Consumers' Perceptions of Non-Traditional Vegetable Products in the Southern United States: Summary of Preliminary Results

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Lifestyles have changed in this fast-paced world in comparison to few decades ago. As one of the consequences, obesity is considered to have reached epidemic levels throughout the United States, with more than 34 percent of adults over age 20 and 12–17 percent of children and adolescents being obese (Ogden and Carroll, 2010a, 2010b). The situation is even worse in Mississippi, which is the most obese state. Obesity may be due partially to diets that do not contain enough fruits and vegetables. The problem of obesity is being tackled by nutritionists through research and outreach. Behavioral scientists are also contributing to this issue. For example, economists are studying, among other things, consumers' behavior related to food choices and consumption patterns.

Objectives

The overall goal of the study was to generate new knowledge about consumers' attitudes toward new vegetable products and non-traditional crops such as Japanese eggplants, Indian cucumbers, Chinese okra, asparagus beans, Chinese peas, Malabar spinach, guar, tindora, ginger, coriander, and organic vegetables. More specific objectives were to identify factors affecting consumers' vegetable consumption habits, identify the decision criteria used by consumers in selecting (or accepting) new non-traditional vegetables in their diets, and determine the relative importance of consumers' various motivators of purchase and consumption of the selected non-traditional vegetable products in the Southern region. This research report presents a brief preview of the results obtained.

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Research Methodology

The methodology chosen for the research was a quantitative telephone survey of residents (head of household or the person responsible for making food purchases). The survey questionnaire was designed so that the critical issues were addressed in more than one way in order to ascertain the subtle consumer perceptions, attitudes, and behaviors associated with the purchase and/or use of a product. The consumer research project included 750 residents of Alabama, Arkansas, Georgia, Louisiana, Mississippi, Tennessee, and Texas. The final sample was expected to accommodate sub-group analysis (i.e., geographic areas, behavioral, and demographic segments, etc.). A random selection procedure was used in order to secure survey participants. The maximum error factor associated with a consumer sample of 750 is ±3.5 percent at a 95 percent level of confidence.

A random-digit-dialing sample frame was generated for the designated survey area, which included listed and unlisted phone numbers. The computer system used a random selection procedure in order to select the initial set of potential survey participants (e.g., the total number of records in the sample frame was divided by the number of interviews to be completed in order to determine the "nth" number to select for initial calls). In order to enhance the representativeness of the sample, at least three call-back attempts were made to each number dialed for which there was no answer (call-backs were made on different days and at different times). These procedures enhanced the validity of the research results, as hard-to-reach respondents were included in the sample.

The telephone data-collection facility features a CATI system with 150 online interviewing stations and a staff of experienced supervisors and interviewers. A team of experienced interviewers was assigned to the project. The interviewing team received specialized instruction from the team's supervisor prior to the pre-test. An initial briefing

was conducted to ensure that all procedures were fully understood. During the briefing session, each question was read aloud by the supervisor, including response categories. Meanings of response codes were clarified as needed. Special attention was paid to the pronunciation of words and proper names. Other technical details such as termination points, rotation patterns, and skip patterns were reviewed. The project supervisor monitored each interviewer during the pre-test using a sophisticated monitoring system with both audio and CRT monitoring. After the first 30 interviews were completed, the interviewing team met to review and report any potential problems with the survey instrument to the project leader. Consumer interviewing was conducted during the hours of 5:00 p.m. to 9:00 p.m. on Monday to Friday, 10:00 a.m. to 7:00 p.m. on Saturday, and 2:00 p.m. to 8:00 p.m. on Sunday.

Summary of Preliminary Results

The percentage of respondents who have previously tried the new products covered in the study is shown in Table 1; taste is a more important motivator in making vegetable choices than are price and nutritional value (Figure1, Figure 2).

In terms of promotion of uncommon and exotic vegetables (Figure 3), a small number of respondents (less than 1.5 percent) pay attention to chemical additives. Almost 40 percent of respondents indicated that they usually try new products in response to "offers of free samples at the point of purchase."

Conclusion

The survey data allow several conclusions about consumers' perceptions of non-traditional vegetable products in the southern United States. In addition, the data are used to determine the most effective ways of promoting uncommon and exotic vegetables. The effects of socio-economic factors and consumers' motivators of purchase are explored to shed new light on how they affect the decision to consume new products. The results of this study would be useful in developing promotion strategies for these vegetables, as they could become income-enhancing alternatives for farmers in the region.

Table 1. Frequency of Respondents Who Have Tried Specific New Products/ Produce (%).

