Team 111

Survey Design and Data Analysis

Aware: The Shopping Information Manager

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EXECUTIVE SUMMARY

Overview

Our market research team was charged with discovering the market potential of the AWARE device, an electronic hand-held device that can be programmed to provide customers with various information while grocery shopping. Specifically, our research goals entailed identifying a target market interested in the device, features desired by that market, as well as determining whether the device should be marketed to retailers or directly to consumers.

Analysis

After conducting secondary research about consumer trends, competitors, and technology, our team set forth to address our research goals. We constructed a survey that sought demographic data from potential customers, as well as information regarding their shopping habits, eating habits, technology tolerance, and willingness to pay. Our surveys were then distributed as follows:

- To University of Michigan Business School students through the Internet via HRGems, as well as Google user groups that had special interests in healthy living, health conditions, technology, or exercise.
- To Diabetic Education and Cardiac Rehabilitation Classes at two local hospitals via pencil and paper surveys.

We then conducted three focus groups targeted at the above-mentioned special needs healthcare groups and University of Michigan Business School students.

Our data was limited in that the majority of respondents were students. However, when analyzing our data, we noted that the Google groups and the specialty healthcare groups showed the same trends of responses as the students. On that note, we felt comfortable combining the data for all groups and drawing conclusions from there. We made the following discoveries:

Respondent Profiles

- 70% of the respondents were the primary shoppers for their household. 40% were female, and 60% were male.
- The majority of respondents were between the ages of 23 and 34, were college educated, did not have children, and grocery shopped between 1-3 and 4-6 times per month, primarily at large grocery stores. 85% of respondents had store loyalty cards.

- In terms of their definition of improving their overall shopping experience, respondents identified store related concerns, such as quality of food, price of products, selection of products, and speed of checkout lines.
- Only 41% of respondents reported using a PDA sort of device in the last month, but seemed to have a high technology tolerance, as demonstrated by paying bills online and making online purchases.
- 20% of the respondents reported interest in using the device, with most of these being females. Of those most likely to use the device, the majority were in the 35-49 age group. Income level did not appear to be a factor related to interest in the device.

Key Findings

- The top three attributes desired from the AWARE device were price comparison, nutritional contents, and ingredients. The attributes that incited the least amount of interest were exercise tips, information about animal testing, and allergic reactions.
- Our focus groups verbalized interest in electronic coupons, price comparison between stores, the ability to scan items at home to create shopping lists, item detection on the shelves at the store, calculating the subtotal for the bill, and setting customized parameters for nutritional intake. The groups also indicated unwillingness to pay for additional features that they were not interested in using.
- Finally, we noted a very low willingness to pay for the type of information that the AWARE device provides, with the majority of respondents indicating that they would either not pay at all, or would be willing to pay $1-5 per month for the service.

Recommendation

- Market the AWARE device to retailers.
- Additionally, market AWARE as a product download for individual use with PDA's, in which users pay a monthly fee for only the services they download.

It is our conclusion that these recommendations will fulfill the AWARE team's desire to design a marketable product that will help them to generate funds for continual growth in the consumer services market as well as provide increased opportunities to grow in the retail segment.

INTRODUCTION AND PROJECT GOALS

AWARE is an electronic device much like a PDA (a handheld personal digital assistant), that can be programmed to provide the customer with customized information that might be important while shopping (i.e. price, nutritional content, genetic modifications, animal testing, Consumer Reports/Greenpeace endorsements, environmental issues, coupons, recipes, food preparation information, and ingredients) by using the device to scan the barcode of items at the grocery store. The device could also be used to provide warnings about the contents of scanned items if particular ingredients were contraindicated for a specialized diet. Specific diets, such as diabetic, vegan, kosher, and allergy to nuts and poultry, for example, were already pre-programmed in the prototype. In addition, diet preferences could be added via a list provided by the device, in order to customize the program. The AWARE device could be offered by retailers, or individually owned by customers, but either way, retailer cooperation must be recruited in order to develop and maintain the databases that generate the information through a wireless hookup with the device. Furthermore, the developers of AWARE needed to know what databases to offer to customers, which was related to the types of information the customers were interested in. Likewise, the AWARE prototype was currently mounted on a Handspring PDA, but could potentially be marketed as a separate device for individual use or in-store use, as download software for a PDA for individual use, or as a device mounted on store carts for convenience. So, our survey questions and research were developed to target answers to the following questions:

- **Market Need**: Will this product meet an unmet need in the market?
- **Ownership**: Whom should this product be marketed to? To retailers or direct to consumers? And in what format should the product be presented? As a separate device or integrated with something consumers may already have, like a PDA?
- **Features**: What features of the device were potential consumers most interested in?
- **New Technology**: What is the consumer's willingness to adopt new technology?
- **Willingness to Pay**: How much would consumers be willing to pay for this product if it were offered direct to consumer?

Methodology

Secondary Research

First, our team used secondary research to gain insights into the competitive landscape, consumer behavior and trends, and needs within the shopping landscape. We primarily used Internet searches to locate any data on our topic and synthesized that information to include only pertinent facts regarding consumer preferences, trends and new technologies emerging in the grocery-shopping arena.

Survey Design

Our team sought to meet our research goals through careful survey design. Our survey was composed of four sections (See Appendix A):

- The first section sought information regarding whether the respondent was the primary grocery shopper of their household, and whether this individual followed a special diet. We also attempted to determine if the respondent used store loyalty cards (which would covertly indicate to a certain extent their concerns about privacy during their shopping experience), and the frequency and duration of their shopping visits.
- The second section utilized a series of likert scales that targeted information about how frequently the respondent shopped at various types of grocery stores and performed certain shopping activities, along with their interest level regarding additional information while they shopped (which listed the features that the AWARE device provides). Additionally, we sought their technology tolerance via the identification of the frequency with which they used common devices and services.
- The third section addressed the AWARE device itself, and used a likert scale that addressed the respondent's indicated importance regarding the utility of the device, along with concerns with privacy. This section then culminated with questions regarding willingness to use it and willingness to pay.
- The fourth section addressed demographics

Focus Groups

We conducted three focus groups in an effort to solicit more first-hand research from potential consumers. First, we contacted the University of Michigan Briarwood Center Diabetes Educators and exercise physiologists who conducted the Cardiac Rehabilitation program at Henry Ford Wyandotte Hospital, and gained approval to administer our survey via pencil and paper method to participants in these classes. The survey session was followed by a focus group, in which participants were able to view a live demonstration of the AWARE device. Second, we again

solicited University of Michigan Business School students to participate in our third and final focus group. During these sessions our team's aim was to solicit first hand feedback on the features and the usefulness of the AWARE device. The questions for all of the focus groups were based on the survey and moderated by the AWARE Team while several other members observed the process and noted any findings (See Appendix B for the focus group questions)

Limitations

We understood that soliciting respondents online would produce a sample with inherent self-selection bias, along with an upward bias toward technology. We also understood that MBA students primarily did not embody a diverse age group, and that their shopping behaviors may differ from a primary shopper providing for a household. We attempted to smooth this effect with the Google groups, which although they still possessed an upward bias toward technology and an interest in health, they would hypothetically represent a more diverse age group. Further still, our special health groups represented an older population with health concerns, and that may not be technology tolerant. Our team believes that these efforts allowed us to compare the needs of potential consumers across a relatively broad spectrum and delineate several quality recommendations from the information that we gathered.

