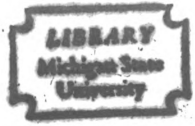
# AN EXPLORATORY MODEL OF HOUSEHOLD DECISIONMAKING AS APPLIED TO INVESTIGATION OF DECISION SITUATIONS IN A HOUSEHOLD DURABLES PURCHASING CONTEXT

Thesis for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY

Rhea Vivian Shields

1966

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thesis entitled

An Exploratory Model of Household Decisionmaking as Applied to Investigation of Decision Situations in a Household Durables Purchasing Context

presented by

Rhea Vivian Shields

has been accepted towards fulfillment of the requirements for

Ph.D. degree in Home Management

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Date August 16, 1966

ABSTRACT

AN EXPLORATORY MODEL OF HOUSEHOLD DECISIONMAKING AS APPLIED TO INVESTIGATION OF DECISION SITUATIONS IN A HOUSEHOLD DURABLES PURCHASING CONTEXT

by Rhea Vivian Shields

The purpose of this study is to explore decisionmaking behavior considering the following objectives: 1) to review the body of knowledge concerning decision; 2) to derive from this a comprehensive model relevant to home management within which study of decision can proceed; and 3) to carry out an empirical test of this model in the context of a household purchasing decision.

Following review of literature and development of the conceptual framework underlying this study, the model is presented and a general hypothesis formulated on the basis of a discussion of the component elements and relationships indicated in the model. The study conceives the decision situation as an operational construct intervening decision behavior and the behavior antecedents. A relationship of variation in the presence and value of characteristics within the decision situation to variation in consequent decision behavior is the general hypothesis of the study.

This study proceeds under the condition that a fundamental requirement of a model for decision calls for inclusion of some element of the future state of being represented by a decision alternative as perceived by the deciding organism. Assuming this "anticipatory" element to be adequately represented by the organism's economic attitude, specific hypotheses consider traditional environmental characteristics (i.e., age, income, occupation, etc.) at a given level of economic

optimism. The context of the study is a control decision concerning the alternatives of fulfillment or non-fulfillment of a household purchasing decision.

Testing of appropriate statistical hypotheses is carried out by chi-square analysis of data collected by the Survey Research Center of the University of Michigan during the years 1960 and 1961. The effective sample consists of household spending units who are rated as optimistic in their economic expectations and who have expressed plans to purchase a major household durable within a 12-month period.

Analysis of the data shows evidence of the operational validity of the decision situation in a clearly discernible variation in the influence of attitude on fulfillment. The strong association of attitude with rate of fulfillment disappears among spending units exhibiting higher levels of financially enabling characteristics or of associating characteristics such as white-collar occupation, advanced education, and homeownership.

Findings of the empirical study show that among economic optimists decisions to act contrary to expressed intentions are significantly higher among units in which the heads have not attended college or are employed in blue-collar occupations as compared with units in which the head has attended college or holds a white-collar job. Among spending units as income groups, those reporting medium levels of income ($4,000 to $7,499) acted contrary to stated intentions significantly more often than did those reporting $7,500 or more, although the fulfillment rate of units reporting the lowest level of income (less than $4,000) did not differ significantly from either of these.

The major contribution of this study lies in the implication of the findings that variation in the rate of fulfillment of expressed intentions may result from either of two identifiable factors or sets of environmental characteristics that tended to balance out in the present study to obscure relationships.

Variability in the rate of fulfilled intentions is thought to be introduced, first, during formation of intentions and corresponds to the planning ability of the spending unit; second, between the time of expression of intentions and action corresponding to the likelihood of contingent events that displace the means toward fulfillment.

The probability that a given spending unit will fulfill its expressed intentions is, then, a function of characteristics associating with realistic planning and the frequency of surprise expenditures due to contingent events.

The following conclusions offered by this exploratory study of decision behavior seem justified:

1. The decision situation is a valid and necessary construct in the conceptual framework of the decision event.

2. The model presented in this study, revised according to the implications of the findings, employing the decision situation as an intervening variable and containing an anticipatory element, is operational and appears to be an efficient adjunct to future research in decisionmaking.

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A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Home Management and Child Development

1966

ACKNOWLEDGEMENTS

While the responsibility for a research project rests appropriately on the researcher, credit for its conception, development, and execution must be just as appropriately shared with the many people--instructors, colleagues, friends, and often students--who have contributed time and energy, knowledge and understanding toward completion of this work.

I have especially appreciated the extensive efforts of Dr. Frances Magrabi who served as chairman of the guidance committee and directed the research. Gratitude is also expressed to the other members of the committee: Miss Esther Everett, Dr. Jean Davis Schlater, Dr. Alice Thorpe, and Dr. James T. Bonnen and to former committee members: Dr. Robert C. Kramer and Dr. James D. Shaffer.

I also wish to acknowledge the kind cooperation of Dr. Robert Ferber, and of the staff of the Survey Research Center, in the aid they have given and interest they have shown in this research.

Space does not permit particular expression of thanks to the many friends who have patiently advised and continuously encouraged the progress of this undertaking.

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# CHAPTER I

## INTRODUCTION

Study of decisionmaking appears of special importance in the field of home management./ Paolucci and O'Brien state: "The process of decision-making is a social phenomenon that is particularly valued in family life as we know it. The opportunity and obligation to make intelligent decisions is one of the concepts basic to any democratic situation, large or small." (63:29) Moreover, according to Gross and Crandall, "Decision-making is the heart or crux of management," while the purpose of management is held to be realization of the family's values, goals, and standards. (25:20,63) Further support for a study of decisionmaking comes from Schlater and Vincent who write:

> Management is a dynamic, on-going process which encompasses those human actions directed toward the realization of values and goals; the prime feature of such goal-directed activities is the systematic series of actions which constitute the making and implementing of interrelated decisions under conditions of uncertainty and limited resources. (65:782)

Among decisions encountered by home managers in which the outcome is assumed to be crucial to realization of values, goals, and standards are spending decisions concerning what, when, and whether to purchase.

### Statement of the Problem

The above assertions supporting that the soundness of a family's economic decisions is of real importance to its success in goal achievement are not likely to be questioned, but the unique status and

increasing complexity of these decisions in modern western society may not be as immediately apparent.

In societies where the economy does not rise above a subsistence level, domestic money management consists of little more than habitual allocation of income for attainment of food and shelter. In these cases, management is a means, the end of which the family is at the most only philosophically conscious; and pursuit of goals beyond simple survival is seldom carried out through the medium of economic exchange. In our present society, however, sustained high levels of income, liquid asset holdings, and access to credit bring about a correspondingly higher proportion of spending that is discretionary in nature. (35:11) The ends of such spending have their basis in the family's value system and concern themselves with goals beyond subsistence. (12:36) As a result, the success a family has in achieving its goals appears to be related to the efficiency of its spending decisions.

In addition to this influential relationship to the family, household spending decisions are of particular importance to the general economy. Not only is this evident in increasing the attention paid to the actions of family spending units by students of marketing; but modern researchers, such as Katona, have suggested that psychological phenomena such as attitudes toward spending can become general trends with powerful influence.

Meanwhile, existing theory in decisionmaking and consumer behavior has proved highly unmanageable by researchers. Studies reviewed by Bustrillos (4) and others show limited successes in obtaining empirical evidence for postulates of current theory on the processes involved in decisionmaking. According to Simon (69:261), ". . . even

in an extremely simple situation, subjects do not behave in a way predicted by a straight-forward application of utility theory." This rather discouraging circumstance calls into question not only theory but the means that have been used to test it.

## Nature and Intent of this Study

The purposes of this study are 1) to re-examine the phenomena of decisionmaking in such a way as to make the results particularly relevant to the interests and needs of students of home management; 2) to develop a model that will prove manageable and stimulate further research; and 3) to place increased emphasis on study of what the deciding organism does under existing circumstances as compared with what it would do under normative circumstances.

The objective of this study is to explore the phenomena of decision in the context of a specific problem in household spending unit decisionmaking. Conclusions based on empirical testing of hypotheses will indicate not only the validity of the suggested relationships, but also possible changes in the conceptual structure that can facilitate future research. This study's primary consideration is presentation and testing of this conceptual framework as derived from related literature and existing models of decisionmaking.

## Definitions of Terms

Definitions of some of the important terms used in this study are presented in alphabetical order. The list is not intended to be inclusive; rather, only those terms which seem to demand more narrow, more specific, or operational definitions are included. Many of the definitions included are adapted or quoted from related literature.

Ability to buy -- the economic relationship of the spending unit to the good as indicated by income, assets, and availability of credit relative to price.

Adequacy of means -- the financial ability of a spending unit to make a purchase as determined by disposable income level at the time of expression of purchase intentions.

Attitude index -- a composite instrument for rating (in this study) responses to six questions concerning the financial attitude of consumers (two queries concerning attitudes toward personal finances, two concerning attitudes toward business conditions, two concerning attitudes toward market conditions). (35:51) (60:950)

Constraining factor -- any of a set of influences that limits or tends to limit selection among an infinite set of behavior alternatives -- or which reduces the probability of selection of a particular behavior alternative. Constraints can consist of single, simple environmental factors that perhaps render the deciding organism physically unable to perceive, consider, or elect a particular alternative. Constraints also can be complex influences that result from interaction of any number of factors in the decision situation in which the end result limits the alternatives available for consideration by the deciding organism. (69:242-3)

Debt level -- amount of installment debt reported outstanding by spending units in response to queries during the 1960 Survey of Consumer Finances. (71:283) Further distinction is made throughout this study on the basis of whether the outstanding debt was incurred

specifically in the purchase of durables or was total outstanding installment debt.

Decision, Rational -- "Rationality (in its objective, subjective, conscious, deliberative, organizational, and personal aspects) as concerned with the selection (choice) or preferred behavior alternatives in terms of some system of values whereby the consequences of behavior can be evaluated." (68:75)

Decision situation -- the unique combination and organization of environmental factors operating with, upon, and in relation to each other in reference to awareness by the organism of alternatives in behavior. (4:16,17)

Decisionmaking -- "Decision-making involves a conscious choice or selection of one behavior alternative from among a group of two or more (perceived) behavior alternatives." (76:23)

Discretionary expenditure -- spending not done under a compelling need, not governed by habit, usually well deliberated, and not inevitably necessary. (7:189) (33:16 ff)

Displacement of means -- reallocation of funds intended to pay for a planned purchase to make a more compelling, more desirable, or less postponable expenditure.

Disposable income -- total income less estimated income tax liability is calculated for each spending unit, using the standard income tax tables and the number of exemptions reported by the respondent. (71:267) The amount available for households to spend on current

consumption or forms of saving. (7:263)

Durables, household -- for this study, a list of selected commodities formulated by the University of Michigan, Survey Research Center; furniture (including pianos), radios, television sets, phonographs, record players, refrigerators, . . ., and home freezer units, washing machines, clothes dryers and ironers, stoves, vacuum cleaners, toasters, sewing machines, movie projectors, air conditioning units (when not a permanent part of the heating system), space heaters, and imitation fireplaces (when purchased by renters), and other electrical appliances. (38:33)

Economic behavior -- behavior postulated in economic theories of rationality, by the economy itself as well as the human element in the dual role of consumer and determinant of economic trends. (35:7,8)

Enabling factor -- any of a set of influences that reduces or tends to reduce constraints in the decision process -- which increases the number of alternatives to be considered by the deciding organism -- or which increases the probability that a particular alternative will be selected. This is the opposite of a constraining factor. (35:24)

Environmental factors -- all stimuli (internal and external) to which the responding unit responds. Those aspects of the total physically objective world that have relevance to the field of decision and are related to the needs, drives, and goals of the organism and impinge upon its perceptual apparatus. For this study,

the above factors as they exist prior to (and unaffected by) awareness of specific behavior alternatives held by the deciding organism. (69:262) (4:16,17)

Expectations -- a subgroup of attitudes, representing an extension of the time perspective into the future; judgements about the course of events external to the household. (35:56) (31:140)

Fulfillment status -- the carrying out of a purchase plan. A distinction among spending units indicating that they made a planned purchase from among a selected group of household durables within a specific time period, based on responses to queries by the 1961 Survey of Consumer Finances.

