LIFE STYLE SEGMENTATION AND THE ELDERLY MARKET
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ABSTRACT
Cluster analysis was used to develop and profile five elderly consumer segments based on life style data collected from males 65 years of age and older. Using analysis of variance, these segments were then related to consumption of a number of products.

INTRODUCTION
One of the most dominant concepts in marketing today is that of segmentation. Numerous markets have been the object of segmentation resulting in a fine tuning, and hopefully more effective and efficient allocation, of market mix efforts. The elderly consumer market, however, has been the object of few segmentation efforts. The neglect of this segment is unwarranted as supported by an increasing amount of demographic information.

According to the U.S. Bureau of the Census (1981), the over 65 age group boasts of over 26.3 million persons in the United States, or 11.4% of the U.S. population; and these numbers are increasing at an increasing rate. While the average income of the elderly is only about three-fifths that of the national income, the group's total household income accounts for an impressive amount of buying power ($142 billion in 1977) (Allan 1979). The buying power of the elderly is even more positive when the many "hidden assets" (such as retirement funds, mortgage-free homes, Medicare and Medicaid benefits, lack of children in home, special senior citizen discounts, etc...) not typical of the juniors are considered. The decreasing youth market of today is another factor currently adding to the attention of the elderly as a consuming market. In spite of these factors, few marketing studies have addressed the elderly market. Most of those which have referred to the elderly consumer have regarded the over 65 age group as a homogeneous market (Wells and Cuber 1964, Louden 1976, Anderson 1976).

Gerontologists have produced several important studies identifying differences within the elderly group (Neugarten et al. 1968, Reichard 1962). Personality has been cited as a major factor used in extracting elderly group types. In many of these studies, La Forge (1980), following the gerontologists, used personality in an effort to segment the elderly market resulting in limited, but useful, guidelines. While the gerontologists have acclaimed the value of personality for differentiation, its acceptance by marketers has been less exuberant (Kassarjian 1971). Instead, the tendency in recent years is away from personality and toward utilizing psychographics or lifestyle research for rich profiles of consumer markets. The purpose of the study reported in this paper was to attempt a life style segmentation of the elderly market in hopes of identifying heterogeneous segments. These segments should have potential use for marketers in planning their marketing strategies.

METHOD & RESULTS
The data used in the study was collected from husbands, 65 years of age and older, of members of a national consumer mail panel. The base data was from a 1979 panel (n=147). The annual data collection was via a questionnaire including questions on life style, family influence, product usage, and media usage items. For the purposes of this study, two major variable sets were used: 1) life style variables and 2) consumption variables. The life style variable set can be categorized, regarding opinions and behaviors, as follows: shopping related, health/nutrition and personal care, convenience, information exposure/usage, activity/ social participation, and innovation/optimism. The consumption variables can be categorized into categories of personal care products, health/nutrition type products, and convenience products.

The data analysis included two major steps. First, a hierarchical clustering algorithm was used to identify the elderly segments based on life style data. Once segments were identified, they were described based upon group mean scores on the life style items used to create the clusters. In the second step, one way analysis of variance was performed to examine any relationships between the elderly segments and their consumption patterns. F-ratios were used to test the null hypothesis of no significant difference among segment means for the consumption variables. When significant differences were found, Turkey's A Posteriori Contrast Test was used to compare all possible pairs of group means. A second clustering algorithm was used to gauge the validity of the derived segments. Reliability of the consumption patterns was also assessed using information from later (1981) panel data (While one yearly sample is independent of other years, they are demographically matched.).

Five unique elderly clusters were identified and described based on mean responses to the life style variables. The segments are listed and briefly described as follows.

Elderly Segment Profiles
The Model Senior segment (n=31) is one of the two most health and appearance conscious groups. The members of this group are concerned about what they eat/don't eat and the way they dress and look to others. Reflective of their personal interest, the Model Seniors perceive themselves as influential, they like being opinion leaders, and they maintain several areas of outside interest. These consumers are noninnovative in their attitudes toward product usage as well as social issues. They are, however, responsible shoppers, making shopping lists, using savings stamps, buying products advertised on educational television, and exhibiting price consciousness. They do not enjoy shopping. With their somewhat respectful conservatism, the Model Seniors report to be the happiest group of all elderly segments—compared to their previous years of life.