SAMPLE DESCRIPTIONS

Online Respondents

Our team utilized HR Gems to format and post our survey online. We targeted the Google web groups, selected for their interest in technology, shopping, and/or health issues (See Appendix C).. We posted this survey to 32 groups and received a total of 31 completed surveys.

UMBS Respondents

We posted a link to our survey to all University of Michigan Business School students except PHD students. Out of more than 2000 students, we received 147 completed responses.

Health Respondents

We recruited 15 participants from the University of Michigan Briarwood Center Diabetic Education Class, and 15 participants from the Cardiac Rehabilitation Class at Henry Ford Wyandotte Hospital, making a total of 30 respondents in this category.

Focus Group

For our three focus groups, we recruited 4 participants from the Diabetes Education Class, 2 participants from the Cardiac Rehabilitation class, and 5 participants from the University of Michigan. The focus group participants from the health groups also completed a survey.

DATA ANALYSIS

Primary Research

While seeking permission to address the outpatients in the Cardiac Rehabilitation, we spoke to Steven Keteyian, supervisor of Cardiac Rehabilitation for the Henry Ford Health System. He stated, "We developed something like [the AWARE device] in-house a while back. The problem we came across is that we could set specific parameters for sodium and cholesterol, but we could not control aggregate menu planning. In other words, the individual item that you scan may be within an acceptable range, but combined with the other foods you may exceed your daily limit. The cardiac patient would still have to monitor the total number of grams of sodium and cholesterol that they are consuming." So the electronic device did not provide added benefit to the patients.

Secondary Research

Our Internet search yielded the following:

In the United States, 2/3 of the population has access to the Internet, and half of the total population has made an online purchase. Most importantly, 4% of the total population above of the age of 11 has purchased drugs or groceries online due to convenience, home delivery, and to save money.[1] The in-store grocery shopping experience may also undergo a change in the near future, as select grocery stores are testing Smart Carts (a mapping device on the cart that directs consumers to specific items) and electronic shelf labels (which indicate price, and can be programmed to give nutritional and promotional information about products). However, supermarkets are reluctant to add new service technology that could potentially add to the cost of the merchandise, yet may not provide a direct benefit to the majority of customers. Additionally, "8 years after the federally mandated introduction of nutrition panels on packaged foods, the majority of consumers generally pays little attention to the details," and that "When shopping for packaged foods, consumers want their nutrition information in easy-to digest portions." However, technology may make shopping easier for those with special dietary needs.[2]

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[1] http://www.acnielsen.com/news/american/us/2000/20000508.htm
[2] http://www.thehollandsentinel.net/feature/focus99/stories/022499/bus_supermarkets.html

A competitive analysis showed that multiple competitive products are being developed and several are currently on the market. Two examples of such items are described below. The first is the BeelineShopper, endorsed by the American Dietetic Association, the University of Michigan Community Health, and Prevention Magazine.[3] This device is offered through Busch's Grocery Store and through the Internet for $49.95, and features home inventory management, shopping lists, online recipes, coupons, and customized preference settings for menu planning. The second competitive product utilizes a cell phone to scan products in the store, and offers the same functionality as the AWARE device, with the exceptions that it subtotals the grocery bill for the customer and locates items on the shelf.[4]

Survey

Our team retrieved the responses from HRGems, and generated two separate outputs for the combined UMBS students and Google groups, and the two combined health groups. The output illustrated the percentage of respondents whose answers corresponded to a segment of each question. Examination of these outputs brought to light similar trends of responses in both of the combined groups, and we therefore decided to combine all groups of data into one analysis.

We then determined that many of our questions could be addressed by analyzing the raw data itself. We also investigated the impact of dietary restrictions, technological savvy (specifically use of a computer and a PDA), concerns regarding the price, privacy and utility aspects of the device, age, income level, and education on the respondents' willingness to use the device. We constructed several pivot tables in excel that cross-tabulated these aspects against their responses regarding willingness to use the device. We then examined the two ends of the spectrum in terms of the likert scale for both variables, and generated percentages for each of these groups. Specifically, we categorized those that responded with a 6 or 7 on the likert scales to be highly likely to use the device, those whose responses ranged from 3 to 5 were somewhat likely, and those that responded with a 1 or 2 indicated that they were not likely.

The more neutral answers of the likert scales were observed more incidentally. We were then able to draw some conclusions about these variables.

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[3] http://www.beelineshopper.com/dietitians.html

[4] http://216.239.37.100/search?q=cache:88v90qVs5d8C:www.harris.cise.ufl.edu/killerapps/S01/SmartShoppingPhone/Report/Smart_Grocery_Shopping_Phone_Report.doc+grocery+store+scanning&hl=en&ie=UTF-8

RESULTS

Survey

The following is a description of the survey respondents:

- 61% of the respondents were male and 39% were female
- The majority were between the ages of 23 and 34, Caucasian, college educated, had no children, and represented a broad range of income levels
- 70% of the respondents were the primary shopper for their household
- The majority shopped between 1-3 and 4-6 times per month, primarily at the large grocery stores (as opposed to Club Stores, convenience stores, super centers, etc) and spent between 15-60 minutes in the store
- 85% of the respondents had store loyalty cards
- Price, food selection, product quality and quicker check out lines were the key areas of improvement sought by consumers in their shopping experience
- The majority have no dietary restrictions, and prefer healthy eating habits only
- In terms of technology tolerance, 72% have paid bills online and 89% have made online purchases. However, only 41% have used a PDA in the last month.

See Appendix D for graphical representation of the above data.

The following indicate our key findings in terms of the reception of this device in the marketplace:

- 20% of the respondents indicated that they were very likely to use the AWARE device
- The top three attributes of the device that respondents were interested in were price comparison, nutritional information, and ingredients. The least interest was shown toward allergic reactions, exercise tips, and animal testing.
- 40% were not willing to pay for the service at all, while 35% were willing to pay $1-5 per month.

Our pivot table analysis also yielded some valuable information. We discovered certain groups that appeared to be more willing to use the product.

- **Women:** 56% of women compared to 32% of men claimed that they would be highly likely to use the device while shopping.

