

Consumer Attitudes and Preferences

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SUMMARY

Consumer questionnaires (n = 234) were analyzed to determine which of six factors (price, safety, flavor/palatability, health reasons, nutrient value, or convenience) consumers deem the most important when making consumption decisions regarding various protein sources. Consumers indicated that flavor/palatability was the most important ($P < 0.05$) factor when considering beef, poultry and pork products, health reasons were the most important ($P < 0.05$) when considering non-meat sources, and health reasons and flavor/palatability were the most important ($P < 0.05$) when considering fish products. When considering all protein sources, product safety was the least important ($P < 0.05$) determining factor, of the six factors presented to consumers. These data can be used to determine marketing strategies to use for consumers in the areas with demographics similar to those of Fort Collins, Colorado based on the factors that they believe to be the most important in making consumption decisions.

Key Words: Consumer, Attitudes, Consumption Decisions

INTRODUCTION

Smith and Morgan (1999) reported that consumers consider six topics when making meat-purchasing decisions. These topics include food safety, convenience, diet/nutrition/health, value, cooking/preparation, and preference (Smith and Morgan, 1999).

Food Marketing Institute (1999) has documented that a majority of consumers consider taste, nutrition, product safety, and price as 'very important' factors in food selection. The objective of this survey was to determine which factors were most

important in consumer meat purchasing decisions and to outline why those factors were or were not important in the consumer's decision making process.

MATERIALS AND METHODS

Questionnaires were developed for participants in a consumer taste panel. Panelists were recruited for the panel based on the fact that they were at least 18 years old and consumed beef products at least twice per week in the Fort Collins, Colorado and surrounding areas. Questionnaires were given to panelists at the completion of the panel and they were asked to go home, complete the questionnaire, and return it to Colorado State University (questionnaires were self-addressed and stamped).

Consumers were asked to rank price, flavor/palatability, convenience, health reasons, nutrient value, and safety from 1 to 6, with 1 being the most important factor considered when they decide to consume a particular protein source. Consumers were also asked to answer several yes/no questions in order to help determine why certain factors were more important than other factors when making their consumption decisions.

Data were analyzed using chi-square analysis and general linear models (SPSS Inc., Version 10.1, Chicago, IL). When the overall F-test was significant ($P < 0.05$), differences between least squares means were separated using paired t-test comparisons (SPSS Inc., Chicago, IL).

RESULTS

Consumer Demographics

Half of the participants were male and half of the participants were female in the study. The average age of consumers was 42.4 years old. The frequency distributions for other demographics of the consumers provided surveys in this study are presented in Table 1.

The least squares mean rank for each of the factors considered when making decisions by protein source

are presented in Table 2. Consumers, when selecting poultry, pork, and beef, considered flavor to be the most important ($P < 0.05$) factor.

Consumers considered health reasons to be the most important ($P < 0.05$) determining factor when selecting non-meat protein sources and health reasons along with flavor to be the most important ($P < 0.05$) factors when selecting fish. For all product types, consumers considered product safety to be the least important ($P < 0.05$) factor. Results are similar to those in the Beef Customer Satisfaction II study (Goodson et al., undated) which documented that flavor is the single most important factor in determining a customer's satisfaction with beef product.

Flavor/Palatability

Consumers indicated, from the survey, that flavor/palatability is more important in decisions to consume beef products and pork products that it is when considering whether or not to consume poultry, fish, or non-meat protein sources (Table 2). The importance of flavor/palatability can also be seen in other results from the survey. From the survey, it was determined that 61.72 ± 0.03 percent of consumers look at USDA Quality Grades when purchasing beef products, 51.39 ± 2.95 percent of consumers prefer 'branded' versus non-labeled beef product, and that 45.02 ± 2.90 percent of consumers would increase consumption of beef products by 4.51 ± 0.27 meals per month if beef were "Guaranteed Tender."