Members of the Uninvolved segment (n=32) are also happier than before. They like parties, games, etc... and report to be more innovative than the other elderly segments. The outlook on shopping of this group, however, is one of disinterest—they do not enjoy shopping and are not involved/responsible shoppers (low price consciousness, nonusers of stamps, low consumer information usage). The lack of involvement of this segment
is reflected by the fact that they do not perceive themselves as influential in their neighborhoods, they have low leadership desires, and they exhibit little concern about their nutrition.

The third segment identified is best described as Satisfied (n=30). While this segment also reports to be happier than ever before, their lifestyle is somewhat complacent. They report more spare time than the other forms and all appear less interested in fitness time. The health and personal-care consciousness of this segment is lowest of all the elderly. In addition to being noninnovators, they are not involved shoppers (with the exception of price consciousness) nor are they very socially active. Television is their primary form of entertainment.

The Organized Reminiscer (n=3) appears to have a foot in two worlds. While these elderly are happier now than ever before, they are quite reminiscent of the past. This is a segment quite concerned about health/nutrition and personal care. The Organized Reminiscer as a consumer is active, uses Consumer Reports and is an organized shopper (makes detailed lists, shops for specials, uses stamps, etc. . . .). They are also innovators. This is a social group, yet television is still reported as their primary form of entertainment.

The last segment, the Negative (n=25), shows little concern for nutrition or personal appearance. This is the least social group, spending much more time with the television. They are the least innovative group and are quite reminiscent of their past lives. The Negative are not involved shoppers, they have little in the area of outside interest; and they are the only group reporting to not be happier than ever before in their lives.

Several major similarities and differences can be drawn across the elderly segments. The Organized Reminiscer and Model Senior are the two most health conscious groups with the Satisfied tending to be the least health conscious of all. Regarding personal appearance and dress, three groups, the Model Senior, the Uninvolved, and the Organized Reminiscer are cognizant of their dress and appearance to the opposite sex. Most of the elderly, however, do not desire to look different from others in seeking a good personal appearance. The Satisfied tend to be the least concerned of all groups regarding personal appearance.

The Outside interests of the elderly segments are all somewhat low with the Model Senior, followed by the Organized Reminiscer, displaying greatest interests in various activities. Some of the groups are more socially active than others. Overall, media usage of the elderly segments is also low. Television appears to be the primary source, although the Model Senior utilizes magazines to a high degree. In addition, the Organized Reminiscer and the Model Senior report using consumer reports information more than the other segments. A direct measurement of media usage (quantity, scheduling, vehicle), however, was not undertaken for this study so more conclusive behavior in this area cannot be ascertained.

Some of the elderly segments are quite involved with shopping. All but one, the Uninvolved, are price conscious; all but one, the Organized Reminiscer, are brand loyal; and all but one, the Organized Reminiscer, are detailed shopping lists. Only two groups, however, the Uninvolved and Model Senior seem to enjoy shopping. The innovativeness of the elderly segments is mixed. Regarding happiness, all but one segment, the Negative, report being happier now than ever before in their lives.

The clustering algorithm used as a validity check also produced five natural clusters. Overall, 82.4% of the respondents were commonly grouped into comparable clusters of the two sets produced by the two cluster algorithms. The initial clustering algorithm was used as the base cluster program in computing percentages.

Product Consumption Analysis

Consumption of eight personal care products, fifteen health/nutrition products, and fifteen convenience products were analyzed in this study. One-way analysis of variance was used to determine any significant variation at the .05 level in consumption across elderly segments. Sub-program ONEWAY of the Statistical Package for Social Sciences was used for this purpose. The dependent variable list in the analysis was composed of the product usage lists. The independent variable is the segment, elderly groups one through five.