- **Ages 35 to 49**:50% of those between ages 35 and 49 responded that they would be highly likely to use the device. All other age groups likelihood percentages ranged from 30 to 39%.
- **Low and Lower-Middle Income:** $32-51,000 and less than $31,000 income groups reported a higher likelihood of use compared to middle and higher income groups. Both income groups indicated a 52% and 43% likelihood of use respectively compared with an average of 36.5% for those with incomes over $51,000. We also found that lower income groups were willing to pay more for the service than higher income groups.
- **High School and Two-Year College Education.** Both groups indicated a higher likelihood of use compared to those with some level of undergraduate and graduate education. While those with a college education or above reported a 37% likelihood of use, those with less than a four-year college education reported above a 60% likelihood of use.
- **Specific Diets:** We also found that those with specific eating habits and those that managed their diet because of health conditions (allergies, diabetes, heart condition, etc.) were the most likely to use the device (56% compared with 37-46% for other eating habits).

To our surprise, likelihood of use was determined more by demographic segmentation than eating behavior, aptness towards technology, or shopping behavior. Please see Appendix E for graphical representation of the above data.

Focus Groups

Please refer to Appendices F, G, and H for the summaries of the comments made in these groups. Overall, we found that the participants were split regarding whether they wanted to own the device themselves or have the retailer provide it. Most stated that they would use it if provided by the retailer. Overall, the main attributes they verbalized a desire for were as follows:

- Electronic coupons
- Home inventory management (scanning items in their pantry to generate a shopping list)
- Over the counter drug information
- Price comparisons between stores
- Customized parameter settings for fat, cholesterol, sodium, etc
- Item location in the store
- Calculation of the grocery bill subtotal

The student group indicated that they were unwilling to pay for attributes that they had no interest in using. The Cardiac Rehabilitation group made an interesting point, indicating that the customizable features of the device would be very useful to them when starting their new specialized diet, but that once they were accustomed to their diet, they anticipate buying the same brand that provided ingredients that were allowable to them. With that in mind, they viewed that their use of the device would diminish with time.

RECOMMENDATION

Based on the aforementioned analysis of the data, our team developed the following recommendations:

Market the AWARE device to retailers.

In its current format, AWARE is being positioned to consumers as a product to aide in their grocery shopping process. However, in finding that 40% of the respondents had a very low willingness to pay and that only 35% of the respondents were willing to pay between $1-$5 a month, we feel that the developers of AWARE will have more success working with retailers. We feel that induced trial for this product will be very difficult, and the visibility that a retailer could provide would allow a quick introduction of the device into the market, while reducing the costs to market AWARE. Retailers would also benefit, in that they would be able add value in terms of convenience to the shopping experience of their customers, while simultaneously using the product offering as a competitive advantage over other grocery stores.

Market the AWARE device as a service download for individual use with PDA's in which users pay a monthly fee for only the services they download.

Our team feels that this is another "low hanging fruit" option for the developers of AWARE to consider. As detailed in the focus group comments portion of the results, some potential consumers are interested in owning the device for home and store use, but they in only want to be charged for the options that they use.

In conclusion, these recommendations will fulfill the developers of AWARE desire to design a marketable product that will help them to generate funds for continual growth in the consumer services market as well as provide increased opportunities to grow in the retail segment.

APPENDIX A: THE AWARE DEVICE SURVEY

We are students from the University of Michigan Business School conducting a survey to determine the usefulness of a new grocery shopping device. For the purposes of this survey, grocery is limited to food products only. Your responses to this survey will remain confidential and anonymous. You will not be contacted for additional information once this survey is completed. Please do not enter any identifying information. This survey should take approximately 10 minutes to complete. Thank You!

FOR QUESTIONS 1-5 SELECT THE RESPONSE THAT BEST DESCRIBES YOU FOR EACH QUESTION

1) Who is the PRIMARY GROCERY SHOPPER in your Household?

- ❑ Yourself
- ❑ Your Spouse
- ❑ Significant Other
- ❑ Your Mother
- ❑ Your Father
- ❑ Other (specify relationship) _____

2) Who *influences* the grocery purchase decision in your household? (*Check all that apply)*

- ❑ Yourself
- ❑ Your Spouse
- ❑ Significant Other
- ❑ Your Mother
- ❑ Your Father
- ❑ Children
- Other (specify relationship) _____

3) In the last month, how many times did you visit a grocery store?

❑0 ❑1-3 ❑4-6 ❑7-11 ❑12 or more

4) On your last grocery shopping trip, how long did you spend in the grocery store?

❑0- 15 min. ❑16-30 min. ❑31- 60 min. ❑61-90 min. ❑91-120 min. ❑>120 min.

5) Do you have any grocery store loyalty cards? *(for example, Kroger Plus Card, CVS Extracare Card)*

❑yes ❑no

6) Please rank three items you would like improved in your grocery shopping experience in order of importance to you. *(1=Most Important, 2=Second in Importance, 3=Third in Importance)*

_____Price	_____Cleanliness	_____Store Layout
_____Store Location	_____Quality of Products	_____Food Selection
_____Worker's Attitude	_____Checkout Lines	_____Amount of time spent in store

7) Which of the following best describes your eating profile? *(check one)*

- ❑ I avoid all animal products, including meats, dairy products, and eggs. My diet relies on such things as lentils, beans, and soy products.
- ❑ I avoid all animal products except for dairy and eggs.
- ❑ I avoid all animal products except for dairy products.
- ❑ I eat most types of foods, including meat. However, I limit the amount of animal products I consume.
- ❑ I eat most types of foods, excluding red meat
- ❑ I eat most types of foods.
- ❑ Other_____

8) Which of the following best describes your eating habits? (*Check all that apply)*

- ❑ Select foods for health conditions (i.e. allergies, lactose intolerance, diabetes, heart condition, high cholesterol, etc.)
- ❑ Select foods for cultural/religious reasons
- ❑ Select foods for healthy lifestyle (i.e. minimize intake of fats, sugars, starches, preservatives)
- ❑ Select foods for weight loss
- ❑ Select foods without restrictions
- ❑ Other eating habit requirements _____

FOR QUESTIONS 9-12 CIRCLE THE NUMBER CORRESPONDING WITH YOUR RESPONSE. EACH SCALE MAY DIFFER.

