Z——031

M——319

——R31

A——145

a—075

J——32

K——R
160/149
L——331

ABSTRACT

AN ANALYSIS OF MARKET SEGMENTATION ON THE BASIS OF EMOTIONAL-ATTITUDINAL VARIABLES IN THE UNITED STATES COMPACT CAR MARKET

By

William Hughes Cunningham

In a competitive economy, market segmentation becomes an important strategy for many firms. Traditionally, corporations have delineated their markets by level of income, social class, geographic location and chronological age of the head of the household. Although the present research examined these variables, its primary objective was to determine whether the United States compact car market could be segmented by emotional-attitudinal variables.

The products selected for the research were Maverick and foreign compact cars. The sample, which consisted of purchasers of those compact cars, was drawn by R. L. Polk Inc., from Ingham County, Michigan. Each individual in the sample was contacted by mail and telephone. If he agreed to cooperate, arrangements were made for a personal interview. The data were analyzed by the appropriate nonparametric tests and by "R" and "P" factor analysis.

The thesis's major findings are outlined below:

1. Compact car buyers tended to come from a higher social class than did Maverick owners. Although social

classes were not formally segmented, the nonparametric test applied to the data indicated that there was a significant distinction between the respondent groups. Also foreign compact car owners had more prestigious jobs and higher education levels than Maverick owners.

2. There was a significant difference between the respondents in their stage in the family life cycle. Foreign compact car owners were younger in chronological age, and were heavily concentrated in the early stages of the family life cycle; Maverick owners were older and were in the latter stages of the life cycle.

3. The most important finding of the research concerned the emotional-attitudinal feelings of the respondents. The nonparametric tests which were used to measure the differences between the respondents were effective in delineating the market. Maverick owners tended to be more dogmatic, more conservative, more status conscious, less positive toward foreign products and more positive toward big business than were the foreign compact car owners.

"P" factor analysis was also performed on the emotional-attitudinal data. It developed three basic factors--the first factor contained primarily foreign compact car owners, and the third factor contained largely Maverick owners. The second factor contained members of both respondent groups. This was to be expected and in no way distorts the previous findings since some individuals had

characteristics of both respondent groups and therefore could not be factored into either group.

The present research indicates that for one product at one time and in one location a market can be segmented by emotional-attitudinal variables. If future research shows that the results of this study can be generalized to other markets and other products, then firms should augment socio-economic, demographic and locational variables in making their marketing decisions with the emotional-attitudinal characteristics of their potential customers.

AN ANALYSIS OF MARKET SEGMENTATION ON THE BASIS OF EMOTIONAL-ATTITUDINAL VARIABLES IN THE UNITED STATES COMPACT CAR MARKET

By

William Hughes Cunningham

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CHAPTER I

INTRODUCTION

Purpose of the Research

In 1956, Wendell Smith wrote "Product Differentiation and Market Segmentation as Alternative Marketing Strategies."[1] In the article, Mr. Smith analyzes two opposing marketing strategies--market segmentation and product differentiation. He defines the first to be a strategy whereby the firm segments its market into several distinct submarkets and then designates products which match the needs of these smaller markets. In contrast, a strategy of product differentiation is an effort by the firm to mold its entire market around one specific product rather than offering different products for the various submarkets. One of his key points is that in a developed economy where technological breakthroughs have made possible minimum efficient production runs, and where discretionary buying power is sufficiently high to produce shopping comparisons, market segmentation as a strategy cannot be denied.

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[1]Wendel R. Smith, "Product Differentiation and Market Segmentation as Alternative Marketing Strategies," Journal of Marketing, July 1956, pp. 3-8.

The last fourteen years have proven Smith to be correct. Researchers from both the academic and business communities have become increasingly concerned with defining precise market segments. Businessmen feel a need for this knowledge in order to effectively define and serve their customers, while academicians have been more interested in individual differences in the behavioral characteristics of the market segments.

Prior segmentation studies have dealt with such important variables as occupation, income, family life cycle, education of the head of the household, social class and personality. Results have been mixed; no simplistic bases for segmentation have been found. As an example, W. Lloyd Warner was able to show that an individual's social class permeates all of his activities from the type of magazines he reads to the stores he shops in.[1] Unfortunately, other studies such as those by Franklin B. Evans[2] and Ralph Wastfall[3] have not been successful in identifying markets and describing consumer behavior.

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[1]W. Lloyd Warner, Marcia Meeker and Kenneth Eells, Social Class in America (New York: Harper Torch Books, Inc., 1960), p. 131.

[2]Franklin B. Evans, "Psychological and Objective Factors in the Prediction of Brand Choice," Journal of Business, XXXII (October 1959), 340-369.

[3]Ralph Westfall, "Psychological Factors in Predicting Product Choice," Journal of Marketing, XXVI (April 1962), 34-40.

The objective of this study is to determine if a major U.S. market can be segmented by emotional-attitudinal variables. The type of factors which might fall in this category include need for status, alienation from big business, attitude toward foreign products, and dogmatism. Although the present research encompasses socioeconomic and demographic variables, it is believed that many American markets cannot be delineated by those conventional variables alone.

Statement of the Problem

The thesis focuses on the United States compact car market. Its purpose is to design and implement a method to determine whether a distinct market segment exists for small cars regardless of origin, or whether there are two distinct segments, one for foreign cars, one for those made in America.

The compact car market was selected for the following four reasons. First, data were readily available. Bimonthly sales and production estimates were obtained from Wards Automotive Reports and from Automotive News. Area registrations of foreign and domestic compacts were purchased from R. L. Polk Inc.

Second, there have been dramatic changes in this sector of the economy. In 1964, foreign economy cars sold 334,350 units or 4.4% of the domestic market;[1] in 1969,

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[1] Ward's Automotive Reports, January, 1965, pp. 4-6.

foreign economy cars sold 810,493 units or 9.6% of the total American market.[1] In an attempt to meet foreign competition, Ford Motor Company introduced the Maverick. It was designed to be economical to repair and operate and to sell for less than $2,000. On April 1, 1970, American Motors began selling the Gremlin. It was priced at $1,850. Both Ford and General Motors added new compacts to their lines in the Fall of 1970.

Third, standard methods of segmenting the automobile market have not proven very successful. Research done for Ford Motor Company indicates that it is quite difficult to distinguish between market segments if only socioeconomic factors are used.[2] Other studies have tried unsuccessfully to distinguish between automotive buyers by personality traits.[3]

Fourth, consumers purchase automobiles for reasons other than mere transportation;[4] some purchase a car for the status it affords them while others look for the best buy available. Importantly, it was felt that the compact car market might be segmented by emotional-attitudinal factors

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[1] Ward's Automotive Reports, January 1970, p. 13.

[2] Ford Motor Company, unpublished Market Research done for Ford Motor Company.

[3] Evans and Westfall, op. cit.

[4] Daniel Yankelovich, "New Criteria for Examining Market Segmentation," Harvard Business Review, XLII (March-April 1964), 86.

rather than just product characteristics, rational needs, and socioeconomic variables. If this is correct, the study will have laid the groundwork for research in other markets to determine whether emotional-attitudinal variables play a significant role in defining markets.

Hypotheses

The following is a list of hypotheses and subhypotheses which will be examined in the thesis. They are written in the null form to facilitate testing.

1. There is no significant difference between imported economy car owners and U.S. produced compact car owners in their respective social classes.
    a. Imported economy car owners and U.S. produced compact car owners cannot be differentiated by their respective occupations.
    b. Imported economy car owners and U.S. produced compact car owners cannot be differentiated by their respective income levels.
    c. Imported economy car owners and U.S. produced compact car owners cannot be differentiated by their respective educational level.
2. There is no significant difference between imported economy car owners and U.S. compact car owners when classified by stage in the family life cycle.

a. Imported economy car owners and U.S. produced compact car owners cannot be differentiated by the size of their respective families.

b. There is no significant difference between imported economy car purchasers and U.S. produced compact car purchasers in the age of the head of the household.

c. Imported economy car owners and U.S. produced compact car owners cannot be differentiated by the employment status of the homemaker.

3. There is no distinction between foreign and U.S. produced car purchasers in their attitudes toward big business.

4. There is no distinction between foreign and U.S. produced compact car owners in their need for status.

5. Individuals who have purchased foreign compacts will not have a more positive attitude toward foreign products than purchasers of U.S. produced compacts.

6. Individuals who have purchased foreign compacts will not have a more liberal attitude than owners of U.S. produced compacts.

7. There is no significant difference between U.S. compact car owners and foreign compact car owners in their dogmatic attitudes.

8. Purchasers of imported compacts do not perceive their cars differently than owners of U.S. produced compacts.

9. There is no significant difference between U.S. compact car owners and foreign compact car owners in their attitude towards domestically produced automobiles.
10. There is no significant difference between foreign and domestic compact car owners in their attitude toward sports cars.
11. The initial purchase price is not the determining factor for most individuals in deciding whether to purchase a foreign or domestically produced compact car.
12. Owners of foreign compacts and domestically produced compacts desire the same product characteristics and features in their automobiles.
13. Foreign economy cars perform the same functions for their owners as do their U.S. counterparts.
14. There is no difference in the desire for style in an automobile between foreign economy car purchasers and U.S. produced compact car purchasers.
15. Before deciding on a purchase, owners of foreign and domestic compacts do not consider different types of automobiles.

Methodology

The data was obtained through interviews of a randomly selected sample of recent Maverick and small foreign car purchasers. This approach was utilized because the questionnaire was lengthy and complex. It was felt that with a mail survey the return rate would not be sufficient to complete the study.

The sample was drawn by R. L. Polk Inc. from registration in Ingham County, Michigan. It was felt that Ingham County represents a cross-section of American society. It has within its boundaries the capital of the State of Michigan, five smaller satellite cities, a major university, a community college, and several large industrial concerns. As a result of these and other factors, it should be possible to draw some generalizations from the thesis which will apply to a wider geographic area.

The interview questionnaire was divided into three sections. Each section was designed to test several hypotheses. The first portion of Section I was constructed to determine whether the market could be segmented by examining what compact car owners desired in terms of product characteristics, value and style. The objective of the second portion of Section I was to determine whether foreign and domestic compacts are used differently by different people. The third portion of Section I examined the types of vehicles the respondents had in the recent past, and the other

vehicles they may have considered at the time they purchased their new cars.

Section II was designed to determine whether significant differences exist between Maverick and foreign compact car buyers in their emotional-attitudinal feelings. This was the most important portion of the study and took the respondents the longest to complete. Specific variables which were analyzed include: attitude toward foreign products, attitude toward automobiles produced by the "Big Three," liberal-conservative attitude, need for status, attitude toward big business, attitude toward sports cars, and dogmatism. The specific tests and their rationale will be examined in Chapter III.

Section III had several objectives. First, to determine whether Maverick and foreign car owners perceive their automobiles differently. A thirty-item semantic differential was used--twenty-five of the items came from a study done at the University of Texas at Austin; the remaining five items were added to determine whether a human dimension exists in the way people feel about their automobile.

The second portion of Section III asked the respondents to indicate their total family income for 1969, and the educational level and occupation of the head of the household. This subsection of the questionnaire yielded information to determine the respondents' social class.

The third portion of Section III examined the stage of the respondents family life cycle. It determined whether the compact car market can be segmented by the age and number of children in the family and the age of the head of the household.

The data obtained from the questionnaires were analyzed using several techniques. First, the major hypotheses were tested utilizing several nonparametric tests.

Second, the data were factor analyzed using both "R" and "P" routines. The "R" routine factors the variables while the "P" routine factors the observations.

Limitations of the Study

For the following reasons, generalizations derived from the research will be limited:

1. The study examined owner behavior following purchase. Therefore, the relationship between independent and dependent variables is basically inferential rather than experimental.
2. Data were collected at one period of time. If the data were collected in a longitudinal manner, the results might have been different.

Some Possible Contributions of the Study

The first contribution of the study involves the use of emotional-attitudinal scales in market segmentation. To my knowledge such scales have not to date been utilized for this purpose.

Secondly, the study adds knowledge to the marketing discipline at both the descriptive and predictive levels. The research describes how specific segments of society react to a product which represents a major portion of most families' purchasing power. It is anticipated that the results of the research will aid in predicting the reactions of certain types of individuals to future automobile purchases.

A third contribution is reflected in a statement made by Harry Chesebrough to the Automotive News in 1965:

> While Chrysler could compete in the field of the subcompact the company has decided against it for "several good reasons" even though it projects that the market penetration of the subcompact will remain at about 4.5% until 1970.
>
> Such a venture (the development of a subcompact) would require a unique automobile--with no interchangeability of parts--just to compete in a small market already dominated by one unique automobile (the Volkswagen).[1]

Chesebrough's comments reflect a common feeling that existed in the automobile industry in the middle 1960's. Most automobile executives including Arjay Miller of Ford and James Roche of General Motors felt that the economy

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[1] Automotive News, August 30, 1965, p. 37.

import car was merely a temporary phenomenon that if ignored long enough, would disappear.[1] That has not occurred. In the first two months of 1970 the imports captured 12.6% of the domestic automobile market. This represents a 3% gain in sales from the first two months of 1969.[2] The present thesis may explain in part why the small import automobiles have been so successful in the last five years.

A fourth, and related contribution of the research, will be to determine how domestically produced compact cars can be profitably sold to purchasers of foreign economy cars. Or, what factors do the imported economy car buyers require to satisfy needs? And how can the present and future U.S. compacts be modified to fit those desires.

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[1] Ibid., p. 37.

[2] Ward's Automotive Reports, March 9, 1970, p. 73.

CHAPTER II

LITERATURE REVIEW

The primary objective of Chapter II is to establish a theoretical background for the research by reviewing the relevant literature. Chapter II is divided into four sections: Income and Consumption Behavior, Social Class, Stage in the Family Life Cycle and Personality Variables.

Income and Consumption Behavior

Absolute Income Hypothesis

To note that John Maynard Keynes contributed more to the discipline of economics than any other individual is an understatement. In his 1935 text, The General Theory of Employment, Interest and Money, Keynes developed a general theory of economics which still greatly influences most academic, governmental and industrial economists.[1] However, Keynes' greatest work may have been the development of his consumption function and the absolute income hypothesis.

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[1]John Maynard Keynes, The General Theory of Employment, Interest and Money (New York: Harcourt, Brace and World, Inc., 1965).

As Hansen stated in his interpretive analysis:

> Keynes' most notable contribution was his consumption function. The psychological propensities of consumers plus the institutional behavior patterns of the community (notably those of business firms) are such, he argued, that (1) some part of income (except at very low levels) is saved and (2) of any net addition to real income, some of the increment is saved. Accordingly, the behavior patterns of the community are such that a gap exists, which gap widens absolutely as real income increases between the amount the community wishes to consume and the output the community is capable of producing.[1]

The Keynesian relationship among income, consumption, and savings can be illustrated in Figure 1.

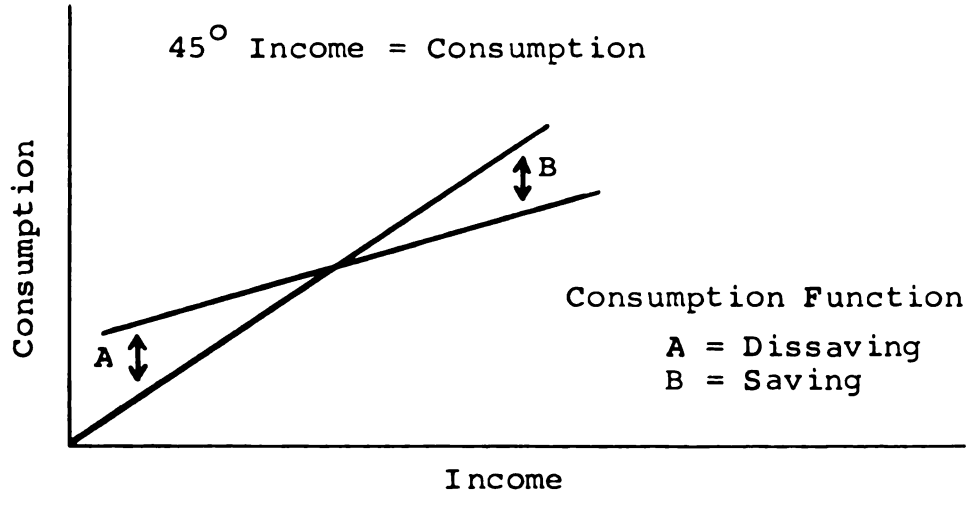

Figure 1. Graphical portrayal of the absolute income hypothesis.

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[1]Alvin H. Hansen, A Guide to Keynes (New York: McGraw-Hill Book Company, Inc., 1953), p. 27.

Keynes defined the relationship between income and consumption as the marginal propensity to consume (hereinafter denoted as M.P.C.). He expressed it as:

$$\text{M.P.C.} = \frac{\text{the change in consumption}}{\text{the change in income}}$$

Keynes believed that the M.P.C. is positive but less than one and that real consumption is a stable function of real income.[1] Therefore, income increases both absolutely and relatively to increases in consumption.

The Total Wealth Effect

In an article published in December, 1943, A. C. Pigue stated that consumption is not just a function of income (as Keynes had implied) but also is directly related to the real money balances the consumers' held.[2] His hypothesis may be stated in the following manner:

$$Cr = \alpha \left(Yr, \frac{Mn}{p}\right)$$

where:

Cr = real consumption

Yr = real income

Mn = monetary balances in nominal terms

p = price level

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[1] Gardner Ackley, Macroeconomic Theory (New York: The MacMillan Company, 1961), p. 219.

[2] A. C. Pigue, "The Classical Stationary State," The Economic Journal, LIII (December 1943), 343-351.

Pigue believed that individuals with a given budget constraint will want to hold an optimal amount of real money. Optimal was defined as that amount which maximizes an individual's utility. If the actual real money balance is not equal to the optimal money balance, then Pigue felt that consumers would adjust their expenditures in order to bring the two together. As an example, if Consumer A's real money balances were equal to his optimal money balances in time period 1, and in time period 2, the price level increased while nominal money balance and income remained the same, Pigue would expect the consumer to spend less in order to increase his real money balance.

Estimates of National Income and Product

The next major piece of research on the consumption function was done by Simon Kuznets in 1946.[1]

> Kuznets published estimates of national income and product for the United States, by overlapping decades, from 1869 to 1938. His estimates are shown in Table 2-1.
>
> As is clear from the column (3) of the table, the average propensity to consume stayed relatively stable (between .84 and .89) over a very large growth of total (and also of per capita) income. It rose above .89 only when per capita income fell, in the last two decades. Had the relationship derived from the 1929-41 national product data prevailed as well in 1869-78, per capital consumption in this early decade would have been about $395, almost twice as large as per capital national income, which was $215. Kuznets' new data might be consistent with the

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[1] Ackley, op. cit., pp. 234-240.

TABLE 2-1. NATIONAL INCOME AND CONSUMPTION EXPENDITURE IN 1929 PRICES, 1869-1938[a]

Decade	National Income (billions of dollars) (1)	Consumption Expenditures (billions of dollars) (2)	"Average Propensity to Consume" (3)	National Income per Capita (dollars) (4)
1869-78	9.3	8.1	.86	215
1874-83	13.6	11.6	.86	278
1879-88	17.9	15.3	.85	326
1884-93	21.0	17.7	.84	344
1889-98	24.2	20.2	.84	357
1894-1903	29.8	25.4	.85	401
1899-1908	37.3	32.3	.86	458
1904-13	45.0	39.1	.87	502
1909-18	50.6	44.0	.87	517
1914-23	57.3	50.7	.89	546
1919-28	69.0	62.0	.89	612
1924-33	73.3	68.9	.94	607
1929-38	72.0	71.0	.99	572

[a]Columns (1) and (2) are from S. Kuznets, National Product Since 1869 (National Bureau of Economic Research, 1946), p. 119; and columns (3) and (4) are from idem., National Income: A Summary of Findings (National Bureau of Economic Research, 1946), pp. 32 and 53.

view that consumption is a stable function of income, with a marginal propensity less than one (and equal to the average propensity). But they were not consistent with the consumption function derived from annual data for the pre-World War II period. Some reconciliation of the two sets of data was obviously required. Perhaps there existed a "long-run" consumption function involving a proportional relationship, and a "short-run" function involving an MPC < APC. But exactly how were the two to be related?

One of the first individuals to attempt to reconcile the data collected by Kuznets was Arthur Smithies.[1]

> He reasoned that what might have happened was that the consumption function--basically a nonproportional response of consumption to fluctuations in income--had been drifting slowly upward over the decades, as income had slowly grown, and that the upward drift of the function had just happened to offset the tendency for the APC to decline as income grew. That is, in Figure 2, the basic consumption function, as of the decade 1869-78, could be represented by the line CF_1. Average annual income in that decade was y_1, producing average annual consumption of c_1. But the function was constantly shifting upward. By the decade 1889-98, it had already moved up to position CF_5. If income were now to be y_1 (as it might in a severe depression), consumption would now be, not c_1 but c'_1. But, through economic growth, the average level of income by this decade had moved up to y_5, producing average consumption of c_5. Had there been no upward shift in the consumption function, income y_5 would have instead produced consumption c'_5. By the decade 1924-33, the function had shifted to CF_{12}. Coincidentally, average income had grown, by this decade, to y_{12}, producing an average consumption of c_{12}. The data estimated by Kuznets consisted of points like c_1y_1, c_5y_5 and $c_{12}y_{12}$. By coincidence, these all fall on the broken line, whose equation is roughly $c = .96$. To Smithies, however, it was mere coincidence that the upward drift of the consumption function had just about exactly offset what would otherwise have been a decline in the APC as a result of income growth. Income could have grown without such an upward shift's having occurred. Or the upward shift could have occurred in the absence of any such growth in income.[2]

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[1]Arthur Smithies, "Forecasting Postwar Demand," Econometricia, XIII (January 1945), 1-14.

[2]Ackley, op. cit., p. 6.

