

High School Students' Perceptions of Fish as a Menu Item

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INTRODUCTION

This article presents the findings of a survey of high school home economics students concerning their attitudes toward, and beliefs about, fish as a menu item. The data for the study were obtained from questionnaires administered to 66 home economics students in an Austin, Tex. high school.

The respondents were told that they had been selected to participate in a study which was being conducted by researchers at Texas A&M University to determine high school students' feelings about certain food items. They were informed that there were no right or wrong answers to any of the questions.

The students were first asked to indicate how often they eat pork, fish, and beef in their homes. Next they were asked to indicate their attitudes and beliefs about pork, fish, and beef with respect to 11 product attributes. These product attributes are listed in Table 1.

These 11 product attributes were selected from a list of 24 attitudinal variables used by Sanchez and Konopa (1974) in a previous study. Respondents were asked to indicate their feelings about each product category (pork, beef, and fish) along a seven-point scale

Table 1.—Product attributes investigated in the study.

1. Taste
2. Nutrition (healthfulness)
3. Cost/price
4. Aroma (odor, smell)
5. Perishability
6. Difficulty of preparation before cooking
7. Cooking difficulty
8. Appearance (color, eye appeal)
9. Quality (freshness)
10. Wholesomeness (safe to eat)
11. Image as a menu item (special treat for dinner)

ranging from extremely favorable to extremely unfavorable. An example of the questionnaire design is shown in Figure 1.

Finally, respondents were asked to indicate how important they considered each of the 11 product attributes in preparing the main dish for the average evening meal in their home. A seven-point scale ranging from unimportant to important was provided for their evaluations.

Some of the important findings of the study are discussed below. The paper is divided into three major sections. The first section discusses how respondents perceive fish compared to beef and pork with respect to the 11 product attributes listed in Table 1. A comparison of how often respondents eat beef, fish, and pork in their homes is also included. The second section

presents respondents' evaluations of the importance of the product attributes listed in Table 1 in preparing the average evening meal. The third major section summarizes the findings of the survey and suggests implications for marketing strategy.

RESPONDENTS' PERCEPTIONS OF FISH COMPARED TO BEEF AND PORK

Gillespie and Houston (1974) have noted that the status of fish as a menu item is considerably less than that of either beef or pork. They cite as evidence that in 1972 average consumption of red meat was 189 pounds per person while per capita consumption of fish was only 12 pounds. Table 2 summarizes the responses to the question, "How often do you eat each of the following food items in your home?"

The data indicate a considerable difference in the frequency of usage among the three product categories. In order to help understand why fish is served less often in the home than either beef or pork, respondents were asked to evaluate the three product categories in terms of the 11 product attributes listed in Table 1. Figure 2 shows the mean values of the respondents' perceptions of the three product categories. The figure indicates that respondents perceive all three product categories favorably on all dimensions utilized in the study. However, fish as a menu item was evaluated less favorably than either beef or pork in terms of taste, aroma, preparation before cooking, appearance, and wholesomeness. It was evaluated less favorably

Table 2.—Frequency of product usage.¹

Frequency	Percent		
	Beef	Pork	Fish
Three or more times per week	78	34	8
Two or three times per month	16	36	37
About once per month	3	23	28
Seldom or never	3	6	27

¹n = 64

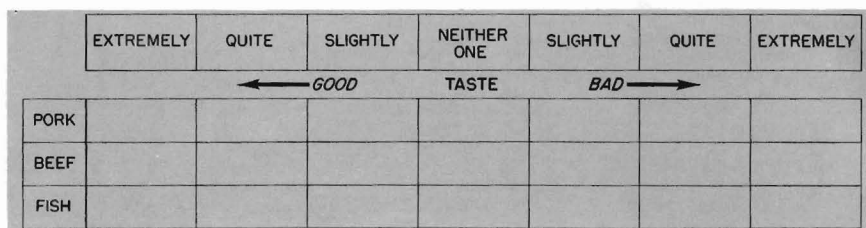


Figure 1.—Sample questionnaire design used to obtain respondents' feelings about each product category (pork, beef, and fish) on a seven-point scale.