9) How often do you usually shop at the following places to buy groceries? ***(1=Very Infrequently, 4=Occasionally, 7= Very Frequently)***

	Very Infrequently			Occasionally			Very Frequently
Club Store (i.e., Costco, Sam's)	1	2	3	4	5	6	7
Large Grocery Store	1	2	3	4	5	6	7
Organic Food Store	1	2	3	4	5	6	7
Open Air Farmer's Market	1	2	3	4	5	6	7
Convenience Store (i.e., 7-eleven)	1	2	3	4	5	6	7
Small Neighborhood Market	1	2	3	4	5	6	7
Super Centers (i.e., Wal-Mart, K-Mart)	1	2	3	4	5	6	7

10) Last MONTH, how often did you perform the following activities while grocery shopping? ***(1=Very Infrequently, 4=Occasionally, 7=Very Frequently)***

	Very Infrequently			Occasionally			Very Frequently
Read Store Flyers	1	2	3	4	5	6	7
Compare Prices	1	2	3	4	5	6	7
Use Coupons	1	2	3	4	5	6	7
Use a Shopping Cart	1	2	3	4	5	6	7
Use a Hand Basket	1	2	3	4	5	6	7
Read the Backs of Labels	1	2	3	4	5	6	7
Bring Your Own Shopping Bags	1	2	3	4	5	6	7
Ask a Store Clerk for Help	1	2	3	4	5	6	7

11) Last MONTH, how often did you do the following? *(1 = Very Infrequently, 4=Occasionally, 7 =Very Frequently)***.**

	Very Infrequently			Occasionally			Very Frequently
Pay Bills Online	1	2	3	4	5	6	7
Make an Online Purchase	1	2	3	4	5	6	7
Bid on an Item on E-bay	1	2	3	4	5	6	7
Use Self Check-out at Store	1	2	3	4	5	6	7
Use a VCR	1	2	3	4	5	6	7
Use a PDA	1	2	3	4	5	6	7
Use an ATM Machine	1	2	3	4	5	6	7
Use E-mail	1	2	3	4	5	6	7
Use a Cell Phone	1	2	3	4	5	6	7
Use a Computer	1	2	3	4	5	6	7
Use a DVD	1	2	3	4	5	6	7

12) How interested are you in having information about the following while you grocery shop? *(1=Not at all Interested, 4=Somewhat Interested, 7=Very Interested)*.

	Not at all Interested			Somewhat Interested			Very Interested
Nutritional Content	1	2	3	4	5	6	7
Recipes	1	2	3	4	5	6	7
Ingredients	1	2	3	4	5	6	7
Exercise Tips	1	2	3	4	5	6	7
Organic Foods	1	2	3	4	5	6	7
Allergic Reactions	1	2	3	4	5	6	7
Coupon Availability	1	2	3	4	5	6	7
Health Warnings	1	2	3	4	5	6	7
Genetically Modified Foods	1	2	3	4	5	6	7
Animal Testing	1	2	3	4	5	6	7
Price Comparisons	1	2	3	4	5	6	7
Environmental Issues	1	2	3	4	5	6	7
Consumer Report Endorsements	1	2	3	4	5	6	7

13) What other information would you like to have readily available while grocery shopping? _____

_____

_____

_____

_____

AWARE is an electronic device much like a PDA (a handheld personal digital assistant), that can be programmed to provide you with customized information that you consider important while shopping (i.e. nutritional content, genetic modifications, animal testing, Consumer Reports/Greenpeace endorsements, environmental issues, price, coupons, recipes, food preparation information, ingredients, etc.) **Below is a picture of the AWARE device.**

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14) How important would the following issues be in influencing your decision to use the AWARE device? *CIRCLE YOUR RESPONSE (1=Not at all Important, 4=Somewhat Important, 7=Very Important)*

	Not at all Important			Somewhat Important			Very Important
Privacy	1	2	3	4	5	6	7
Price	1	2	3	4	5	6	7
Size of Device	1	2	3	4	5	6	7
Ease of Use	1	2	3	4	5	6	7
Useful Information	1	2	3	4	5	6	7
Multiple Purposes	1	2	3	4	5	6	7
Compatibility w/ Other Electronic Products	1	2	3	4	5	6	7

15) If AWARE was available on a service plan in which the device is free and customers pay for monthly service, how much do you think MOST PEOPLE would expect to pay per month?

❑$0 ❑$1-5 ❑$6-15 ❑$16-25 ❑$26-30 ❑$31 or more

16) If AWARE was available on a service plan in which the device is free and YOU pay for monthly service, how much would YOU pay for this service per month?

❑$0 ❑$1-5 ❑$6-15 ❑$16-25 ❑$26-30 ❑$31 or more

17) If you could use the device for free at your shopping center each time you needed it while shopping, how likely would you be to use the AWARE device? *CIRCLE YOUR RESPONSE (1=Not at all Likely, 4=Somewhat Likely, 7=Very Likely)*

Not at all Likely			Somewhat Likely			Very Likely
1	2	3	4	5	6	7

18) If you circled 1, 2, or 3, in question #17, what are your main concerns with using the AWARE device?

_____

_____

_____

Please complete the following information

19) Zip code: ___ ___ ___ ___ ___

20) Gender: ❑ Male ❑ Female

21) Age: ❑ 18-22 ❑ 23-34 ❑ 35-49 ❑ 50-64 ❑ 65+

22) Ethnicity: ❑ Caucasian ❑ African-American ❑ Hispanic/Latino ❑ Asian ❑ Other _____

23) What is the highest level of education you have completed?

❑ Some High School ❑ High School Graduate ❑2 years college ❑ 4yr. College Degree ❑Post Graduate

❑ Other (specify)_____

24) How many children between the ages of 0 –17yr. currently live in your home more than half of the year? ____

25) How many adults, including yourself, older than 18 live in your home more than half of the year? ____

26) What category best describes your total annual household income?

❑ <$30,999 ❑ $31,000 - $50,999 ❑ $51,000 – $75,999 ❑$76,000-150,999 ❑$151,000+

APPENDIX B: SCRIPT FOR FOCUS GROUPS

Welcome to the Grocery Shopping Experience Focus Group. This group is part of a research assignment through the Marketing department of UMBS. The objective of this session is to help us learn more about grocery shopping behaviors. The session will take no longer than one hour. We are going to collect a little bit of biographical information at the end of this session to help us analyze the data. This information is optional however

I am going to start by asking you some open ended questions and then we will just have a conversation about the answers that we hear.

The Shopping Experience (20 min.)

- Is grocery shopping a task that you like to do?
- What do you like about grocery shopping?
- What don't you like about grocery shopping?
- What would you like to see improved in your grocer shopping experience?
- When you shop for groceries do you feel like you have enough information on the products you select?
- What types of stores do you shop for most of your groceries?
- Why do you shop at that type of store? What does it offer that a traditional grocery store doesn't?

Technology (20 min.)

- How comfortable are you with new technologies? (U-Scan, PDA's, Internet, etc.)
- How often do you use new technologies?

We are now going to show you a demonstration of the AWARE device. AWARE is an electronic device much like a PDA (a handheld personal digital assistant), that can be programmed to provide you with customized information that you consider important while shopping (i.e. nutritional content, genetic modifications, animal testing, Consumer Reports/Greenpeace endorsements, environmental issues, price, coupons, recipes, food preparation information, ingredients, etc.)