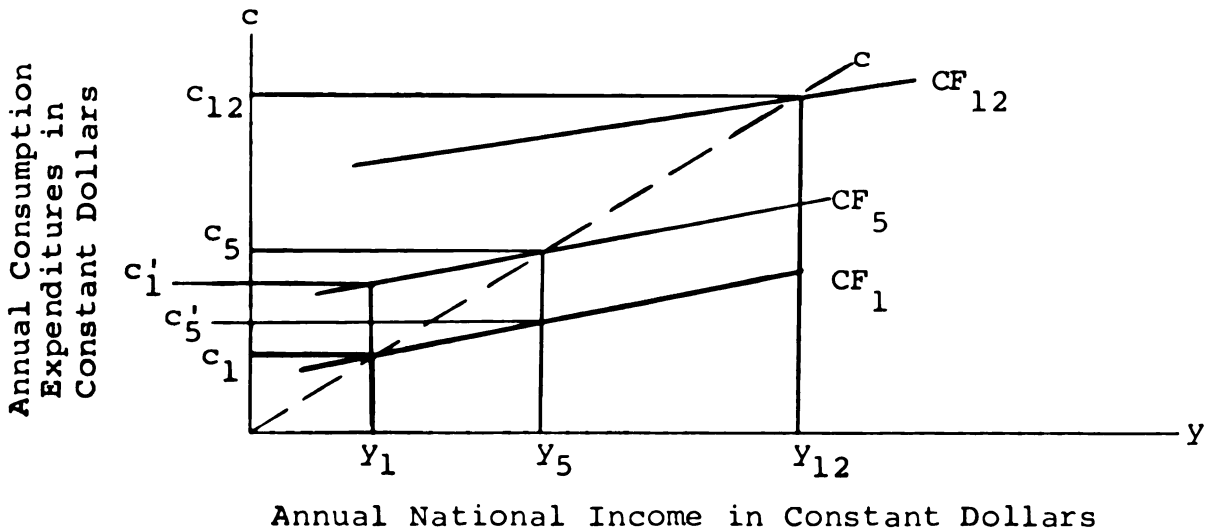

Figure 2. Graphical portrayal of Smithies consumption function.

Smithies gave several reasons which might have accounted for the upward shift in the consumption function:

1. Migration from farms to cities probably increases the spending of migrants.
2. There may have been a trend in the direction of a more equal distribution of income.
3. Rising living standards have increased minimum costs of living. For instance, if refrigerators become necessary for families who previously regarded them as luxuries, the proportion of income consumed will tend to increase.[1]

Relative Income Hypothesis

James Duesenberry was not happy with Smithies' explanation of Kuznet's data. Duesenberry felt there was a difference in a customer's adjustment pattern to increases and decreases in income. Duesenberry believed that individuals would adjust their consumption to fit a higher

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[1]Smithies, op. cit., p. 6.

income level quite rapidly, but would reduce only slightly their consumption in response to a lower income level.[1]

Figure 3. illustrates Duesenberry's hypothesis.

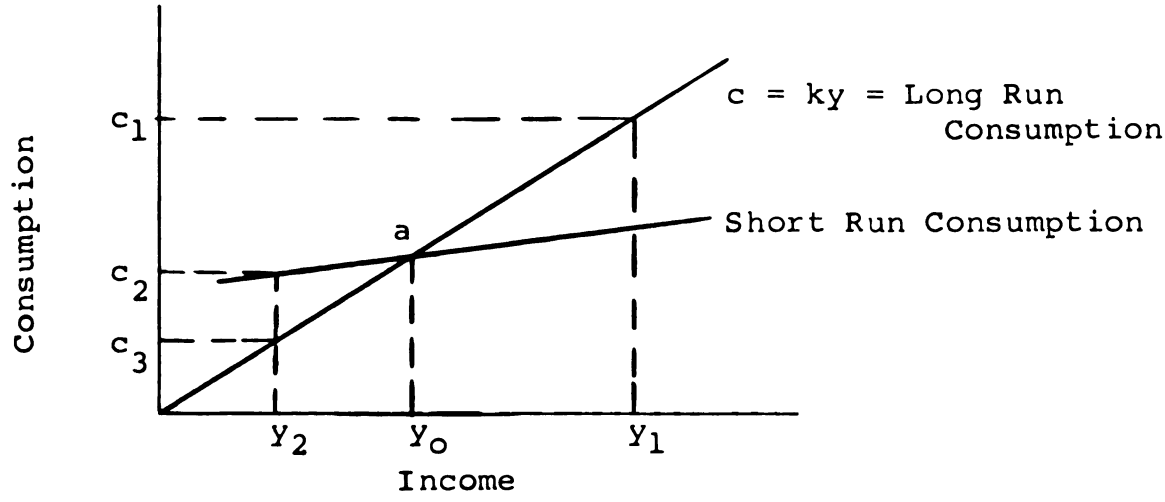

Figure 3. Graphical portrayal of the relative income hypothesis.

If an individual was at point a and his income rose to y_1, Duesenberry felt that the individual would react rather quickly and would consume quantity c'. However, if his income fell to y_2 his consumption would only fall to quantity c_2 rather than to quantity c_3. Duesenberry felt that this would occur because the individual would try to maintain his higher standard of living. But, eventually, the consumer would be forced to reduce his expenditure level to quantity C.

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[1]James Duesenberry, Income, Saving and the Theory of Consumer Behavior (Cambridge, Massachusetts: Harvard University Press, 1949).

Permanent Income Hypothesis

Milton Friedman's version of the permanent income hypothesis is the best known although other economists including Modigliana and Brumberg developed similar hypotheses.[1] Friedman believes that individuals maximize their utility with respect to long run variables. Permanent consumption and permanent income are the relevant factors rather than current consumption and current income.

Figure 4 illustrates Friedman's hypothesis.

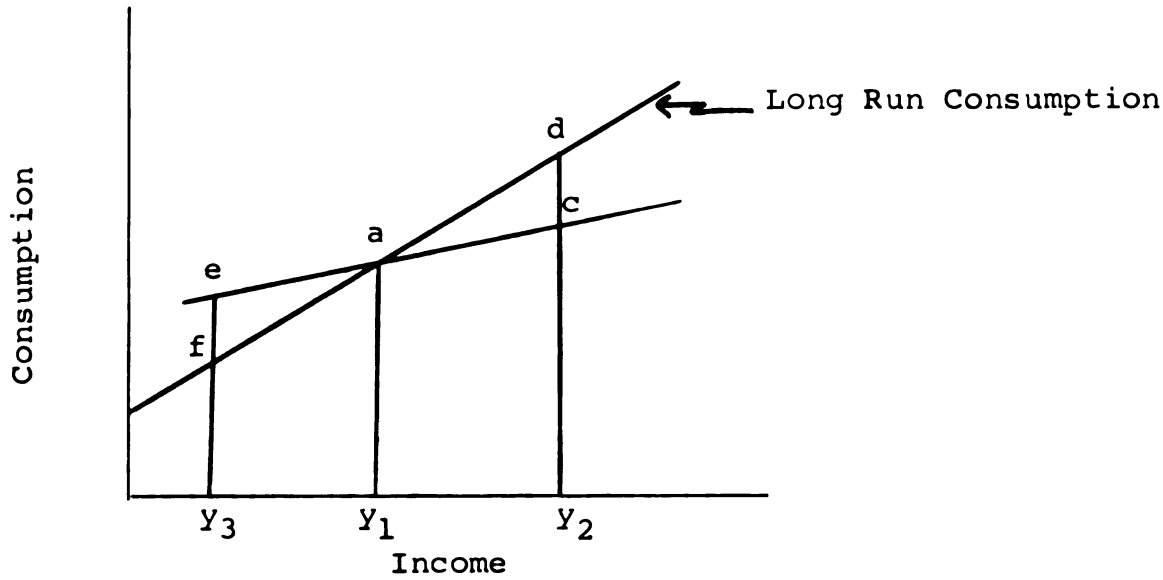

Figure 4. Graphical portrayal of the permanent income hypothesis.

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[1]Milton Friedman, A Theory of the Consumption Function (New York: National Bureau of Economic Research, Princeton University Press, 1957), pp. 20-37; and Franco Modigliani and R. Brumberg, "Utility Analysis and the Consumption Function--An Interpretation of Cross-Section Data," in K. K. Kurihara (ed.), Post-Keynesian Economics (New Brunswick, New Jersey: Rutgers University Press, 1954), pp. 388-436.

If an individual is at point a and he receives an increase in income from y_1 to y_2, he will consume quantity c instead of quantity d. That is, the consumer acts as if the extra income he has received is transitory income. If the extra income continues in the long run the individual will consume quantity d which is located on the long run consumption function.

If, on the other hand, the individual's income drops from y_1 to y_3, he will consume quantity e rather than quantity f. Friedman feels that the individual behaves as if the reduction in his income is only temporary and therefore he does not need to reduce his consumption significantly.

Psychological Economics

In his text The Powerful Consumer, George Katona introduces some rather novel but important concepts to the field of economics.[1] Katona maintains that the:

> consumer's discretionary expenditures are a function of attitudes in several areas. Attitudes toward one's personal financial situation are important but do not tell the whole story. It is relevant whether we feel that our income and personal situation have improved and will improve further. But beyond that, each of us is a member of a group. We feel that our own well-being and progress are influenced by what happens to others with whom we are personally associated, as well as by what happens to our community and country. Even if we ourselves are not directly affected, unfavorable developments in the broader systems to which we belong make us uneasy and favorable developments stimulate us. Therefore, if we are to understand

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[1] George Katona, The Powerful Consumer (New York: McGraw-Hill Book Company, Inc., 1960).

> the factors influencing consumer behavior, we must study the attitudes of the people toward the entire economy and their expectations as to what will happen to the economy.
>
> What psychological economics postulates is that changes in consumer attitudes and expectations are capable of influencing the proportion of income spent on discretionary purchases and sometimes, often at crucial times, do so. It does not assume that changes in discretionary expenditures are always independent of changes in income. On the contrary, it [shows] that at certain times the rate of discretionary purchases seems to be governed by income alone. These are times when attitudes primarily reflect income developments and are not of crucial importance. But there are also times when changes in sentiment and confidence due to other factors govern the economic scene.[1]

Katona believes that change in an individual's economic expectations may be tentatively explained as follows:

1. Change in [economic] expectations is due either to the acquisition of widely transmitted public information, or to personal experiences.

2. At any given time there will be individuals who are influenced by personal experiences in one direction, and individuals who are influenced in the opposite direction. On the other hand, most commonly, public information is either noninfluential or operates in the same direction with very many people.

3. If [public information] is not influential, aggregate changes in consumer expectations will usually be small because the changes in individual expectations cancel out. Observing on successive occasions substantially unchanged distributions, the researcher cannot assume that most individuals have maintained their previous expectations; on the contrary, it is probable that among

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[1]Wilton Thomas Anderson, Jr., "An Analysis of the Correlates of Convenience-Oriented Consumer Behavior: With Special Emphasis on Selected Convenience Foods and Durable Goods" (unpublished Ph.D. dissertation, Michigan State University, East Lansing, 1969), pp. 40-41.

individuals there have been frequent changes in both directions [due to different personal experiences or to vacillation on the part of many people].

4. If [public information] is effective and important, the aggregate changes in [economic] expectations will tend to be substantial. In this case it is likely that contrary effects of personal experiences will be suppressed or lessened. Substantial aggregate changes in expectations may therefore be attributed to public information. There is little reason to doubt the significance of survey findings about substantial changes in [economic] expectations, because they tend to occur without the presence of numerous cross-shifts in attitudes.

5. Whether or not information is acquired in a uniform manner depends primarily on the kind of news about which information is transmitted. Social learning will occur when masses of people become convinced that something which they consider important has happened. Widely anticipated, gradual, and small changes in the environment, or events about which controversial information is transmitted, usually do not result in substantial changes in the attitudes of the masses. But there is no easy way to predict the impact of news on attitudes; direct measurement of attitudes remains indispensable.[1]

Although Katona is an economist, he believes that demand is a function not only of consumers' ability to buy but of their willingness to buy. He states, "Lasting prosperity calls for sustained high demand, that is, for an extended period of general striving for higher standards of living. . . . The economy must derive dynamic force from a widespread and strong conviction that more and more is obtainable."[2] Katona feels that the area of consumer

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[1] Ibid., pp. 41-42. [2] Ibid., p. 43.

expectations plays an important role in both recession and inflation, and that it can be more easily understood from the perspective of psychology, sociology and communications than from the traditional economic viewpoint.

In summary, much of the early work in economics was stimulated by Keynes' consumption function. The British economist believed that there was a positive relationship between consumption and income which he labeled the marginal propensity to consume. Keynes was attacked because estimates of national income and consumption indicated there was not a stable long-run relationship between the two variables. Numerous efforts were made to explain the data and thereby correct Keynes' error.

However, Keynes never stated that the marginal propensity to consume would remain constant over time. Rather, one of his key assumptions was that the wealth level of society did not change. Keynes never anticipated that if this assumption was altered the relationship between the two variables would remain the same. If Keynes' critics had examined his model a little closer, they would have realized that his consumption function was not expected to deal with shifts over time in the economy.

George Katona's work appears to be the type of effort which will help integrate the work of economics and the other behavioral disciplines. An individual who earns $7,000 a year and purchases an $11,000 automobile defies the

traditional economic approach. Obviously, factors beyond price and income are affecting this individual's purchase behavior. Katona has shown an interest in learning what these other factors are and how they can be integrated with the body of knowledge already developed in economics.

Social Class

Engel, Kollot and Blackwell define social class to be:

> A relatively permanent and homogeneous division in society into which individuals or families can be categorized when being compared with other individuals or families in the society.[1]
>
> Social classes are the vehicle through which the totality of culture is made specific for a family and ultimately an individual. Social classes define the expectations of society for groups of people and for families within the groups. The family then transmits these cultural expectations to the individual.
>
> Social classes create different patternings of behavior specific to groups of people but drawn from a common and pervasive group of elements in the core culture. The variations among classes in cultural manifestations may be subtle or they may be obvious, and the marketer seeks to understand what these differences are.[2]

The effects of social class pervade all of an individual's life. The type of education, occupation, childhood training, personal interactions, religion, and economic

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[1]James F. Engel, David T. Kollat, and Roger D. Blackwell, Consumer Behavior (New York: Holt, Rinehart and Winston, 1968), p. 264.

[2]Ibid., p. 267.

goods that a person has are all influenced dramatically by the social class to which he belongs.[1] This section of the literature review will examine the efforts of social scientists to define and delineate social class and to determine how social class effects consumer behavior.

Measuring Social Class

Reputational method.--The reputational method of measuring social class involves asking individuals to rank other persons' positions on a social continuum. Although Americans are not very class conscious, they usually are able to rank members of their community.[2]

W. Lloyd Warner designed six reputational techniques which an analyst can use to measure social class. They are:

> 1. Rating by Matched Agreements (of several informants on the placement of many people in the several classes). In interviews with informants of diverse social background the status analyst obtains a Social-Class Configuration (rank order) of named social classes from each informant. He first examines the rank orders recognized in the several interviews to determine the degree of correspondence among them. When this is done, and the correspondence is high (as it usually is), the next step is taken. Social-Class Configurations are ordinarily accompanied by lists of names of individual persons volunteered by the informants. The names on each list are always assigned to, and distributed through, the several classes. Many of the same names appear in two or more informants' interviews, thus making it possible for the analyst to match and count pairs of agreements and disagreements among the informants about the class positions of people in the

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[1] Ibid., p. 267.

[2] Ibid., p. 275.

community. When the correspondence between the ranking of classes by different informants is complete or very high, and when the count of matched agreements of informants on the class positions of a large number of people is also high, the analyst is assured that the class system he is studying has a given number of classes, is strong, and pervades the whole community; he also knows his class ratings of the individuals listed are likely to be highly accurate. For simplicity, this technique of matching class hierarchies and pairs of class assignments of subjects will be called Matched Agreements.

2. Rating by Symbolic Placement. An individual is rated by the analyst as being in a particular social class because he is identified with certain superior or inferior symbols by informants. We shall call this method of rating Symbolic Placement.

3. Rating by Status Reputation. An individual (or his family) is assigned to a given class by the analyst because (informants say) he has a reputation for engaging in activities and possessing certain traits which are considered to be superior or inferior. For convenience, this rating will be called Status Reputation.

4. Rating by Comparison. The subject (or his family) is rated by the analyst as being in a particular class because informants assert he is equal, superior, or inferior to others whose social-class position has been previously determined. This technique of comparing the subject's status with the known class position of another will be called Comparison.

5. Rating by Simple Assignment to a Class. The subject (or his family) is rated by the analyst as being in a particular class because one or more qualified informants assign the individual to that particular class category; only one class is mentioned, and there is no explicit reference to the other classes which compose the whole system. We distinguish this technique from Matched Agreements first, because the analyst's operations are somewhat different from those used in Matched Agreements, and second, because the considerations of the informants are very different from those made in supplying information for Matched Agreements.

6. Rating by Institutional Membership. The subject is assigned to a particular status by the analyst because in the interviews of informants he is said to be a member of certain institutions

> which are ranked as superior or inferior. The institutions used for such a rating are families, cliques, associations, and churches. Hereafter, we will refer to this rating technique as Institutional Membership or Real Interconnectedness. The use of the latter term emphasizes the fact that memberships in these various institutions are interconnected and part of the class structure.
>
> From the description of the six techniques of rating it is apparent that the analyst does not impose his ranking upon the people of the town but, on the contrary, must devise techniques of rating which will translate the criteria and judgments of the informants (townspeople) into explicit, verifiable results which will correspond with the class realities of the community. We must try to see the problem from the point of view of the informants, for they are the final authorities about the realities of American social class.[1]

Although Warner gives a comprehensive list of instructions for the use of his reputational approach, it has not been widely adopted by marketing researchers.[2] The primary difficulties are that it is too complex, expensive and time consuming for consumer research. However, it remains an important approach to delineating classes because it is the most generally accepted method for measuring the validity of other social classifying techniques.

Sociometric method.--A second approach for measuring social class is the sociometric method. It involves asking an individual to name his close associates, and then observing his daily activities and those of his acquaintances.

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[1]Warner, op. cit., pp. 37-38.

[2]Engel, op. cit., p. 276.

Standard methods can then be applied to determine the person's social class.[1]

August B. Hollingshead used this approach in the study, Elmtown's Youth.[2] Although the research was a success, Hollingshead's technique is not very applicable to most consumer research. As with the reputational method, it is complex, expensive and time consuming. As an example, to complete the study Hollingshead, his wife and a fellow researcher lived in Elmtown for nineteen months. Most behavioral research cannot afford this expenditure of time and money.

Occupation method.--In 1897, William L. Hunt began segmenting occupations into four broad social classes. His objective was to determine whether the long-term migration from the rural countryside to the city had improved the social and economic position of the working population.[3] Although Hunt's pioneering efforts may have served as a catalyst for later studies, his approach was never widely adopted.

It was not until 1917 when Alba M. Edwards introduced his "social economic grouping" that occupation as a

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[1] Ibid., p. 276.

[2] August B. Hollingshead, Elmtown's Youth (New York: John Wiley & Sons, Inc., 1949).

[3] U.S. Bureau of the Census, Methodology and Scores of Socioeconomic Status, 1960, p. 1.

measure of social class became fully accepted.[1] As the following statement indicates, a great deal of Edwards' efforts were based primarily on his own intuition:

> As stated in the earlier article, a classification of all occupations according to skill, if it could be made, would be very useful; but a complete classification by skill is impossible, since many occupations do not lend themselves to such a classification. Indeed, none of the professional, proprietary, official, managerial, or clerical pursuits lends itself readily to a classification by skill; and it is doubtful whether any of them may be properly so classified, since in none of them is skill or manual dexterity the chief characteristic. In fact, only those occupations in which the expenditure of muscular force is an important characteristic can be properly classified by skill. While it is plainly impossible to draw a hard and fast line between those occupations characterized principally by the exercise of muscular force or manual dexterity, and those characterized chiefly by the exercise of mental force of ingenuity--or between hand workers and head workers--such a line of demarcation may be made sufficiently exact for our purpose.[2]

Edwards arranged the occupations of gainfully employed workers in the following way:[3]

1. Professional persons

2. Proprietors, managers, and officials
   2-a. Farmers (owners and tenants)
   2-b. Wholesale and retail dealers
   2-c. Other proprietors, managers, and officials

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[1] Ibid., p. 1.

[2] Alba M. Edwards, "A Social-Economic Grouping of the Gainful Workers of the United States," Journal of the American Statistical Association, XXVIII (December, 1933), 377-378.

[3] Ibid., p. 378.

3. Clerks and kindred workers

4. Skilled workers and foremen

5. Semiskilled workers
   5-a. Semiskilled workers in manufacturing
   5-b. Other semiskilled workers

6. Unskilled workers
   6-a. Farm laborers
   6-b. Factory and building construction laborers
   6-c. Other laborers
   6-d. Servant classes

Although Edwards' scale is still widely used, it has been shown to correlate only slightly with average levels of income and education and therefore should be adopted only if a very rough indicator of social class is required.[1] Other scales such as the Duncan[2] and National Opinion Research Center (N.O.R.C.)[3] would appear to be more useful to the behavioral researcher. The N.O.R.C. scale has 90 separate occupations while the Duncan scale ranks 425 occupations. Both approaches are more specific and objective than Edward's scale.

Multiple index method.--Multiple index methods use several objective criteria. The advantage of this approach

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[1]U.S. Bureau of the Census, op. cit., p. 2.

[2]Albert J. Reiss, Jr., Otis Dudley Duncan, Paul K. Hatt, and Cecil C. North, Occupations and Social Status (New York: The Free Press, 1961).

[3]Robert W. Hodge, Paul M. Siegel and Peter H. Rossi, "Occupational Prestige in the United States" in Reinhard Bendix and Seymour Martin Lipset, eds., Class, Status and Power (2nd ed.; New York: The Free Press, 1966), pp. 322-334.

is that a single variable cannot distort an individual's class position.