Specific product/produce	
Seedless watermelon	78.23
Culinary herbs	62.30
Organic vegetables	48.10
Shiitake mushrooms	36.07
Chinese peas	35.47
Asparagus beans	26.42
Coriander	24.90
Japanese eggplant	19.75
Chinese okra	15.62
Indian cucumber	16.70
Malabar spinach	8.90
Guar	5.55
Tindora	4.01

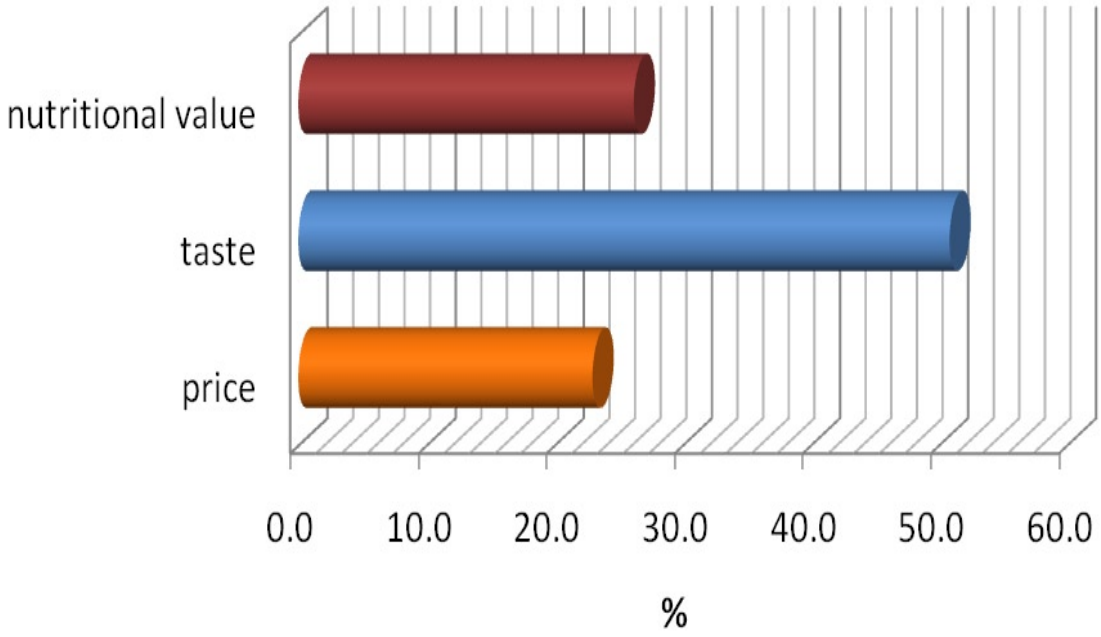

Figure 1. Factors Affecting Vegetable Choices.

References

Ogden, C. L. and M. Carroll. 2010a. "Prevalence of Overweight, Obesity, and Extreme Obesity Among Adults: United States, Trends 1976–1980 through 2007–2008." Centers for Disease Control, Division of Health and Nutrition Examination Surveys.

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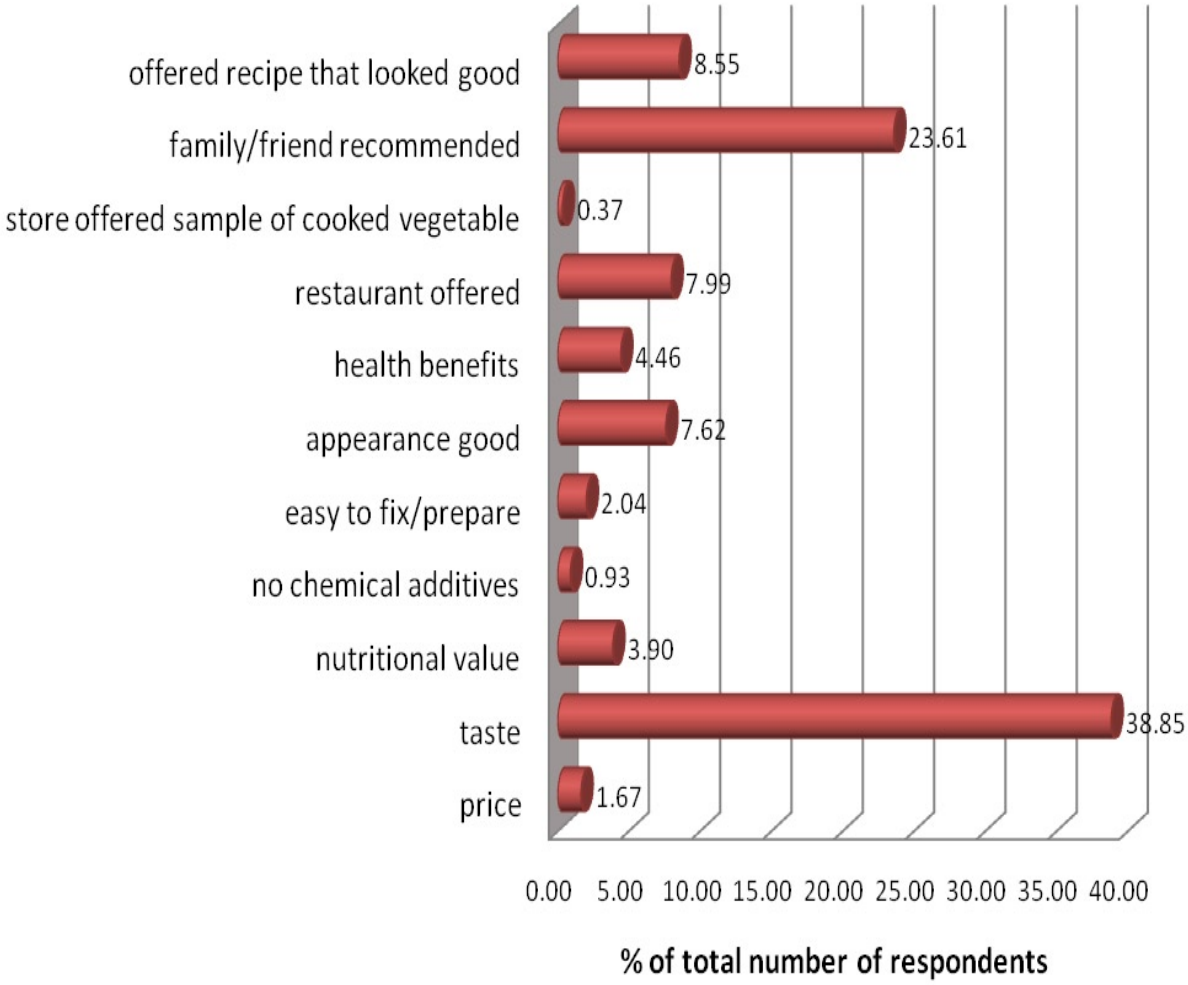