Functional demand -- demand for a particular good (in this study a household durable) that can be satisfied by any commodity, regardless of model or type that performs a particular function.

Head of the spending unit -- for married couples, living together, the husband is considered the head of the spending unit. (71:268)

Housing status -- a distinction among spending units that own the house or other form of shelter in which they live (homeowners), and those that do not (non-owners).

Housing value -- "present value" or amount "it would bring if sold today" as indicated by spending unit respondents during 1960 Survey of Consumer Finances. (71:275)

Income, spending unit -- "Income includes (for all members of the SU)

earned income from wages, salaries, self-employment, and business, and transfer payments received on a regular basis. Excluded are non-cash income, capital gains, and losses, as well as gifts and inheritances." (71:268)

Liquid assets -- "All holdings of consumer units in checking accounts, saving accounts, shares of savings and loan associations, Series A-F bonds, and other U.S. Government bonds." Excluded are currency holdings, foreign or private stocks and bonds. (36:35)

Number in spending unit -- total of adults and children.

Optimistic spending unit -- units scoring 7 to 12 points on the attitude index.

Panel bias -- a statistical feature typical of data collected in panel surveys in which bias is introduced due to distinction in the natures of those respondents likely to be available for the entire panel study and those that are not. This bias is assumed to be present in this study on the basis of the following summary by the Survey Research Center staff: ". . . it is evident that the panels have upward financial bias -- that is, panel losses tend to be concentrated in the lower socio-economic groups, primarily because of their higher mobility rates. Panel studies in which movers are not followed also have a disproportionately high number of home-owners as compared to renters or those who neither own nor rent. Panels also tend to have a disproportionately large number of older spending units." (74:194)

Pessimistic spending units -- units scoring less than five points on

attitude index.

Planning status -- a distinction among spending units based on expression by the unit concerning intent to make a purchase from among a selected group of household durables within a specified period of time.

Postponability -- probability that a purchase plan will be aborted due to the spending unit's ability to do without the commodity under consideration.

Predisposition -- a preparation or set which facilitates the adoption of certain specific lines of behavior . . . (10)

Prestige-standard durables -- a distinction on a continuum among household durables based on the degree that the commodity can be considered as necessary to the spending unit. This distinction is qualified in this study corresponding to Juster's discussion of the subject. (29:317)

Product factor -- hypothesized influence on purchasing behavior involving the objective and perceived relationship of the spending unit to the good under consideration.
See Ability to buy, Postponability.

Purchasing rate -- proportion of spending units actually purchasing one of a selected group of household durables during a specific period of time.

Reinterviewed spending unit -- for purposes of this study, spending units originally included in the 1960 Survey of Consumer Finances

and selected for reinterview during the 1961 Survey. (75:187)

Spending unit -- "All related persons living together who pool their incomes. Husband and wife and children under 18 living at home are always considered to be members of the same spending unit." (68:269)

Standard durables -- See Prestige-standard durables.

Whimsical demand -- demand for a particular good (in this study a household durable) based on consideration having little or nothing to do with function of the durable or objective need for it.

## Assumptions

This study assumes validity for the postulates of the behavioral theory of psychology, particularly of the stimulus-response theory including variations in which the stimulus is mediated within an intervening variable involving variation in the organism's perception of the stimulus.

Also assumed are the general bases for variation in individual behavior as outlined by personality theory and variations in behavior by an individual over time in accordance with psychological learning theory.

The general assumptions concerning utility theory of economics underly this study with the reservation that economic behavior based on discretionary spending is a unique and identifiable segment of economic behavior explanable within the larger body of economic theory.

The theoretical bases on which these assumptions are formulated are best understood by reference to the writings of George Katona

(33,35), Nelson Foote (23:1 ff), James Morgan (57:81), and other of more recent contributors to body of literature surrounding the study of household decisionmaking. Much of this work will be summarily reviewed in Chapter II of this study.

## Plan of This Report

This chapter has presented the motivation in terms of the problem, intent, purposes, and objectives for this study. Assumptions basic to investigation and procedure have been stated and definitions of terms provided to facilitate understanding of the report.

Chapter II will provide a review of literature pertinent to household decision in general and spending decision in particular. The review then concerns itself with literature dealing with the current theoretical approach to studies of household spending decision.

Chapter III presents a model based on considerations found in the review of literature and on the requirements assumed to be inherent in the concept of the decision event. Following this, relationships suggested in the model are described and discussed; and hypotheses concerning the nature of these relationships are formulated. Design of the study to meet the requirements of this model comprises the remainder of Chapter III.

Report of the empirical portion of the study begins with description of the methods used and features of the data in Chapter IV. This is followed by description and comparison of subgroups of the sample in Chapter V. The findings and indications of relationship of input variables to decision behavior are presented in Part One of Chapter VI; the implication of the findings to the model and design of

the study are discussed in Part Two of Chapter VI. Summary, conclusions, and suggestions for further research comprise Chapter VII.

# CHAPTER II

# REVIEW OF LITERATURE

## Introduction

In keeping with the exploratory intent of this study, this chapter will review theoretical statements, discussions, and empirical findings gathered from related literature concerning each of several concepts commonly used as factors in household decisionmaking. A further review of literature concerning the theoretical approach suitable for study of household decisionmaking appears in the second part of this chapter.

## Part One: Variables in the Study of Household Purchase Decisions

Gross and Crandall point out the relevance of decisionmaking to home management and offer a definition of home management as

> a series of decisions making up the process of using family resources to achieve family goals. The process of management consists of three, more or less, consecutive steps: planning; controlling the various elements of the plan while carrying it through, whether it is executed by oneself or by others; and evaluating results preparatory to future planning. (25:4 -- italics inserted.)

Halliday conceives the decision process to be a central activity in home management performing two functions crucial to maintenance and development of the family. These are: "1) to bring about change [in relation to a rapidly changing environment] and 2) to stabilize and maintain the family's most important values [again, in reference to a rapidly changing environment]." (26:1)

Halliday defines decisionmaking as a phenomenon located on a continuum somewhere between evaluating (a purely mental activity lacking further reference to action) and choosing among alternatives which, according to this author, seems to "rule out [various means of determining courses of action]." Halliday reaches the conclusion that decisionmaking is adequately defined as "determining positive guides to action" on the basis of a distinction between mental activities such as decisions about goals and/or values and more objective forms of action. (26:4,5)

An additional dimension is provided by Ferber who divides the consumer purchasing decision into phases, during which 1) the household becomes aware of alternative behavior; 2) deliberation takes place among alternative purchases and alternative means by which the purchase can be made; and 3) reconciliation occurs between the alternatives of purchasing or not purchasing, with confirmation in action. (18:49,50) Review of more recent literature finds general implicit agreement as to delimitation of the time dimension of the decision process within points of awareness and action.

According to Johnson, "a decision [as differentiated from a plan] need not involve either action or the future." (28:22) Nevertheless, objective investigation demands action in terms of this study as evidence that selection of alternatives has taken place. If such evidence is not required or if subjective data collecting techniques are employed, the close of the decision event may be indicated by <u>potential</u> action alone. In this case, selection of an alternative coincides with the possibility of an action stating "such and such is the case" or, "I have decided to act in this manner."

Also to be considered is the likelihood of "zero" action or selection of an alternative that calls for no change in the present course of action or state of being, in which case the only action is the potential statement, "I have decided to attempt no changes in my present course of action (or inaction)." Moreover, since decision involves consideration of alternatives in behavior that are not as yet realities, conscious decision seems not only to be involved with the future, but to demand such involvement in the course of practical investigation.

Morgan's theoretical work (57:81) concerning decisionmaking focuses on the motivation of the individual as a member of a household, drawing heavily on psychological personality theory and comes to grips with the question of alternatives. According to Morgan's theory, the individual in a decisionmaking process is seen to evaluate pairs of alternatives. As an alternative is rejected as unattractive, the process begins again with another alternative until one alone remains as a course of action.

The attractiveness of an alternative to the individual is determined by his physical and social needs, i.e., sex, shelter, food, culture, achievement, affiliation, power. These needs are seen to be basic and stable, but: ". . . at any point in time, [they] become relevant only as they are perceived to be involved in the outcome of a path of action being considered." Morgan sums up:

> . . . an individual confronts a particular decision as it contributes in various measure to his basic needs, the contribution depending on the current situation and its uncertainties as well as the relative importance of the stable needs. Given the constraints of the situation, and perhaps certain decision-making characteristics of the individual, the evaluation of a course of action and of its closest rivals should lead to some decision or choice . . . (57:87-88)

The bulk of household decisionmaking research has concerned itself with purchasing decisions regarding household durables, since these purchases have many characteristics that lead to their classification as discretionary expenditures. Katona writes of discretionary expenditures as those made with the sum remaining after a given standard of living has been satisfied out of total income; or as Cochrane and Bell identify it, "discretionary spending is closely related to the idea of 'free income' in economics." (7:189) Then too, discretionary expenditures are not made under compelling need, not governed by habit, and are usually well deliberated by the entire spending unit. (35:16,17)

The argument that purchases of household durables are completely discretionary needs considerable qualification, however, as the concepts of <u>needs</u> and <u>luxury</u> underlying the term "discretion" are somewhat arbitrary. This can be illustrated by comparing two durable purchases: 1) the purchase of the first cooking range by a newly-forming family, and 2) the purchase of a second TV set by a contracting family. There are no definite guides to help one argue that the functional necessity of the first instance is any more compelling than the perhaps socially-necessitated nature of the second. According to William Whyte, Jr.,

> On a national basis some purchases -- a car, for example -- can be accurately described as a necessity; others -- such as a swimming pool -- as a luxury. But in between these two categories is a great shadow area in which national averages can be illusory.
>
> Even in a single neighborhood, what in one block would be an item eminently acceptable almost to the point of necessity might in another be regarded as flagrant showing-off. (83:206)

A partial solution to the problem of uncertainty as to the discretionary aspects of durable purchases is possible by rating the

groups of durables under study on a standard-prestige continuum specific to the period under study. Juster has discussed unique characteristics in the purchasing and planning rates for durables based on these objective distinctions:

> The . . . two categories [prestige and standard durables] are rather arbitrary: they overlap to some extent because goods in the prestige category at any one time are in a continual process of being transferred to the standard category (this would be especially true during a period when real disposable income per family is rising, as has generally been the case during the period under discussion). The distinction between the two is nonetheless meaningful; one might define standard durables as those whose demand is primarily replacement and secondarily new acquisition. Prestige durables would be those whose demand consists mostly of sales to newly acquiring households. (29:317)

Later Juster wrote of the process by which a prestige commodity reaches the mass market of middle- and relatively low-income households and, eventually, saturation status by becoming "an important component of the socially desirable 'way of life' . . . ." As an example, reports of plans to buy television sets were found to be concentrated among high-income households in 1952, but by 1957 successive graphed curves of planning rates had become "parabolic." Then there was evidence of stronger concentration of reports among households with moderate incomes and a definite reduction in rate of planning due to saturation among households with high income. To begin, expression of intent took place only among the higher income groups who alone could afford the costs of obtaining newly-developed goods and who often were the only ones aware of their presence on the market. As the goods gained in popularity and became part of the way of life, intentions to purchase reported by moderate-income households rose above those for households with the highest incomes. (29:326-32)

In addition to the advantages inherent in this--at least

relatively-discretionary characteristic of durable consumption (and possibly dependent on it)--is the advantage to research found in the fluctuating nature of behavior involved in durable purchases. These fluctuations are readily apparent in observed frequencies of planning and purchasing as well as in figures for net outlay and proportion of income spent by households on durable goods. (74:Table 3-8)

## Anticipatory Characteristics

Statements by consumers of intentions to purchase major household durables have attracted strong interest among researchers as a variable in the study of household decisionmaking. Nevertheless, the status of these intentions as a variable has become one of the foremost controversies among these researchers--the controversy hinging on whether a statement of purchase intentions can be considered as a discrete variable capable of explaining the predicting purchase behavior or whether it is simply one of several indications of favorable expectations and thus a function of the spending unit's attitude. Research containing data on attitude and intentions as independent variables usually shows association between the two characteristics. (31:60)

Inasmuch as understanding of this controversy depends heavily on knowledge of the theory and findings concerning consumer attitudes, review of studies of the influence of purchase intentions on household spending decision is postponed to follow a survey of the literature on consumer attitude.