One of the most widely known multiple indexes is W. Lloyd Warner's Index of Status Characteristics (I.S.C.). He states:

> The Index of Status Characteristics as a measurement of social class is posed on two propositions: that economic and other prestige factors are highly important and closely correlated with social class; and that these social and economic factors, such as talent, income, and money, if their potentialities for rank are to be realized, must be translated into social-class behavior acceptable to the members of any given social level of the community. This method is designed to provide an objective method for establishing the social level of everyone in the community and to do so by simple, inexpensive means. The skills involved are very few; the amount of information needed is small; the length of time necessary, brief. The data for each characteristic in the Status Index are easily acquired and do not necessarily require interviewing.
>
> The four status characteristics used in the Index were first selected from the previous research on Yankee City, and were chosen because they correlated highly with class and because they are easily obtained and capable of exact comparison among all American communities. They are: Occupation, Source of Income, House Type, and Dwelling Area. The basic criterion for choosing them was that they express in concrete form the two basic propositions which underlie the method of the I.S.C.
>
> The most important fact to remember about using the I.S.C. as a measurement of social class is that, in order for it to be a reliable instrument and an accurate index of social class, each of the four characteristics and the points in their scales must reflect how Americans feel and think about the relative worth of each job, the sources of income which support them, and the evaluation of their houses and the neighborhoods in which they live. For it is not the house, or the job, or the income, or the neighborhood that

> is being measured so much as the evaluations that are in the backs of all of our heads--evaluations placed there by our cultural tradition and our society.[1]

In Chapters 10, 11, and 12 of Social Class in America, Warner gives a detailed review of the development and uses of the index. At the risk of oversimplification, an individual's rating is calculated in the following manner:[2]

Characteristics	Rating	X	Weight	=	Product
Occupation	5	X	4	=	20
Source of Income	5	X	3	=	15
House Type	7	X	3	=	21
Dwelling Area	6	X	2	=	12
Weighted Total					68

Although Warner recommends using all four of the characteristics, he explains in Chapter 9 of Social Class in America that the I.S.C. can be calculated with only three of the four characteristics. Each characteristic is weighted as shown above. The weights were obtained by regression analysis and reflect the importance of each factor.

The ratings for each characteristic vary depending upon the individual being analyzed. In this example, the individual was given a rating of five in the occupational category. This indicates that he is a proprietor of a small

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[1] Warner, op. cit., pp. 39-40.

[2] Ibid., p. 124.

business. Warner's Chapter 9 describes how the four ratings were determined and how they can be utilized.

After an individual's ratings are determined, they are multiplied by their appropriate weights and then added together. This weighted total is primarily an index of sociometric factors. However, Warner believes it can be used as an index of social class as well.[1] In this case, the individual rating of 68 would place him in "the Lower-Lower Class probably with some possibility of Upper-Lower Class."[2]

A second, and very useful multiple index approach, was developed by the United States Bureau of the Census.[3] The Bureau's social index is constructed by examining the head of the household's occupation, his formal education and his family's total income. Unlike Warner's I.S.C., all of the variables are weighted the same.

In the publication, Methodology and Scores of Socio-economic Status, the Bureau lists 494 job classifications which have been given scores ranging from 2 for Bootblacks to 99 for Osteopaths. Also listed are scores for years of school completed (98 for five or more years of college to 1 for no education at all), and scores for categories of

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[1] Ibid., p. 39.

[2] Ibid., p. 127.

[3] U.S. Bureau of the Census, op. cit.

family income (100 for $25,000 or more to 1 for $500 or less).[1] The analyst obtains a score for each of the three variables, adds them together and divides by three. The mean score represents the individual's socioeconomic status score. The Bureau publishes a list which shows the percentage of the United States population which falls into ten social class categories.[2]

The major advantage of this approach over Warner's is that the factors are more objective and are more easily measured. For much behavioral research, it would appear that the Bureau of Census's approach to delineating social classes would be very useful.

The Application of Social Stratification to Marketing

One of the first studies relating social class to marketing was done by L. S. Graham.[3] Graham's objective was to determine whether a six-category classification scheme of social class (which was based on occupation) could be used to differentiate consumer's willingness to adopt television, canasta and supermarkets.

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[1] Ibid., pp. 9-13.

[2] Ibid., p. 8.

[3] L. S. Graham, "Selection and Social Stratification" (unpublished Ph.D. dissertation, Graduate School of Yale University, New Haven, Connecticut, 1951).

The following indicates Graham's findings:

Class	Proportion Accepting		
	Television (%)	Canasta (%)	Supermarkets (%)
I	24	72	52
II	44	72	80
III	48	44	56
IV	52	20	80
V	84	32	52
VI	72	12	48

> The proportion of families that accepted television, canasta, and supermarkets are shown according to their social class. The most consistent differential rates of adoption among social classes are seen to be in television. This is particularly interesting because class position tends to be associated with income, and television is an item involving a large expenditure. A naive economic prediction would be that television ownership and social class are positively rather than negatively related, as indicated [in above table]. At the time of the study, approximately seven million sets were in operation in the United States.
>
> Apparently, canasta is a different kind of product from television, although presumably both are used for recreational purposes. As in the adoption of television, marked differential rates exist, but in the reverse order. [The table above] indicates, however, that the class differential acceptance rates in supermarkets were mixed.[1]

A second significant piece of research involving marketing and social class was done by W. Lloyd Warner and Pierre Martineau for the Chicago Tribune.[2] The purpose of

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[1]John A. Howard, Marketing Theory (Boston: Allyn and Bacon, 1965), pp. 168-169.

[2]Pierre Martineau, "Social Classes and Spending Behavior," Journal of Marketing, October 1958, pp. 121-130.

their research was to determine, "if there were any class significances in the individual family's spending-saving patterns, retail store loyalties, and expressions of taste in typical areas such as automobiles, apparel, furniture and house types."[1]

Martineau states:

> It seems that many an economist overlooks the possibility of any psychological differences between individuals resulting from different class membership. It is assumed that a rich man is simply a poor man with more money and that, given the same income, the poor man would behave exactly like the rich man. The Chicago Tribune studies crystallize a wealth of evidence from other sources that this is just not so, and that the Lower-Status person is profoundly different in his mode of thinking and his way of handling the world from the Middle-Class individual.[2]

Warner and Martineau found that people are very realistic in the way they match their values with the status of a particular store. Consumers tend to shop in places where they feel they belong. Lower-class women indicated they felt punished by the clerks and other customers when they shopped in a high-class store. Martineau concludes that "the most important function of a retail advertising today, when prices and quality have become so standard, is to permit the shopper to make social-class identification. This she can do from the type and physical character of the advertising."

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[1] Ibid., p. 122.

[2] Ibid., p. 122.

A second finding of the study was a strong relationship between an individual's social class and his communication abilities.[1]

> The kind of super-sophisticated and clever advertising which appears in the New Yorker and Esquire is almost meaningless to Lower-Status people. They cannot comprehend the subtle humor; they are baffled by the bizarre art. They have a different symbol system, a very different approach to humor. In no sense does this imply that they lack intelligence or wit. Rather their communication skills have just been pressed into a different mold.[2]

A third finding reported by Martineau showed significant differences between middle and lower class individuals in their saving and investment habits.

> Middle-Class people usually have a place in their aspirations for some form of saving. This saving is most often in the form of investment, where there is a risk, long-term involvement, and the possibility of higher return. Saving, investment saving, and intangible investment saving--successively each of these become for them increasingly symbols of their higher status.
>
> The aspirations of the Lower-Status person are just as often for spending as they are for saving. This saving is usually a non-investment saving where there is almost no risk, funds can be quickly converted to spendable cash, and returns are small. When the Lower-Status person does invest his savings, he will be specific about the mode of investment, and is very likely to prefer something tangible and concrete--something he can point at and readily display.[3]

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[1] Ibid., p. 127.

[2] Ibid., p. 129.

[3] Ibid., p. 129.

The author's last finding involved general psychological differences between middle and lower class individuals. Members of the middle class tended to be:[1]

1. Pointed to the future
2. His viewpoint embraces a long expanse of time
3. More urban identification
4. Stresses rationality
5. Has a well-structured sense of the universe
6. Horizons vastly extended or not limited
7. Greater sense of choice making
8. Self-confident, willing to take risks
9. Immaterial and abstract in his thinking
10. Sees himself tied to national happenings.

Lower class individuals had opposing viewpoints.

The Warner and Martineau research makes two major contributions: First, it shows that there is a social class structure in Chicago, and second, that an individual's social class can affect his purchasing patterns.

Richard P. Coleman categorized individuals whose incomes are higher than average for their class as overprivileged and for those people whose incomes are less than average for their class as underprivileged.[2] Coleman felt that individuals whose income did not match their social status would tend to purchase different products than those individuals whose income was typical of their social class.

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[1] Ibid., p. 129.

[2] Richard P. Coleman, "The Significance of Social Stratification in Selling" in Proceedings of the 43rd National Conference of the American Marketing Association, ed. by Martin L. Bell, December, 1960, pp. 171-184.

> These concepts clarify some kinds of buying behavior. For instance, color television sets were at one time distributed fairly evenly (though thinly) among all social classes and all income groups. Neither class nor income by itself was sufficient to describe the buyers. Social Research, Inc., found, however, that color television sets were being bought primarily by overprivileged members of each social class. The overprivileged are also the prime buyers of middle-priced cars, while compacts and foreign economy cars are bought by the underprivileged. The young lawyer, as an underprivileged member of the upper-middle class, may buy a Volkswagon as an interim car until his income rises.

Several different methods were reviewed which may be used to determine an individual's social class. It would seem that for most behavioral research, multiple index methods would be the most appropriate. Warner's I.S.C. and the Bureau of Census' techniques should be given careful consideration.

Although several studies have been done which relate social class and consumer behavior, there is a great deal of room for work in this area. The present thesis will try to determine if there is a distinction in social class between foreign compact owners and Maverick owners.

Family Life Cycle

Rural sociologists began studying stages of the family life cycle as early as 1931. They felt that the family life cycle could help explain differences in urban and rural cultures and illustrate changes in the family's

socioeconomic status.[1] It was not until 1955, when Lincoln Clark published Consumer Behavior, II: The Life Cycle and Consumer Behavior, that marketing researchers began to show an interest in the family cycle.[2] Since then it has been suggested that the family life cycle should be considered to be an independent variable which can be substituted for the consumer's chronological age in many types of behavioral research.

> It is well known that changes occur in people's attitudes and behavior as they grow older, but many of these changes may be associated less with the biological process of aging than with the influence of age upon the individual's family memberships. Thus, the critical dates in the life of an individual may not be his birthdays so much as the days when a change occurs in his family status, for example, when he marries, or when his first child is born.[3]

This section will describe the techniques which have been developed to delineate stages in the family life cycle,

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[1]Pitirim A. Sorokin, Carle C. Zimmerman, and Charles J. Galpin, A Systematic Source Book in Rural Sociology (Minneapolis: University of Minnesota Press, 1931), II, pp. 3-32; Charles P. Loomis, "The Study of the Life Cycle of Families," Rural Sociology, June 1936, pp. 180-99; and J. A. Beegle and C. P. Loomis, "Life Cycles of Farm, Rural-Nonfarm, and Urban Families in the United States as Derived from Census Materials," Rural Sociology, March 1943, pp. 70-74.

[2]Lincoln Clark (ed.), Consumer Behavior, II: The Life Cycle and Consumer Behavior (New York: New York University Press, 1955).

[3]David L. Wileman, "An Analysis of the Age-Occupation Matrix as a Criterion for Vertical and Horizontal Market Delineation" (unpublished Ph.D. dissertation, Michigan State University, East Lansing, 1967), p. 62.

and the marketing studies which have examined stages in the family life cycle.

Classification Technique

There have been several attempts to delineate stages in the family life cycle. Most of these divide the cycle into two broad categories--expansion and contraction. During the first period, children are born and reared. In the second period, the children leave the home and the emphasis turns toward the married couple. Eventually, one of the pair dies forcing readjustment for the remaining partner. The cycle is completed with the death of surviving spouse.[1]

Three specific approaches to segmenting the family life cycle will be examined. The first was designed by Paul C. Glick.[2] Glick developed a seven stage classification scheme which was used to analyze data collected by the Bureau of Census.

Stages of the Family Cycle[3]

1. Marriage
2. Birth of first child
3. Birth of last child
4. Marriage of first child
5. Marriage of last child
6. Death of husband or wife
7. { Death of husband, if last
   { Death of wife, if last.

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[1]F. Ivan Nye, Felix M. Berardo, Emerging Conceptual Frameworks in Family Analysis (New York: The MacMillan Co., 1966), pp. 206-207.

[2]Paul C. Glick, "The Family Life Cycle," American Sociological Review, April 1947, pp. 164-174.

[3]Ibid., p. 164.

Glick examined such important variables as family size, dissolution of the family, children living at home, adult relatives in the home, residential shifts, home ownership, family income and employment of the wife and husband. Glick's work has been criticized because he allegedly failed "to take cognizance of many of the implications for family interaction of the stages which he has developed, though he does discuss implications of his work for the nation as a whole."[1]

A second method of delineating stages in the family life cycle was developed by Evelyn M. Duvall.[2] Her scheme ". . . represents a combination of the several factors used in determining family life cycle stages: (a) plurality patterns, (b) age of the oldest child, (c) school placement of the oldest child, and (d) functions and statuses of families before children come and after they leave."[3] She depicts the family life cycle in the following manner:[4]

Stage I.	Beginning Families (married couple without children)
Stage II.	Childbearing Families (oldest child birth to 30 months)
Stage III.	Families with Preschool Children (oldest child 2½ to 6 years)

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[1]Roy H. Rogers, "Improvement in the Construction and Analysis of Family Life Cycle Categories" (unpublished Ph.D. dissertation, Western Michigan University, Kalamazoo, 1962).

[2]Evelyn M. Duvall, Family Development (New York: J. B. Lippincott Company, 1947).

[3]Ibid., p. 9.

[4]Ibid., p. 8.

Stage IV. Families with School Children (oldest child 6 to 13 years)
Stage V. Families with Teenagers (oldest child 13 to 20 years)
Stage VI. Families as Launching Centers (first child gone to last child's leaving home)
Stage VII. Families in the Middle Years (empty nest to retirement)
Stage VIII. Aging Families (retirement to death of one or both spouses).

Duvall recognizes the problem of overlapping stages in the family life cycle.

> In defining the stages in terms of the oldest child, the presence of other children in the family is not explicitly recognized. A clean-cut sequence of stages of the family life cycle such as that outlined above seems to occur only in the one-child family. In families with more than one child, there are several years of overlap at various of the stages. The average mother of two or more children is in the period of childbearing for a longer period than Stage II indicates, she has preschool children over a longer span of time than is predicted for Stage III, she has school age children longer than is considered in designating Stage IV, she has teenagers in the home for a longer period than that covered by Stage V.
>
> There is no simple solution to the conceptual problem of overlap of stages of the family life cycle in families of more than one child. Since our thesis is that families grow and develop as their children do, our answer to the question of overlapping of stages is that a family grows through a given stage with its oldest child, and in a sense "repeats" as subsequent children come along. We see a family being pushed out into new unknowns in its experience as its oldest child becomes a preschooler, goes to school, gets into the teens, and finally leaves for a life of his own. As younger children come along, they arrive in a family already somewhat familiar with these normal events and stages of children's growth through the induction given by the eldest. Thus, while a family may be seeing its firstborn into preschool, a younger sibling arrives in a preschool family rather than a childbearing family, because of the family's involvement with the older child also. Actually that family is not

> solely a childbearing family, because it is already grappling with the problems and pressures of its preschooler, at the same time that it nurtures its newborn. And so it goes through the years that children are in the home. The oldest child is always taking his family with him out into the growing edges of family experience. Younger children necessarily arrive into a different family than that into which the firstborn came, if only in the degree of its experience with children of his age![1]

Roy H. Rogers disagrees with Duvall's approach to the problem of overlapping stages in the family life cycle.

> First, it seems theoretically erroneous to see these periods of the family life cycle in which there are children in separate individual developmental periods as instances of overlapping stages for the family as a group. . . . It would appear, rather than calling this period of the family an "overlapping stage," that this is itself a stage--or more properly a state--of the family life cycle as clearly as those in which children are in more or less homogeneous individual developmental periods. In other words, these periods are normal parts of the development of the family and ought to be recognized as such in any schema designed to analyze the family and its interaction.
>
> Secondly, we would suggest that it is not always true that the first-born is the most important in setting the tone of interaction for the family. Later children may, in fact, be far more important at certain points in the life of the family and the first-born may be almost indistinguishable at these points.
>
> Finally, while it is true that later children enter a different family, it is different not only because of previous experience with the oldest child, but also because of the new patterns of interaction which are set up by the addition of new members to the group. In other words, it would appear that the solution chosen by Duvall actually ignores one of the original criteria set up, viz., that of plurality patterns. In

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[1] Ibid., pp. 9-10.

> addition, it is certainly important to recognize the individual personality differences as well as the differences in roles which each new member plays. Duvall, as a matter of fact, spends a great deal of time discussing this very aspect of the interaction of families.[1]

The last technique to be mentioned was designed by Duvall's critic--Roy H. Rogers. Rogers believes his approach solves the problem of overlapping stages by dividing the family life cycle into 24 stages:[2]

I. Childless couple
II. All children less than 36 months
III. Preschool family with (a) oldest 3-6 and youngest under 3, (b) all children 3-6
IV. School-age family with (a) infants, (b) preschoolers, (c) all children 6-13
V. Teenage family with (a) infants, (b) preschoolers, (c) school-agers, (d) all children 13-20
VI. Young adult family with (a) infants, (b) preschoolers, (c) school-agers, (d) all children 13-20
VII. Launching family with (a) infants, (b) preschoolers, (c) school-agers, (d) teenagers, (e) youngest child over 20
VIII. When all children have been launched until retirement
IX. Retirement until death of one spouse
X. Death of first spouse to death of survivor.

Rogers' scheme not only gives attention to the oldest child but includes the youngest member of the family as well. He also adds a category for the single young adult and a category of widowhood.

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[1]Rogers, op. cit., pp. 30-31.

[2]Nye and Berardo, op. cit., pp. 208-209.

For some studies, Rogers' approach will be a great help. He has separated the family life categories into much smaller groupings and has apparently come closer to solving the problem of overlapping stages than anyone else. This may permit the social scientist to discover new information concerning human behavior. However, for a large number of studies, Rogers' approach may be unnecessarily sophisticated and complex.

Consumption and Family Life Cycle

Some of the early work in the area of consumer behavior and the family life cycle was done by Great Britain's National Survey of Personal Income and Saving, and the United States' Survey of Consumer Finances.[1] Because the two groups communicated often, a great deal of their data is comparable. They examined income distribution, ownership and size of liquid asset holdings and purchases of durable goods. One of their ". . . most interesting comparisons concerns saving. . . . The proportion of young people who saved was higher in the United States than in Great Britain. In both countries, the proportion of savers was relatively small among the 65 and over group, and in neither country do we find any clear pattern relating the proportion of

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[1]Janet A. Fisher, "Family Life Cycle Analysis in Research on Consumer Behavior" in Lincoln H. Clark, Consumer Behavior, II, op. cit., pp. 28-35.

dissavers to age, but in the extreme age groups in the United States they were relatively high."[1]

The most complete study to date which relates family life cycle and consumer behavior was done by John B. Lansing and James N. Morgon.[2] They utilized cross-sectional data collected by the Survey Research Center of the University of Michigan. Their objective was to determine whether an individual's purchase patterns, income level, net worth, and economic attitudes change over his life cycle. The following are excerpts from their research:

> There is a broad tendency for the total income of the spending unit to increase to a peak and then to fall off in the last stages.
>
> Both young single people and older single people have median incomes below $3,000, while for all the stages of married couples with children the medians are above $4,000.
>
> The peak income of male income receivers is reached at about age 50. This peak seems to be at the same age for those with different amounts of education, though the amount of income at the peak varies with education.
>
> In almost two-thirds of the young, childless couples, the wife receives income from wages or a salary. The amounts are large enough to be an important fraction of the income of the unit.
>
> When the children are young, however, the women are much less likely to work. Only about one woman in four with a child under 6 had any income from wages or salary in 1953.

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[1] Ibid., pp. 34-35.

[2] John B. Lansing and James N. Morgon, "Consumer Finances over the Life Cycle" in Lincoln H. Clark, Consumer Behavior, II, op. cit., pp. 36-51.

At later stages in the life cycle, the proportion of working wives rises but never attains anything like the level among young married couples.

Spending units may include individuals other than the head and wife who receive income. These extra earners are most common in spending units with children under 18 where the head is over 45. In one such unit in five there is a son or daughter who receives at least a little income. . . .

The proportion of all spending units receiving income from property rises sharply with age. Only 2 per cent of young single people have income from interest, dividends, and so on, of $100 or more compared with 15 per cent of older couples with children under 18. No doubt this increase results from accumulations through the years plus inheritances.

Eighty-two per cent of young married couples without children already own a car. This proportion may be compared to the estimate of 66 per cent of all spending units who own a car. Apparently once young people are married they waste no time in buying a car, if one of the couple did not own one already. Of the units at this stage 51 per cent own a car less than four years old.

Ownership of a television set reaches a high level at a later stage than ownership of a car. About half of the young couples with no children own a television set, but the proportion reaches almost two-thirds among couples who do have children. In the homes with young children, purchase of television is as frequent as at any stage, or more frequent. Ownership of television as well as purchases fall off among the older people. Only half of older couples without children own sets.

Home ownership reaches its peak among the older married couples with no children under 18, seven out of ten of whom own. The proportion of young single people who own homes is understandably small, about 8 per cent. Of the young couples with no children, some 38 per cent own.

> For such a large item as a car, over two-thirds of all those under 45 years old used credit. For those over that age, the proportion falls below 50 per cent.
>
> The proportion of spending units devoting 20 per cent or more of income after taxes to housing is highest among the young couples with young children and among the older single people. Of the older single people, 34 per cent make payments of 20 per cent or more, compared to the 19 per cent made by the total population.
>
> In spite of the exclusions, median net worth as estimated increases from each stage to the next, except that there is no change from young couples to young couples with children. If we include value of household goods, and some of the other excluded items, net worth probably increase even here.
>
> Young people with children are less satisfied with their present standard of living than those at earlier or later stages, and they are less satisfied with the amount of money they have saved up.[1]

Although little research has been done relating family life cycle and purchase behavior at least two other studies deserve mention. In 1964, Robert Hermann found that family life cycle ranked third as a determinant of food expenditures. Only the degree of urbanization and geographic region exerted more influence in explaining food expenditures.[2]

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[1] Ibid., pp. 36-51.

[2] Robert O. Hermann, "Household Socio-Economic and Demographic Characteristics as Determinants of Food Expenditure Behavior" (unpublished Ph.D. dissertation, Michigan State University, East Lansing, 1964), pp. 76-78.

Social Research examined furniture buying patterns among working class and middle class families. They found that both young working class and middle class families place emphasis on the inexpensiveness and practicality of furniture rather than on its style and beauty. However, the young middle class "feel somewhat more compelled to exhibit 'taste' at this period than do lower status families."[1]

Personality Variables

As was stated in Chapter I, this thesis is primarily focused in determining whether the United States compact car market can be segmented by emotional-attitudinal variables. No studies have been found which use these variables to delineate markets. However, two studies have been made to determine whether automobile markets can be segmented through the use of traits measured by personality tests. These studies are being reported here because, like the present study, their independent variables are subjective and tend to lie below the surface of the respondent's conscious mind, and not because they directly relate to the independent variables which were used in the research.