Figure 2. Reasons to Try New Vegetables.

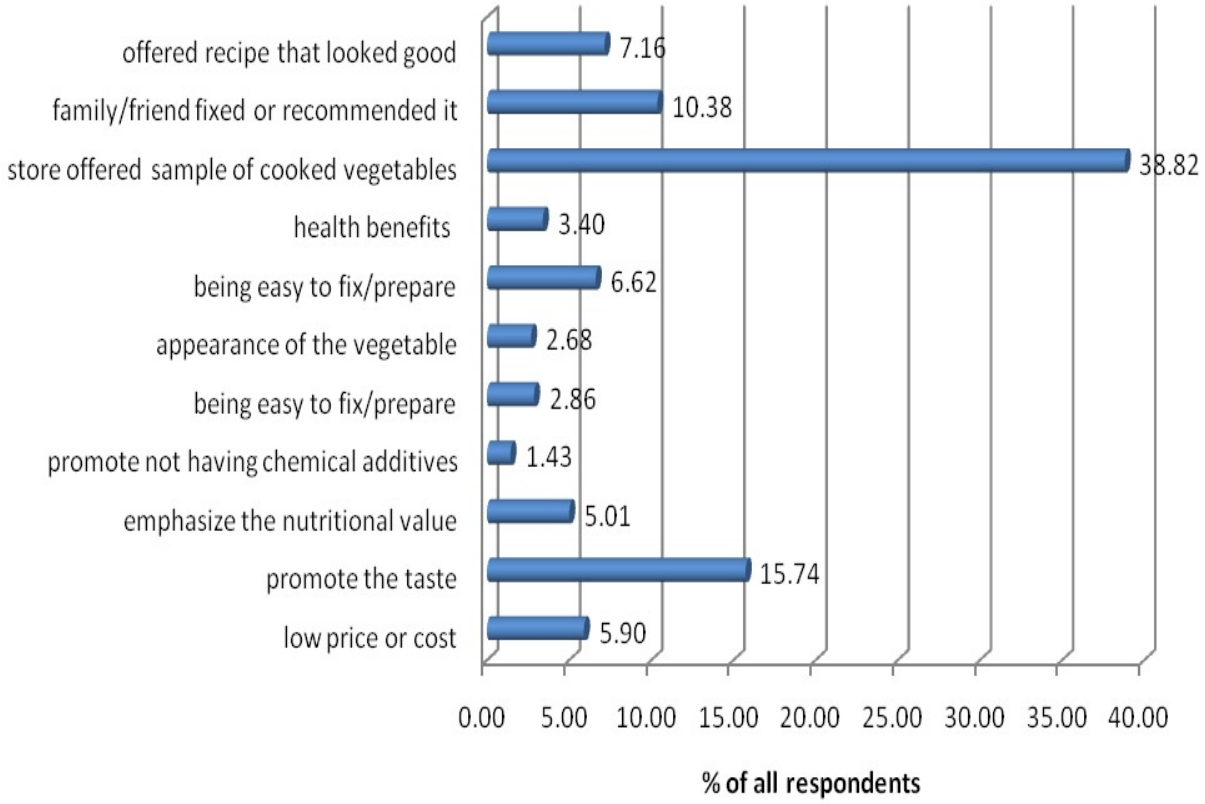

Figure 3. The Most Effective Ways to Get People to Try New Vegetables.