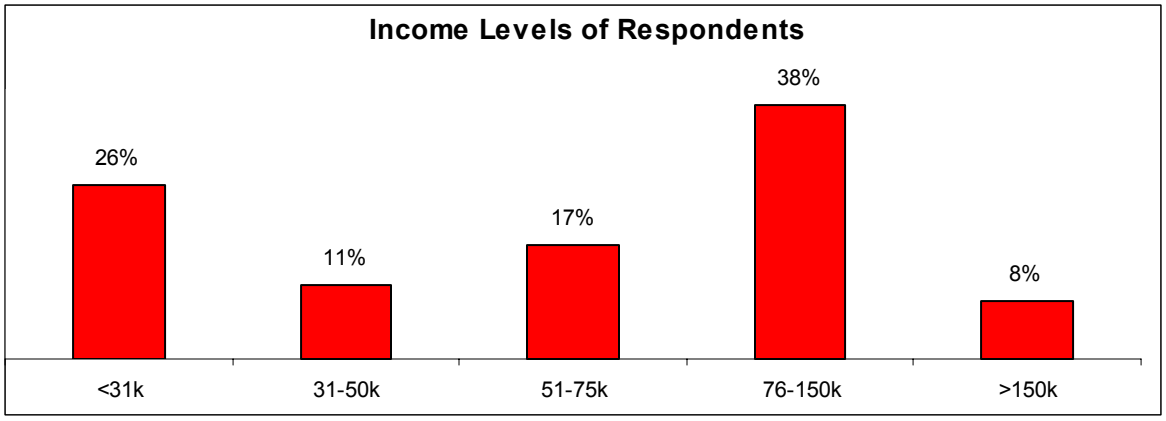
AWARE Specific (20 min)

- Does this seem like a device that you would find useful while shopping? Why/why not?
- Do you think that you would be able to use the device while shopping? Why/why not?
- Do you think that it can give you ALL of the information you would be interested in having while shopping?
- What other information would you like for it to provide?
- Do you think you would use the device for your shopping? Why/why not?

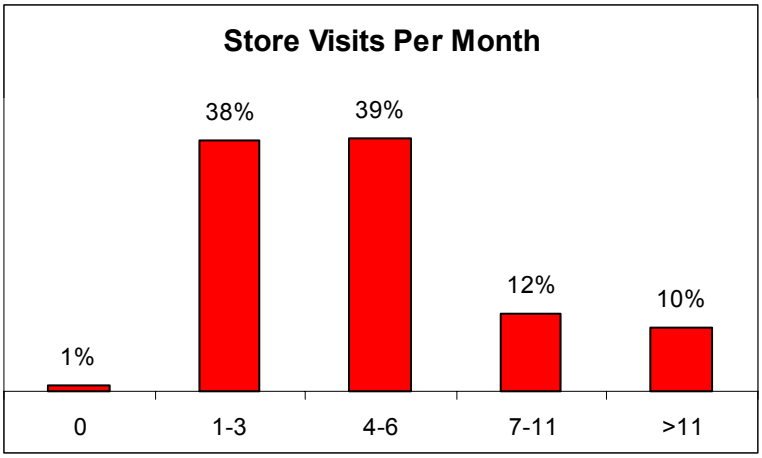
APPENDIX C: LIST OF GOOGLE GROUP SITES

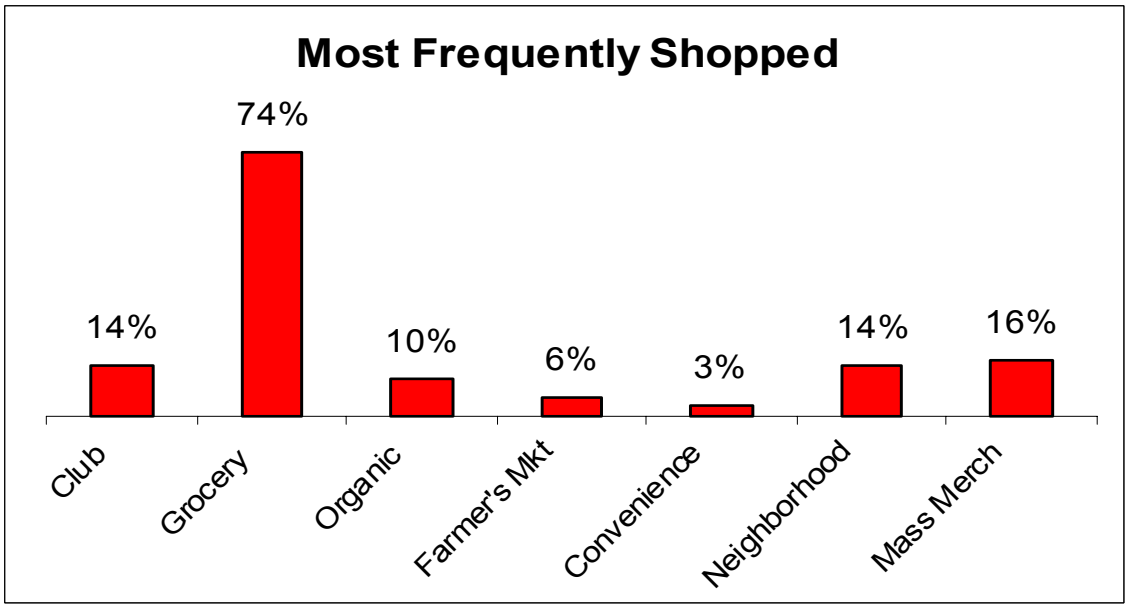
Sdnet.job
Sci.environment
Rec.food.cooking
Comp.human-factors
Misc.health.diabetes
Misc.consumers
Alt.good.news
Sci.med.nutrition
Alt. Privacy
Alt.health
Misc.fitness
Rec.food.baking
Comp.sys.acorn
Comp.sys.palmtops
Misc.fitness.misc
Misc.fitness.weights
De.comp.sys.mac.misc
Misc.health.alt
Alt.med.fibromyalgia
Microsoft.public.windowsce
Sci.med.prostate.cancer
Alt.support.diet.low-carb
Misc.fitness.aerobic
Misc.health.alternative
Rec.food.veg
Alt.support.diet
Sci.med.cardiology
Alt.support.diabetes
Alt.support.crohns-colitis
Alt.support.food-allergies
Alt.animals.ethics.vegetarian
Alt.food