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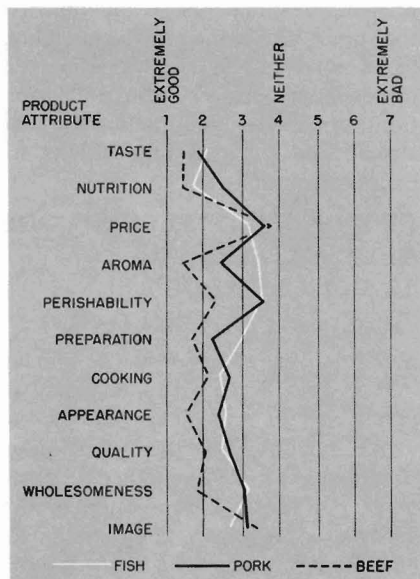


Figure 2.—Respondent beliefs about beef, pork, and fish (mean values).

than beef yet more favorably than pork in terms of nutrition, perishability, cooking, and quality. Fish was evaluated more favorably than either beef or pork in terms of price and image as a menu item.

In terms of the intensity of favorability of fish on the 11 dimensions, Figure 2 indicates that fish was rated very favorable (1-2) in terms of nutrition, favorable (2-3) in terms of taste, preparation, cooking, appearance, quality, wholesomeness, and image as a menu item, and slightly favorable (3-4) in terms of price, aroma, and perishability.

Several observations are apparent from these findings. As noted previously, the mean responses indicate that all three product categories are perceived favorably on all dimensions used in the study. If price and image as a menu item were the only criteria used in selecting the main dish for evening meals, we could expect fish usage to be much higher. It is interesting to note that respondents perceive fish as only slightly favorable in terms of price, yet it is perceived more favorably than either beef or pork.

Based on the usage data presented in Table 2 it is apparent that other product characteristics are important in the overall decision-making process. The relative importance of the 11 product attributes is discussed in the following section.

IMPORTANCE OF PRODUCT ATTRIBUTES

Figure 3 summarizes the mean responses to the question, "How important do you consider the following characteristics in preparing the average evening meal?" The data indicate that respondents perceive taste and quality to be very important (1-2) in the selection of an item for the main dish at the evening meal. Nutrition, cost, aroma, appearance, wholesomeness, and image as a menu item are all considered important (2-3) in the selection of an item for the evening meal. Preparation before cooking and cooking are perceived as somewhat important (3-4). The perishability of the product is considered very unimportant (6-7).

Table 3 summarizes the information provided in Figures 2 and 3. The product attributes are ranked in order of their rated importance in the first column. Column two indicates how respondents evaluate fish in terms of the 11 product attributes. The third column lists respondents' ranking of fish compared to beef and pork on the 11 product attributes.

Looking first at the product attributes which were rated as very important, respondents rated the taste and quality of fish favorably, yet not as favorably as beef. Fish was ranked less favorably than either beef or pork in terms of taste, the most important product attribute.

Nutrition, the only product attribute on which fish was rated very good,

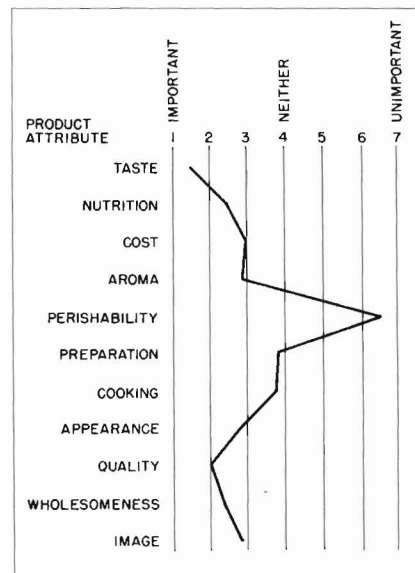


Figure 3.—Respondent beliefs concerning the importance of product attributes in preparing the average evening meal (mean values).

was found to be the fourth most important product attribute considered in selecting the main dish for the average evening meal in the home. It is also noteworthy that beef was rated more nutritional than fish, although both were rated very favorably on this dimension.