### Consumer attitudes

Review of the literature shows that the economic attitude of the

household spending unit is an important factor in spending unit decisions. According to Gartner, Kolmer, and Jones, "Attitudes and values of consumers definitely affect the decision-making process and consequently the expenditure pattern." (24:12)

Katona and Mueller state that "consumer demand, especially for durable goods, is a function of both ability to buy as measured by data on income, assets, debts, and the like, and willingness to buy as measured by attitudinal and expectational questions in surveys." (40:6) In 1963 Mueller wrote: "In particular, attitudes are thought to affect people's willingness to make discretionary purchases and the timing of their postponable expenditures." (59:899)

According to Katona, "Attitudes are generalized viewpoints with an affective connotation . . . sets or frames of mind which influence our perception and behavior . . . emotionally colored points of view, . . . [and are] predispositions to action." (35:56) (41:25) Depending on the psychological basis on which they are developed, attitudes are held by Katona to be enduring or subject to frequent changes while economic attitudes of interest to researchers in decisionmaking and consumer behavior are described as "fairly stable" changing slowly, but noticeably, within the course of annual and even quarter-annual surveys. (42:39,40) Katona states, however, that "Motives, attitudes, and expectations do not change capriciously . . ." (34:37) There are some psychological economic factors that change in the short run and some that do not. "Those conditions that change in the short run are represented by changes in the environment." (34:302) Further, "motives, attitudes, and expectations often change at about the same time and in the same direction among large groups of consumers . . .

commonly prior to changes in rate of postponable spending and of saving." Economic attitudes are thought, also, to vary not only in their nature as above but in intensity of influence as well.

Katona states that "situationally determined opinions, attitudes, and expectations are of primary relevance when habitual behavior is not followed." (36:67)

Juster defines attitudes as "generalized feelings of well-being reflecting relative optimism or pessimism;" and differentiates expectations (judgements about the course of events external to the household) from intentions (judgements about events internal to the household). (31:140)

Katona holds (not necessarily in contradiction to Juster) that "expectations are a subgroup of attitudes [representing] an extension of the time perspective into the future . . . . Subjective notions of things to come colored by affect, approval or disapproval, satisfaction or dissatisfaction." Further, ". . . expectations--expressed intentions to act in a certain way [and about things to come]--are current data which represent attitudes held at the time they are expressed." (35:56)

Katona and Mueller have reported an association between attitude and several non-psychological spending unit characteristics. Optimistic attitude, for example, has been shown to associate with higher income, certain occupational classes, and with younger heads of spending units. (40:112-128)

The effect of attitude on purchasing behavior as stated in the above theoretical considerations has been partly supported by the results of research on attitude, but always with a high degree of inconsistency between measures of attitude and in degree of influence

over time.

Katona states,

> . . . expenditures on durable goods, expressed in percentages of . . . incomes, are influenced by . . . attitudes, as measured by level and change in the Survey Research Center's Index of Consumer Attitudes. Yet the correspondence between optimists, and large spenders, or between pessimists and small spenders is not complete in every instance. (37:10)

The same author is much more optimistic concerning the reliability of attitude change correspondent to changes in purchasing behavior.

> Thus, on the basis of six years of study of changes in consumer attitudes this conclusion emerges: Changes in consumer attitudes are advance indications of changes in consumer spending on durable goods and make a net contribution to the prediction of such spending after the influence of income has been taken into account. (35:53)

Concerning the use of attitude level as a factor in consumer behavior research, Mueller found that "Under certain conditions attitudinal variables do contribute significantly toward an explanation of fluctuations in consumer spending while under others they do not exhibit an independent effect." (60:964,965) In a later study Mueller again reported variation of the influence of attitude over time and in a 1963 report on a ten-year study of attitudes, Mueller writes:

> The results indicate that attitude measurements contain information not obtainable from a simple combination of financial and business cycle indicators. . . . In summary, the analysis indicates that discretionary spending [net outlay] by consumers is determined to a large extent by income level and the state of consumer optimism and confidence. (58:168) (59:899,915)

In 1955 Ferber reported findings of association between the planning behavior of respondents in a panel study of 150 Decatur, Illinois families. Ferber reported that, "Relatively few clear relationships between degree of fulfillment of purchase plans and economic

and political consideration were uncovered in this study." (16:48) However, "A higher proportion of plans were fulfilled by those expecting either higher incomes or improved ability to buy goods than by those expecting no change in either of these factors." (16:50)

Other pertinent research should be summarized. Juster concluded,

> On the whole, the evidence strongly suggests that extreme combinations of attitudes or expectations are significantly related to purchase behavior, while moderate ones are apparently either unrelated or quite weakly related. These relationships hold for a sample of relatively young families with the head of household between twenty-five and thirty-four years of age . . . the same pattern was not found among older families . . . . (31:154) Thus all of the observed significant relationship between index scores and purchases is apparently due to the behavior of households at the extremes of the index score range. (31:149)

Klein and Lansing found some effect on purchasing decision associated with statements of financial well-being and to a lesser degree with price expectations; minor significance with personal income expectations, and none with the respondents' appraisal of favorableness of buying conditions. (46:114,115)

Purchase intentions

Returning to a consideration of a spending unit's statement or expression of intentions to purchase as being separate or part of attitudes, Katona in 1956 viewed intentions as a function of and dependent on expectations:

> Consumer sentiment and expectations . . . are crucial for the fulfillment of previously expressed expectations. Whether or not buying intentions are realized depends to a large extent on the realization of other expectations (and, of course, on developments in other sectors of the economy).
>
> In part intentions data may be viewed as the results of other attitudes which can be measured and explained, in part as an expression of felt need for a specific product. From a scientific viewpoint, then, intentions data represent a short cut -- and a very useful short cut. But they are most meaning-

> ful if they are evaluated in conjunction with the expectations which underlie them. (40:71-73)

This particular point of view led Katona to treat buying intentions as one among several attitudinal indicators and to combine them with other attitudes and expectations. This viewpoint is maintained by Katona in 1960 although there is less emphasis on the dependency of intentions on attitude. Consumer buying intentions were thought to be "like all other expectations . . . attitudes held at a given time and not definite predictions of things to come." (35:68) In general, Katona concluded at that time:

> The studies of buying plans did provide very useful information concerning purchases which are commonly planned ahead for a considerable length of time. But they provided no substitute for the study of other expectations. Buying intentions simply represent one of several ways in which attitudes may express themselves.
>
> When we measure buying intentions, we intercept the decision-making process in a rather late stage, when the underlying sentiment has already become somewhat crystallized. Reliance on buying intentions alone, . . . does not suffice because incipient, underlying tendencies are of paramount interest. (35:63)

Katona's recognition of purchase intentions as a useful predictor of purchasing behavior is somewhat strengthened in a work published in 1964, but he continues to encourage "detailed analysis" of intervening variables as "the basic determinants of purchasing behavior . . . ." (34:84-85)

Following Katona's lead, Mueller used the incidence of statements of purchase plans as a supplementary indicator of attitude with the results reported in the previous section reviewing the use of attitude as an independent variable. Mueller's summary concerning purchase intentions at the end of a ten-year study of consumer behavior and attitudes was:

> It is quite conceivable that the non-marginal buyer (the man who trades in his car every second year, the couple who buy a kitchen range right after marriage and a washing machine when their first baby is born) has well-formulated buying plans and can predict his purchases accurately. But the marginal buyer (the man who is hesitant and can wait) accounts for a large part of fluctuations in durable goods sales, and in his case the buying intentions approach may be least successful. (59:901)

Kosobud questioned the advisability of studying planners "as a group" in a 1964 study of fulfillment of consumer buying plans, using, in part, plans "alone" as the independent variable. In this study he conceives a model in which "buying plans are formed after other expectations and are dependent on them" as compared to treating the buying plan (intention) as one among a number of related expectations. (48:44,53-55)

Figure 2.1 is a reproduction of Kosobud's model of formation of buying plans as anticipatory data in a study of fulfillment of automobile purchases. (48:45) Notice that among the factors leading to formation of the buying plan, there is no inclusion of influence brought about through information concerning alternatives in decision regarding the purchases, nor is there allowance of influence from predisposing psychological characteristics such as attitudes in the "RECENT HISTORY" block. (48:45)

Kosobud found buying plans in general to be related to current level of income, while plans for additions and repairs to housing and for other major durables (but not for cars) were related to past income change. Expectations about personal financial situations a year later were significantly related to buying plans for cars only. The age of the head of the spending unit was found to have a highly significant negative association with buying plans for major durables. (48:45-50)

Ferber in a survey of research in household behavior provides a

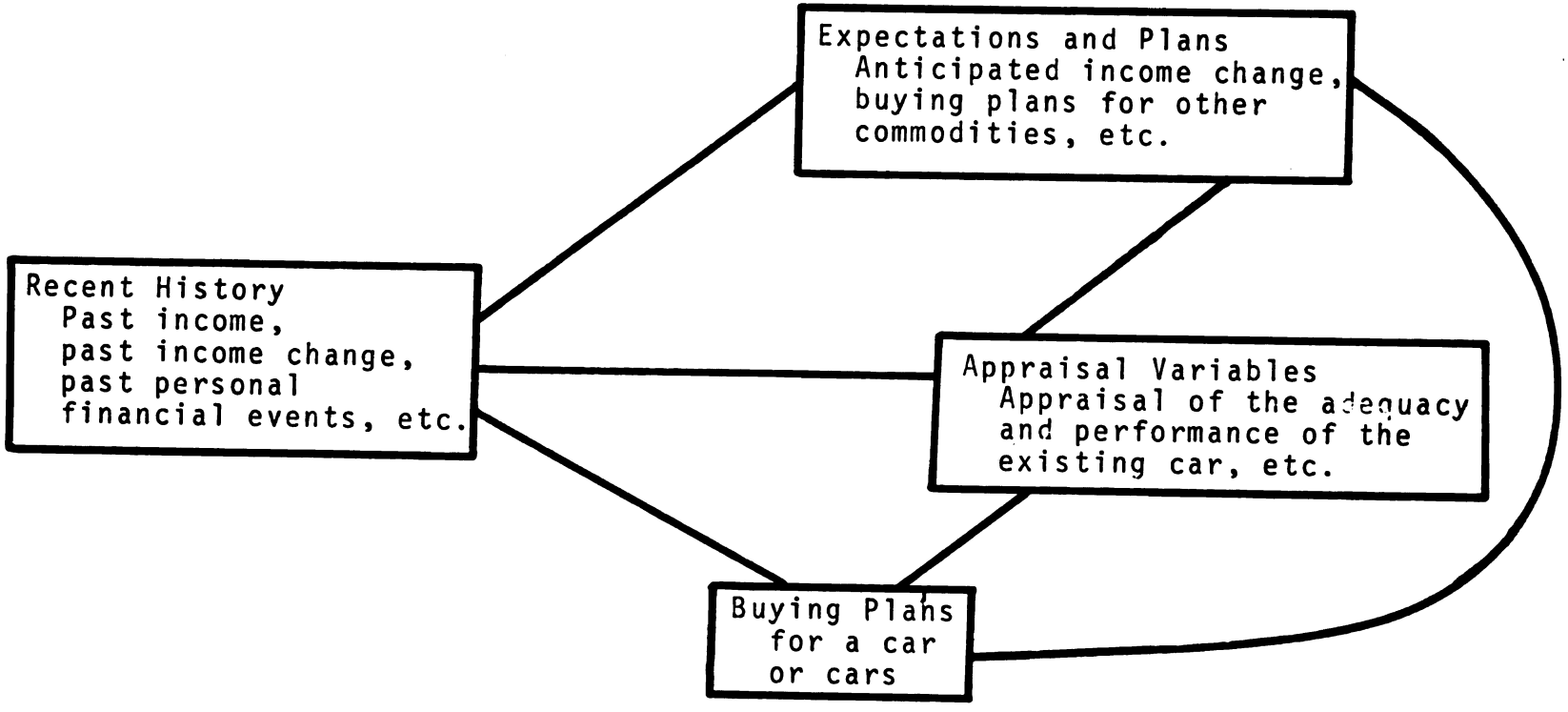


Figure 2.1 Formation of buying plans *

* Kosobud (48:45)

comprehensive discussion of the nature of buying intentions as a variable in which he includes several references indicating a more autonomous role of purchase intentions in household decisionmaking, most notably: Klein and Lansing (46:111), Tobin (78), Okun (62), the Federal Reserve Consultant Committee on Consumer Survey Statistics (81), Lansing and Withey (49), Juster (30:500), and Ferber (16:32) (18:38).