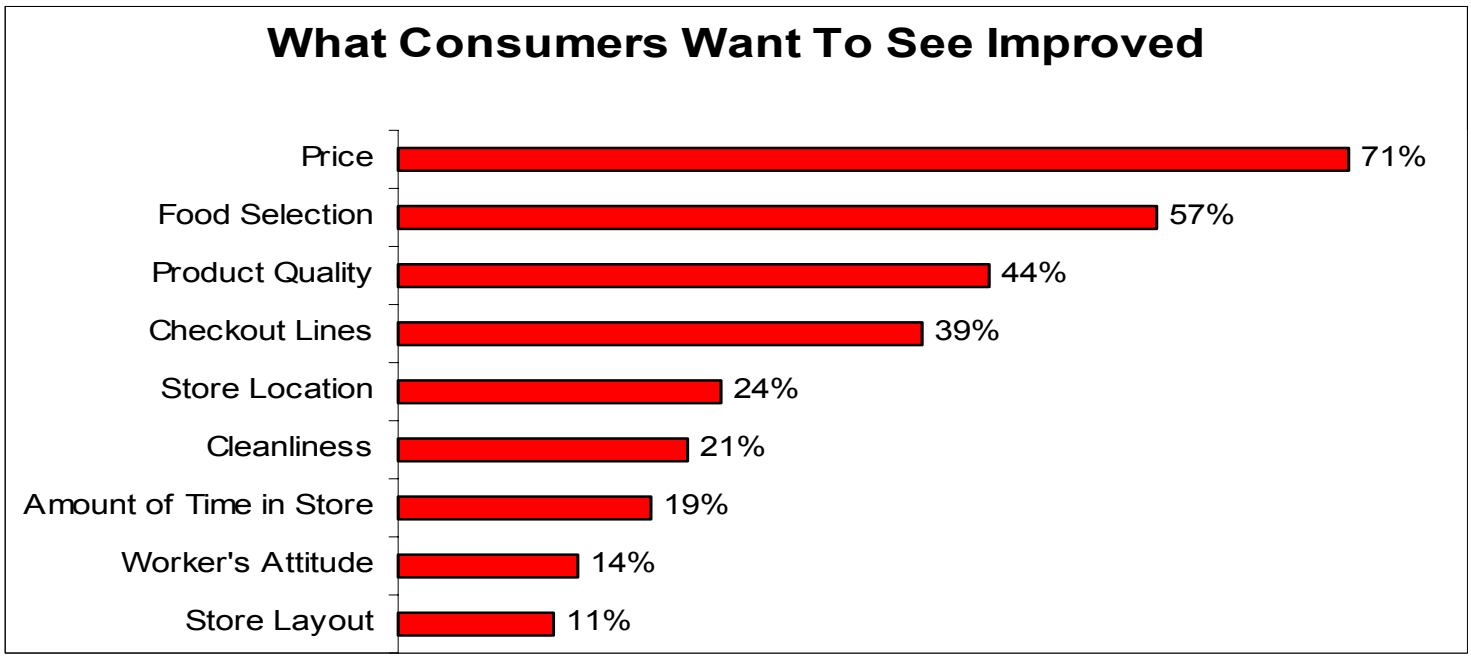
APPENDIX D: GRAPHICAL DESCRIPTION OF SURVEY RESPONDENTS

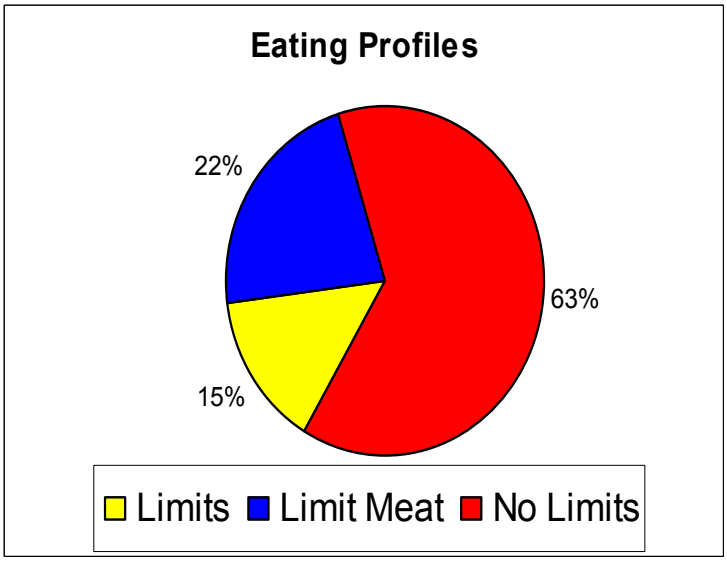


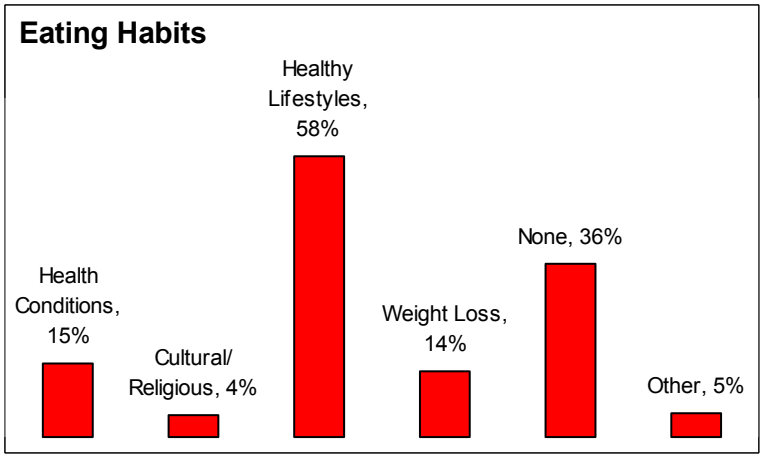
Gender	Survey	2000 Census	Margin
Male	61%	49%	**0.12**
Female	39%	51%	**0.12**
Ethnicity			
Caucasian	76%	69%	**0.07**
African-American	7%	12%	**0.05**
Asian	6%	4%	**0.02**
Latino	6%	13%	**0.07**
Other	6%	2%	**0.04**
Income (000's)			
<31,000	25.9%	37.6%	**0.12**
31-50,000	11.1%	19.4%	**0.08**
51-75,000	16.9%	18.4%	**0.02**
>75,000	46.1%	24.6%	**0.22**


Store Visits Per Month
1%
38%
39%
12%
10%
0
1-3
4-6
7-11
>11


Most Frequently Shopped
14%
74%
10%
6%
3%
14%
16%
Club
Grocery
Organic
Farmer's Mkt
Convenience
Neighborhood
Mass Merch