The first study to be mentioned was done in 1959 by Franklin B. Evans.[2] One of Evans' objectives was to

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[1]Wileman, op. cit., pp. 68-69.

[2]Evans, op. cit., pp. 340-369.

determine whether Chevrolet and Ford buyers could be segmented through the use of a personality test; he chose the Edwards Personal Preference Schedule as the measurement instrument. The Edwards scale examines eleven different variables: achievement, deference, exhibition, autonomy, affiliation, intraception, dominance, abasement, change, aggression and heterosexuality. Evans used a linear discriminant function to try to separate the Ford and Chevrolet owners.

Evans' results were not very significant. Only three variables (exhibition, autonomy and affiliation) were different at the 10% level while only dominance differed beyond the 5% level. He concludes by stating:

> All the evidence points to the conclusion that personality needs, as measured in this study, are of little value in predicting whether an individual owns a Ford or Chevrolet automobile. Although people within a common social class have different personalities, their personalities do not appear to be systematically related to selection of the two most popular brands of cars. This result is, however, based upon the specific test instrument used, and no doubt criticism can be raised on this point.

In 1960, Ralph Westfall reported a study in which he attempted to determine whether convertible, compact and standard car owners could be distinguished by personality differences.[1] The instrument he selected was the Thurstone's

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[1]Westfall, op. cit., pp. 34-40.

Temperament Schedule; it measures seven characteristics: active, vigorous, impulsive, dominant, stable, sociable, and reflective.

Westfall's findings are summarized in the table below:

Thurstone Temperament Schedule Mean Scores by Car Type (Standard, Convertible, Compact) Preferred by Respondents

	Type of Car Preferred			Differences between Means, Significant at Levels Shown		
Characteristic	Stand.	Conv.	Comp.	Stand. vs Conv.	Stand. vs Comp.	Conv. vs Comp.
Active	11.98	12.85	11.03	.19	.26	.03
Vigorous	11.77	10.73	10.09	.19	.07	.49
Impulsive	11.05	12.27	11.47	.09	.63	.36
Dominant	11.96	12.54	11.18	.55	.51	.25
Stable	11.81	11.73	12.32	.11	.56	.24
Sociable	12.46	13.06	11.94	.38	.57	.24
Reflective	8.75	8.79	9.88	.95	.13	.18
No. in Sample	57	48	34			

Standard and compact car owners appear to be quite similar. Convertible owners, however, "show marked difference from both standard and compact owners, particularly the latter. The convertible owner is more active, more vigorous, more impulsive, more dominant, and more sociable than either the standard or compact owners. The results are consistent

to the extent that standard and compact scores lie on the same side of convertible scores in all cases."[1]

Westfall also examined Ford and Chevrolet buyers to determine whether there are any personality differences between these two groups. His results substantiated Evans' study. Westfall states, "Differences between the scores of the two brands cannot be considered significant. This tends to agree with Evans' results, in that it indicates no difference in personality between Ford and Chevrolet owners."[2]

Westfall believes that he has shown that personality differences can exist between owners of products which perform the same basic function. He feels that more work is needed to develop an understanding of how these personality variables relate to product and brand choice.

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[1]Harold H. Kassarjan and Thomas S. Robertson, Perspectives in Consumer Behavior (Atlanta: Scott, Foresman and Company, 1968), p. 256.

[2]Ibid., p. 254.

CHAPTER III

RESEARCH DESIGN

Set forth in this chapter are the framework and methodology employed in the thesis. The first section of Chapter III will identify both the dependent and the independent variables used in the study. This will be followed by a discussion of the sample design, the data collection procedures, and the techniques used to analyze the data. A complete copy of the questionnaire is located in Appendix A.

Independent Variables

Section I

The first section of the questionnaire examined five independent variables. They are listed below along with the specific items that the respondents were asked to consider.

1. Factors considered to be important in the purchase of the new vehicle.

    a. Purchase price
    b. Body quality
    c. Ease of upkeep
    d. Economy of operations
    e. Overall quality
    f. Performance
    g. Resale value
    h. Authorized dealer service
    i. Body style

j. Manufacturer's warranty
k. Trunk room
l. Head room
m. Leg room
n. Expensive looking style
o. Available accessories

2. Principal driver of the new car

a. Identity of principal driver
b. Age of the principal driver
c. Occupation of the principal driver
d. Education of the principal driver

3. Respondent's use of the compact car

a. Estimated mileage
b. Number of automobiles in the family
c. Principal use of the vehicle

4. Type of automobiles considered

a. Price range
b. Types of vehicles
c. Number of makes
d. Number of dealers
e. Assistance in purchase
f. Automobile traded in.

Section II

Section II of the questionnaire consisted of seven attitudinal scales. This portion of the study was the most important and took the respondents the longest to complete.

Five of the seven scales were taken from other research projects. It was felt that to create new test instruments and to verify their reliability and validity was beyond the scope of the present endeavor. However, in two cases, attitude toward sports cars and attitude toward American automobiles, no test instrument existed and as a result original attitudinal scales were designed. Each of the seven scales will be discussed below.

Status-concern scale.--The status-concern scale is located on page four of the questionnaire. It was designed by W. C. Kaufman and was first reported in the American Journal of Sociology.[1] Its objective is to measure directly the value placed on symbols of status and on the achievement of higher status. The scale consists of 10 items which are scored in the Likert manner.

Attitude toward foreign products.--The attitude toward foreign products scale is found on page four of the questionnaire. It was constructed by C. C. Reierson in 1965 and consists of 24 Likert-type items.[2] Although the scale was designed to be used for specific countries (Italy and Japan) it was felt that Reierson's efforts represented the best test available for measuring general attitudes toward foreign products.

Attitude toward American cars.--The respondents' attitudes toward American cars were tested on 19 Likert-type items included on page five of the questionnaire. Since no scale existed which measures attitudes toward American

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[1]W. C. Kaufman, "Status, Authoritarianism, and Anti-Semitism," American Journal of Sociology, LXII (1957), 379-382.

[2]C. C. Reierson, "An Investigation of Attitudes Toward the Products of Selected Nations Among College Students and the Testing of Certain Methods for Changing Existing Attitudes" (unpublished Ph.D. dissertation, The University of Texas at Austin, 1965).

automobiles, the researcher constructed a new scale. Ideally the scale should have begun with a large number of items and should have been pre-tested on a group of individuals before it was administered to the respondents in the actual research. This would have permitted the scale to be reduced in number of items, and validity and reliability indices could have been generated. Because time did not permit this procedure, each item was tested using several nonparametric statistical techniques. No overall attitude toward American automobiles was reported. The reader is free to examine each item and its test of significance and then draw his own conclusions.

Conservatism.--The first 8 items on page six of the questionnaire are Herbert McClosky's test of conservatism.[1] The test consists of 8 Likert-type items and was first reported in the American Political Science Review in 1958. McClosky designed his scale to measure general and not just political conservative attitudes.

Big Business.--The last 6 items on page six of the questionnaire are a test of the respondents' attitudes toward big business. The scale was designed by Opinion Research Company in 1960 and was reported in The Initiators.[2]

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[1]Herbert McClosky, "Conservatism and Personality," American Political Science Review, LII (1958), 27-45.

[2]Opinion Research Company, "Attitude Toward Government," The Initiators, 1960, pp. T-r to T-7.

It is made up of three distinct subscales: "Support for Government Activity," "Large Company Series," and "Labor Union Series." Only the "Large Company Series" was used in the thesis.

Sports cars.--On page six of the questionnaire a 12 item scale attempts to measure the respondents' attitudes toward sports cars. Again, no suitable scale for measuring this attitude was available--as a result, the researcher constructed a new instrument. Since it has the same inherent limitations as the test of attitudes toward American produced automobiles it was treated in the same manner.

Dogmatism.--Troldahl and Powell's "Short Dogmatism" scale is included on page six of the questionnaire. It consists of 10 Likert items and was initially reported in Social Forces in 1965.[1] Troldahl and Powell's objective was to reduce the length of Rokeach's[2] dogmatism scale so that it could be more easily used in field research.

Respondents' perception of their new car.--The last test on Section II of the questionnaire is a 27 item semantic differential which tries to determine whether the

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[1]V. C. Troldahl and F. A. Powell, "A Short-Form Dogmatism Scale for Use in Field Studies," Social Forces, XLIV (1965), 211-214.

[2]M. Rokeach, "Political and Religious Dogmatism: An Alternative to the Authoritarian Personality," Psychological Monograph, LXX (No. 425, 1956), 18.

purchasers of foreign and domestic cars perceive their automobiles any differently. The scale was initially developed by A. E. Birdwell at the University of Texas[1] and was modified slightly for the present research. Each of the 27 items was treated as a separate test. That is, no effort was made to combine items in order to form a composite picture of individuals' perceptions of their new cars.

Section III

The third section of the questionnaire was concerned with learning as much about the owner of the compact car and his family as possible. The following is a list of specific independent variables which were examined:

1. Who is the chief wage earner in the family?
2. Occupation of the chief wage earner.
3. Total family income.
4. Education of the head of the household.
5. Social class of the vehicle's owner.
6. Marital status of the homemaker.
7. Employment status of the homemaker.
8. Age of the head of the household.
9. Number of children living at home.
10. Stage of the family life cycle.

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[1]A. E. Birdwell, "A Study of the Influence of Image Congruence on Consumer Choice" (unpublished Ph.D. dissertation, University of Texas, Austin, 1964).

11. Number of bedrooms in the respondent's home.
12. Number of rooms in the respondent's home.
13. Value of the respondent's home.
14. Rent paid by the respondent.

Dependent Variable

The dependent variable in the study is whether the respondent owns a domestically produced compact car or a foreign produced compact car. The entire study is designed to determine whether the above-mentioned independent variables can be used to segment the domestic compact car market.

Sample Design

The Sampling Frame

Ingham County, Michigan, was chosen as the location for the study. As noted in Chapter I, this was done because Ingham County typifies much of American society and because of its proximity to the residence of the researcher.

At the request of the researcher, R. L. Polk Inc. drew the sample from individuals who had purchased new Mavericks, Volkswagens, Toyotas and Renaults, for the period February 1970 through May 1970. In the United States in 1969, Volkswagen, Toyota and Renault accounted for 79.5% of the economy import market; the remaining 20.5% was made up primarily of English Fords, Opels and Simcas, which are manufactured abroad by American automobile producers. Owners of these cars were excluded from the sample because it was

felt that they were more a part of the traditional United States car market than the purchasers of cars built by foreign owned companies.

The actual sample consisted of 250 Mavericks, 143 Volkswagens, 25 Toyotas and 12 Renaults. A disproportionately large sample of Mavericks had to be selected because the interviewers had a great deal of difficulty soliciting the cooperation of Maverick owners; this will be discussed at some length in Chapter V. The ratio of foreign cars in the sample represents their respective percentage share of the United States market for foreign based manufactured automobiles.

Data Collection

Each member of the sample was sent a letter which explained that he would be contacted by telephone by a Michigan State University student who would attempt to arrange a convenient time for a short interview concerning the purchase of his new car. A form letter was developed on Michigan State University stationery and was reproduced on a multilith machine. The name and address of each sample member was then added in type which matched the ink used in the letter's reproduction. It was difficult to determine that the letters were not individually typed. A copy of the letter is included in Appendix A.

The interviewer was instructed to interview only the head of the household. This was done to give consistency,

and because it was felt that the head of the household plays an important role in most automobile purchase decisions. In a few cases where the head of the household was out of town for a lengthy period the interviewer was permitted to interview the homemaker.

The interviewer would hand the respondent the questionnaire, and wait until it was completed. The questionnaire was designed to be self explanatory. However, if the individual had any difficulty understanding the format of the questions the interviewer was asked to explain how they should be answered. The student was told not to discuss the content of the questions or the objective of the study. The sample members were told in the letter and on the title page of the questionnaire that they were participating in a study of new car buyers.

Analysis of the Data

The approach to analyzing the data was twofold. First, the major hypotheses were tested with nonparametric statistical techniques. Nonparametric techniques were utilized because the problem did not meet the conditions of the more powerful parametric techniques. As an example, Siegel explains that to utilize the common parametric tests the observations must be independent and normally

distributed.[1] Also the populations must have the same variance and the variables involved must have at least interval scales.

The first step in determining which of the nonparametric tests to use was to divide the data into nominal and ordinal classifications. If data is measured nominally it is merely a classifying of objects or persons and not an attempt to rank the objects or persons. An example of a nominal test would be to ask an individual to select from a set of alternatives the occupation which best describes his job. The respondent would simply be classifying his occupation and in no way would be ranking his occupation with the other possible alternatives.

Ordinally measured variables are assumed to stand in some kind of relationship to each other. For example, an individual might read a statement and then be asked to indicate whether he agreed, had no opinion or disagreed with it.

A Chi Square test was performed on all questions which had a nominal measure. The computer program, CSQ, was used; it is part of a larger nonparametric "package" developed by Michigan State University's Computer Institute for Social Science Research (CISSR).[2]

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[1]Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Company, 1956), p. 19.

[2]Michigan State University, Computer Institute for Social Science Research (CISSR), Technical Report No. 42.

Two nonparametric tests were performed on the ordinal data--the Median test and the Kolmogorov-Smirnov test. Both tests are concerned with determining whether two independent samples have been drawn from the same population. Although the results for both tests will be reported, the Kolmogorov-Smirnov is the stronger of the two tests. Siegel states that the power efficiency of the Kolmogorov-Smirnov test is .96[1] when compared to the parametric "t" test whereas--the Median's power efficiency is .63[2] when compared to the same test.

As in the case of the Chi Square test, the computer programs that were utilized to perform the Kilmogorov-Smirnov test and the Median test were developed by Michigan State University's CISSR group. They were named Kol[3] and Med.[4]

The last step consisisted of performing both an "R" and a "P" factor analysis on the emotional attitudinal variables. The "R" factor was used to determine how the variables related to each other. It was performed with a program called FACTORA.[5]

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[1]Sidney Siegel, op. cit., p. 136.

[2]Ibid., p. 115.

[3]Michigan State University Computer Institute for Social Science Research, op. cit., No. 44.

[4]Michigan State University Computer Institute for Social Science Research, op. cit., No. 42.

[5]Michigan State University Computer Institute for Social Science Research, op. cit., No. 70-4.

The "P" factor analyzes the observations rather than the variables. The first step is to invert the correlation matrix so that the variables become the observations and the observations become the variables. This was accomplished with a transformation program called DATA. Then the program FACTORA was used to factor the inverted matrix.

The major advantage of a "P" factor analysis is that it permits the respondents to be segmented into groups (loadings) based upon a set of variables. In the present research the variables that were used were the emotional-attitudinal responses. If Maverick owners are loaded primarily into one category and foreign car owners into another it can be assumed that there is a difference in the groups. In contrast if the individuals are randomly distributed throughout the loadings then it would seem that the respondent categories are not differentiable.

CHAPTER IV

PRESENTATION OF FINDINGS

The objective of Chapter IV is to present the findings of the thesis. The chapter is divided into four sections and follows the general outline of the hypotheses as presented in Chapter I. The first section examines the study's socioeconomic findings. It is followed by an analysis of the data on the respondents' family life cycle and the results of the emotional-attitudinal tests. The last section outlines the differences between the principal drivers of foreign and domestically-produced compact cars and the use of their automobiles.

Socioeconomic Variables

The first major hypothesis, as presented in Chapter I, focuses on the relationship between an individual's social class and his decision to purchase a foreign or domestically-produced compact car. This segment of Chapter IV examines that hypothesis along with the subhypotheses which were concerned with the respondents' occupations, income levels and education levels. Table 4-1 summarizes the findings in these areas.

TABLE 4-1. SOCIOECONOMIC CHARACTERISTICS

Characteristic	Maverick Car Buyer	Foreign Car Buyer	Level of Statistical Significance
Occupation	Clerical, sales, and kindred workers	Professionals, technical, managers and officials	.001
Income	No distinct pattern	No distinct pattern	Not significant
Education	High school graduates with some college education	College graduates	.01
Social class	Middle class	High middle class	.01

Occupation

The respondents were asked to describe the occupation of the head of the household. These descriptions were then matched with one of the seven occupational categories listed by the U.S. Bureau of the Census.

As Table B-1 indicates foreign compact car owners tended to have jobs which had considerably more status associated with them than did the Maverick owners. The two categories of managers and professionals accounted for 83% of the foreign compact car owners while these categories contained 35% of the Maverick owners. In contrast 50% of the Maverick owners were either in the clerical-sales category or the craftsman-foreman category with 10% of the foreign car respondents represented in these occupations.

The last three categories of jobs as presented by the Bureau of the Census[1]--laborers (except farm and mine), service workers, and operatives and kindred workers--contained 15% Maverick owners and 7% foreign car owners. The Kolmogorov-Smirnov test was performed on the occupational data. It showed the differences between the two groups on a two-tailed test to be significant at the .01 level.

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[1]U.S. Bureau of the Census, op. cit., p. 13.

Income

It is commonly believed that Volkswagen owners have a significantly higher income level than the average American automobile buyer. Since Volkswagen owners make up a large segment of the foreign car sample, it was assumed that the study would find the foreign car respondents had a higher level of income than Maverick owners--this was not the case.

As Table B-2 illustrates the only important difference between the respondent groups was in the less than $7,000 income category; in this income range 7% of the foreign car owners were represented while 16% of the Maverick owners were in this category. The remaining income categories were divided quite uniformly between the two groups.

More than one-quarter of both foreign compact car owners and Maverick owners indicated that their total family income was greater than $15,000. Had this category been divided into several distinct subcategories, significant differences between foreign and domestic compact car owners' incomes might have been found. As it was the data was not statistically significant.

Education

The data presented in Table B-3 notes the relationship between the education of the head of the household and the purchase of either a foreign or domestically produced

compact car. The study found that foreign compact car owners had significantly more education than Maverick owners.

More than 14% of the Maverick owners did not complete high school compared to 2% of the foreign car owners. In contrast 74% of the foreign produced car owners and 32% of the Maverick owners completed a four year college program; 46% of the foreign car owners and 12% of the Maverick owners had some post graduate training. The data were significant at the .01 level with a two tailed Kolmogorov-Smirnov test.

Social Class

It was hypothesized that foreign compact car owners would be of a different social class than domestic compact car owners. The hypothesis was tested using a technique developed by the U.S. Bureau of the Census. (It is described in some detail on page 27 of the literature review.) This approach weighs evenly the head of the household's education, and occupation and the family's income level.

Although no formal social classes are defined in the Bureau's approach (in the sense that Warner defined levels of social class) Table B-4 divides the respondents into nine categories. It is readily apparent that foreign compact car owners are of a higher social class than domestic compact car owners. Fifty-five percent of the foreign car owners had a score of 90 or above on the social class test while only 21% of the Maverick owners scored 90 or above.

Fourteen percent of the Maverick owners and 2% of the foreign car owners scored less than 60.

These results were predictable in light of the previously mentioned differences in the compact car owners' educational levels and occupations. The social class differences were significant at the .01 level.

Summary

It appears that the research differentiated between foreign and domestically produced compact car owners by means of the respondents' socioeconomic characteristics. Maverick owners tended to be of a lower social class, to have less formal education and to have lower status jobs than foreign compact car owners.

The research indicates that there are separate core markets for the two vehicles if the market is segmented by socioeconomic variables. This is not to say that the markets are completely discrete. A number of respondents who fit the socioeconomic characteristics of foreign car buyers purchased a Maverick and, of course, the opposite was also true. But demographic variables were identified that significantly differentiate foreign and domestic compact car buyers in a way that could prove useful to a market analyst.

Family Life Cycle

It was hypothesized in Chapter I that there was a significant difference between the stages in the family life cycle of domestic and foreign compact car owners. This portion of Chapter IV reports the findings related to that hypothesis. This section also reports on the employment status of the homemaker, the age of the head of the household, and the marital status of the respondents. Table 4-2 summarizes this portion of the conclusions.

Employment of the Homemaker

There was no significant difference between Maverick and foreign compact car owners in the employment status of the homemaker. Table B-5 shows that in both respondent categories approximately 43% of the homemakers were unemployed. A higher percentage of homemakers in foreign compact car families were employed part-time, while a greater percentage of homemakers in Maverick families were employed full-time. The data were not statistically significant.

Marital Status

There were no major differences in the marital status of the respondents. More than 80% of the Maverick and foreign compact car owners were married; approximately 13% were single. The remaining respondents appeared to be randomly distributed in the categories of divorced, widowed, and separated.

TABLE 4-2. DEMOGRAPHIC CHARACTERISTICS

Characteristic	Maverick	Foreign Car	Significance Level
Employment of the homemaker	No distinct pattern	No distinct pattern	Not significant
Marital status	No distinct pattern	No distinct pattern	Not significant
Number of years married	54% married eight years or more	37% married eight years or more	Not significant
Age of the head of the household	Well represented through all age groups	Concentrated in the 21-24 and 25-29 year age groups	Not significant
Family life cycle	Distributed throughout all stages of family life cycle	Concentrated in the young married categories	.01

Number of Years Married

The data in Table B-7 indicates that foreign compact car owners have been married for a shorter period of time than Maverick owners. In the categories of married--three-years-or-less and four-to-seven-years--61% of the foreign car owners are represented as contrasted to 45% of the Maverick owners.

The sharpest distinction occurred in the category of married more-than-twenty years--in it there were 39% of the Maverick owners and 15% of the foreign car owners. The data were tested and found not to be statistically significant.

Age of the Head of the Household

Foreign compact car owners appear to be younger than the Maverick owners. Table B-8 indicates that, while the category of 18-20 years of age did not have any foreign compact owners, the categories of 21-24, 25-29, and 30-34 are all overly represented with foreign compact owners. These four categories include 70% of the foreign compact owners and 43% of the Maverick owners.

The age groups 35-39 and 40-44 were overly represented with Maverick owners. This ten-year age bracket contained 20% Maverick owners and 11% foreign compact car owners. The same situation prevailed in the 55-59 and 60-64 year old age group. These groups contained 16% Maverick owners and 5% foreign compact car owners.

The data were tested using a Kolmogorov-Smirnov two-tailed test. It was not statistically significant.

Family Life Cycle

An eight-stage family life cycle scheme was developed for the research. It is represented in Table B-9 along with the percentages and the number of respondents found in each category.