Juster attacking this problem of the interrelationship between buying intentions, purchases, and income expectations, offers the following alternative hypotheses:

> First, the additivity hypothesis argues that, 'intentions and expectations are essentially attitudes with a time dimension attached. . . . The more intentions reported, the more optimistic are expectations, or the more favorable are attitudes, the greater the over-all degree of optimism and the more likely the respondent to spend money.' (30:610)
>
> One view is that consumer attitudes (thought of as generalized feelings of well-being reflecting the relative optimism or pessimism) are fundamental determinants of spending and saving behavior and that both expectations (judgments about . . . events external to the household) and intentions (judgments about . . . events internal to the household) are basically attitudes carrying a time dimension. Under this interpretation an appropriate measure of consumer sentiment blends all three kinds of variables . . . (31:140)

Juster continues:

> The [contingent-action] hypothesis argues that forward-looking variables like intentions and expectations are fundamentally different from attitudes in that they express subjective judgments held with more or less certainty, about future events. Intentions express judgments about what the household expects to do provided its expectations (judgments about what others will do to it) turn out to be correct. Attitudes or opinions are a different kind of variable and have their major role in determining the way in which households formulate intentions and expectations. (30:611)

In 1963 Juster stated that:

> Attitudes, expectations, and intentions should be taken at face value. That is to say, expectations reflect the household's judgment about the future course of events external to the household; intentions, on the other hand, reflect tentative

> plans to undertake specified actions in the light of these judgments. Attitudes influence both expectations and the relation between expectations and intentions. In this view, purchases (actions) are directly related to (or predicted by) intentions, modified by the incidence of unforeseen (contingent) developments. (31:141)

Juster's hypothesis states that:

> Buying intentions are essentially statements about subjective purchase probability: those reporting that they 'intend to buy A' are simply saying that their probability of purchasing A is at least as high as the minimum probability implied by the intentions question [to which they were respondents]; those reporting that they 'do not intend to buy A,' that their purchase probability is less than the minimum implied by the question. (31:9-10) (text in brackets inserted)

"The level of buying plans reported . . . is sensitive to variations in the time horizon covered by the [intentions question]." (28:viii) Six-month buying plan horizons were found by Juster to be more closely related to general economic expectations and to individual financial situations of households than were twelve-month buying plans. Family income and age of the head were two of the most important variables associated with buying plans and purchases. The higher the income level, the greater the frequency of plans and purchases among households with heads of the same age groups. Among households with similar incomes, the younger the head, the greater the frequency of plans and purchases.

If income and age were held constant, association of buying plans with asset holdings and changes in asset holdings, and in the amount and maturity of non-mortgage debt appeared. Expectations about personal financial prospects over a five-year future period were strongly related to plans and purchases, while expectations concerning future business conditions and personal income one year ahead although related strongly to plans were less strongly related to purchases. Price expectations

one year ahead on the other hand showed little relationship to plans or purchases.

Among demographic variables, number of years married showed little relationship to plans or purchases, but acquisition of a house within the previous two years was strongly associated with plans and purchases of household equipment. (28:x-xi)

Ferber found that families who felt their present financial situation was an improvement over past situations or those who could report an objectively improved situation reported more plans than other families, but those who felt their present situation was worse did not report significantly fewer plans. Families who expected their future financial position to improve reported more plans than other families while those families expressing uncertainty over their future financial position reported the least. Respondents who were pessimists regarding the international situation reported more purchase plans than those more optimistically inclined. (17:863-4)

Among demographic characteristics associating with the frequency of purchase planning, Ferber's study reports that the population groups accounting for most of the plans are much the same as those accounting for most purchases, that is, middle-income, medium-size families, whose heads were employed in professional, managerial, or skilled-labor positions. Families whose heads were between 20 and 34 years of age accounted for the most plans, but those in which the heads were between 35 and 49 years of age accounted for most of the purchases. As to the nature of the plans, more than half of the major plans covered an interval of over six months, and more than a fourth extended for over a year. Plans in which an approximate time of fulfillment could be

expressed led to a greater rate of fulfillment as did those accompanied by a statement of certainty that they would be fulfilled. (12:41)

## Fulfillment of Purchase Intentions

About 40 per cent of all purchase plans were fulfilled in the course of Ferber's study, but the proportion was found to be over half if only plans with a definite time of purchase were considered. (12:44) The degree of certainty with which the plan was held exhibited a similar but less-powerful effect, although about 60 per cent of the plans for major household durables were reported as "sure" or "almost sure" of being fulfilled.

Relatively few clear relationships appeared between degree of fulfillment and socio-economic characteristics of the families. Improved financial circumstances and expectation of improvements in financial circumstances during the six months following statement of intentions did, however, relate to greater frequencies of fulfillment of purchase plans. (12:44-45)

In a discussion of fulfillment of buying intentions by Katona and other members of the Survey Research Center staff, change in personal financial condition appeared as a relevant factor in the fulfillment of intentions to purchase automobiles. According to this discussion: "Among those who report income increases during the purchase year the fulfillment rate is much higher [63 per cent] than among those whose income was unchanged [50 per cent] or reduced [47 per cent]." (73:170) Katona credits "adverse developments making it impossible or inadvisable to carry out . . . plans . . ." as responsible for actions contrary to expressed intentions to make a purchase. (35:82)

People with incomes of $3,000 or more realize intentions to buy

automobiles much more frequently than those with lower incomes. Fulfillment is related to changes in personal financial conditions or, more specifically, low rates of fulfillment among planned purchases are related positively with surprise expenditures, but not with improvement in the total financial situation during the entire year; a change which does not necessarily make cash available. (73:170)

Kosobud investigated fulfillment of consumer buying plans to determine, "whether or not the predictive performance of a buying intention can be improved by relating this intention to other information about the consumer." He found income to relate significantly in terms of dollar value to fulfillment of intentions to purchase cars and for additions and repairs to housing, but not to fulfillment of intentions to purchase other durables. Again in terms of dollar amounts, age of the head of the spending unit appeared to associate positively with fulfillment of intentions to purchase cars and/or make additions and repairs to houses, but negatively with fulfillment of intentions to purchase major household durables. (48:42,50)

Juster's work as reported under several titles took place within the framework of an extended study of the role played by consumer intentions, expectations, and attitudes in the formation of spending decisions, with the "ultimate objective (of) development of tools for forecasting the volatile portion of consumer spending and on relating such forecasts to movements in the national economy." (32:vii)

His study drew samples from the membership of the Consumers Union of the United States and investigated their response to questions designed to elicit information on the interrelation of stated intentions to purchase, and expectational characteristics. Specific questions

designed to establish the planning horizon and certainty of the plan along with factors upon which the plan was considered contingent also were used.

After initial categorization of the households into specific income-age groups, examination of the relationship between a set of factors and planning or purchasing followed. A large proportion of those factors appeared to associate directly or indirectly to plans and purchases and led to detailed study of the "more promising" inter-relationships. (32) (30)

Christenson studied planning behavior of a panel of farm families over a period of three and one-half years and included fulfillment of purchase intentions as one of three measures of planning behavior. He reported that age and income, "played minor roles in explaining variation in the percentage of . . . plans fulfilled." (5:297) Families with younger heads and greater incomes represented the higher rates of fulfillment. None of seven remaining farm family characteristics appeared to be influential to fulfillment. These included gross value of farm production, education of head, stage in life cycle, size of farm, type of farm, ownership of farm, extent of off-farm work.

Planning characteristics studied were whether or not a brand name was specified; the time of year that the plan was expressed; the number of plans expressed at that time; and whether the plan was to be fulfilled in six or twelve months. Of these, mention of a brand name and time of year plan was expressed (plans stated in January) appeared to have a statistically-significant relationship to fulfillment of intentions to purchase.

Christenson also studied four product factors as determinants of planning behavior. These included cost of the goods, frequency of purchase, extent of advertisement, and whether it was classified as a producer's or consumer's good. Of these, only the extent to which the product was advertised showed a significant relationship to the percentage of plans fulfilled. (5:298)

## Environmental Characteristics of Spending Units

### Income

The overall impression gained by review of the literature in which income has been considered as an influence on purchasing decision behavior is that of an indispensable enabling factor which, after it has been fully taken into account, leaves a great many variations in economic behavior unexplained.

Katona states: "According to (traditional) theory, all consumer expenditures, including expenditures on durables, are a function of income." He goes on, however, to point out that "if this were the entire explanation, changes in the proportion of income spent on durables, as they occur from one period to the next, would not be accounted for." (35:22) In general Katona seems to see income as the enabling condition on which ability to buy eventually depends; the net effect of which is highly modified by factors influencing the consuming unit's willingness to buy. (35:173) (36:3-4)

The economic situation current in the United States in which a large proportion of all spending units have a large proportion of income available for discretionary spending also affects the overall influence that income has on purchasing behavior. According to Gross and

Crandall, "As income increases, the proportion of expenditures for items other than food, housing, and clothing increases significantly . . ." (25:349)

The influence of income is seen then to vary not only with the type of good but also with the specific measure of purchasing behavior used. In 1960 the Survey of Consumer Finances reported:

> The proportion of income spent on major durable goods does not rise with income. In 1959, spending units on the average spent approximately three per cent of their income on furniture and household appliances. The proportion was slightly higher among spending units in the lower part of the income distribution than among those in the upper part. . . . [over time] the proportion of income spent on durable goods is fairly constant over the entire income scale . . . the absolute amount spent on appliances and automobiles rose with income. (71:30) (italics inserted.)

But in consideration of the proportion of spending units making purchases, a Survey of Consumer Finances report for the following year stated: ". . . in general, spending units in upper income groups purchase durable goods more frequently (italics inserted) than spending units in lower income groups." (72:25)

Concerning purchases of household durables only, the earlier report goes on to state:

> Married spending units with children at home and who belong to the highest income quintile represent . . . frequent buyers [proportion of buyers in excess of 60 per cent], as well as younger married spending units without children and who are in the fourth income quintile. (71:32)

Klein, in a durable goods study (1952) reports: ". . . at low income levels, expenditures on durables are frequently nil or small positive amounts. Expenditures rise somewhat faster than at a linear rate in the low income groups but thereafter the relationship becomes essentially linear." (45:390) Klein and Lansing (1955), however, found the income coefficient in a multiple regression analysis of decisions

to purchase durable goods to be, ". . . relatively small and unreliable . . ." for explaining or predicting purchasing behavior. (46:119)

Ferber's 1955 study reported: "Purchase rates (per family) for clothing and appliances rose consistently with income, whereas those of furniture, automobiles, and housing items were at a maximum in the middle income levels." (16:26) Also, "Middle income families reported more plans per family for each type of goods than families at other income levels." (16:41) But, "Contrary to the findings with regard to actual purchases or purchase plans, little relationship was detected between degree of fulfillment of purchase plans and . . . income . . . ." As a suggestion for further research, Ferber reports a tendency toward a higher rate of fulfillment among middle income families in which some indication of the time the plans were to be fulfilled was given. (16:47)

As discussed earlier in the section of this chapter dealing with purchase intentions (page 22), Juster considered expressions of intentions to be "probability statements" concerning the household's likelihood of purchase and reported that, "the probability of purchase among intenders and non-intenders does not vary with income." (31:108)

Juster's study found that:

> Family income and age of household head are two of the most important variables associated with both buying plans and purchases, . . . in general, the higher the income level, the more plans and purchases, in groups of households with the same age of household head; the younger the household head, the more plans and purchases, in groups with the same amount of income. . . . the income and age relationships are somewhat different for automobiles and household equipment. Income is more closely related to automobile purchases and plans than to those for household equipment. The reverse is true for age. (32:ix)

In addition to this strong association of income with age, the further and perhaps more obvious associations of income with occupation

and education, housing status, and asset holdings must be kept in mind. Also, since study of spending unit behavior deals with discretionary expenditures, total income level including that habitually allocated for fixed expenses may not be as important an influence on decision behavior as the specific level of income available for discretionary expenditures.