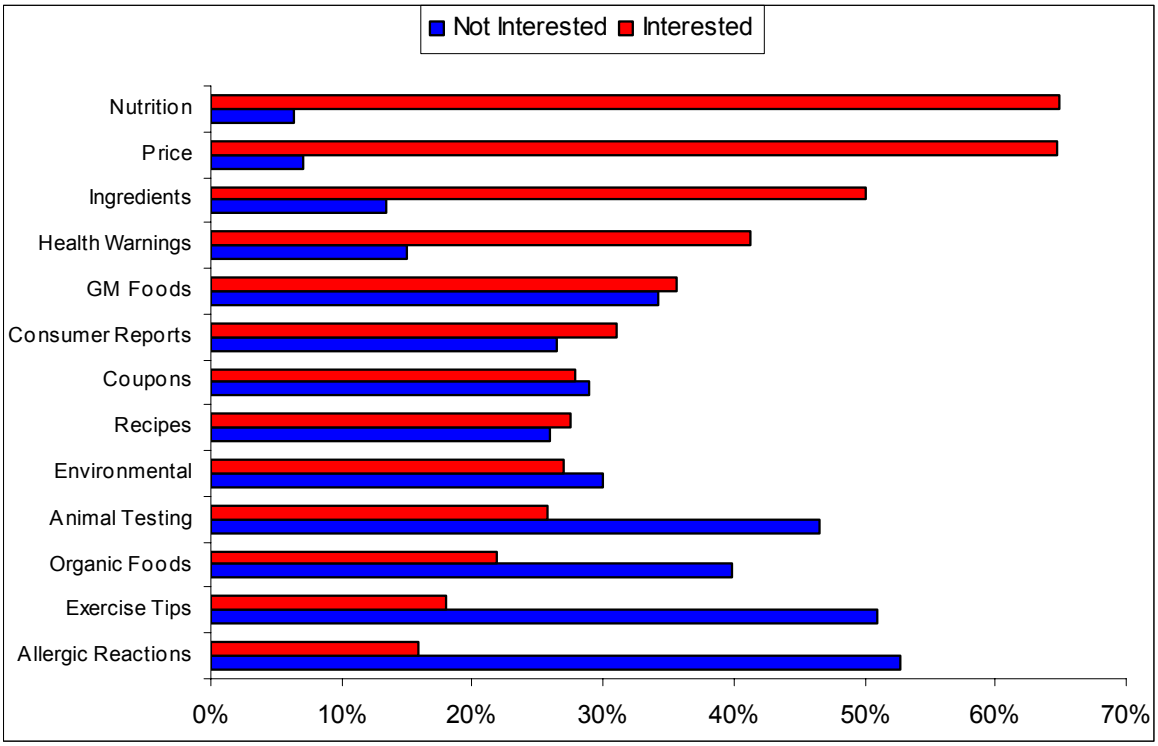

What Consumers Want To See Improved
Price
71%
Food Selection
57%
Product Quality
44%
Checkout Lines
39%
Store Location
24%
Cleanliness
21%
Amount of Time in Store
19%
Worker's Attitude
14%
Store Layout
11%

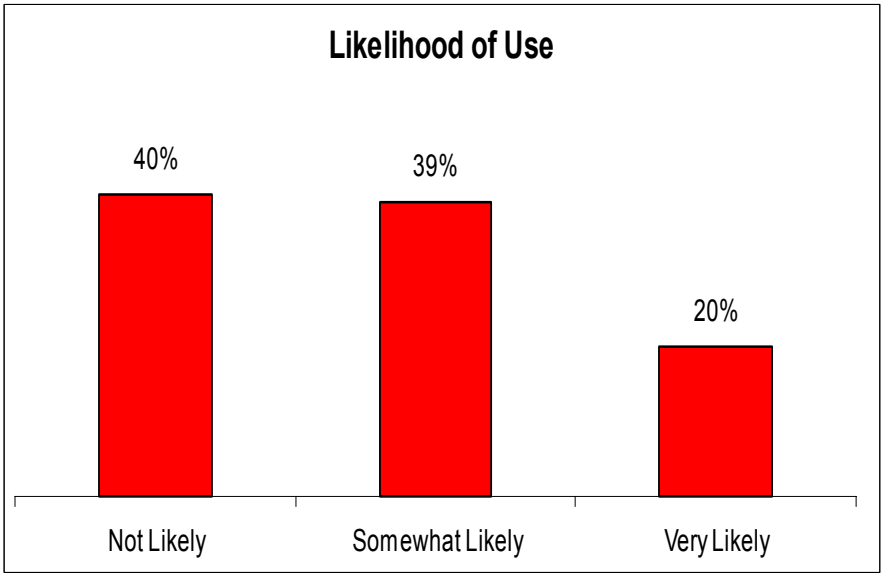

Eating Profiles
22%
63%
15%
Limits
Limit Meat
No Limits

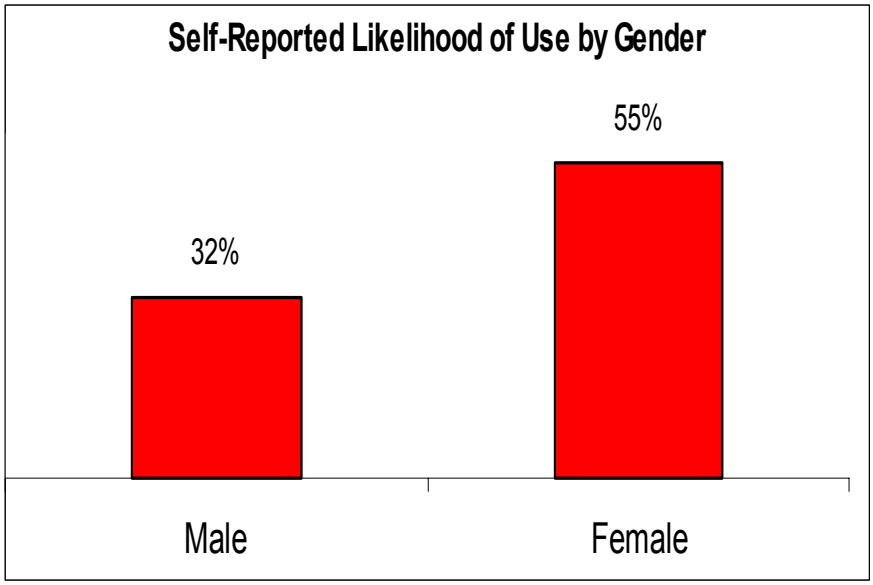

Eating Habits
Health Conditions, 15%
Cultural/ Religious, 4%
Healthy Lifestyles, 58%
Weight Loss, 14%
None, 36%
Other, 5%

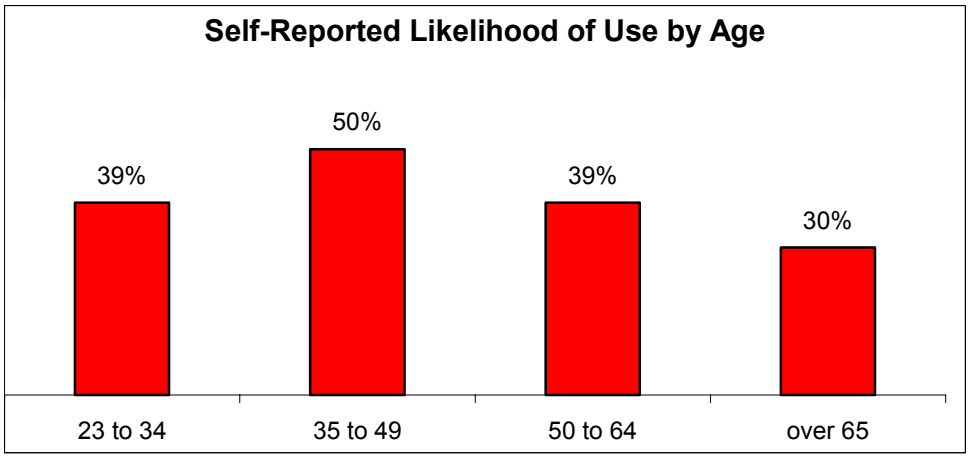
APPENDIX E: GRAPHICAL REPRESENTATION OF RECEPTIVENESS OF THE DEVICE IN THE MARKETPLACE