Using the 1979 data base, only five significantly different patterns were identified by the base clustering algorithm: one personal care product ('hair spray'), three nutritional products ('low sodium salt', 'bran cereal', and 'low fat 2% milk'), and one convenience product ('dry soup mix'). The validity clustering algorithm also identified five products ('bran cereal', 'nutritional cold cereal', 'peanut butter', 'dry soup mix', and 'hair spray').

A posteriori contrasts were used to examine differences across elderly segment product usage. Regarding health/nutrition products, the Organized Reminiscer used significantly more low sodium salt than the Satisfied. The proportions of bran cereal consumed also exhibited significant differences with the Model Senior, Organized Reminiscer and Negative consuming larger amounts than the Satisfied. Mean response scores for low fat 2% milk also significantly differed at the .05 level for the Satisfied and Model Senior with the Model Senior exhibiting the highest consumption mean and the Satisfied the lowest mean. For the convenience food category, the proportions of dry soup mix consumed were significantly different with the Organized Reminiscer consuming significantly more than the Negative. Proportions of hair spray significantly differed with the Organized Reminiscer using the largest amount and the Model Senior using the least of all segments.

The reliability of the elderly segments concerns both the ability to reproduce the segments over time as well as the ability to reproduce the consumption patterns. Each of these is discussed below.

Segment Reproduction. When the clustering algorithm was performed on the 1981 data set, five natural clusters were produced. Three of the 1979 elderly segments, the Model Senior, the Satisfied, and the Uninvolved were constructed fairly accurately. The major characteristics of these profiles, i.e., health and personal care, shopping habits, price consciousness, innovation, leadership, social participation and happiness largely remained stable. The two remaining 1981 segments cannot be clearly matched to those derived from the 1979 data. Two major profile characteristics, happiness and health concern, especially complicate the comparison with the direction of mean scores being reversed from those of the 1979 Organized Reminiscer and Negative profiles. The second 1981 segment, S2 (n=4), is representative of the Satisfied profile, S3 (n=20) is representative of the Uninvolved profile, and S4 (n=40)
Product Consumption Reproduction. Analysis of variance identified five products with significantly different consumption patterns by the elderly. None of these, however, significantly differed across the 1979 segments. Segment 2 reported using significantly more hair conditioner/cream rinse than Segment 1. Hair tonic usage, another personal care product, significantly differed across the segments with Segment 4, the most frequent user, using significantly more than Segment 1, the least frequent user.

One convenience product exhibited significantly different consumption patterns. Segment 1 elderly were the most frequent users of hot dogs consuming significantly more than Segment 3 the least frequent consumers.

Two health/nutrition products exhibited significantly different patterns of consumption. Segment 2 elderly consumed significantly more decaffeinated ground coffee than Segment 4. For nutritional snack bars, Segment 3 consumed significantly more than Segments 2, 4, 1, and 3 with frequency of consumption in descending order.

CONCLUSIONS

The findings of the study, although limited are meaningful. The Model Senior reports high consumption of health/nutrition oriented products as would be expected. Although they are concerned with personal appearance, they report least frequent usage of men’s hair spray. This possibly is due to their low innovation proneness (although the possibility of balding cannot be ruled out).

The Organized Reminiscer, another group rating health and nutrition high, also reported more frequent usage of health/nutrition oriented products. This group also reported the highest frequency usage of a convenience product, dry soup mix. This usage is possibly a reflection of their innovation willingness or their apparent dislike of lengthy meal preparation as indicated by their life style profile. The Organized Reminiscer’s high usage of hair spray may be a reflection of their innovativeness or their concern for personal appearance.

The Satisfied and Uninvolved, in accordance with their low health concern, used significantly less of the health/nutrition products.

The Negative reported the lowest usage of the convenience product, dry soup mix, converse to their dislike of lengthy meal preparation but consistent with their low proneness for innovation.