Foreign compact car owners were more heavily represented in the first three categories than were Maverick owners. Sixty-one percent of the foreign compact car owners were either single, married with no children, or married with the oldest child three years of age or younger. These categories contained 42% of the Maverick owners.

In the two categories of oldest child 4-5 years of age and oldest child 6-13 years of age, there were slightly more foreign car owners than Maverick owners. The last three stages--oldest child 14-19, oldest child over 20 but with children less than 20 still in the family, and youngest child over 20--were dominated by Maverick owners. More than 43% of the Maverick families and 18% of the foreign car families were in these categories.

The data were tested with a Kolmogorov-Smirnov two-tailed test and found to be significant at the .01 level. The findings are consistent with those previously reported. In both the number of years the respondents had been married and the age of the head of the household foreign car owners

were overly represented in the categories of young adults. The differences were not statistically significant.

Summary

It might appear that the independent variables in the Family Life Cycle section of Chapter IV were not as useful in discriminating foreign and domestic compact car buyers as were the socioeconomic variables. Although trends were noticeable in the number of years married and the age of the head of the household, the differences between the respondent groups were not significant at the traditional .05 level.

However the independent variable family life cycle did discriminate between the two groups at the .01 level. Maverick owners tended to be distributed throughout the eight stages in the life cycle whereas the foreign compact car owners were heavily represented in the first three categories.

Lansing and Kish have suggested that stage in the family life cycle is a superior technique in determining patterns of behavior to variables such as age of the head of the household and marital status. Individuals who are in the same stage of the life cycle are likely to behave in a similar manner.

The present study seems to support the thesis of Lansing and Kish. Whereas chronological age of the head of the household did not discriminate between the two groups,

stage in the family life cycle did. Variables such as these should be used in conjunction with each other rather than independently. It does seem, however, that the stage in the family life cycle is the more powerful technique.

Emotional-Attitudinal Variables

It was hypothesized in Chapter I that foreign compact car owners and Maverick owners could not be differentiated by the following five emotional-attitudinal variables: status concern, conservatism, big business, dogmatism, and foreign products. The respondents' attitudes with regard to these variables were tested in two ways. First, Kolmogorov-Smirnov and Median tests were performed on each variable to determine whether there were significant differences between the two groups. Second, both "R" and "P" factor analyses were run on the data. The results of the nonparametric tests will be reported first.

Nonparametric Tests

Maverick owners were significantly more status conscious than the owners of foreign compact cars. The Kolmogorov-Smirnov test shows the differences to be significant at the .001 level for a two-tailed test. The results of the Median test coincide with the Kolmogorov-Smirnov test and are significant at the .001 level.

Foreign compact car owners tended to be more liberal than Maverick owners. The Kolmogorov-Smirnov test indicated that the differences were significant at the .001 level for

a two-tailed test. The results of the Median test on the status concern data were consistent with those of the Kolmogorov-Smirnov test and were significant at the same level.

Of the two respondent groups, Maverick owners had a more positive attitude toward big business. The Kolmogorov-Smirnov test showed the data to be significant at the .06 level for a two-tailed test. The findings from the Median test were the same as those of the Kolmogorov-Smirnov test except the differences are significant at the .02 level for a two-tailed test.

Maverick owners were more dogmatic than the owners of foreign economy cars. The Kolomogorov-Smirnov test showed the differences to be significant at the .01 level for the two-tailed test. The Median test found the differences in the respondents' scores to be significant at the .001 level and to parallel the results of the Kolmogorov-Smirnov test.

Foreign compact car owners were more positive in their attitudes toward foreign products than were Maverick owners. The Kolmogorov-Smirnov test showed the data to be significant at the .001 level for both the two-tailed and one-tailed tests. The Median test results are similar to those of the Kolmogorov-Smirnov test.

As was indicated in Chapter III it was impossible to develop validity and reliability measures for the following three tests: attitudes toward American cars, attitudes toward sports cars and the respondents' perception of their

new cars. As a result the items in the tests were treated as if they were independent. Tables B-10, B-11, and B-12 list the items and the results of the Kolmogorov-Smirnov two-tailed test.

The nonparametric tests differentiated the Maverick and foreign car owners. For each emotional-attitudinal variable significant differences were found at the .05 level for both two-tailed and one-tailed tests. It therefore seems proper to conclude that the null hypotheses--there are no significant differences in the respondents attitudes toward status concern, conservatism, big business, dogmatism and foreign products--can be rejected and the alternative hypotheses may be accepted.

"R" Factor Analysis

The 38 variables which make up the status concern, conservatism, big business, and dogmatism scales were factor analyzed to determine whether the scales were testing independent attitudes; if they were not, then it would be difficult to draw conclusions from previously reported nonparametric tests. The computer program which was used was developed by Michigan State University's Computer Institute for Social Science Research and is named FACTORA.

FACTORA permits the user to select either the quartimax rotation analysis or the varimax rotation analysis. The quartimax technique focuses on simplifying the rows of the factor matrix. This approach rotates the orthogonal

vectors so that the variables have high loadings on as few factors as possible.[1]

The varimax approach involves simplification of the columns rather than the rows. For each factor the varimax rotation yields a few high loadings while the remaining loadings in the factor are relatively low; this technique was selected for the present research. The varimax approach is considered to be superior to the quartimax rotation because it focuses on the factors rather than the rows.[2]

Summary tables are presented below which show the relationship between the attitudinal scales and factors on which the heaviest loadings occur. Table B-13 relates the variable number with the statement that appeared in the questionnaire, and Table B-14 shows the complete rotated factor matrix.

The items in the status concern scale loaded heavily on factor 5. As Table 4-3 indicates only the scale's first variable loaded heavier on another factor. Also none of the remaining 26 variables correlated highly with factor 5.

The summary score variable, which aggregates all item weights, for the status concern scale had a correlation of -.8820 with factor 5. This means that 77.7% (.8820 x .8820) of the variance associated with the variable was

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[1]William W. Cooley and Paul R. Lohnes, Multivariate Procedures for the Behavioral Sciences (New York: John Wiley & Sons, Inc., 1960), p. 162.

[2]Ibid.

TABLE 4-3. STATUS CONCERN SCALE (FACTOR 5)

Variable Number	Item	Factor Loading
1	The extent of a man's ambition to better himself is a pretty good indication of his character.	-.4092
2	In order to merit the respect of others, a person should show the desire to better himself.	-.5735[a]
3	One of the things you should consider in choosing your friends is whether they can help you make your way in the world.	-.5689[a]
4	Ambition is the most important factor in determining success in life.	-.5962[a]
5	One should always try to live in a highly respectable residential area, even though it entails sacrifices.	-.5595[a]
6	Before joining any civic or political association, it is usually important to find out whether it has the backing of people who have achieved a respected social position.	-.6361[a]
7	Possession of proper social etiquette is usually the mark of a desirable person.	-.6900[a]
8	The raising of one's social position is one of the more important goals in life.	-.7341[a]
9	It is worth considerable effort to assure one's self of a good name with the right kind of people.	-.7131[a]
10	An ambitious person can almost always achieve his goals.	-.4342[a]
	Summary score variable	-.8820[a]

[a]Indicates the varimax rotation shows the variable to load heaviest on factor 5.

explained by the fifth factor. This is relatively high since the communality[1] was .9697. Therefore less than 20% of the summary variable's variance was accounted for by the remaining four factors.

The items in the conservatism scale and their summary score variables are represented in Table 4-4. Seven of the eight test items loaded heaviest on factor 3; the scale's eighth variable loaded heaviest on factor 1. Also only variable 32, an item in the dogmatism scale, correlated higher with factor 3 than with the other factors.

The summary score variable's factor loading was .9001. This indicates that 81% of the variable's variance was explained by factor 3. When this is compared with the

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[1]For the reader who may not be familiar with factor analysis several terms are defined below. It is also suggested that the interested reader consult a text such as Modern Factor Analysis by H. H. Harmon and published by the University of Chicago Press for further explanation. (1) Factor--a vector or variable underlying one or more of the manifest variables on which data have been correlated. (2) Factor Loading--the correlation of a manifest variable with a factor. (3) Communality--the total amount of unit variance in a particular variable explained by each of the factors on which it has a loading. Thus, a variable's total communality is the summation of the variable's squared factor loadings. (4) Uniqueness--the amount of unit variance of a particular variable which is not accounted for by communality. This uniqueness is a combination of specificity and error. (5) Specificity--the amount of unit variance of a particular variable that is unrelated to any of the factors. (6) Error--the amount of unit variance of a particular variable is attributable to the fallibility of measurement.

TABLE 4-4. CONSERVATISM (FACTOR 3)

Variable Number	Item	Factor Loading
12	I prefer the practical man anytime to the man of ideas.	.5182[a]
13	If you start trying to change things very much, you usually make them worse.	.6425[a]
14	If something grows up after a long time, there will always be much wisdom to it.	.5747[a]
15	It's better to stick by what you have than to be trying new things you don't really know about.	.6275[a]
16	We must respect the work of our fore-fathers and not think that we know better than they did.	.5689[a]
17	A man doesn't really have much wisdom until he is well along in years.	.6174[a]
18	No matter how we like to talk about it, political authority really comes not from us, but from some higher power.	.4093[a]
19	I'd want to know that something would really work before I'd be willing to take a chance.	.2082
	Summary score variable	.9001[a]

[a]Indicates the varimax rotation shows the variable to load heaviest on factor 3.

summary variable's communality of .92 it becomes apparent that factor 3 explains most of the explainable variance.

The big business scale is represented in Table 4-5. Each of its six items load higher on factor 2 than with any other factor. Also no items from the other three scales loaded highest on factor 2.

The big business summary score variable's factor loading on factor 2 was .9636. This indicates that almost 93% of the variable's variance was explained by factor 2. The summary score variable's communality was .9698.

The dogmatism scale did not "clean up" as well as the previously discussed scales. Table 4-6 shows that five out of ten items in this scale loaded heaviest on factor 1. Four of the five variables which did not load heaviest with factor 1 did so on factor 4. As Table B-14 shows the only other highly loaded variable on factor 4 was the first item in the status concern scale.

The summary score variable loaded heaviest on factor 1. Its correlation was .6536 which indicates that factor 1 explained 43% of the variable's variance. The communality of the summary variable was .9465.

The factor analysis performed on the four emotional-attitudinal variables indicated that they were testing independent attitudes. This is particularly evident with the status concern, conservatism, and big business scales. In these three cases the items in the tests were separated into three factors which were clear of any significant number of

TABLE 4-5. BIG BUSINESS (FACTOR 2)

Variable Number	Item	Factor Loading
21	In many of our largest industries, one or two companies have too much control of the industry.	-.8000[a]
22	There is too much power concentrated in the hands of a few large companies for the good of the nation.	-.8592[a]
23	As they grow bigger, companies usually get cold and impersonal in their relations with people.	-.6645[a]
24	For the good of the country, many of our largest companies ought to be broken up into smaller companies.	-.8249[a]
25	The profits of large companies help make things better for everyone who buys their products or services.	-.3389[a]
26	Large companies are essential for the nation's growth and expansion.	-.5556[a]
	Summary score variable	-.9636[a]

[a]Indicates the varimax rotation shows the variable to load heaviest on factor 2.

TABLE 4-6. DOGMATISM (FACTOR 1)

Variable Number	Item	Factor Loading
28	In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.	.4683[a]
29	My blood boils whenever a person stubbornly refuses to admit he's wrong.	.1992
30	There are two kinds of people in this world: those who are for the truth and those who are against the truth.	.3085
31	Most people just don't know what's good for them.	.5346[a]
32	Of all the different philosophies which exist in this world there is probably only one which is correct.	.3536
33	The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.	.5768[a]
34	The main thing in life is for a person to want to do something important.	.5485[a]
35	I'd like it if I could find someone who would tell me how to solve my personal problems.	.2940[a]
36	Most of the ideas which get printed nowadays aren't worth the paper they are printed on.	.2086
37	Man on his own is a helpless and miserable creature.	.0721
	Summary score variable	.6536[a]

[a]Indicates the varimax rotation shows the variable to load heaviest on factor 1.

heavy loadings from other tests. If this had not occurred it would have to be assumed that the individual tests were measuring more than one variable.

Further evidence supporting the independence of the three tests comes from the fact that the summary score variables explained a high percentage of the tests' explainable variance. If these correlations had been low and spread throughout the five factors it would strongly suggest that the specific tests were measuring more than one concept.

The variables in the dogmatism test were divided between two factors. As Table B-14 shows the items did not correlate highly with any of the previously mentioned tests. Although more evidence would be needed to make a firm conclusion it does appear that this test might be measuring more than one attitude.

"P" Factor Analysis

As was indicated in Chapter III "P" factor analysis factors the observations rather than the variables. A computer program is used to invert the data matrix, and then perform the factor analysis.

In an earlier segment of this chapter the findings from the nonparametric test were reported. It was stated that the four emotional-attitudinal scales--status concern, conservatism, big business, and dogmatism--differentiated between Maverick and foreign car owners. Whereas the nonparametric test analyzed the variables independently, the

"P" factor analysis examines the respondents' attitudes on all four sides at once to determine whether the respondents are differentiable. If Maverick and foreign car owners loaded heavily on one factor or loaded on several factors in a random pattern, then it would appear that the groups were not differentiable. In contrast, if a significant percentage of the Maverick owners load on one factor and a large number of foreign car owners load on another factor then the groups would seem to be distinguishable.

The computer program was set to generate two, three, and four factors using the varimax technique. The results of each run will be analyzed below. Tables B-15, B-16, and B-17 show the complete factor matrix for each run.

The two factor solution differentiated between the respondent groups. The first loading was dominated by foreign car owners; it contained 37 foreign car owners and 11 Maverick owners. The second loading contained 36 Maverick owners and 14 foreign car owners. The two loadings explained 43% of the variance.

The second run produced three factors. The first was dominated by foreign car owners; it consisted of 37 foreign car owners and 8 Maverick owners. The second loading was made up of 18 Maverick and 10 foreign car owners. The third loading, which was dominated by Maverick owners, contained 22 Maverick owners and 4 foreign car owners. The three factors explained 47% of the variance.

The final run produced four factors. The first factor was again dominated by foreign compact car owners; there were 34 foreign compact car owners and 8 Maverick owners. The second factor consisted of 15 Maverick and 8 foreign compact car owners. The third factor contained 22 Maverick and 3 foreign compact car owners. The fourth factor contained 3 Maverick and 6 foreign compact car owners. These factors explained 52% of the variance.

The "P" factor analysis segmented Maverick and foreign compact car owners. In each run, one factor developed which was dominated by Maverick owners and another which was dominated by foreign compact car owners. However, in the 3 and 4 factor situations there were also factors which were not dominated by either respondent group. This even could have been anticipated since it is not reasonable to assume that the four independent variables would account for all the differences between the groups.

Product Characteristics

It was hypothesized in Chapter I that owners of foreign and domestically produced compact cars desire the same product characteristics and features in their automobiles. This hypothesis was tested in two ways--first, the respondents were asked to specify which of six accessories they purchased for their car, and second to state how important fifteen factors were in the purchase of their new car. The results of the two tests are reported in Tables 4-7 and 4-8.

TABLE 4-7. AUTOMOBILE ACCESSORIES

Accessories	Type of Difference	Significance Level
Air conditioning	Neither group purchased air conditioning.	n.s.[a]
Radio	In both groups more than 75% of the respondents purchased a radio.	n.s.
White side wall tires	A larger percentage of Maverick owners purchased the accessory than anticipated.	.05
Semiautomatic	Three respondents in each category purchased the accessory.	n.s.
Automatic	Sixty-five percent of the Maverick owners and 14% of the foreign compact car owners purchased the accessory.	.01
Large engine option	Fifty-four percent of the Maverick owners purchased the larger engine while none of the foreign car owners did so.	.01

[a]Not significant.

TABLE 4-8. PRODUCT FEATURES

Factor	Comment	Significance Level
Purchase price	More important for Maverick owners.	.001
Body quality	No difference.	n.s.[a]
Ease of upkeep	More important for Maverick owners.	.10
Economy of operations	No difference.	n.s.
Overall quality	No difference.	n.s.
Performance	No difference.	n.s.
Resale value	More important for foreign compact car owners.	.05
Dealer service	No difference.	n.s.
Body style	No difference.	n.s.
Manufacturer's warranty	More important for Maverick owners.	.05
Trunk room	No difference.	n.s.
Head room	No difference.	n.s.
Leg room	More important for Maverick owners.	.10
Expensive looking style	More important for Maverick owners.	.05
Available accessories	No difference.	n.s.

[a]Not significant.

Although the results in Table 4-7 are not conclusive it appears that the Maverick owners prefer a more powerful car with more accessories than do the foreign compact car owners. While 64% of the Maverick owners purchased an automatic transmission only, 19% of the foreign compact car owners bought either an automatic or a semiautomatic transmission.

Similarly, more than 50% of the Maverick owners purchased the larger engine option while none of the foreign compact car owners did so. Unfortunately, this is not a good test of buyer interest because Volkswagen owners, which represent the majority of the foreign car respondents, did not have such an option available to them. Also 65% of the Maverick owners and 45% of the foreign compact car owners purchased white side wall tires for their new cars.

As the data in Table 4-8 indicate several factors were significantly more important to the Maverick owners--purchase price, expensive looking styling and leg room. Manufacturer's warranty and ease of upkeep were also significantly more important to Maverick owners. Ford has promoted the idea of easy service and repair for the Maverick. Seemingly, they have succeeded in reaching a segment of the market that is concerned about possible repair work.

Foreign compact car owners were concerned about resale value. This has long been one of Volkswagen's strong

selling points. It is interesting to note that while Maverick owners are concerned with initial purchase price, foreign compact car owners are interested in how well the car will retain its value.

Although the research does not indicate conclusively that the two respondent groups desire different product characteristics and features on their cars, it does appear that this is a strong possibility. The Maverick owner seems to want big car characteristics in an inexpensive car; he frequently purchases both the larger engine option and an automatic transmission. He also adds white side wall tires, and states that such product characteristics as expensive looking styling, leg room, and initial purchase price are important to him.

In contrast the foreign car owner is not very concerned with initial purchase price or styling. Rather he seems to choose a car that will be economical to operate and will retain its value.

Principal Driver of the Vehicle

The last three hypotheses to be examined in Chapter IV focus on the principal driver of the compact car, the function of the compact, and the behavior of the compact car owner prior to the purchase of the new vehicle. In each case the hypotheses were in the null form indicating that there would be no significant differences between the respondent groups.

Principal Driver

The respondents were asked to indicate who was the principal driver of the compact car. Sixty percent of the foreign compact car owners and 36% of the Maverick owners indicated that it was the head of the household. The difference was significant at the .02 level with a two-tailed Kolmogorov-Smirnov test.

With regard to women, wives and daughters accounted for 42% of the Maverick principal drivers and 18% of the foreign compact car drivers. Table B-18 contains a complete analysis of the responses. The data was not statistically significant.

The second factor considered was the occupation of the principal driver. The respondents were limited to a list of six job classifications. The Kolmogorov-Smirnov two-tailed test was used to determine whether any significant differences existed. As Table B-19 shows, 26% of the foreign car drivers were teachers and 21% were professionals. In contrast 7% of the Maverick owners were teachers and 8% were professionals. The data were significant at the .05 level for the teacher category and .01 for the professional category.

Maverick owners tended to be concentrated in categories of salaried white collar workers (18%), housewives (17%), and students (15%). Only the data in the salaried white collar group was significantly different at the .05 level from the responses of the foreign compact car drivers.

The third factor considered was the educational level of the principal driver. The operators of foreign cars tended to have more education than the operators of Mavericks. More than 59% of the drivers of foreign cars graduated from a four year college compared with 23% of the Maverick drivers. Also 8% of the Maverick operators did not complete high school while only 3% of the foreign compact car principal drivers did not complete high school. The data are outlined in Table B-20 and were statistically significant at the .03 level.

The last characteristic of the principal driver examined in the study was his chronological age. Although foreign compact car drivers tended to be younger than operators of Mavericks the differences were not significantly different. Table B-21 lists a breakdown of the respondents' ages.

Use of the Vehicle

Two techniques were developed to determine whether the respondents used their cars for the same or different purposes. First, they were asked how many miles they anticipated driving their new compacts each year. As Table B-22 indicates foreign compact car drivers felt that they would put more mileage on their cars than did the Maverick car drivers. However, the differences were not great and were not statistically significant.

The second technique used was to ask the respondents to rank the following six types of driving behavior in terms of how they would utilize their compact cars: short business trips, driving to and from work, short excursion trips, long business trips, shopping and daily errands, and long distance vacations.

No significant differences were found in the driving patterns of the two groups. A majority of all respondents indicated that the first use of their car was to drive to and from work; the second was shopping and daily errands; and the third was concentrated in the category of short excursion trips.

The fourth, fifth and sixth ranked uses appeared to be randomly distributed. The data are summarized in Table B-23.

Purchase Behavior Prior to the Transaction

This section of Chapter IV focuses on the respondents' behavior related to the purchase of their new cars prior to the actual transaction. The following five factors were examined and will be discussed below: the types of automobiles considered, price range of vehicles considered, assistance in purchasing the car, vehicle traded in, and number of makes and dealers considered.

The respondents were asked to indicate whether they had considered purchasing imported sports cars, imported sedans, used cars, American compact cars, or other cars.

They were permitted to mark more than one category. Each category was then tested to determine whether there was a significant difference between the responses of Maverick and foreign compact car owners.

As the data in Table B-24 indicates significant differences were found in the categories of imported sedans and American compact cars. Six Maverick owners considered imported sedans as opposed to 3 foreign car owners. The differences were significant at the .001 level.

American compact cars were considered by 32 Maverick owners and 21 foreign compact car owners; the data was significant at the .05 level.

The second factor, price range, did not discriminate between Maverick and foreign compact car owners. As an example 50% of the respondents in each group indicated that they considered cars in the price ranges of $1,801-2,000 and $2,001-2,200. The data are presented in Table B-25.

The third factor focused on whether the individuals had any assistance in purchasing their new car. The data in Table B-26 which shows the type of assistance received, indicates a significant difference between the two groups in the category of "owners of the same car." Ten foreign compact car owners stated that they received assistance from owners of the same car whereas only two Maverick owners had similar help. The data were significant at the .02 level.