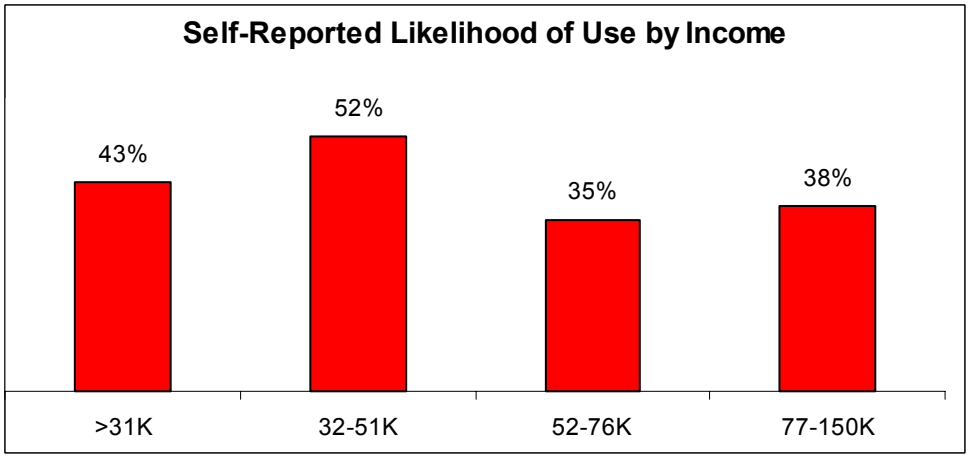
Attributes






Self-Reported Likelihood of Use by Gender
32%
55%
Male
Female


Self-Reported Likelihood of Use by Age
39%
50%
39%
30%
23 to 34
35 to 49
50 to 64
over 65


Self-Reported Likelihood of Use by Income
43%
52%
35%
38%
>31K
32-51K
52-76K
77-150K

APPENDIX F: SUMMARY OF DIABETES EDUCATION FOCUS GROUP COMMENTS

Participants: 4 people, 2 male and 2 female, mid to late 40's

- Concern about database crashing at the store and making the product useless
- Want electronic coupons—perceive them as easier to use than in store coupons, and easier to manage than store loyalty cards and clipping them out of the paper
- Want inventory management of their pantry in the home
- Want the store to carry AWARE as well as making it available for consumer purchase
- Suggested having the AWARE device give information regarding over the counter drugs that can be purchased in the grocery store—want to know active ingredients, and warnings that are similar to the handout you receive when you get a prescription drug
- They want to enter individual preferences and diets, ie. Be able to select multiple diets and enter favorites into the device. Or be able to program it, for example, with the diabetic diet, low sodium, and allergy to wheat.
- Want to be able to set specific parameters for fat, sodium, cholesterol, etc.
- Want to scan items in the home from their pantry and make a shopping list
- Suggested being able to dial in the shopping list, and then go to the store and the AWARE device will home in on where the items are located on the shelf
- Confusion about how the AWARE device would connect to a wireless system
- Would prefer not to have an additional device. They want software they can program into a PDA, with a scanner attachment
- Want to make their shopping list ahead of time and be able to see which store gives the lowest overall grocery bill. All participants reported that they would get all of their groceries from the store that had the lowest overall price. They would not shop around to get the lowest price for individual products
- They wondered where the database came from
- Discouraged that the price comparison feature was within the store only
- Might be easier if the store just offered this

APPENDIX G: SUMMARY OF CARDIAC REHABILITATION FOCUS GROUP COMMENTS

Participants: 2 females, ages 40's to 60's
Both participants reported being somewhat comfortable with technology; both own a computer, but neither own a PDA

- Price is important because you are paying for fat free, or are keeping a diet that is separate from your family.
- I would rather read pertinent info off the screen instead of reading the can
- I wouldn't mind a rental fee in the store, but only if it's like $1.
- I like the alerts for menu planning
- It takes too long to read the can for specific info
- One of the features I like when shopping is that the big grocery stores and Sam's clubs offer double coupons
- Store location is important, along with quality of products
- I shop different stores depending on what I am buying
- They point out that you can generate a shopping list online from local grocery store
- Locating items on the shelf is important
- They would rather have the retailer provide the device
- They would like subtotals of their bill generated with the device
- They pointed out that once you know your specialized diet, the portions and ingredients and restrictions become a habit, and you know which brands to buy. Then you tend to buy the same brands all the time because you know that they work with your diet. They see the whole device being used less over time.

APPENDIX H: SUMMARY OF UMBS FOCUS GROUP COMMENTS

Participants: 4 male, 1 female, ages early 20's to early 30's

- Don't enjoy shopping with others
- Want to get through the store quickly. Often use the self check out for this.
- Proximity of store, speed of checkout, and selection of food affects grocery store decisions
- The group verbalized comfort with technology: autocheckout, Internet, PDA, wireless LAN, going live at Starbucks
- One participant stated that he had a PDA for a while, but waited until it was mainstream, then didn't use it for a year. Tends to buy things then not end up using it.
- The group liked that the device could create a shopping list, can sync with the store, locates items on the shelf (which helps prevent impulse buying).
- Would like price comparison between stores
- Would like subtotal of bill
- Identified the device as potential means to check out at the store—scan your own items, then turn in the device and pay.
- Expressed concern that they did not want to pay for attributes that they were not using.
- Each person wanted different functions:
    - Price comparison and availability
    - Locating items on the shelf
    - Didn't care about nutritional information—not different than the label on the box
    - Nutritional information did matter to one person, who makes a lot of decisions based on these things
    - E-Coupons
- They would not use recipes
- Did not think the device was useful if you buy the same things over and over
- Concerns about the device causing them to have to spend even more time in the store
- Only one participant said that he would not use it, the rest said that they would.
- The participants that stated that they would use it were split regarding ownership
- One male would pay for the device, not the service. He expected to pay $100
- One brought up the idea of a software download and paying for the services you download to your PDA
- One stated that he expected to pay $5 a month for the service, or have lifetime membership fee of $100
- Overall, they would not purchase a new PDA just for the scanner
- Would be cool if device could also be used in record stores and book stores