The product attributes on which fish was evaluated better than either beef or pork are image as a menu item and price. In terms of the importance of these product attributes, respondents ranked them sixth and eighth, respectively. In other words, although fish is considered more favorably than either

Table 3.—Summary of respondent beliefs

Importance of product attributes	Perception of fish on product attributes	Ranking of fish compared to beef and pork on product attribute
Very important		
taste	favorable	3
quality	favorable	2
Important		
wholesomeness	favorable	3
nutrition	very favorable	2
appearance	favorable	3
image	favorable	1
aroma	slightly favorable	3
price	slightly favorable	1
Somewhat important		
cooking difficulty	favorable	2
preparation before cooking	favorable	3
Very unimportant		
perishability	slightly favorable	2

Source: Figures 1 and 2.

beef or pork in terms of its image as a menu item and price, it is not considered extremely good on either dimension, and neither factor is highly important in selecting the main dish for an average evening meal.

SUMMARY AND IMPLICATIONS

The results of the survey indicate that fish as a menu item is perceived favorably on all dimensions utilized in the study. This finding is consistent with results reported by previous researchers (Gillespie and Houston, 1974; Sanchez and Konopa, 1974).

Respondents rated fish more favorably than either beef or pork in terms of its price and image as a menu item. Additionally, fish was rated very favorably in terms of its nutritional value. These findings suggest that seafood marketers and the seafood industry might find it useful to develop promotional campaigns emphasizing the three product attributes on which fish performs quite well. Gillespie and Houston (1974) also considered this possibility but rejected it because their data indicated that fish was not perceived as being significantly superior to substitute products on these dimensions.

Another approach to enhance the image and consumption of fish is to im-

prove consumer perceptions along those dimensions which fish does not perform well. For example, fish was rated much less favorably than beef in terms of its aroma, perishability, preparation ease, appearance, and wholesomeness. This study has found that two of these dimensions, preparation ease and perishability, are considered to be the least important product attributes in family meal planning. These findings notwithstanding, Gillespie and Houston (1974) have suggested home economist food demonstrations and in-store sampling as strategies for improving ease of preparation beliefs. Sanchez and Konopa (1974) suggest that improved packaging and improved merchandise displays could enhance consumer perceptions of the aroma and appearance of fish.

The other two product attribute dimensions on which fish is perceived less favorably than either beef or pork are taste and wholesomeness. It is important to note that the findings of this study indicate that these product attributes are two of the most important factors considered in planning the evening meal. In order to significantly affect consumer beliefs about fish with respect to taste and wholesomeness, industry-wide effort must be undertaken. Federal and/or State support

will also have to be provided to mount an effective, coordinated program to convince consumers that fish is safe to eat and can be prepared to suit a wide range of tastes. Specific techniques which might be utilized to affect consumer beliefs have been discussed elsewhere and are beyond the scope of the paper.

Finally, it should be noted that the findings reported here resulted from a small survey of high school students in one geographic location. Therefore, the findings of this study cannot necessarily be generalized to other segments of the population or other geographic areas. However, since many of the findings of this study are consistent with those reported by previous researchers, it is hoped that this project will provide information which may be useful to parties concerned with the overall market for fish, and serve as a basis for further study on a national basis.

LITERATURE CITED

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MFR Paper 1164. From Marine Fisheries Review, Vol. 37, No. 10, October 1975. Copies of this paper, in limited numbers, are available from D83, Technical Information Division, Environmental Science Information Center, NOAA, Washington, DC 20235. Copies of Marine Fisheries Review are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 for \$1.10 each.