Product Safety

In this survey, consumers reported that food safety is the least important factor, of the six factors presented, in meat selection decisions. The Food Marketing Institute (2000) report on Food Safety documented that 74% of shoppers are completely or mostly confident that food in the supermarket is safe. In addition, the Food Marketing Institute (2000) report documented that 60% of consumer wash hands and/or preparation

surfaces often, 17% of consumers cook food to proper temperatures, 13% of consumers refrigerate food promptly, and 6% of consumers keep food separate to prevent cross contamination; from which it could be speculated that consumers believe the product is safe, so precautionary measures are not taken. While FMI speculates that consumers believe our food supply is safe and no precautionary safety measures need to be taken, a majority of respondents to this survey typically employ one or more safety measures in their homes. These safety measures include:

- a. Prevent cross contamination of products – $68.17 \pm 2.75\%$
- b. Thaw meat products in the refrigerator – $70.00 \pm 2.70\%$
- c. Thaw meat products in the microwave – $55.86 \pm 2.92\%$
- d. Wash hands frequently – $92.10 \pm 1.58\%$
- e. Refrigerate meat products immediately after purchase – $89.62 \pm 1.80\%$.

IMPLICATIONS

The data from this survey indicated that factors used to make protein selection decisions, in the Fort Collins, Colorado and surrounding areas, vary in order of importance when considering different protein sources for meals. As such, these data can be used to focus marketing and/or promotion strategies for particular protein sources based on factors that consumers deem most important when considering whether or not to consume that particular product. Additionally, consumers in the Fort Collins area believe that products in the supermarket are already safe, and while a vast majority of consumers take safety precautions at home, product safety was reported to be the least important determining factor when considering whether or not to consume beef, pork, poultry, fish or non-meat protein sources.

LITERATURE CITED

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Table 1. Frequency distribution of consumer demographic information.

Demographic	Category	Percentage
Age Level (years)	18-29	3.4
	20-29	24.1
	30-39	19.6
	40-49	21.7
	50-59	14.8
	60-69	6.9
	70 or >	9.5
Education Level	Elementary School	0.0
	Some High School	1.2
	Completed High School	10.3
	Some College	29.9
	Completed College	33.3
	Graduate School	22.0
	Other Education	3.3
Income Level	\$15,000 - \$24,999	15.5
	\$25,000 - \$34,999	15.8
	\$35,000 - \$49,999	18.2
	\$50,000 - \$74,999	21.9
	\$75,000 or >	18.6

Table 2. Least squares mean rank (1=most important, 6=least important) \pm SEM for traits considered by consumers when buying protein sources for meals.

Protein Source	Flavor/Palatability	Convenience	Health Reasons	Nutrient Value	Price	Safety
Beef	1.40 ^{a,v} \pm 0.06	2.76 ^{a,w} \pm 0.08	4.36 ^{e,y} \pm 0.08	2.95 ^{b,w} \pm 0.08	3.75 ^{b,x} \pm 0.09	5.12 ^{a,z} \pm 0.08
Pork	1.43 ^{a,v} \pm 0.06	2.91 ^{a,w} \pm 0.08	4.00 ^{d,y} \pm 0.09	3.40 ^{c,x} \pm 0.08	3.20 ^{a,x} \pm 0.09	5.33 ^{b,z} \pm 0.09
Poultry	2.04 ^{b,w} \pm 0.08	3.30 ^{b,xy} \pm 0.09	3.03 ^{c,x} \pm 0.10	3.39 ^{c,y} \pm 0.08	3.08 ^{a,xy} \pm 0.09	5.57 ^{c,z} \pm 0.07
Fish	2.30 ^{c,v} \pm 0.09	3.77 ^{c,x} \pm 0.08	2.20 ^{a,v} \pm 0.08	2.59 ^{a,w} \pm 0.08	4.30 ^{c,y} \pm 0.09	5.23 ^{ab,z} \pm 0.09
Non-Meat	3.03 ^{d,y} \pm 0.10	3.16 ^{b,y} \pm 0.11	2.58 ^{b,x} \pm 0.10	3.10 ^{b,y} \pm 0.09	3.25 ^{a,y} \pm 0.10	5.06 ^{a,z} \pm 0.10

^{a,b,c,d,e} Means, within a column, bearing a common superscript are not different ($P > 0.05$).

^{v,w,xy,z} Means, within a row, bearing a common superscript are not different ($P > 0.05$).

