unlikely	32.8	39.2	29.7	39.7	31.4	35.9
Neither likely nor unlikely	15.6	15.8	19.5	17.7	12.9	18.2
Somewhat/very likely	51.6	45.0	50.3	42.6	55.3	45.9
Good/excellent						
Very/somewhat unlikely	30.7	30.6	30.5	30.0	30.4	30.4
Neither likely nor unlikely	12.6	12.5	11.2	12.3	13.1	10.4
Somewhat/very likely	56.7	56.9	58.3	57.6	56.5	59.0

The relationship between positive site characteristics and likelihood of purchase at a retail outlet was less of a factor than it was with regard to on-line purchase, but it was significant for three criteria: company information, product information, and order options. (Table 15) A respondent who rated a company's site as good or excellent in any of these characteristics was more likely to indicate a willingness to make a purchase at a retail outlet. This suggests that while the information provided in a WWW site has some influence, it is not as important to a consumer who will have the opportunity to evaluate the product in a retail outlet.

Summary

The study asked respondents to describe their purchasing behavior with respect to coffee, salsa, and seafood, and to evaluate the WWW sites of 12 companies which marketed one of these products. They also described the likelihood of purchasing these products on-line, by mail order, or from a retail outlet within the next six months. Salsa had been purchased on-line by 4.8% of the respondents. It was followed by coffee (1.2%) and seafood (0.6%). Men were more likely to have purchased one of the products on-line within the previous six months than women.

There is a strong preference for making purchases from retail outlets as compared to on-line and by mail order. However, 57.7% of the respondents identified at least one product from the sites which they would be somewhat or very likely to purchase on-line in the next six months. Respondents had an equal preference for purchasing on-line and by mail order.

The study found that men who were 35 or more years old were the most likely to say that they would make a purchase on-line from a given company, but overall, men and women were equally likely to indicate a willingness to purchase at least one product on-line. Household income was not significant in explaining likelihood of purchase.

Product price was significant and inversely related to the likelihood of making an on-line purchase. It was not a significant factor in determining the likelihood of making a purchase from a retail store. Respondents were approximately 50% more likely to purchase salsa on-line than coffee (28.6% vs. 19.1%) and least likely to purchase seafood. Respondents who regularly purchase one of the products monthly or more often were significantly more likely to make an on-line purchase in the future than those who purchase the product less frequently.

Respondents who rated the overall appeal of a company's WWW site as good or excellent were nearly six times as likely to say that they would be likely to purchase the product on-line than those who rated the site as fair or poor. While no single site characteristic stood out relative to the others as having a major influence on increasing the likelihood of making an on-line purchase, insufficient company and/or product information reduced consumers' willingness to purchase on-line and by mail order. Consumers were most likely to indicate a willingness to make a purchase at a retail outlet from a company whose WWW site was rated as good or excellent for company information, product information and order options.

Electronic marketing provides specialty food and drink producers with a low cost option to market their products. For companies whose products are available in stores, a quality WWW site's most significant impact may be to generate increased retail sales. A quality site can also help a firm reach consumers beyond their retail area who are interested in food and drink products and generate on-line sales. Lower cost products which are perceived as high quality and which compete against items which are frequently purchased by consumers appear most likely to generate on-line sales. Site content is related to consumers' overall rating of the site and to their willingness to purchase products on-line. However, further research into site content and order options is needed to better understand the factors which have a positive relation to consumers' perceptions.

Industry Implications

Firms considering marketing their specialty food or drink products over the Internet should consider several points in developing their WWW sites and overall strategy. Consumers prefer to purchase specialty food and drink products at retail stores. WWW sites have to emphasize the uniqueness of the products to attract customers if substitute products are available locally. Products which sell by catalog or mail order are the same products which have been purchased most frequently on-line. The consumer wants good product information as well as information about shipping. Several convenient order options should be provided for the on-line customer. Consumers appear to be more willing to order lower priced products on-line. Firms should consider offering small quanitities or sampler packs.

It is also very important that the consumers see the WWW site as attactive and interesting. Firms should be aware of some very basic principles in designing their site. It should be easy to read, easy to navigate, provide good product and company information, and be easy to place product orders. While sites with quality graphics rate highly with consumers, they can also slow the rate that a page loads on a consumer's computer and increase the likelihood that they will be frustrated and leave the site before viewing it completely. Smaller sized graphics and elimination of unnecessary graphics on the initial pages will appeal to consumers.

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