Debt level

Since credit, like income, represents an enabling factor in the process of purchasing decisions, its use and the resulting debt status has been frequently included as a variable in studies of consumer behavior. As such it has been found to associate with other commonly used variables such as age, income, type of goods purchased, and the like.

Katona points out that

> . . . incurring debt occurs less frequently among lower-income families [under $4,000] . . . than among upper-income families [over $6,000], . . . families the head of which is under 45 years old with children (under 18) incur debt much more frequently than [older families, young families without children, or young single persons]. (42:44)

Later he stated that it is the middle- and upper-middle income groups that think most favorably of installment buying, (35:100) and that the largest proportion of installment debt occurred among . . . 1) those whose income had gone up, 2) those whose incomes were expected to go up, and 3) those whose incomes had gone up and were expected to go up. (35:188)

According to the authors of Workingman's Wife,

> some [wives of wage earners] have learned 'the hard way' that there are other hidden dangers in 'time payments', as when a family is led to unrealistically over-extend itself in making the initial purchase. What has happened in such cases is very simple: the periodic payments have seemed so invitingly low,

> perhaps only in contrast to the cash price involved in outright purchase, that they have bought cars, houses, or household appliances only to discover later that they had gotten in 'over their heads' financially. The image which these women now carry around in their minds of bill collectors or repossessors standing threateningly at their doors has frightened them into espousing policies of extreme conservatism. (64:167)

Concerning age and debt, Fisher reported in 1948 that "somewhat more than half of the spending units in each of the age groups under 45 used installment credit for some or all of their durable goods purchases, while only one-fourth of the purchasers 65 and over resorted to credit." (20:65)

At the time the data for this study were collected the Survey of Consumer Finances reported that 48 per cent of all spending units owed installment debt, with this debt found most frequently among spending units with an annual income between $5,000 and $10,000. Spending units with income under $2,000 were "overwhelmingly debt-free." Again, installment debt was most frequently found among spending units, the heads of which were 25 to 44 years of age. The relatively large <u>amounts</u> of debt were also found in the 35-44 age group; then, as age increased, the <u>frequency</u> of debt was seen to fall off rapidly. (71:150)

Varying viewpoints as to the effect of debt status on purchasing behavior are to be found. According to Enthoven: "Sales of durable goods are sustained by those who are relatively debt-free, and, as they purchase durables and go into debt, their places in the ranks of the debt-free are taken by others." (15:922) Meanwhile Tobin's findings were that: "Households beginning the year deeply in debt tended to reduce their indebtedness while households which began the year with little or no indebtedness tended to incur new debt." (77:521-545)

Klein and Lansing in a study of consumer decisions found

> . . . a positive correlation between debt holdings and frequency of purchases. Possibly, those in debt are in the habit of borrowing to purchase consumer durables and continue to do so from one period to the next . . . debt status . . . shows a significant positive relation to spending decisions . . . the only traditionally economic variable found to be a significant discriminator. (46:114,120)

In their discussion of these findings Klein and Lansing write:

> The effect of debt at the start of the year on purchases during the year is the opposite of that which we expected. The existence of debt seems to be an indication more of a continuing willingness to buy than of an inability to pay for purchases. In fact, our finding is that the larger the debt in relation to income the greater the probability of buying. We have been led to speculate that this finding may reflect greater continuing need for goods on the part of borrowers. It may be that they are people who are under pressure to buy, pressure heavy enough to push them into borrowing and continuous enough to push them into buying repeatedly. Another possibility is that the borrowers fall into the group of natural spenders. (46:130)

According to Juster:

> Thus, we have six known or assumed relationships, with age and income kept constant:
>
> (1) Debt is strongly and positively related to recent acquisitions (known).
> (2) Debt is moderately and negatively related to buying plans (known).
> (3) Buying plans are strongly and negatively related to the stock of durables (assumed).
> (4) Recent acquisitions are weakly and negatively related to the stock of durables (assumed).
> (5) Debt is weakly, and probably negatively, related to the stock of durables (assumed).
> (6) Buying plans and recent acquisitions are weakly, and probably negatively, related (assumed).
>
> If these assumptions are correct, there is almost certainly a negative relationship between debt and buying plans, with age, income, stock of durables, and recent acquisitions of durables kept constant. (32:87-88)

## Liquid assets

While level of liquid asset holdings of a spending unit might at first seem to be a prime factor in purchasing behavior, review of

literature in which it has been considered as a variable in decision does not bear out this first impression.

According to Katona,

> Available liquid assets do represent enabling conditions for consumer expenditures; and the larger the liquid assets, the greater their possible contribution to spending. Even in this respect, it should be kept in mind that a large part of the so-called liquid assets represents what people consider to be permanent savings, and subjective liquidity is not the same as legal liquidity. (34:214)

As a somewhat recent development Katona points out that in cases where a given purchase would exhaust a large part of the liquid assets of a household, "consumers frequently buy on the installment plan, even though their liquid assets would permit them to pay cash for their purchases. In the late 1950s and early 1960s one-fourth to one-third of installment buyers had enough money in banks and bonds to pay cash." (34:235)

The relationship of liquid asset holdings to purchasing in general is not clear, then, and seems to change over time. Klein and Lansing reported "little or no relation [of liquid assets] to purchase decisions . . . in contrast to findings of earlier investigations." (46:129) Several years earlier Klein had reported: "For the sample as a whole . . . we find a positive relation between liquid asset holdings and durable expenditures." The positive relationship was found to decrease at larger income levels and to approach zero at an income level ". . . somewhat over $10,000." (38:236)

Fisher reports in 1963:

> [Although] assets do not help in the discrimination of buyers from non-buyers, they do help in the discrimination of cash from credit buyers as well as in accounting for the size of net outlays. . . . Because size of total liquid assets is positively related to cash buying, it has been argued that consumers prefer to use these assets for purchasing durables

> rather than incur debt. However, this relation to asset size to cash buying seems to be primarily a function of those assets which are held in the form of savings accounts and/or savings bonds, and the evidence is that these are not the ones used to purchase durables. . . . it is only the most liquid of the liquid assets measured which helps to account for net outlays on automobiles and household durable goods. (21:653, 655-656)

Katona reports the following relationship of age and liquid asset holdings: "In 1962 the proportion of families having at least $2,500 in liquid reserves was 15 per cent among those with a head under 35; 24 per cent in the age group 35 to 44; 36 per cent in the age group 45 to 54; and 40 per cent among those over 55 years of age." (34:206)

Wife's income-producing status

The literature reveals little information concerning the income-producing status of the wife as a variable in purchasing behavior. Katona and Gross and Crandall, however, do discuss factors associated with the event of the wife holding a job that permit her to contribute to total spending unit income.

Katona reports:

> Returning to work [of wives] when the children were in school increased in frequency during the 1950s, together with growing affluence. . . . In 1959, . . . close to 40 per cent of wives earned some income.
>
> Middle- and upper-middle-income families show the greatest proportion of wives working. The highest proportion--50 per cent of complete families [husband and wife present] in 1962--is found in the $7,500 to $15,000 income group. Even in the $15,000 to $25,000 group one-third of complete families had a working wife.
>
> Well-educated women, whose husbands are usually in the middle- or upper-income brackets, are the most dissatisfied with staying home when their youngest child reaches school age. They are also in the best position to find remunerative employment. (34:114-115)

According to Gross and Crandall: "There is a general assumption

that [the purchase of durables as a type of savings] is important in the families of working wives." (25:204) This assumption is supported by Knoll's findings which state that "with the exception of rural women with full-time jobs outside the home, 50 per cent or more of the women in all occupational classes report doing all housecleaning, food preparation, food preservation, and care of clothing." (47)

Considerable qualification of the wife's income contribution is necessary in order to hypothesize its effect on the household and its purchasing behavior. In general, the proportion of income used to offset job-necessitated expenditures is huge when compared to that of the head of a household. Holmes, in a study conducted under the auspices of the USDA Agricultural Research Service Bureau, found that "The entire group of employed wives was able to retain an average of 59 per cent of the mean income for family use; the group of employed wives with children under six retained an average of 52 per cent." (27)

In a report completed by Ferrar in 1962, conclusions were that the net gain [proportion remaining after allowing for job-necessitated expenses] realized by working wives regardless of occupation class, income level, or type of employer, [e.g., commercial, governmental, institutional, etc.] amounted to 54.6 per cent of their 1960 mean cash income. For wives in professional occupations the mean net gain represented 59.1 per cent of annual income while those in clerical positions realized 53.8 per cent of their income as net gain. (19:84)

Gross and Crandall further differentiate between families in which the income contribution of the wife is made to meet the needs of the household, finding that ". . . 42 per cent of families in which the wife worked were in 'need' without her earnings, as compared with 32 per

cent of families in which she did not work." They also point out an association of the wife's income-contributing status with the number and age of children, race, residence, and education, in which the event of the wife being gainfully employed associates with older children, fewer children, non-white race, urban residence, higher levels of education and an increase amounting to a little more than 50 cents per week per family member in food expenditures among those families in which the wife works. (25:202)

Housing status

In the literature, housing status appears to have received some consideration as a variable in purchase behavior. Among these, Klein (1955) found homeownership to be related to purchases and Fisher (1963) reported monthly rental and mortgage payments to appear negatively related to buying durables. (45:398) (21:651) According to Juster, there are "substantially" more purchases of household equipment among households that acquired homes within the two previous years. Even an intention to purchase a home increases intentions to purchase household durables. (32:xi)

Review of the literature also shows housing status to be associated with several other variables commonly used in studies of purchasing behavior. Katona has shown that homeownership is positively associated with income. (34:269) Ferber points out that the "purchase of furniture is positively associated with housing purchases and housing purchases are positively associated with purchases made by wives . . ." (17:346)

Data from the Survey Research Center show that homeownership increases with age and income, and declines among spending units in which

the head of the unit is employed in an unskilled occupation. (71: Tables 3-7, 3-8, and 3-12) A later survey shows homeownership to be more frequent among spending units with higher incomes and among those units in which children are present. (73:77)

David's summarization of characteristics of homeowners as a group listed families with higher levels of income, and larger families. The group also included a large proportion of older married couples. (8:55)

Housing value

Many of the variables such as income and age associated with variation in housing status also are associated with variation in the amounts of housing value held, especially in regard to income. (71: Table 3-12) An association of family size with higher housing value may not follow, however, in that David has shown that the price per room declines with family size. (8:76)

Life cycle

As an indication of the regard with which life cycle is held as a variable in consumer behavior studies, Lansing and Kish write: "To understand an individual's social behavior it may be more relevant to consider which stage in the life cycle he has reached than how old he is." (50:513) Katona's findings as to the relationship of purchasing and life cycle stage seem to justify this stand:

> . . . Frequency of purchases was the highest when the head of the family was between twenty-five and thirty-five . . . married couples bought durables more often than single people . . . for most durables, having children was associated with frequent purchases . . . the first few years after marriage when children are small, people spend a lot on equip-

> ping their houses and on buying autos. Teenagers, on the other hand, have been thought to need more food and clothing as well as larger expenditures on education and recreation; therefore, their parents would be compelled to restrict their expenditures on durables. (35:165,168)

Lydall presents:

> . . . an impressionistic picture of the typical life cycle. Young men and women, before marriage, do not normally earn very large incomes. They spend what they earn very freely, with little thought for the future. Immediately before and after marriage, however, they begin to set aside what surplus they can for building up a home. In the next twenty years or so they are usually preoccupied with supporting their children, and their savings are not, on the balance, very great. After middle age, the number of dependents declines more rapidly than income, expenditure on durables also falls away, and people begin to put aside larger sums for their old age. After retirement they usually draw down their capital in order to supplement their shrunken incomes. (52:149-150)

Survey of Consumer Finances data show that married spending unit heads and those with children under 18 years of age are the most frequent purchasers of household durables, with those with children purchasing at a rate "significantly greater" than that for all spending units. (73: Table 2-14)

David and Juster, on the other hand, report some restrictions on the use of life cycle stage as a variable in studies of purchasing behavior. According to Juster, ". . . anticipatory initial-data variables are more closely related to purchases in households with younger heads while objective initial-data variables seemed to have no life-cycle pattern at all vis-a-vis purchases." (Initial-data variables refer to those variables concerning which data are collected in advance of the behavior under study.) (31:188)

David reports:

> Tabulation of the component durable purchases according to the age of the head and family size indicates that only purchases of furniture are related to the life cycle pattern. . . .