The 1979 validity segments found the Model Seniors to use hair spray with lowest frequency consistent with the base Model Senior group. The validity segments also found the Organized Reminiscer to use more health/nutrition, convenience, and personal care products. The Satisfied and Uninvolved used less nutritional products. The Negative again presented surprising results with their low use of dry soup mix (consistent with base segment) but more so with their second-highest consumption of two health products, bran cereal and peanut butter. The only explanation possibly derived from the available information would be a possible perception of these products as convenience products.

The results of the 1981 segments' consumption are less consistent. A brief examination of the 1981 reliability segments finds some of the health oriented elderly using more health/nutrition type products. Those with concern for personal appearance use more personal care products like hair conditioner/hair tonic, but with exception.

Implications

Overall, this study leads to several general implications relevant to market practice. These fall into two areas: the use of life style data to profile elderly segments and the consumption patterns of these elderly segments.

Given the results of the study, life style data is appropriate for profiling elderly consumer segments. Five district segments were identified and their validity substantiated. The only limitation to this conclusion is the problem of reproducing two of the elderly segments within the 1981 data set. This data, by no means, meets requirements for longitudinal analysis; however, the inability to identify these two groups remains an issue.

Although a problem exists in producing reliable product consumption patterns on a product-by-product analysis across years, some categorical consumption patterns do consistently surface from the data. Three main categories can be identified: health/nutrition products, personal care products and convenience products. Some shopping practices also can be noted.

Health and nutrition products, i.e., low sodium salt, bran cereal, low fat 2% milk, nutritional bran cereal, peanut butter, decaffeinated ground coffee, etc... are consumed more frequently by elderly segments such as the Model Senior and Organized Reminiscer. These elderly are in turn concerned about their health, nutrition (what they eat, don't eat, weight, etc...). Market mixes oriented toward health preservation and nutrition might well be targeted to these people.

A second general product category exhibiting differing consumption patterns across groups is that of personal care products with the Organized Reminiscers and Model Seniors being major targets. A number of cosmetic and personal care product companies have recently begun attempts to cater to the elderly market. Information in the form of life style profiles regarding heavy versus light users of these products could enable these firms to target and sell more efficiently.

Convenience products, and innovative products in general, may be better targeted toward the Organized Reminiscers segment. The elderly apparently more accepting of new products than other elderly. The convenience products should, however, not be junk food products given the high health orientation of this group.

Regarding shopping practices, the Model Seniors and Organized Reminiscers appear to be the most involved shoppers also. They utilize Consumer Reports more than other elderly, make shopping lists, and respond more positively to inducements such as stamp redemption. All elderly segments, with the exception of the Uninvolved are price conscious; and all but the Satisfied shop around for specials. Thus price appears to be a vital element of the market mix when targeting the elderly market. One would expect a positive reaction from the majority of the elderly to direct price inducements.

The elderly males in this study report using a low degree of personal communications. Three segments report that television is their primary form of entertainment while only one elderly group reports finding magazines more entertaining than television. In addition, two segments report using Consumer Reports information for product purchase as previously noted.

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sustaining the Organized Reminiscer and the Uninvolved. Somewhat different market mixes, however, would need to be applied to each of these groups given the variation in products desired and media utilized by each.

When considering new product introduction to the elderly, two segments should be examined for initial introduction. The Organized Reminiscer and the Uninvolved appear more innovative than other elderly segments. The Organized Reminiscer, with a more extensive social network, may be a more valuable source of information to the seller, however, if word-of-mouth is a valuable source of information. The Uninvolved have less potential of information diffusion to peers due to their low social participation. The lack of personal communication found in this study, however, brings into question the value of word-of-mouth communications.

In communicating to the various elderly segments, their shopping practices should be considered. Another relevant aspect is that of designing programs to educate elderly segments especially lacking in good shopping habits, i.e., planning, price consciousness, information gathering and usage, etc... While some groups do appear to be more efficient and knowledgeable shoppers, the product information of the elderly appears to be low overall from the results of this study implying a need for such educational efforts.

Future research needs to examine specific patterns of information usage by the elderly, males and females, given the low level of usage reported by the males in this study. Sources used, and usage patterns within those sources, would provide valuable information in communicating with the various segments.

REFERENCES