The fourth factor determined the type of vehicle being traded-in by the new compact car buyers. The following five categories were presented to the respondents: (1) one or two-year-old American car, (2) more than two-year-old American car, (3) one or two-year-old imported sedan, (4) more than two-year-old imported sedan, and (5) imported sports car. The fourth category was the only one which showed a significance level of .05 between the respondent groups. Foreign car owners were much more likely to trade-in an imported car than Maverick owners. Table B-27 contains a complete listing of the individual responses.

The last factor in this section dealt with the number of automobiles and dealers considered prior to the purchase of the new car. Tables B-28 and B-29 indicate that there were no significant differences between the two groups. More than half of the Maverick and foreign compact car owners visited with one or two dealers and considered purchasing one or two different makes.

Summary

Evidence has been presented which tends to refute the hypothesis that there is no difference between the principal driver of foreign compact cars and Mavericks. More men drive foreign compact cars than Mavericks. They have better jobs and more education.

It is particularly interesting to note that the respondents could not be differentiated by the price range of the vehicles they considered. An executive at Ford Motor Company made the statement that to effectively penetrate the foreign car market all Ford had to do was price a car at the level of the imports and style it in a more pleasing manner. As noted earlier, expensive looking styling was not important to foreign compact car owners and now it appears that price is not a discriminating factor either. It would seem that at least one executive oversimplified a very complex problem.

Foreign and domestic compact car owners were segmented by the types of vehicles they considered prior to the purchase of a new car. If there were a homogeneous market for Maverick and foreign compact cars this would not have occurred. That is, if the respondents considered purchasing both foreign and domestically produced compact cars it would have to be assumed that there was one market for compact cars and not two distinct markets. However, based upon the evidence presented in this chapter, it seems proper to conclude that there are two distinct markets for compact cars.

CHAPTER V

SUMMARY AND CONCLUSIONS

The objective of this chapter is to present the findings and conclusions of the research. The first section examines the objectives of the study. The second portion focuses on the empirical findings of the investigation. The third section sets forth the major implications of the study, and the last section notes several areas for future research.

Objectives of the Study

The primary purpose of the study was to determine whether the United States market for subcompact cars could be segmented by emotional-attitudinal factors. Several prior studies have examined such variables as family life cycle and social class. Although the use of these variables has been somewhat helpful in delineating markets, it was felt that attitudinal factors also play a role in market segmentation in this sector of the economy.

The respondents were given tests to elicit their feeling toward foreign products, concern for status, attitudes toward big business, liberal-conservative attitudes, and dogmatic attitudes. As far as could be determined these

factors have not been utilized in delineating markets prior to this study.

The products selected for examination in the thesis were the Ford Motor Company's Maverick and foreign compact cars. The sample was drawn from Ingham County, Michigan, and was selected by R. L. Polk, Inc., from their master list of new car purchasers. Each individual chosen was contacted by mail and telephone. If he agreed to cooperate in the study, a personal interview was arranged.

Empirical Findings

The study was able to differentiate between Maverick and foreign compact car buyers in several ways. First, foreign compact car owners tended to come from higher social classes than Maverick owners. Although social classes were not segmented (as Warner did),[1] the nonparametric tests applied to the data indicated there was a clear distinction between the two respondent groups.

Second, foreign compact car owners had better jobs and more education than the Maverick owners. More than 80% of the foreign car owners were employed as either managers or professionals, whereas the largest number of Maverick owners were in the clerical-sales category. Over half of the foreign compact car owners were college graduates, while the Maverick owners were predominately high school graduates

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[1] Warner, op. cit.

or had completed only a portion of a four-year college program.

Third, there was a significant difference between the respondents in their stage in the family life cycle. The foreign compact car owners tended to be younger in chronological age and were heavily concentrated in the early stages of the life cycle, while the Maverick owners were older and tended to be in the latter stages of the life cycle.

The fourth and most important part of the thesis concerned the emotional-attitudinal feelings of the respondents. The tests that were used to measure these variables were effective in delineating the market. Maverick owners tended to be more dogmatic, more conservative, more status conscious, less positive toward foreign products, and more positive toward big business than were the foreign compact car owners.

"P" factor analysis was also performed on the emotional-attitudinal data. It developed three basic factors--the first factor contained primarily foreign compact car owners, and the third factor contained largely Maverick owners. The second factor contained members of both respondent groups. This was to be expected and in no way distorts the previous findings since some individuals had characteristics of both respondent groups and therefore could not be factored into either group. It was not assumed

that emotional-attitudinal variables would explain all of the elements involved in the decision process.

Implications of the Research

It was shown that for at least one product grouping, at one time and in one geographic location, a market could be segmented by not only socioeconomic characteristics but also by emotional-attitudinal variables. Prior to the present research, social scientists have reported that an individual's social environment could affect the type of purchase decisions he makes. The present research has chosen to examine segmentation from a new perspective--namely the individual's emotional-attitudes. If people that have common emotional-attitudes purchase the same type of products then firms must augment variables such as income, social class, and geographic location in making their marketing decisions with the emotional-attitudinal characteristics of their potential customers.

In the first ten months of 1968, the Ford Motor Company sold 278,040[1] Mustang automobiles, and in that year 795,651[2] foreign import cars were sold in the United States. In April 1969, the Maverick was introduced. In the first ten months of 1969 there were 181,837[3] Mavericks, 231,077[4]

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[1] Ward's Automotive Reports, November 11, 1968, p. 366.

[2] Ibid., p. 361.

[3] Ibid., November 10, 1969, p. 357.

[4] Ibid.

Mustangs, and 858,238[1] imported cars sold in the United States. In the same period of 1970 (which reflects the latest data available) there were 306,622[2] Mavericks, 134,314[3] Mustangs, and a record 1,034,180[4] foreign cars sold in the domestic market.

These figures reflect several trends. First, foreign cars have continued to increase their share of the total U.S. car market. Ward's Automotive Reports forecasts that in 1970 approximately 1,300,000 foreign cars will be sold. This reflects a 12.49% increase in sales over last year.[5] This increase in sales will occur in spite of the Maverick which was designed to take sales away from foreign cars, and in spite of the heavy amount of advertising by both Ford and General Motors promoting their new subcompacts. The advertising campaigns began in April 1970, a full five months prior to the scheduled introduction of the cars. This tactic apparently was designed to reduce the increasing penetration of foreign compact cars into the American market until the new U.S. compacts were available for sale.

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[1] Ibid., p. 353.

[2] Ibid., November 9, 1970, p. 358.

[3] Ibid.

[4] Ibid., p. 357.

[5] Ibid.

Second, the sale of Mustangs has declined dramatically since the introduction of the Maverick. From 1968 to 1970 Mustang sales have dropped 52%. Although this may have occurred for several reasons, it seems apparent that the Maverick has captured a portion of the Mustang's market. The evidence in the thesis indicates that the Maverick owners want an inexpensive American car. Price was very important to them and few of them considered purchasing an imported car.

From the above evidence, it seems reasonable to conclude that the Maverick owner might have purchased a "stripped-down" Mustang if the Maverick had not been available. If so, then the Maverick's success may be based on the fact that it cannibalized a part of Ford's product line--namely, the Mustang.

To carry the logic one step further the second implication of the research is that the new subcompacts (Vega and Pinto) which were introduced in Fall, 1970, will fail as the Maverick did to stem the tide of foreign car sales in the United States. It is felt (this is not, and could not be supported by the tests in the research), that the Pinto and Vega will be received by the market in the same manner as the Maverick was. That is, a large number of units may be sold, but they are likely to be sold to individuals who are trading down in their purchase patterns rather than to individuals who would otherwise have purchased

a foreign car. If this occurs, no matter how many units of the new subcompacts are sold, they are in effect failing to achieve displacement of foreign cars. They will simply continue to serve the firms' present customers with a product which has a lower per unit profit margin than their present line of products.

Future Research

The present research may have posed more questions than it has answered--if this is correct the thesis is a success at least in the mind of the researcher. There are no single answers or easy solutions when the behavior of human beings are involved. Many factors ranging from the individual genetic make up to the socialization process affect his actions. The thesis has attempted to analyze a few of these variables to determine whether they have a role to play in understanding buying behavior.

Several areas for future research may be noted. First, the study could be replicated on a larger population. It would be important to determine whether the present findings might be modified, if the sample were drawn from a national population rather than from Ingham County, Michigan.

Second, a study could be conducted longitudinally observing car buying behavior over a period of years rather than doing an ex post facto investigation of respondent's purchase decisions. It would be interesting and important

to know whether consumers' attitudes changed over time with respect to such buying decisions.

Third, it should be determined whether markets other than the compact car market can be segmented along emotional-attitudinal lines. The present study may be of great value if the empirical findings and research methodology can be used in other markets.

APPENDICES

APPENDIX A

LETTER OF INTRODUCTION

AND

QUESTIONNAIRE

July 24, 1970

Mr. W. Nagata
4999 Campus
Okemos, Michigan

Dear Mr. Nagata:

Within the next few days you will receive a telephone call from a Michigan State University student who is participating in a study of new car purchasers in the greater Lansing vicinity. The research is being conducted by the Department of Marketing, Graduate School of Business Administration.

The student's objective will be to arrange a time that is convenient with you for a short personal interview. Any assistance that you are able to give the student will greatly benefit him and the University.

If you should have any questions or comments, please feel free to call or write me. My telephone number is 355-5116.

Very sincerely yours,

William H. Cunningham
Project Director

WHC/vc

AUTOMOBILE BUYERS STUDY

DEPARTMENT OF MARKETING

GRADUATE SCHOOL OF BUSINESS ADMINISTRATION

MICHIGAN STATE UNIVERSITY

EAST LANSING, MICHIGAN

SECTION I

1. Which of the following types of accessories did you buy with your new car?

_____ Air conditioning
_____ Radio
_____ White side-wall tires
_____ Semi-automatic transmission
_____ Automatic transmission
_____ Larger engine option
_____ Other (please specify) _____ _____
_____ _____

2. What do you like best about your new car? (Please, use 1 for best liked, 2 for second best liked, and 3 for third best liked feature.)

_____ Low initial price
_____ Reliability
_____ Fuel economy
_____ Quality or workmanship
_____ Road handling
_____ Comfort
_____ Styling
_____ Size
_____ Service and parts availability
_____ Performance
_____ Other (please list) _____ _____
_____ _____

3. What do you like the least about your new car? (Please use 1 for least liked, 2 for second least liked, 3 for third least liked.)

_____ Lack of passenger space
_____ Lack of luggage space
_____ Lack of engine power
_____ Dealer service
_____ Road handling
_____ Heater-defroster
_____ Brakes
_____ Workmanship
_____ Not economic enough
_____ Other (please list)
_____
_____
_____
_____

4. Please indicate how important the following factors were in the purchase of your new car.

	VERY IMPORTANT	IMPORTANT	NO OPINION	UNIMPORTANT	VERY UNIMPORTANT
Purchase price	( )	( )	( )	( )	( )
Body quality	( )	( )	( )	( )	( )
Ease of upkeep	( )	( )	( )	( )	( )
Economy of operations	( )	( )	( )	( )	( )
Overall quality	( )	( )	( )	( )	( )
Performance	( )	( )	( )	( )	( )
Resale Value	( )	( )	( )	( )	( )
Authorized Dealer service	( )	( )	( )	( )	( )
Body style	( )	( )	( )	( )	( )
Manufacturers warranty	( )	( )	( )	( )	( )
Trunk room	( )	( )	( )	( )	( )
Head room	( )	( )	( )	( )	( )
Leg room	( )	( )	( )	( )	( )
Expensive looking style	( )	( )	( )	( )	( )
Available accessories	( )	( )	( )	( )	( )

5. Who in the family is the principal driver of the new car?

(1) _____ Husband
(2) _____ Wife
(3) _____ Son
(4) _____ Daughter
(5) _____ Single adult male
(6) _____ Single adult female
(7) _____ Other (please specify) _____

6. Age of the principal driver falls between:

_____ 16-20 years
_____ 21-25 years
_____ 26-30 years
_____ 31-35 years
_____ 36-40 years
_____ 41-45 years
_____ 46-50 years
_____ 51-55 years
_____ 56-60 years
_____ Over 60 years

7. Occupation of principal driver?

_____ Housewife
_____ Student
_____ Skilled hourly
_____ Teacher
_____ Supervisory
_____ Salaried white collar
_____ Secretarial
_____ Professional
_____ Other (please specify)
_____

8. What is the highest level of education attained by the principal driver?

_____ Less than high school
_____ Some high school
_____ High school graduate
_____ Some college
_____ College graduate
_____ Some graduate studies

9. Approximately how many miles is the new car driven each year?

_____ Less than 1,000 miles
_____ 1,000-4,999 miles
_____ 5,000-9,999 miles
_____ 10,000-14,999 miles
_____ 15,000-19,999 miles
_____ 20,000-24,999 miles
_____ 25,000-30,000 miles
_____ Over 30,000 miles

10. How long has your family owned the new car?

_____ Less than 3 months
_____ 3-6 months
_____ 7-9 months
_____ 10-12 months
_____ 13-15 months
_____ 16-18 months
_____ 19-21 months
_____ More than 21 months

11. What type of driving is the new car primarily used for? (Please rank from 1-6.)

_____ Short business trips
_____ Driving to and from work
_____ Short excursion trips
_____ Long business trips
_____ Shopping and daily errands
_____ Long distance vacations

12. How frequently do you check the gas mileage you are getting with your new car?

_____ Every time I purchase gas
_____ Most of the time
_____ Occasionally
_____ Seldom
_____ Never

13. What price range or ranges did you consider while shopping for you new car?

_____ Under $1,700
_____ $1,701-$1,800
_____ $1,801-$2,000
_____ $2,001-$2,200
_____ $2,201-$2,500
_____ $2,501-$3,000
_____ Over $3,000

14. Before deciding to buy your new car, which (if any) of the following did you seriously consider:

_____ Other imported sedans
_____ Imported sports cars
_____ Used cars
_____ American compact cars
_____ Other American cars
_____ Other (please specify) _____

15. How many different makes (e.g., Ford, Chevrolet, Volkswagen) did you consider prior to the purchase of your new car?

_____ 1
_____ 2
_____ 3
_____ 4
_____ 5
_____ 6
_____ 7 or more

16. How many dealers did you talk with before buying your new car? (Two separate Ford dealers and one Volkswagen dealer would be considered three dealers.)

_____ 1
_____ 2
_____ 3
_____ 4
_____ 5
_____ 6
_____ 7 or more

17. Did anyone help you decide on your new car?

_____ Yes, a friend or relative
_____ Yes, a salesman in the dealership
_____ Yes, other owners of the same car
_____ Decision was mine alone
_____ Other (please specify) _____
_____

18. Have you or any other member of your family ever owned or operated a "small" car on a regular basis prior to the purchase of your present new car?

_____ Yes _____ No (Go to question 19)

If "Yes," please indicate the make and model of vehicle(s):

Make: _____ Model: _____
Make: _____ Model: _____

19. Does your family own other cars in addition to your new compact car?

_____ Yes _____ No (Go to question 21)

If "Yes," would you please specify the make(s), model(s) and year(s).

		Year
Make: _____	Model: _____	_____
Make: _____	Model: _____	_____
Make: _____	Model: _____	_____

20. If you answered "Yes" to the first two parts of this question, do you consider your new compact to be the family's

_____ 1st car _____ 2nd car _____ 3rd car

21. Did you trade a car in on your new car?

_____ Yes _____ No

If "Yes," was it:

_____ One- or two-year old American car
_____ More than a two-year old American car
_____ One- or two-year old imported sedan
_____ More than a two-year old imported sedan
_____ Imported sports car

22. In general, how satisfied are you with your new car?

_____ Very satisfied
_____ Satisfied
_____ Somewhat satisfied
_____ Dissatisfied

SECTION II

Your opinion on the following statements is important regardless whether you have thought about them or not. Please indicate by checking the appropriate line whether you strongly agree, mildly agree, have no opinion, mildly disagree, or strongly disagree with each statement.

Strongly Agree	Mildly Agree	No Opinion	Mildly Disagree	Strongly Disagree		
___	___	___	___	___	1.	The extent of a man's ambition to better himself is a pretty good indication of his character.
___	___	___	___	___	2.	In order to merit the respect of others, a person should show the desire to better himself.
___	___	___	___	___	3.	One of the things you should consider in choosing your friends is whether they can help you make your way in the world.
___	___	___	___	___	4.	Ambition is the most important factor in determining success in life.
___	___	___	___	___	5.	One should always try to live in a highly respectable residential area, even though it entails sacrifices.
___	___	___	___	___	6.	Before joining any civic or political association, it is usually important to find out whether it has the backing of people who have achieved a respected social problem.
___	___	___	___	___	7.	Possession of proper social etiquette is usually the mark of a desirable person.
___	___	___	___	___	8.	The raising of one's social position is one of the more important goals in life.
___	___	___	___	___	9.	It is worth considerable effort to assure one's self of a good name with the right kind of people.
___	___	___	___	___	10.	An ambitious person can almost always achieve his goals.

The purpose of this portion of the questionnaire is to find out what you think about IMPORTED products in general. Your opinion is important regardless of the degree of experience you have had with foreign products. Tell how much you agree or disagree with each of the statements by placing a check mark on the appropriate line.

Strongly Agree	Mildly Agree	No Opinion	Mildly Disagree	Strongly Disagree		Imported products are:
___	___	___	___	___	1.	Thrown together with cheap material.
___	___	___	___	___	2.	Of high grade style and construction.
___	___	___	___	___	3.	Of low prestige, so I do not want others to know that I buy them.
___	___	___	___	___	4.	Poor substitutes for other products.
___	___	___	___	___	5.	To be bought only if you are willing to gamble on quality.
___	___	___	___	___	6.	Well made.
___	___	___	___	___	7.	Of lasting quality.
___	___	___	___	___	8.	A disappointment.
___	___	___	___	___	9.	Typically meet high quality control standards.
___	___	___	___	___	10.	Noted for their superior quality.
___	___	___	___	___	11.	Unsatisfactory.
___	___	___	___	___	12.	Very solid products.
___	___	___	___	___	13.	To be avoided if possible.
___	___	___	___	___	14.	Likely to give much difficulty.
___	___	___	___	___	15.	Typically shoddy.
___	___	___	___	___	16.	Highly respected.
___	___	___	___	___	17.	Very fashionable.
___	___	___	___	___	18.	Cheap imitations of better products.
___	___	___	___	___	19.	Among the world's best.
___	___	___	___	___	20.	Very durable.
___	___	___	___	___	21.	Lack of polish and detail found in really fine merchandise.
___	___	___	___	___	22.	Items of real craftsmanship.
___	___	___	___	___	23.	Of questionable material and workmanship.
___	___	___	___	___	24.	Superior in most respects.

This portion of the questionnaire is concerned with your attitudes toward sports cars. Please indicate by checking the appropriate line whether you strongly agree, mildly agree, have no opinion, mildly disagree, or strongly disagree with the following statements.

Strongly Agree	Mildly Agree	No Opinion	Mildly Disagree	Strongly Disagree		
___	___	___	___	___	1.	Sports cars are fun to drive.
___	___	___	___	___	2.	Sports cars are NOT practical.
___	___	___	___	___	3.	Sports cars ride well.
___	___	___	___	___	4.	Sports cars are big enough.
___	___	___	___	___	5.	Sports cars are NOT exciting.
___	___	___	___	___	6.	Sports cars are eccentric.
___	___	___	___	___	7.	Sports cars are bold.
___	___	___	___	___	8.	Sports cars are NOT styled tastefully.
___	___	___	___	___	9.	Sports cars are obvious.
___	___	___	___	___	10.	Sports cars handle well.
___	___	___	___	___	11.	Sports cars are swift.
___	___	___	___	___	12.	Sports cars are elegant.

This portion of the questionnaire is concerned with your attitudes toward American produced automobiles in general. Please indicate by checking the appropriate line whether you strongly agree, mildly agree, have no opinion, mildly disagree, or strongly disagree.

Strongly Agree	Mildly Agree	No Opinion	Mildly Disagree	Strongly Disagree		
___	___	___	___	___	1.	American automobiles are a good buy.
___	___	___	___	___	2.	American automobiles are NOT fun to drive.
___	___	___	___	___	3.	American automobiles are economical.
___	___	___	___	___	4.	American automobiles are practical.
___	___	___	___	___	5.	American automobiles are styled tastefully.
___	___	___	___	___	6.	American automobiles are NOT big enough.
___	___	___	___	___	7.	American automobiles are NOT exciting to drive.
___	___	___	___	___	8.	American automobiles have too many accessories.
___	___	___	___	___	9.	American automobiles are NOT sporty.
___	___	___	___	___	10.	American automobile dealers offer quality service.
___	___	___	___	___	11.	American automobile manufacturers try to satisfy their customers' needs.
___	___	___	___	___	12.	American automobiles are too powerful.
___	___	___	___	___	13.	American automobiles do NOT last long enough.
___	___	___	___	___	14.	American automobiles' style changes too often.
___	___	___	___	___	15.	American automobiles are NOT luxurious enough.
___	___	___	___	___	16.	American automobiles handle very well.
___	___	___	___	___	17.	American automobiles are very durable.
___	___	___	___	___	18.	American automobile dealers offer economical service.
___	___	___	___	___	19.	American automobile manufacturers are too big to be able to tell what a customer really wants.

Your opinion on the following statements is important. Please indicate by checking the appropriate line whether you strongly agree, mildly agree, have no opinion, mildly disagree, or strongly disagree with the following statements.

Strongly Agree	Mildly Agree	No Opinion	Mildly Disagree	Strongly Disagree		
___	___	___	___	___	1.	I prefer the practical man anytime to the man of ideas.
___	___	___	___	___	2.	If you start trying to change things very much, you usually make them worse.
___	___	___	___	___	3.	If something grows up after a long time, there will always be much wisdom to it.
___	___	___	___	___	4.	It's better to stick by what you have than to be trying new things you don't really know about.
___	___	___	___	___	5.	We must respect the work of our forefathers and not think that we know better than they did.
___	___	___	___	___	6.	A man doesn't really have much wisdom until he is well along in years.
___	___	___	___	___	7.	No matter how we like to talk about it, political authority really comes not from us, but from some higher power.
___	___	___	___	___	8.	I'd want to know that something would really work before I'd be willing to take a chance on it.
___	___	___	___	___	9.	In many of our largest industries, one or two companies have too much control of the industry.
___	___	___	___	___	10.	There is too much power concentrated in the hands of a few large companies for the good of the nation.
___	___	___	___	___	11.	As they grow bigger, companies usually get cold and impersonal in their relations with people.
___	___	___	___	___	12.	For the good of the country, many of our largest companies ought to be broken up into smaller companies.
___	___	___	___	___	13.	The profits of large companies help make things better for everyone who buys their products or services.
___	___	___	___	___	14.	Large companies are essential for the nation's growth and expansion.