> Purchases of other durables can be explained equally well on the basis of family size alone. (8:34)

Bigelow suggests a factor that would account for considerable variation in purchasing behavior within a given state of the life cycle.

> A family's situation in any given stage of the family life cycle depends in large part on what it has accomplished or failed to accomplish in earlier stages. Many of a family's most difficult financial problems are due to the fact that for one reason or another--sometimes lack of knowledge, sometimes circumstances beyond its control--it has been unable in an earlier stage of the family cycle to make provision for some one or more of the family's wants. (1:27)

Katona reports:

> Dissaving, especially in the form of installment buying, is closely correlated with the life-cycle stage. It is most frequent among young married couples with children . . . by contrast, saving as we reported before, is most common between the ages of forty-five and sixty-five. (35:103)

Reports on empirical research concerning life-cycle stage as a factor in purchasing behavior are scarce, as are studies dealing with the sex and marital status of the head as variables. In view of the fact, however, that typical life-cycle stages as presented in Survey of Consumer Finance (i.e., 73: Table 2-19) reports tend to produce extremely small cell sizes and do not permit regrouping into meaningful categories, perhaps study of discrete spending unit characteristics such as age of the head, number in the spending unit, and sex and marital status of the head has a higher probability of yielding valid findings.

Sex and marital status of head

A report published by the Survey of Consumer Finances concerning the percentage of spending units purchasing furniture or household durables during 1961 shows that 15 to 25 per cent of the units with single heads made such purchases as compared to 34 to 53 per cent of

those units with married heads. The purchase rate for a given marital status varied with the age of the head and the presence or absence of children under 18 years of age. Similar statistics relating to spending units with male and female heads were not available. (74: Table 3-10)

Age of head

Among demographic characteristics, the age of the head of the family or spending unit is one of the most frequently cited variables in the study of purchasing behavior.

Calling attention to the influences of the age of the head on a domestic spending unit's economic decisionmaking machinery, Juster points out that age of the head (along with family income) is one of the most important variables associated with buying plans and purchases. When income was held constant, plans and purchases were more frequent for units with younger heads. (32:ix) Kosobud found age to have a negative and "highly significant" relationship to purchase plans for major household durables. (48:50)

Ferber reports that,

> Families with the highest rates of durable goods purchases were generally those in [which the] head of the family was between 20 and 50 years of age . . . families reporting the most plans were those whose heads were between 20 and 34 years of age . . . families with younger heads reported a greater-than-average number of plans for purchasing furniture, automobiles and auto accessories, and housing items. Degree of fulfillment of purchase plans whose timing was given was somewhat higher, however, among middle-income families and among families with older heads. (16:26,41,51)

According to Klein and Lansing's report:

> . . . we see a familiar pattern, namely, that buying grows with age and then falls after either 45 or 55 years. This pattern is most apparent in the middle-income classes where we have comparatively large frequencies. Some of the deviations from this pattern in other classes may be due to

> sparse inhabitation of certain cells. Both age and marital status are correlated with income, and when we give them all equal treatment in one multivariate relation, the influence of income is considerably dampened in favor of [age of the head and marital status]. (46:117)

The 18 to 34 age of the head group has a higher rate of expenditures for durables in relation to income. According to the 1962 Survey of Consumer Finances, the 1961 expenditures for major household durables made by 40 per cent of the spending units in which the heads were 18 to 24 years of age, represented the smallest average expenditures of this type, when compared to any other age group, but was the largest in terms of percentage of the year's income spent. The same table shows that income rises steadily from a low among spending units with the youngest heads to a peak in the 45 to 54 age-of-the-head group, then begins a steady decline. (73: Table 2-18) Sixty per cent of the spending units whose heads are 18 to 24 years of age and 81 per cent of those with heads 65 and over are found in the two lowest income quintiles, while 58 per cent of the units with heads 35 to 44 years of age are in the two highest quintiles. (73: Table 1-7)

Spending unit size

David showed that larger families were more likely to purchase durables--freezers, washers, driers--that would replace the need for commercial services. Television purchases, although substitutes for paid entertainment, were not related to family size. (8:44,95) Earlier (1955), Ferber found concentration of purchases and purchase plans to be high among spending units with larger numbers of members. (16:26,41)

Occupation and education of head

The 1961 Survey of Consumer Finances has shown that durable

purchases, especially of automobiles, increase with the type of occupation and degree of education held by the head of the spending unit. (72:25,38) On this basis the relationship of occupation and education to purchasing behavior might be similar to that of income in that data from the same survey show a strong tendency for positions in upper income quintiles to be occupied by spending units in which the head is employed in white-collar positions and/or reported to have attained higher levels of education.

Klein and Lansing concluded that failure of occupation and education variables to influence purchasing decision was due to high intercorrelation with income in multivariate analysis. (46:117) Ferber found rates of planning and purchasing to be at their maximum among professional, managerial, and skilled laborers' families. (16:31)

Watts, on the other hand, suggests the possibility of influence of occupation and education distinct from current income level, using instead variation in long-run income expectations associated with these demographic variables. His study then confirmed hypotheses that the savings (and dissaving) behavior of spending units related to the nature of long-run income expectations.

Occupations with expectations of unstable incomes were hypothesized to save larger amounts early in the life cycle than would units expecting their incomes to remain stable. Spending units with higher educational attainment were thought to associate with reduced consumption on the basis of increased far-sightedness and stronger retirement motives. (82:142)

## Part Two: Theoretical Approaches to the Study of Household Decision

### Models in General

At this point the review of literature turns from the findings and deductions of existing studies of decision behavior to examine the theoretical bases on which they were developed. In most early studies the author's theoretical position is implicit in the work, but many recent studies present the pertinent concepts and relationships in the form of a model, allowing more precise reproduction or extension of the study.

Magrabi defined models in general as "abstraction/s/ typifying any real situation belonging to a specific class." (54:671) Lippitt defined a model as a

> . . . representation in symbols of the structural elements and the essential relationships of some real system of behavior, insofar as it is helpful to the problem at hand. By elements of a system I mean the component parts and the forces that lead to change or action of those parts, or to change in the system. [The stated purposes of a model] are 1) to communicate information economically about the real system, or 2) to provide a logical aid in comprehension, analysis, and prediction of the structure and actions of the real system. (62:172,173)

Examples of real systems or situations are the solar system or an organized group of persons, while a verbal or graphic description of the relationships and interactions involved serves as a model of the system.

Traditionally, research in human behavior, decisionmaking, and especially consumer behavior has used, explicitly or implicitly, a model that attempted to relate independent environmental variables directly to dependent action. (Figure 2.2) Variation of input was hypothesized to bring about variation in the output. Although the

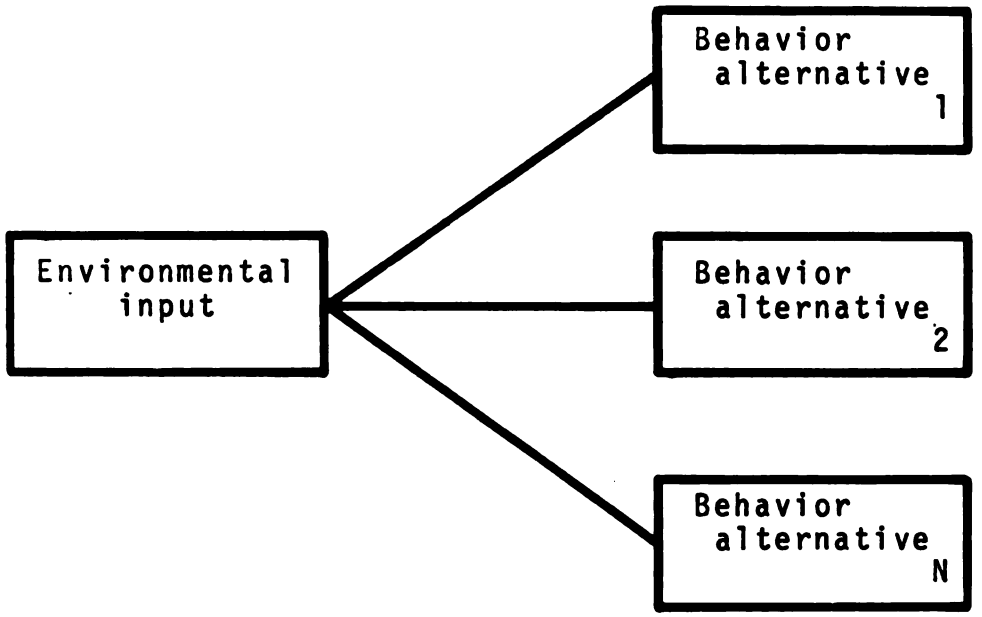


Figure 2.2 Illustrated traditional model of decision behavior*

*(35:54) (23:1) and others

hypothesized relationships were found to exist at times, this approach was not, according to Foote, successful in the discovery of dependable predictors of human behavior. (23:2)

Foote, in 1961, reported a trend away from this inadequate approach, the trend being typified by Clawson who stated:

> The demographic characteristics [for example] are simply signals or clues pointing to intermediate factors. . . . in order to better predict, we have to go beyond proxy variables such as age, income, and the like to seek out the kinds of intervening variable that Lewin and Katona have pioneered in exploring. (6:202)

Concurrently, Lippitt presented a general model (Figure 2.3) for household decisionmaking in which appropriate environmental input was fed into a system; the variables of which were determinants of decision behavior. (51:172)

Foote's evaluation of the new approach reads:

> Among the scientific reactions to the faltering predictiveness of conventional predictors, perhaps the most constructive have been the efforts of a number of investigators, . . . to penetrate more intensively the connections between the independent and dependent variables of consumer behavior, not merely by refinements in measurement, but by theoretical thinking. . . . They have begun to recognize that the consumption occurs in or through certain units that possess properties of their own and, moreover, changing properties -- which mediate the relations between antecedents and consequences. (23:4)

In light of this approach, Foote's definition of a model was more specific than that of previous definitions and was couched in terms of empirical research. He described a model as:

> a theory of how some unit of behavior operates, stated in the form that will generate quantitative predictions and permit itself to be operationally tested. It may consist of a very elaborate interconnection of hypotheses or component relationships or a very limited set; but, generally speaking, it contains three parts: inputs or independent variables, units or intervening variables, and outputs or dependent variables, with the central part receiving the principal attention . . . (23:4)

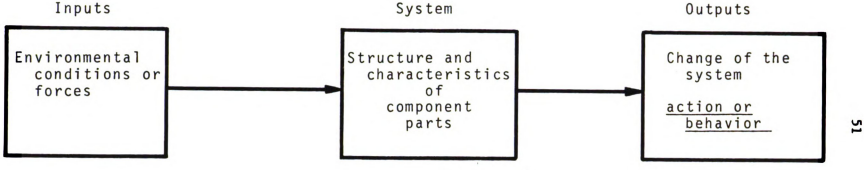




Figure 2.3 Lippitt's general model *

*Lippitt (51:173)

## The Intervening Variable

Katona's work, dealing with attitudes, expectations, and the organism in general as intervening variables, provides the most thorough treatment of the theoretical nature of the intervening variable as encountered in studies of consumer behavior. Katona holds the generalized way a particular organism feels, thinks, and acts to be an intervening variable, standing between the stimulus of environmental conditions and the organism's behavior. In 1960, he wrote:

> Modern psychology does believe in determinism, law, and order in human behavior . . . . Yet it does not . . . posit a fixed, one-to-one relation between stimuli and responses. Stimuli elicit responses: they present occasions [italics inserted] for responses rather than fully determining them. It is not possible to predict the response by knowing the stimulus alone. Two persons may react differently to the stimulus, and the same persons may react differently to it on successive occasions. Human beings are capable of learning. Mechanistic or quasi-automatic reaction determined by immediate stimuli alone is extremely rare in the case of what psychologists call the higher mental processes, which include most of economic behavior.
>
> The psychological field contains intervening variables. Between the stimuli and the response is the organism. As a result of past experience there exist habits, attitudes, and motives which intervene by influencing how stimuli are perceived and how the organism relates to them. The response then is a function of both the environment and the person.
>
> Turning to economic behavior, level of income and financial assets function either as enabling conditions (if they are ample) or as constraints (if they are insufficient). Things that happen to the decision maker are precipitating circumstances or stimuli. A change in salary or the breakdown of one's car may serve as examples. . . . How we perceive changes in the environment depends to some extent on us, that is, on subjective or intervening variables. The most important function of intervening variables is to organize [italics inserted]. (35:55-56)

Four years later Katona added:

> Only in certain lower-order responses do we find a one-to-one correspondence between the stimulus and the response. . . . Information [a major form of stimulus for economic behavior]

> on changes in the environment is filtered through a variety of intervening variables. These consist, in addition to innate capabilities and personality traits and sociocultural norms acquired in early childhood, of the sum total of the individual's past experience. The information transmitted which impinges on the individual is not identical with the information received. Our perceptions are a function of intervening variables, and our responses depend both on perceptions and on intervening variables. (34:34)

## Criteria for Models in General

According to Magrabi (54) and Clawson (6), the development of a model must take place according to certain rules and the model must possess certain criteria to make it adaptable to testing by scientific methods.

Lippitt lists the criteria for a model of household decision as follows:

> 1. Operational character. The component parts and the forces involved in the model must be capable of definition, observation, and (usually) measurement. Only so can hypotheses regarding the structure and the relations within the model be capable of verification or refutation through observation or experiment.
>
> 2. Causal relevance. The concepts (the component parts and forces) involved in the model must have explanatory and predictive power with regard to the output behavior which it is desired to specify. The model developed should refer to the specific content of spending decision, i.e., types of products purchased and amounts spent, as well as to the nature of the decision making process itself.
>
> 3. Completeness. The degree of detail in specifying the parts and the relationships within the system must be complete enough to explain and predict buying behavior at whatever level of aggregation (by consumer units or by products) is needed for the problem at hand. Thus a much more detailed knowledge of households and the forces acting on them would be needed to predict refrigerator purchases by individual households than to predict aggregate expenditures for all goods and services by all households.
>
> 4. Dynamic properties. In prediction, what we are concerned with is essentially the understanding and forecasting of changes in the system from its current status. Consequently the specifications of the system should permit determination

of the reaction of the system to varying external forces, and it should also allow for determination of changes in the structure and relations within the system over a period of time. (51:173)

# CHAPTER III

# CONCEPTUAL FRAMEWORK

## Introduction

The primary purpose of this chapter is to present and discuss the model representing the conceptual framework within which this study is carried out, beginning with its relationship to theoretical models in general. Examination of the central element which represents the decision situation and intervening variable of this study follows presentation of the model.

## Requirements of a Model for Exploratory Study of the Decision Event

Ferber, writing in the early 1960s, concludes after a survey of the "meager and . . . largely inconclusive . . ." results of empirical investigation of household decisionmaking that, ". . . workable models of consumer purchase decisions have yet to be developed." (18:52) He goes on to state that the construction of a workable model requires knowledge of the manner in which consumers make decisions and of the factors that enter into these decisions. Obviously the workable model and knowledge of factors entering into decision must develop simultaneously in a program beginning with basic exploration in which the model and factors both can be closely examined for validity and reliability.

Consideration follows then, that models representing the theoretical framework for exploratory studies will have a high mortality

rate and consequently should be derived in the most economical and shortest series of steps from the simplest existing models of decision behavior. Simplicity notwithstanding, the model must contain all features described in the review of literature as those of adequate models. Future development of the model, especially transformation into a mathematical model, is an important consideration even though the present stage of the investigation does not permit it.

Although Lippitt (51:173) lists explanatory and predictive power among criteria for models, there is some doubt that a model for exploratory study should attempt to show causal relationship among elements. The primary function of the model for exploratory study is held here to be a means of testing hypothetical relationships between elements of the model, the dependency of variations in one element on variations in another being a function of the way in which the hypotheses are formulated. Consideration appears to be desirable that the model be adaptable to as many types of household decision events as possible but the study is limited to a model assumed to be suitable for exploration of household purchasing decisions only.

The nature of the model must, of course, coincide with the nature of the decision event as "a set of elements necessarily related because of a given space and time relationship." (56:109) That is, all of the elements assumed to be operative in the decision event must be included in the model.

## Span of Decision Event

A first function of the model then is to isolate the phenomenon of decision within the points of awareness and action. This study assumes when a respondent, at initial interview of time $t_1$ states that

the spending unit intends to make a particular type of purchase, that 1) the point of awareness can be established as being at some time prior to the statement; and 2) that the decision alternative "to purchase" has been approached nearly enough to elicit the expression of intent.

Substantial evidence of decision, however, lies in action, so that if reinterview at time $t_2$ shows that the spending unit went on to purchase as intended, there was evidence that decision did take place but the study cannot as yet determine at what point in time the alternative "to purchase" was accepted and meaningful deliberative consideration brought to a close. If, on the other hand, reinterview at time $t_2$ shows that the spending unit did not make the purchase as intended, the researcher can be certain that considerations leading to acceptance of the alternative of action contrary to stated intentions (and the specific situational forces behind acceptance of this alternative) were encompassed within the time period under study.

## Alternatives in Behavior

The concept of decision also demands that alternative behavior be present. To insure this, the design of a study of decision must limit the purchases under consideration to a type requiring considerable expense and exhibiting a comparatively low frequency of occurrence. This step will minimize cases of habitual purchasing behavior while expression of purchase intentions, in and of themselves, will be further evidence of deliberation, discretion, and selection from among behavior alternatives.

## The Anticipatory Factor

Another requirement of a model for decision study is that some

type of relationship must be included to connect dependent behavior to an element of the future, as has been pointed out by Gross (25:73) and Tannenbaum. (76:23) Definitively, decision is selection among alternative forms of behavior that can only be considered by means of judgements based on the deciding organism's perception of future events related to the behavior alternatives.

Katona has shown that how an organism perceives the future is partly dependent on the organism's perceptive ability which, in turn, is dependent on attitude predispositions (as well as other environmental factors, among which education is a prime example) and also, of course, on the quantity and quality of information available concerning the behavior alternatives. According to Mueller: "Consumer attitudes, . . . are situationally determined . . . brought about by changes in external circumstances and by the news which reaches consumers." (59:901)

In summary, a satisfactory model for decisionmaking would appear to insure that the time element of the model encompass the entire decision event, including a substantial element of the perceived future. And, since perceptions are a function of the perceptive ability of the deciding organism as determined by environmental factors and by information perceived, the use of an intervening variable or system in which influential factors are mediated and modified by inter-relationships among themselves is indispensable. This study assumes, therefore, that the model presented by Lippitt, (51:173) modified to insure inclusion of an anticipatory factor, will serve as a basis for a model intended to aid exploration of relationships and elements in the decision event. (Figure 3.1) Further refinements intended to adapt the model more

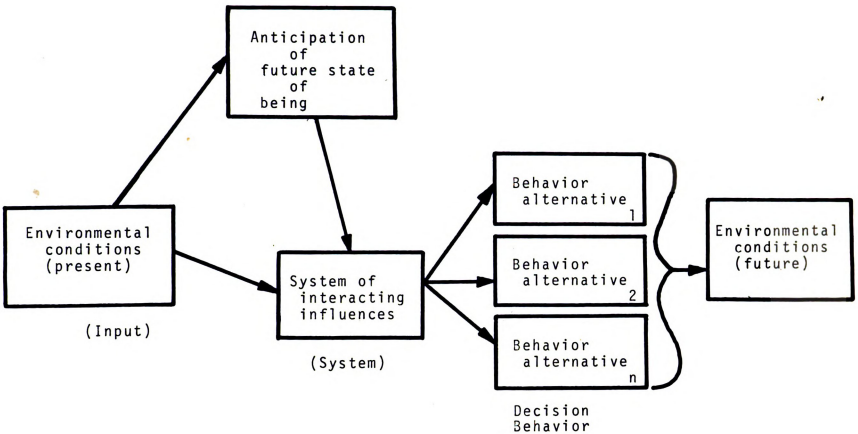


Figure 3.1 Revision of Lippitt's model

specifically to household decision are shown in Figure 3.2.

## Presentation of the Model for this Study

Figure 3.3 represents the model for this study developed according to assumptions based on considerations encountered in the review of literature and the preceding discussion of requirements for a model for decision. In this model, consisting of a set of hypothetical elements and relationships, the spending unit is the deciding organism. No attempt has been made to distinguish features of the spending unit decision as a group process. The output or dependent variable is decision behavior concerning the alternatives of fulfillment or non-fulfillment of stated purchase intentions. Input or the independent variable consists of selected economic, demographic and psychological characteristics of the spending unit. The system within which the influences of input characteristics is hypothesized to be modified is the decision situation, a hypothetical element of the model which will be discussed in the following paragraphs along with descriptions of other elements of the model.

Arrowed lines connecting the elements of the model represent hypothetical association between the elements while the direction as represented by arrow-heads represent hypothetical relationships solely in terms of this study. For example, arrow runs from input to output. No attempt is made to hypothesize causal relationships in application of the model to a real decision situation, but only to suggest relationship according to the design of this and related studies. As has been pointed out earlier in this chapter, this research takes exception to Lippitt's inclusion of causal relevance among other criteria for models. Even in a simple stimulus-response behavior situation it is difficult,

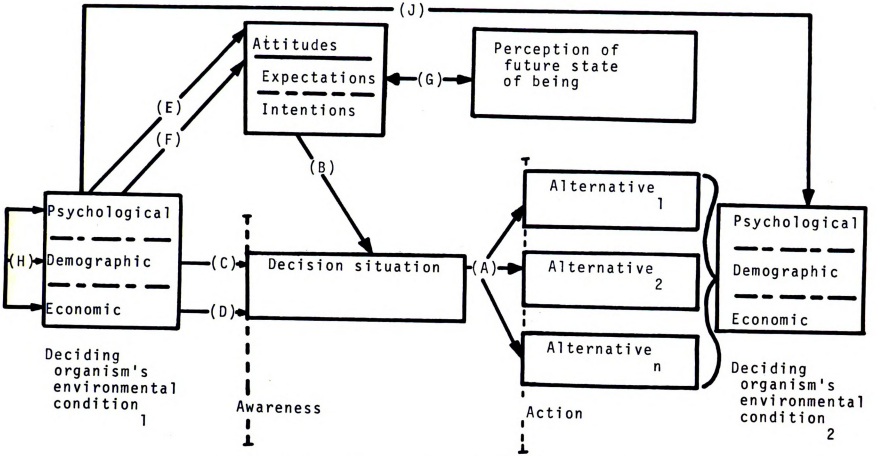


Figure 3.2 General model for household decisionmaking

(Letters in parentheses denote relationships as discussed in this study. Relationships A,B,C, and D indicate relationships on which hypotheses for this study are based.)