Your opinion on the following statements is important regardless whether you have thought about them or not. Please indicate by checking the appropriate line whether you strongly agree, mildly agree, have no opinion, mildly disagree, or strongly disagree with each statement.

Strongly Agree	Mildly Agree	No Opinion	Mildly Disagree	Strongly Disagree		
___	___	___	___	___	1.	In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.
___	___	___	___	___	2.	My blood boils whenever a person stubbornly refuses to admit he's wrong.
___	___	___	___	___	3.	There are two kinds of people in this world: those who are for the truth and those who are against the truth.
___	___	___	___	___	4.	Most people just don't know what's good for them.
___	___	___	___	___	5.	Of all the different philosophies which exist in this world there is probably only one which is correct.
___	___	___	___	___	6.	The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
___	___	___	___	___	7.	The main thing in life is for a person to want to do something important.
___	___	___	___	___	8.	I'd like it if I could find someone who would tell me how to solve my personal problems.
___	___	___	___	___	9.	Most of the ideas which get printed now-a-days aren't worth the paper they are printed on.
___	___	___	___	___	10.	Man on his own is a helpless and miserable creature.

Individual's Perception of Their New Car

Please mark the following scale according to how you feel about your new car. As an example, if you feel that your car is very good you would mark the following scale accordingly.

Good __X__ _____ _____ _____ _____ Bad

However, if you believe that your new car is bad, but not real bad, you would mark the scale in the following manner.

Good _____ _____ _____ __X__ _____ Bad

If you have no opinion concerning how good your car is you would mark the scale this way.

Good _____ _____ __X__ _____ _____ Bad

Please continue with the 25 item scale. Remember, please mark the scales according to how you feel about your new car.

Sophisticated	_____	_____	_____	_____	_____	Unsophisticated
Exciting	_____	_____	_____	_____	_____	Dull
Husky	_____	_____	_____	_____	_____	Weak
Happy	_____	_____	_____	_____	_____	Sad
Eccentric	_____	_____	_____	_____	_____	Conventional
Bold	_____	_____	_____	_____	_____	Shy
Young	_____	_____	_____	_____	_____	Old
Nimble	_____	_____	_____	_____	_____	Clumsy
Simple	_____	_____	_____	_____	_____	Complex
Sporty	_____	_____	_____	_____	_____	Businesslike
Obvious	_____	_____	_____	_____	_____	Subtle
Stale	_____	_____	_____	_____	_____	Fresh
Robust	_____	_____	_____	_____	_____	Fragile
Swift	_____	_____	_____	_____	_____	Slow
Elegant	_____	_____	_____	_____	_____	Plain
Lively	_____	_____	_____	_____	_____	Calm
Indulgent	_____	_____	_____	_____	_____	Thrifty
Reliable	_____	_____	_____	_____	_____	Unreliable
Safe	_____	_____	_____	_____	_____	Dangerous
Impulsive	_____	_____	_____	_____	_____	Deliberate
Masculine	_____	_____	_____	_____	_____	Feminine
Spacious	_____	_____	_____	_____	_____	Cramped
Human	_____	_____	_____	_____	_____	Inhuman
Live	_____	_____	_____	_____	_____	Dead
Personal	_____	_____	_____	_____	_____	Impersonal
Friendly	_____	_____	_____	_____	_____	Unfriendly
Kind	_____	_____	_____	_____	_____	Unkind

SECTION III

1. Who is the chief wage earner in the family?
   Husband _____ Wife _____ Other (please specify) _____

2. What is his (her) occupation at the present time?
   _____

3. Please circle the letter which best describes your total family income for 1969.
   A B C D E F G

4. What is the highest level of education attained by the head of the household?

Elementary	High School	College
_____ 1 and 2	_____ 1 (9th grade)	_____ (freshman)
_____ 3 and 4	_____ 2 (10th grade)	_____ (sophomore)
_____ 5 and 6	_____ 3 (11th grade)	_____ (junior)
_____ 7	_____ 4 (12th grade)	_____ (senior)
_____ 8		_____ (graduate work)

5. What is your marital status?
   Married _____ Single _____ Divorced _____ Widowed _____ Separated _____

6. If married, how long have you been married?
   _____ years

7. Is the homemaker employed:
   _____ (1) Full time (at least 35 hours per week)
   _____ (2) Part time (less than 35 hours per week)
   _____ (3) Not employed

8. The head of the household is:

_____ (1) 18-19 years of age	_____ (7) 45-49 years of age
_____ (2) 20-24 years of age	_____ (8) 50-54 years of age
_____ (3) 25-29 years of age	_____ (9) 55-59 years of age
_____ (4) 30-34 years of age	_____ (10) 60-69 years of age
_____ (5) 35-39 years of age	_____ (11) 70 years of age or older
_____ (6) 40-44 years of age	

9. Do you have any children living at home?
   _____ Yes _____ No (Go to question number 10)
   If "Yes," please indicate how many children you have in the following age brackets:

_____ 3 years old or younger	_____ 13-15 years of age
_____ 4-5 years of age	_____ 16-19 years of age
_____ 6-12 years of age	_____ 20 years of age or older

10. How many bedrooms do you have? (Count rooms used mainly for sleeping even if used for other purposes as well.)

_____ No bedroom	_____ 2 bedrooms	_____ 4 bedrooms
_____ 1 bedroom	_____ 3 bedrooms	_____ 5 bedrooms or more

11. Do you have air-conditioning?
    _____ Yes, 1 individual room unit _____ Yes, a central air-conditioning system
    _____ Yes, 2 or more individ. rooms _____ No

12. How many rooms do you have in your living quarters? (Do not count bathroom, porches, balconies, foyers, halls, or half-rooms.)

_____ 1 room	_____ 4 rooms	_____ 7 rooms
_____ 2 rooms	_____ 5 rooms	_____ 8 rooms
_____ 3 rooms	_____ 6 rooms	_____ 9 rooms

13. Please circle the letter which best indicates the value of your home. (This question pertains only to individuals who <u>own or are buying a one family house</u>.)
    A B C D E F G

14. Please circle the letter which describes the monthly rent you pay. (This question pertains only to people <u>who pay rent</u>.)
    A B C D E F G

15. Do you (or any member of your household) own a second home or other living quarters which you occupy sometime during the year?
    _____ Yes _____ No

APPENDIX B

TABLES

TABLE B-1. OCCUPATION OF THE HEAD OF THE HOUSEHOLD

Occupations	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Professional, technical and kindred workers (90)	4	7.1	22	37.3
Managers, officials, and proprietors except farm (80)	15	26.8	27	45.8
Clerical, sales and kindred workers (70)	25	44.6	5	8.5
Craftsman, foreman, and kindred workers (60)	3	5.3	1	1.7
Operatives and kindred workers (50)	1	1.8	1	1.7
Semiskilled labor (4)	4	7.1	1	1.7
Service workers (30)	2	3.6	-	-
Unskilled labor (20)	-	-	1	1.7
Babysitters (10)	2	3.6	1	1.7
Totals	56	99.9	59	100.0

TABLE B-2. INCOME LEVELS

Income	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Less than $5,000	3	5.26	2	3.45
$5,001-$7,000	6	10.53	2	3.45
$7,001-$9,000	11	19.30	13	22.41
$9,001-$11,000	10	17.54	11	18.97
$11,001-$13,000	7	12.28	9	15.52
$13,001-$15,000	5	8.77	5	8.62
Over $15,000	15	26.32	16	27.59
Total	57	100.00	58	100.00

TABLE B-3. EDUCATION OF THE HEAD OF THE HOUSEHOLD

Education	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Elementary:				
one and two years	-	-	-	-
three and four years	-	-	-	-
five and six years	-	-	-	-
seven years	-	-	1	1.75
eight years	3	5.26	-	-
High School:				
one year	-	-	-	-
two years	4	7.02	-	-
three years	1	1.75	-	-
four years	17	29.82	7	12.28
College:				
one year	3	5.26	2	3.51
two years	9	15.79	4	7.02
three years	2	3.51	1	1.75
four years	11	19.30	16	28.07
Graduate School:	7	12.28	26	45.61
Total	57	99.99	57	99.99

TABLE B-4. SOCIAL CLASS

Gradations	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
90	12	21.1	32	55.2
80	14	24.5	18	31.0
70	19	33.3	3	5.2
60	4	7.0	4	6.9
50	5	9.0	-	-
40	3	5.0	-	-
30	-	-	1	1.7
20	-	-	-	-
10	-	-	-	-
Totals	57	99.9	58	100.0

TABLE B-5. EMPLOYMENT OF THE HOMEMAKER

Employment Status	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Unemployed	20	42.55	21	43.75
Part-time	6	12.77	10	20.83
Full-time	21	44.68	17	35.42
Total	47	100.00	48	100.00

TABLE B-6. MARITAL STATUS

Marital Status	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Married	45	81.8	46	82.0
Single	7	12.7	7	12.5
Divorced	1	1.8	3	5.3
Widowed	2	3.6	-	-
Separated	-	-	-	-
Total	55	99.9	56	99.8

TABLE B-7. NUMBER OF YEARS MARRIED

Years Married	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Less than 3 years	10	22.7	12	26.0
4-7 years	10	22.7	16	34.7
8-12 years	4	9.0	7	15.2
13-20 years	3	6.8	4	8.6
Over 20 years	17	38.6	7	15.2
Total	44	99.8	46	99.7

TABLE B-8. AGE OF THE HEAD OF THE HOUSEHOLD

Chronological Age	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
18-20	3	5.36	-	-
21-24	9	16.07	12	21.05
25-29	9	16.07	19	33.33
30-34	3	5.36	9	15.79
35-39	6	10.71	3	5.26
40-44	5	8.93	3	5.26
45-49	7	12.50	5	8.77
50-54	5	8.93	3	5.26
55-59	3	5.36	1	1.75
60-64	6	10.71	2	3.51
70 and over	-	-	-	-
Total	56	100.00	57	99.99

TABLE B-9. FAMILY LIFE CYCLE

Stage in the Family Life Cycle	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Single	8	15.09	8	14.29
Couple without children	8	15.09	16	28.57
Oldest child three years old or younger	6	11.32	10	17.86
Oldest child four to five years of age	5	9.43	5	8.93
Oldest child six to thirteen years of age	4	5.66	7	12.50
Oldest child fourteen to nineteen years of age	13	24.53	5	8.93
Oldest child over twenty years of age with brother or sisters younger than twenty	4	7.53	2	3.57
Youngest child over twenty years of age	6	11.32	3	5.36
Total	54	99.97	56	100.00

TABLE B-10. ATTITUDES TOWARD AMERICAN CARS

Items	Two-Tailed Test
1. American automobiles are a good buy.	.0003**
2. American automobiles are NOT fun to drive.	.2640**
3. American automobiles are economical.	.0180**
4. American automobiles are practical.	.2880**
5. American automobiles are styled tastefully.	.0150**
6. American automobiles are NOT big enough.	.3910*
7. American automobiles are NOT exciting to drive.	.0080**
8. American automobiles have too many accessories.	.9730**
9. American automobiles are NOT sporty.	.2830**
10. American automobile dealers offer quality service.	.4360**
11. American automobile manufacturers try to satisfy their customer's needs.	.0480**
12. American automobiles are too powerful.	.2850**
13. American automobiles do NOT last long enough.	.8280**
14. American automobiles' style changes too often.	.2650**
15. American automobiles are NOT luxurious enough.	.2550**
16. American automobiles handle very well.	.0450**
17. American automobiles are very durable.	.0400**
18. American automobile dealers offer economical service.	.3890**
19. American automobile manufacturers are too big to be able to tell what a customer really wants.	.5530**

*Maverick owners tended to agree; foreign compact car owners tended to disagree.

**Maverick owners tended to disagree; foreign compact car owners tended to agree.

TABLE B-11. ATTITUDES TOWARD SPORTS CARS

Items	Two-Tailed Test
1. Sports cars are fun to drive.	.189**
2. Sports cars are NOT practical.	.448*
3. Sports cars ride well.	.061**
4. Sports cars are big enough.	.231**
5. Sports cars are NOT exciting.	.486*
6. Sports cars are eccentric.	.234**
7. Sports cars are bold.	.080*
8. Sports cars are NOT styled tastefully.	.698*
9. Sports cars are obvious.	.542**
10. Sports cars handle well.	.118*
11. Sports cars are swift.	.883**
12. Sports cars are elegant.	.155*

*Maverick owners tend to agree; foreign compact car owners tend to disagree.

**Maverick owners tend to disagree; foreign compact car owners tend to agree.

TABLE B-12. RESPONDENTS' PERCEPTION OF THEIR NEW CAR

Items			Two-Tailed Test
Sophisticated	--	Unsophisticated	.031**
Exciting	--	Dull	.335**
Husky	--	Weak	.001**
Happy	--	Sad	.050**
Excentric	--	Conventional	.006**
Bold	--	Shy	.031**
Young	--	Old	.117**
Nimble	--	Clumsy	.884**
Simple	--	Complex	.433*
Sporty	--	Businesslike	.078*
Obvious	--	Subtle	.749*
Stale	--	Fresh	.618*
Robust	--	Fragile	.260**
Swift	--	Slow	.770**
Elegant	--	Plain	.429*
Lively	--	Calm	.330**
Indulgent	--	Trifty	.241**
Reliable	--	Unreliable	.580**
Safe	--	Dangerous	.344*
Impulsive	--	Deliberate	.563*
Masculine	--	Feminine	.299*
Spacious	--	Cramped	.890**
Human	--	Inhuman	.059*
Live	--	Dead	.452**
Personal	--	Impersonal	.282*
Friendly	--	Unfriendly	.171**
Kind	--	Unkind	.119**

*Maverick owners tended to check the LEFT item and foreign compact car owners tended to check the RIGHT item.

**Maverick owners tended to check the RIGHT item and foreign compact car owners tended to check the LEFT item.

TABLE B-13. FACTORED STATEMENTS

Variable Number	Items
1	The extent of a man's ambition to better himself is a pretty good indication of his character.
2	In order to merit the respect of others, a person should show the desire to better himself.
3	One of the things you should consider in choosing your friends is whether they can help you make your way in the world.
4	Ambition is the most important factor in determining success in life.
5	One should always try to live in a highly respectable residential area, even though it entails sacrifices.
6	Before joining any civic or political association, it is usually important to find out whether it has the backing of people who have achieved a respected social position.
7	Possession of proper social etiquette is usually the mark of a desirable person.
8	The raising of one's social position is one of the more important goals in life.
9	It is worth considerable effort to assure one's self of a good name with the right kind of people.
10	An ambitious person can almost always achieve his goals.
11	Summary score variable (Status Concern Scale).
12	I prefer the practical man any time to the man of ideas.
13	If you start trying to change things very much, you usually make them worse.
14	If something grows up after a long time, there will always be much wisdom to it.

TABLE B-13--Continued

Variable Number	Items
15	It's better to stick by what you have than to be trying new things you don't really know about.
16	We must respect the work of our forefathers and not think that we know better than they did.
17	A man doesn't really have much wisdom until he is well along in years.
18	No matter how we like to talk about it, political authority really comes not from us, but from some higher power.
19	I'd want to know that something would really work before I'd be willing to take a chance.
20	Summary score variable (Conservatism).
21	In many of our largest industries, one or two companies have too much control of the industry.
22	There is too much power concentrated in the hands of a few large companies for the good of the nation.
23	As they grow bigger, companies usually get cold and impersonal in their relations with people.
24	For the good of the country, many of our largest companies ought to be broken up into smaller companies.
25	The profits of large companies help make things better for everyone who buys their products or services.
26	Large companies are essential for the nation's growth and expansion.
27	Summary score variable (Big Business).
28	In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

TABLE B-13--Continued

Variable Number	Items
29	My blood boils whenever a person stubbornly refuses to admit he's wrong.
30	There are two kinds of people in this world: those who are for the truth and those who are against the truth.
31	Most people just don't know what's good for them.
32	Of all the different philosophies which exist in this world there is probably only one which is correct.
33	The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.
34	The main thing in life is for a person to want to do something important.
35	I'd like it if I could find someone who would tell me how to solve my personal problems.
36	Most of the ideas which get printed now-a-days aren't worth the paper they are printed on.
37	Man on his own is a helpless and miserable creature.
38	Summary score variable (Dogmatism).

TABLE B-14. "R" FACTOR TABLE

			Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Communality
1	Var.	1	-.0768	.2173	.1324	-.6242*	-.4092	.6277
2	Var.	2	-.1765	.1855	.1452	-.5122	-.5735*	.6779
3	Var.	3	.0830	.0733	.0479	-.2372	-.5689	.3944
4	Var.	4	.0683	.0897	.0773	-.3614	-.5962*	.5047
5	Var.	5	.1445	.0557	.1823	.0299	-.5595*	.3712
6	Var.	6	.3452	.1705	.0694	.0060	-.6361*	.5577
7	Var.	7	.0963	.0873	.2870	-.0047	-.6900*	.5753
8	Var.	8	.2628	.0609	.0365	-.0072	-.7431*	.6263
9	Var.	9	.2418	-.0811	.2621	-.1003	-.7130	.6521
10	Var.	10	.2541	.0868	-.0696	-.2045	-.4342*	.3073
11	Var.	11	.1891	.1451	.1885	-.3153	-.8820*	.9697
12	Var.	12	.1124	.0803	.5182*	-.3435	-.1342	.4237
13	Var.	13	-.2674	.0204	.6245*	-.3591	-.1990	.6305
14	Var.	14	-.1086	.0863	.5747*	-.1399	-.1119	.3817
15	Var.	15	.4326	.0236	.6275*	.0666	.0332	.5870
16	Var.	16	.3035	.1470	.5689*	-.2654	-.1182	.5218
17	Var.	17	-.0473	-.0213	.6174*	-.0218	-.1370	.4031
18	Var.	18	.1776	-.3592	.4093*	.1478	-.1867	.3848
19	Var.	19	.4545*	.0035	.2802	.1055	-.1799	.3286
20	Var.	20	.2266	-.0504	.9001*	-.1502	-.1914	.9232
21	Var.	21	.0603	-.8000*	.0630	.2249	.0707	.7032
22	Var.	22	-.0637	-.8592*	.1164	.0115	.0591	.7595
23	Var.	23	-.0955	-.6645*	.0166	-.4144	.1178	.6366
24	Var.	24	-.0158	-.8249*	-.0319	-.1019	-.0774	.6981
25	Var.	25	.0370	-.3389*	-.2960	.0610	.3296	.3162
26	Var.	26	.0549	-.5556*	-.1730	-.0162	.2471	.4030
27	Var.	27	-.0048	-.9636*	-.0717	-.0693	.1769	.9698
28	Var.	28	.4683*	.1371	.3013	-.3509	-.1890	.4878
29	Var.	29	.1928	-.1652	.1057	-.4389*	-.1202	.2828
30	Var.	30	.3085	-.0257	.2076	-.5484*	-.3048	.5326
31	Var.	31	.5346*	-.1992	.0578	-.3205	-.0974	.4411
32	Var.	32	.3536	-.1576	.3722*	-.3261	-.2506	.4575
33	Var.	33	.5768*	.1940	-.0797	-.1276	-.2630	.4622
34	Var.	34	.5485*	.0012	-.0443	-.0730	-.2577	.3746
35	Var.	35	.2940*	-.1383	.0405	-.1843	-.2732	.2158
36	Var.	36	.2086	-.0604	.1418	-.5805*	-.0727	.4095
37	Var.	37	.0721	-.1884	.3114	-.3247*	.0989	.2528
38	Var.	38	.6536*	-.0794	.2634	-.5923	-.3046	.9465
39	HI. LOAD.		.6536	-.9636	.9001	-.6242	-.8820	
40	PROP. VAR		.0809	.1160	.1065	.0870	.1412	
41	CUM. P. V.		.0809	.1969	.3033	.3903	.5315	

TABLE B-15. "P" FACTOR TABLE--TWO FACTORS

			Factor 1	Factor 2	Communality
1	Var.	1	-.0137	.6074*	.3692
2	Var.	2	-.0209	.6036*	.3647
3	Var.	3	-.0097	.5533*	.3063
4	Var.	4	.3307	.5552*	.4176
5	Var.	5	-.2958	.5609*	.4021
6	Var.	6	-.2109	.5363*	.3321
7	Var.	7	.2908*	.2563	.1503
8	Var.	8	.0442	.2403*	.0597
9	Var.	9	-.0017	.4896*	.2397
10	Var.	10	.3426*	-.0343	.1185
11	Var.	11	.1758	.2083*	.0743
12	Var.	12	.0836	.6760*	.4639
13	Var.	13	.2915	.4698*	.3057
14	Var.	14	.3230	.7300*	.6372
15	Var.	15	.5909*	.4404	.5431
16	Var.	16	.4179	.4910*	.4157
17	Var.	17	.5555*	.1315	.3259
18	Var.	18	-.0732	.4159*	.1784
19	Var.	19	.7242	.1833	.5581
20	Var.	20	.3065	.6243*	.4837
21	Var.	21	-.1688	.7297*	.5610
22	Var.	22	.5506*	.1735	.3333
23	Var.	23	-.1530	.5990*	.3822
24	Var.	24	.2125*	.1962	.0837
25	Var.	25	.3392	.5956*	.4699
26	Var.	26	.0202	.3813*	.1458
27	Var.	27	.3431*	.3349	.2298
28	Var.	28	.2624	.3489*	.1906
29	Var.	29	-.2658	.3131*	.1687
30	Var.	30	.4744*	.3168	.3255
31	Var.	31	.3969	.6513*	.5818
32	Var.	32	.0909	.6015*	.3700
33	Var.	33	.0518	.2209	.0515
34	Var.	34	-.0992	.3692	.1462
35	Var.	35	.1376	.2821*	.0985
36	Var.	36	.1551	.5312*	.3063
37	Var.	37	.3633	.5148*	.3970
38	Var.	38	.6152*	.3916	.5318
39	Var.	39	.5410*	.2932	.3786
40	Var.	40	.1434	.4583*	.2306
41	Var.	41	.6084*	-.0205	.3706
42	Var.	42	.2788	.4012*	.2387
43	Var.	43	.1733	.4142*	.2016
44	Var.	44	.0948	.5056*	.2646
45	Var.	45	.2248	.6990*	.5391
46	Var.	46	.2838	.6319*	.4799
47	Var.	47	.1429	.3940*	.1757
48	Var.	48	.3228	.4370*	.2952
49	Var.	49	.8179*	-.1670	.6968
50	Var.	50	.8297*	.0860	.6958
51	Var.	51	.7772*	.1089	.6159
52	Var.	52	.7477*	.0294	.5599
53	Var.	53	.7915*	.2180	.6740
54	Var.	54	.7161*	.0676	.5173
55	Var.	55	.4178*	.2693	.2471
56	Var.	56	.6171*	.4512	.5844
57	Var.	57	.6481*	.1271	.4362
58	Var.	58	.8638*	-.1444	.7670
59	Var.	59	.7711*	.1960	.6331
60	Var.	60	.7072*	.4030	.6626

TABLE B-15--Continued

			Factor 1	Factor 2	Communality
61	Var.	61	.7300*	.2479	.5943
62	Var.	62	.7694*	.3190	.6937
63	Var.	63	.7995*	-.2739	.7142
64	Var.	64	.6475*	.1767	.4505
65	Var.	65	.7048*	.2021	.5376
66	Var.	66	.8265*	-.1499	.7056
67	Var.	67	.4923*	.4853	.4779
68	Var.	68	.4282	.4805*	.4142
69	Var.	69	.5246*	.1569	.2999
70	Var.	70	.0954	.1760*	.0401
71	Var.	71	.1559	.5714*	.3508
72	Var.	72	.4012*	.1973	.1999
73	Var.	73	.6981*	.2609	.5554
74	Var.	74	.7584*	.2061	.6176
75	Var.	75	.8722*	-.1165	.7742
76	Var.	76	.5334*	.5105	.5452
77	Var.	77	.7738*	.3653	.7321
78	Var.	78	.8298*	-.1556	.7128
79	Var.	79	.5702*	.1515	.3481
80	Var.	80	.0641	.7048*	.5008
81	Var.	81	.3298*	.0134	.1090
82	Var.	82	.7010*	.0657	.4957
83	Var.	83	.3043	.3500*	.2151
84	Var.	84	.6687*	.5191	.7166
85	Var.	85	.4739*	-.0139	.2247
86	Var.	86	.4868	.5075*	.4945
87	Var.	87	.6539*	.4651	.6439
88	Var.	88	.7078*	.5156	.7669
89	Var.	89	.7953*	-.0789	.6387
90	Var.	90	.8460*	.1792	.7478
91	Var.	91	.7552*	.1461	.5916
92	Var.	92	.1941	.3369*	.1512
93	Var.	93	.3339	.6440*	.5263
94	Var.	94	.2214	.3891*	.2004
95	Var.	95	-.1002	.6672*	.4552
96	Var.	96	-.2762	.6948*	.5586
97	Var.	97	.0939	.5000*	.2588
98	Var.	98	.1417	.5058*	.2759
99	Var.	99	.2057	.5865*	.3863
100	HI. LOAD.		.8722	.7300	
101	PROP. VAR.		.2442	.1710	
102	CUM.P.V.		.2442	.4152	

TABLE B-16. "P" FACTOR TABLE--THREE FACTORS

			Factor 1	Factor 2	Factor 3	Communality
1	Var.	1	-.0080	.6863*	.0974	.4806
2	Var.	2	-.0845	.1786	.7634*	.6218
3	Var.	3	-.0299	.4406*	.3336	.3063
4	Var.	4	.2974	.3511	.4758*	.4381
5	Var.	5	-.2966	.5871*	.1347	.4509
6	Var.	6	-.2054	.6076*	.0719	.4166
7	Var.	7	.2747*	.1572	.2344	.1551
8	Var.	8	-.0132	-.1621	.6161*	.4061
9	Var.	9	-.0342	.2835	.4364*	.2721
10	Var.	10	.3085	-.2813	.3364*	.2874
11	Var.	11	.1354	-.0707	.4499*	.2257
12	Var.	12	.0504	.4773	.4940*	.4744
13	Var.	13	.2775	.4002*	.2667	.3083
14	Var.	14	.2910	.5455*	.5077	.6400
15	Var.	15	.5618*	.2618	.4193	.5600
16	Var.	16	.3907	.3275	.4057*	.4245
17	Var.	17	.5397*	.0296	.2124	.3373
18	Var.	18	-.0544	.5784*	-.0808	.3440
19	Var.	19	.7067*	.0736	.2503	.5674
20	Var.	20	.2771	.4518	.4554*	.4883
21	Var.	21	-.2005	.5430*	.4809	.5664
22	Var.	22	.5355*	.0793	.2159	.3397
23	Var.	23	-.1550	.6205*	.1623	.4354
24	Var.	24	.1699	-.1001	.4710*	.2607
25	Var.	25	.3454	.6809*	.1063	.5942
26	Var.	26	-.0031	.2354	.3219*	.1590
27	Var.	27	.3114	.1283	.4061*	.2784
28	Var.	28	.2719	.4422*	.0086	.2696
29	Var.	29	.2596	.3750*	.0066	.2081
30	Var.	30	.4386	.0797	.4485*	.3999
31	Var.	31	.3518	.3672	.6178*	.6403
32	Var.	32	.0452	.3075	.5959*	.4517
33	Var.	33	.0232	.0264	.3346*	.1132
34	Var.	34	-.1430	.0725	.5105*	.2863
35	Var.	35	.1456	.3587*	.0009	.1499
36	Var.	36	.1173	.2906	.5055*	.3538
37	Var.	37	.3510	.4608*	.2653	.4059
38	Var.	38	.5765*	.1397	.5015	.6034
39	Var.	39	.5112*	.0998	.3867	.4208
40	Var.	40	.0919	.1135	.6185*	.4038
41	Var.	41	.6146*	.0285	-.0351	.3798
42	Var.	42	.2737	.3919*	.1631	.2551
43	Var.	43	.1643	.3763*	.1991	.2082
44	Var.	44	.1050	.6123*	.0332	.3870
45	Var.	45	.2056	.6043*	.3724	.5461
46	Var.	46	.2452	.3928	.5449*	.5114
47	Var.	47	.0963	.0806	.5554*	.3242
48	Var.	48	.2853	.1942	.4871*	.3564
49	Var.	49	.8353*	-.0433	-.1704	.7287
50	Var.	50	.8166*	.0032	.1884	.7023
51	Var.	51	.7755*	.1101	.0816	.6201
52	Var.	52	.7413*	-.0085	.1051	.5606
53	Var.	53	.7746*	.1156	.2561	.6790
54	Var.	54	.7155*	.0742	.0570	.5207
55	Var.	55	.3770	-.0078	.4823*	.3748
56	Var.	56	.6085*	.4221	.2264	.5997
57	Var.	57	.6330*	.0309	.2090	.4454
58	Var.	58	.8721*	-.0861	-.0734	.7732
59	Var.	59	.7709*	.2132	.0892	.6476
60	Var.	60	.7077*	.4376	.1313	.7095

TABLE B-16--Continued

			Factor 1	Factor 2	Factor 3	Communality
61	Var.	61	.7236*	.2383	.1394	.6028
62	Var.	62	.7507*	.2099	.2974	.6961
63	Var.	63	.8089*	-.2152	-.1211	.7154
64	Var.	64	.6453*	.1771	.0974	.4572
65	Var.	65	-.6914*	.1233	.2143	.5391
66	Var.	66	.8254*	-.1598	.0129	.7070
67	Var.	67	.4785*	.4197	.2787	.4828
68	Var.	68	.4332	.5507*	.0933	.4996
69	Var.	69	.5171*	.1170	.1370	.2999
70	Var.	70	.0557	-.1012	.4318*	.1998
71	Var.	71	.1496	.5627*	.2118	.3838
72	Var.	72	.4167*	.3261	-.0807	.2865
73	Var.	73	.6929*	.2462	.1486	.5629
74	Var.	74	.7356*	.0597	.3085	.6398
75	Var.	75	.8919*	.0279	-.1776	.8278
76	Var.	76	.5140*	.4058	.3413	.5454
77	Var.	77	.7529*	.2428	.3308	.7352
78	Var.	78	.8424*	-.0664	-.1201	.7285
79	Var.	79	.5873*	.2905	-.0993	.4392
80	Var.	80	.0079	.3398	.7228*	.6380
81	Var.	81	.3326*	.0372	-.0073	.1120
82	Var.	82	.6850*	-.0402	.2044	.5127
83	Var.	83	.3227	.5087*	-.0751	.3686
84	Var.	84	.6502*	.4227	.3412	.7179
85	Var.	85	.4468*	-.2073	.2801	.3211
86	Var.	86	.4726*	.4401	.2881	.5000
87	Var.	87	.6390*	.3914	.2925	.6470
88	Var.	88	.6802*	.3529	.4303	.7724
89	Var.	89	.7988*	-.0510	-.0155	.6410
90	Var.	90	.8307*	.0869	.2330	.7520
91	Var.	91	.7803*	.3451	-.1694	.7567
92	Var.	92	.1800	.2569*	.2302	.1514
93	Var.	93	.3000	.4408	.5045*	.5388
94	Var.	94	.2596	.6938*	-.2606	.6167
95	Var.	95	-.1289	.4990*	.4395	.4589
96	Var.	96	-.2749	.7447*	.1487	.6523
97	Var.	97	.0885	.4928*	.1821	.2839
98	Var.	98	.1449	.5619*	.1030	.3474
99	Var.	99	.2274	.7329*	-.0521	.6675
100	HI. LOAD.		.8919	.7329	.7634	
101	PROP. VAR		.2368	.1269	.1078	
102	CUM. P.V.		.2368	.3637	.4715	

TABLE B-17. "P" FACTOR TABLE--FOUR FACTORS

			Factor 1	Factor 2	Factor 3	Factor 4	Communality
1	Var.	1	-.0356	.6144*	.1292	-.3195	.4854
2	Var.	2	-.0844	.1139	.7718*	-.0924	.6244
3	Var.	3	-.0657	.2819	.3544	-.4290*	.3933
4	Var.	4	.2701	.2145	.4884*	-.3701	.4944
5	Var.	5	-.2860	.6559	.1647	.0974	.5486
6	Var.	6	-.2510	.4407	.1027	-.4970*	.5148
7	Var.	7	.2726*	.1407	.2382	-.0669	.1553
8	Var.	8	-.0150	-.2431	.6083*	-.0906	.4376
9	Var.	9	-.0319	.2694	.4493*	-.0335	.2766
10	Var.	10	.3133	-.3082	.3195*	.0013	.2953
11	Var.	11	.1457	-.0733	.4445*	.0493	.2266
12	Var.	12	.0493	.4574	.5147*	-.0854	.4839
13	Var.	13	.2634	.3450*	.2817	-.2043	.3095
14	Var.	14	.2966	.5627*	.5286	-.0280	.6849
15	Var.	15	.5803*	.3287	.4240	.1128	.6373
16	Var.	16	.3691	.2231	.4161*	-.3040	.4516
17	Var.	17	.5393*	.0184	.2073	-.0557	.3373
18	Var.	18	-.0509	.6412*	-.0537	.0369	.4180
19	Var.	19	.7184*	.1173	.2450	.0593	.5933
20	Var.	20	.2731	.4259	.4725*	-.1202	.4937
21	Var.	21	-.1791	.6230*	.5072	.1664	.7052
22	Var.	22	.5667*	.2085	.2126	.2777	.4869
23	Var.	23	-.1536	.6512*	.1923	-.0114	.4847
24	Var.	24	.2138	.0406	.4633*	.4038	.4251
25	Var.	25	.3073	.5585*	.1339	-.4479	.6249
26	Var.	26	-.0249	.0250	.3327*	-.2756	.2029
27	Var.	27	.3157	.0208	.4079*	-.0219	.2811
28	Var.	28	.2745	.4888*	.0256	.0049	.3150
29	Var.	29	-.2753	.3279*	.0270	-.1630	.2106
30	Var.	30	.4068	-.0900	.4472*	-.4143	.5452
31	Var.	31	.3278	.2330	.6303*	-.3552	.6852
32	Var.	32	.0758	.4038	.6083*	.2435	.5982
33	Var.	33	.0580	.1471	.3346*	.3275	.2443
34	Var.	34	-.1361	.0544	.5149*	.0161	.2868
35	Var.	35	.1380	.3537*	.0157	-.0944	.1533
36	Var.	36	.1141	.2487	.5170*	-.1079	.3538
37	Var.	37	.3671	.5433*	.2818	.1130	.5222
38	Var.	38	.5840*	.1425	.5006	-.0115	.6121
39	Var.	39	.5465*	.2311	.3844	.3017	.5908
40	Var.	40	.0939	.0703	.6220*	-.0610	.4043
41	Var.	41	.6171*	.0560	-.0410	.0021	.3857
42	Var.	42	.2397	.2597	.1782	-.4026*	.3188
43	Var.	43	.1529	.3359*	.2143	-.1617	.2083
44	Var.	44	.1047	.6525*	.0599	-.0253	.4410
45	Var.	45	.2011	.5941*	.3973	-.1149	.5644
46	Var.	46	.2269	.2910	.5598*	-.2801	.5281
47	Var.	47	.0937	.0213	.5575*	-.1017	.3304
48	Var.	48	.2730	.1111	.4924*	-.2069	.3722
49	Var.	49	.8312*	-.0325	-.1819	-.0608	.7287
50	Var.	50	.8327*	.0693	.1787	.1099	.7421
51	Var.	51	.7691*	.0958	.0777	-.1159	.6202
52	Var.	52	.7263*	-.0718	.0962	-.2067	.5846
53	Var.	53	.7613*	.0541	.2524	-.2111	.6908
54	Var.	54	.7051*	.0414	.0522	-.1516	.5247
55	Var.	55	.3787	-.0420	.4771*	-.0574	.3761
56	Var.	56	.6007*	.6062	.2385	-.1476	.6045
57	Var.	57	.6374*	.0425	.2028	-.0094	.4492
58	Var.	58	.8763*	-.0503	-.0875	.0167	.7784
59	Var.	59	.7699*	.2289	.0899	-.0613	.6570
60	Var.	60	.7103*	.4794	.1429	-.0303	.7556

TABLE B-17--Continued

			Factor 1	Factor 2	Factor 3	Factor 4	Communality
61	Var.	61	.7171*	.2172	.1419	-.1459	.6029
62	Var.	62	.7400*	.1617	.2982	.1894	.6985
63	Var.	63	.8109*	-.1954	-.1402	.0025	.7154
64	Var.	64	.6039*	.0113	.0986	-.4845	.6093
65	Var.	65	.6901*	.1175	.2117	-.0743	.5404
66	Var.	66	.8419*	-.0857	-.0043	.1388	.7354
67	Var.	67	.4699*	.3923	.2922	-.1570	.4847
68	Var.	68	.4054	.4670*	.1137	-.3379	.5096
69	Var.	69	.5006*	.0489	.1364	-.2184	.3193
70	Var.	70	.0968	.0289	.4255*	.3838	.3385
71	Var.	71	.1514	.5918*	.2355	-.0254	.4292
72	Var.	72	.4266*	.4077	-.0707	.0890	.3612
73	Var.	73	.6766*	.1898	.1519	-.2295	.5695
74	Var.	74	.7424*	.0759	.3023	-.0008	.6483
75	Var.	75	.8734*	-.0172	-.1862	-.2168	.8449
76	Var.	76	.4622	.1841	.3544	-.6239*	.7625
77	Var.	77	.7299*	.1404	.3332	-.3242	.7686
78	Var.	78	.8558*	.0141	-.1330	.1192	.7644
79	Var.	79	.5895	.3419	-.0922	.0020	.4723
80	Var.	80	.0053	.2808	.7376*	-.1230	.6381
81	Var.	81	.3018	-.0875	-.0089	-.3419*	.2157
82	Var.	82	.6828*	-.0611	.1945	-.0800	.5141
83	Var.	83	.2772	.3597	-.0548	-.4995*	.4588
84	Var.	84	.6188*	.2933	.3532	-.4144	.7654
85	Var.	85	.4948*	-.0328	.2644	.4590	.5265
86	Var.	86	.4241	.2397	.3032	-.5812*	.6671
87	Var.	87	.6278*	.3525	.3028	-.1923	.6471
88	Var.	88	.6671*	.2901	.4384	-.2303	.7745
89	Var.	89	.8149*	.0313	-.0273	.1369	.6846
90	Var.	90	.8091*	-.0099	.2275	-.2992	.7960
91	Var.	91	.7562*	.2949	-.1622	-.2793	.7631
92	Var.	92	.1304	.0395	.2404	-.5681*	.3991
93	Var.	93	.2582	.2446	.5213	-.5294*	.6785
94	Var.	94	.2670	.8053*	-.2318	.0831	.7804
95	Var.	95	-.1281	.4915*	.4634	-.0500	.4752
96	Var.	96	-.3146	.6046*	.1864	-.4426	.6952
97	Var.	97	.0729	.4428*	.2036	-.2030	.2840
98	Var.	98	.1499	.6153*	.1268	.0212	.4175
99	Var.	99	.1914	.6902*	-.0184	-.4038	.6764
100	HI. LOAD		.8763	.8053	.7718	-.6239	
101	PROP. VAR.		.2329	.1106	.1118	.0628	
102	CUM. P.V.		.2329	.3435	.4553	.5181	

TABLE B-18. PRINCIPAL DRIVERS

Principal Driver	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Husband	22	36.0	36	60.0
Wife	18	29.5	11	18.3
Son	1	1.6	1	1.6
Daughter	8	13.1	-	-
Single adult male	4	6.5	5	8.3
Single adult female	8	13.1	7	11.6
Other	-	-	-	-
Total	61	99.8	60	99.8

TABLE B-19. OCCUPATION OF THE PRINCIPAL DRIVER

Job Categories	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Housewife	10	16.6	4	6.5
Student	9	15.0	10	16.3
Skilled hourly	7	11.6	5	8.1
Teacher	4	6.6	16	26.2
Supervisory	4	6.6	-	-
Salaried white collar	11	18.3	3	4.9
Secretarial	5	8.3	2	3.2
Professional	5	8.3	13	21.3
Other	5	8.3	8	13.1
Total	60	99.6	61	99.6

TABLE B-20. EDUCATION OF THE PRINCIPAL DRIVER

Educational Level	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Less than high school	4	7.02	1	1.69
Some high school	1	1.75	1	1.69
High school graduate	15	26.32	6	10.17
Some college	24	42.11	16	27.12
College graduate	7	12.28	10	16.95
Some graduate studies	6	10.53	25	42.37
Total	57	100.00	59	100.00

TABLE B-21. AGE OF THE PRINCIPAL DRIVER

Chronological Age	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
16-20	11	19.3	3	5.08
21-25	12	21.05	12	20.37
26-30	9	15.79	22	37.29
31-35	5	8.77	8	13.56
36-40	4	7.02	2	3.39
41-45	4	7.02	3	5.08
46-50	4	7.02	5	8.47
51-55	2	3.51	2	3.39
56-60	1	1.75	-	-
Over 60	5	8.77	2	3.39
Total	57	100.00	57	100.00

TABLE B-22. MILES DRIVEN PER YEAR

Miles Driven	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Less than 1,000 miles	1	1.75	-	-
1,000 to 4,999 miles	1	1.75	1	1.69
5,000 to 9,999 miles	19	33.33	8	13.56
10,000 to 14,999 miles	24	42.11	25	42.37
15,000 to 19,999 miles	7	12.28	9	15.25
20,000 to 24,999 miles	3	5.26	15	25.42
25,000 to 30,000 miles	2	3.51	1	1.69
Over 30,000 miles	-	-	-	-
Total	57	99.99	59	99.99

TABLE B-23. USE OF THE VEHICLE

Primary Uses	Maverick Respondents	Foreign Car Respondents
First choice:		
Short business trips	4	3
Driving to and from work	28	35
Short excursion trips	2	-
Long business trips	2	1
Shopping and daily errands	11	9
Long distance trips	-	-
Second choice:		
Short business trips	-	1
Driving to and from work	2	3
Short excursion trips	10	12
Long business trips	-	1
Shopping and daily errands	23	79
Long distance trips	2	1
Third choice:		
Short business trips	3	-
Driving to and from work	3	2
Short excursion trips	17	18
Long business trips	1	1
Shopping and daily errands	4	6
Long distance trips	3	9

TABLE B-24. AUTOMOBILES CONSIDERED PRIOR TO PURCHASE

Automobiles	Maverick Respondents	Foreign Car Respondents
Imported sedans	6	31
Imported sports cars	5	9
Used cars	12	11
American compact cars	32	21
Other American cars	13	17
Other	1	2

TABLE B-25. PRICE RANGES CONSIDERED

Price Ranges	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
Under $1,700	1	1.79	3	5.17
$1,701-$1,800	2	3.57	1	1.72
$1,801-$2,000	10	17.86	14	24.14
$2,001-$2,200	18	32.14	15	25.86
$2,201-$2,500	23	41.07	18	31.03
$2,501-$3,000	1	1.79	7	12.07
Over $3,000	1	1.79	-	-
Total	56	100.00	58	99.99

TABLE B-26. ASSISTANCE IN PURCHASING THE CAR

Assistance	Maverick Respondents	Foreign Car Respondents
Yes, a friend or relative	19	11
Yes, a salesman in the dealership	7	11
Yes, other owners of the same car	2	10
Decision was mine alone	29	31
Other	1	2

TABLE B-27. AUTOMOBILE TRADED IN

Automobile	Maverick Respondents	Foreign Car Respondents
One or two-year old American car	3	7
More than a two-year-old American car	21	13
One or two-year-old imported sedan	3	5
More than a two-year-old imported sedan	2	9
Imported sports car	-	1

TABLE B-28. NUMBER OF MAKES CONSIDERED

Number of Makes	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
1	15	26.32	18	31.03
2	22	38.60	11	18.97
3	13	22.81	12	20.69
4	4	7.02	5	8.62
5	2	3.51	4	6.90
6	1	1.75	3	5.17
7	-	-	5	8.62
Totals	57	100.00	58	100.00

TABLE B-29. NUMBER OF DEALERS CONSIDERED

Number of Dealers	Maverick Respondents		Foreign Car Respondents	
	n	%	n	%
1	12	21.05	15	25.42
2	17	29.82	17	28.81
3	13	22.81	12	20.34
4	9	15.79	2	3.39
5	1	1.75	6	10.17
6	2	3.51	2	3.39
7	3	5.26	5	8.47
Total	57	99.99	59	99.99

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