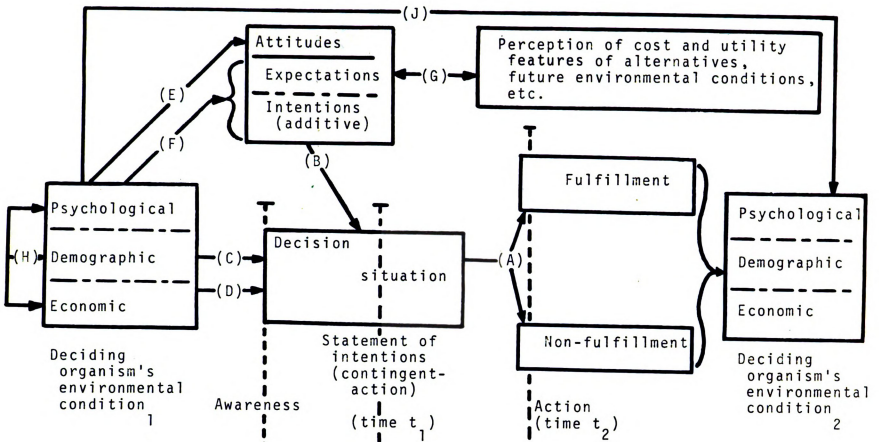


Figure 3.3 Model adapted for study of decision concerning fulfillment or non-fulfillment of purchase intentions

(Letters in parentheses denote relationships as discussed in this study. Relationships A,B,C, and D indicate relationships on which hypotheses for this study are based.)

if not entirely impossible, to indicate the direction of cause and effect. Even in the laboratory there can be no denying that the response pattern of the organism determines to a considerable extent the frequency and manner in which the experimenter presents stimuli.

This situation is, moreover, greatly complicated when an interaction variable is placed between the stimulus and response. A model of decision behavior must necessarily be dynamic in nature, the behavior under study being an element in some larger system. Variation in a single characteristic, then, cannot be viewed as a simple change, but as one which may affect the total interaction system as well as the value of other characteristics. Nielson and Sorenson (61:79) have pointed out the difficulty of assigning cause and effect directions in dynamic situations.

Temptation to assign cause and effect is somewhat heightened here in that the decision event is treated as a static system. To facilitate study, certain characteristics are hypothesized to influence others without regard for the continuing process of change in the total system or for changes that occur in behavior antecedents as a result of the phenomenon under study. (55:635) In actuality the nature of the decision event is dynamic. Cause and effect relationships appear to be circular and difficult to assign.

This model does not attempt to represent study of the decision process as such but merely a cross-section of features at a single phase of the process. This limitation will be further discussed in the section concerning the decision situation.

## Description of the Elements

### Output: Purchasing Behavior

The behavior in which this study and the model are interested is, specifically, selection from among the decision alternatives (a) to fulfill stated intentions to purchase, or (b) not to fulfill stated intentions to purchase. Evidence of selection of a particular alternative lies, however, in action or a report of action by the spending unit that it has made the purchase concerning which intentions were stated. Postponement of the purchase plan is considered as non-fulfillment.

### Input

Input characteristics of this model divide into two major categories: (a) anticipatory characteristics, those arising from the spending unit's subjective judgement concerning future conditions (Figure 3.3:E-F); and (b) environmental characteristics, those that concern objective conditions (Figure 3.3:C-D) in the spending unit's environment, such as income and age. The first category includes the spending unit's perceptions concerning behavior alternatives, and may be typified by the unit's expression of expectations related to the advantages and disadvantages of purchasing, for example, an electronic range.

#### Anticipatory Characteristics

For purposes of this study, interest in perception of future conditions centers around two points: 1) the spending unit's perception of its own environmental condition at some future date, and 2) its perception of the cost and utility features inherent in the behavior

alternatives. More precisely, this concerns the ability of the spending unit to undertake a given alternative and the ability of that alternative to satisfy the desires of the spending unit. Variation in the nature of these perceptions is assumed to depend on the quantity and quality of information concerning future conditions and on the spending unit's ability to transform this information into meaningful judgements, i.e., expectations and, perhaps, intentions.

Perceptions of the future appear in the model (Figure 3.3:G) to have a reciprocal relationship to attitudes in that the organism's prevailing attitude determines how it will perceive the future while, in order for an attitude to be pertinently relative to the behavior alternatives under consideration, it must be modified by the spending unit's current judgement of future conditions.

Following Juster (31:140), this study assumes expectations--as an anticipatory element in this model--to be the spending unit's subjective judgement of what will happen to it. Expectations in conjunction with predispositions existing from the spending unit's environmental condition serve to make up the total of what is considered to be the spending unit's economic attitude. For example, given ability to buy, the environmental background of a family might cause it to view a specific purchase alternative with disfavor and reject it on, perhaps, a moralistic basis. The result is that income cannot under these conditions be considered among influencing factors in this specific purchasing decision. Conversely, if the social characteristics of a family are such that they view selection of a particular purchasing alternative with favor as a source of prestige, income alone may determine the amount of money spent in this way.

The organism's perception of specific behavior alternatives might determine which characteristics or sets of characteristics will be influential in a particular decision situation and which will prove ineffective. Single characteristics that become influential in consideration of a specific behavior alternative would show a direct, but temporary, relationship to dependent action. For example, consider the relationship of liquid assets to purchasing behavior reported by Klein (44) in 1954, and that reported by Klein and Lansing (46) in 1955. Katona explained that this may be the case when ability to buy is adequate and widespread and when no circumstantial influence such as major political or economic crises interfere. (40:6-7)

Under the additivity hypothesis presented in the review of literature, intentions to purchase appear as an element of the model; specifically, a sub-group of attitudes representing an anticipatory condition of the spending unit within which the statement of these intentions was produced.

Under the contingent-action hypothesis, intentions are viewed, not as an element of the model, but as an expression of a judgement of what the spending unit will do, provided the conditions under which it makes the statement are accurately perceived and not appreciably altered before the time intentions are to be carried out.

## Environmental Characteristics

The element representing the environmental characteristics of the model for this study consists of the objective demographic, economic, and psychological input characteristics of the spending unit. For purposes of this study, environment consists of the sum total of conditions that have potential influence on it, including conditions

external and internal to the unit--those conditions of which only the spending unit is aware, and those conditions of which it may not be aware.

Generally, Elbing views the environment of a deciding organism to consist of all ". . . social, political, and economic conditions existing (or perceived to exist) at the time of the situation being analyzed, . . ." (14:43) According to the model for this study, however, the organism does not respond to environmental conditions as such, but to their specific organization in the decision situation and as modified by anticipatory influences.

Included among appropriate environmental input (but outside the scope of this study) are the psychological bases of attitude, termed here as dispositions or predispositions. Other characteristics generally thought of as psychological in nature such as attitudes, expectations, and aspirations are much more complex, and their definitions generally imply an object. (35:56,130) In this sense they cannot be considered as part of the a priori environment upon which the deciding organism draws as it becomes aware of alternative behavior. Definition of psychological dispositions seem to suggest a peculiar set or tendency to respond similarly to a wide range of stimuli (11) but does not imply an object in the sense that attitudes and expectations are attitudes and expectations "about something."

In this sense, the term disposition seems more appropriate to indicate the psychological bases of variation in attitude, although the distinction is far from clear. Nevertheless, the distinction between a latent environmental characteristic and the same characteristic when subjectively qualified relative to some aspect of the perceived future

seems to be of paramount importance during exploration of the antecedents of decision behavior.

This study assumes, then, that environmental characteristics, when considered outside of the context of a specific decision situation, are no more than the basic building blocks of behavior. A family's level of income, for example, is not assumed to influence the actions of the family until a desirable behavior alternative requiring the expenditure of income qualifies the income level as high, adequate, or low. This qualitative judgement, in turn, seems to provide some evidence that income will be influential in this particular decision situation for this particular household. Appropriate environmental input for this model of purchasing decision appears to include economic characteristics such as income, debt, and asset holdings and demographic characteristics such as age, spending unit size, education, and occupation.

## The Decision Situation as an Intervening Variable

The central element of the model (Figure 3.2, page 61), representing the conceptual and theoretical background for this study, is an intervening variable or system within which component characteristics of the perceived behavior alternatives and of the organism's environmental background interact to become a complex influence having a direct relationship (Figure 3.3:A, page 62) to dependent behavior. In this sense, content and structure appear to be specific to the decision situation at hand.

In contrast to the writings of Katona and Mueller, this study assumes the intervening variable to be an autonomous construct

consisting of the combined influence of anticipatory and historical factors. The above authors hold consumer sentiment (59:899), attitudes, expectations (36:56), and "the organism" (36:54) to be intervening variables. Nevertheless, the concept of intervening variable in this study seems to be a special case of Katona's view of the organism as an intervening variable, mediating the influence of environmental factors on behavior.

This study assumes the intervening variable to be a set of such characteristics having a definite structure or relationship to one another; the content of the set and its structure being specific to the organism and to the behavior alternatives under consideration. Published definitions of the term situation vary and often overlap with those of environment, preventing sharp differentiation of the concepts. A review of definitions by several authors discussed by Bossard and Ball (3:43) does show consistency in the inclusion of such terms as constantly-changing, complex, and dynamic, as well as inclusion of references to time, specific focus, and reciprocal relationship among stimuli. Consideration of only the terms which are fairly consistent from definition to definition helps to identify and clarify the concept of situation distinct from that of environment. The strongest points of differentiation appear to be variations in the specification of time and focus.

The intervening variable of this study is a specific decision situation whose structure and content influence dependent decision behavior. Terms such as frame of reference or life space would also be appropriate to describe the decision situation, but the importance is its mediating or intervening position relative to environmental input

and dependent behavior.

The particular influence of interaction among a specific set of characteristics in the decision situation, immediately calls into play or eliminates other characteristics in terms of their influence. As a result, the decision situation appears to be constantly-changing at a rate much faster than changes in the value of environmental characteristics. Description of the situational field or climate of decision -- or any study of its components -- must necessarily deal with a single phase in the continuity of change. Consequently, this study does not touch on the decision process as such, but concerns itself with investigation of the climate of decision at a particular point in time between awareness of alternative behavior and action.

The fact that this study does not claim to investigate the decision process does not imply that process can be completely separated from study of the influencing factors. Manifestation of more-conscious structuring of the component characteristics (such as the expression of a preference among behavior alternatives) appears to be evidence that the decision process is taking place. Analysis of the decision situation must proceed not only in terms of a specific set of influences and alternatives, but with the on-going process in mind. This process appears to be the sequence of changes that occur as various sets of complex influences impinge on the deciding organism. Description of the situation, then, at each of its continuous phases might be a comprehensive description of the decisionmaking process and, in the same sense, description of a single phase might be useful in predicting the makeup of the next phase or the direction in which the process will move.

Organization of Situational Forces

Evidence that organization exists among the component characteristics in the intervening variable, and that this organization is specific to the decision situation--that is, specific at a given time to the deciding organism and the alternatives under consideration--appears to lie in changes in the degree of influence thought to be held by certain characteristics at certain times during the decision.

For example, demographic factors such as age of the head or presence and age of dependents, economic factors such as housing value held or anticipated income change, and also the cost and utility factors perceived in the alternatives of moving or not moving may influence a family in the process of deciding whether or not to accept a job that demands relocation in another part of the country. As selection among alternatives is made relative to the factor most influential at that particular phase, the organization or structure among characteristics changes and another in the set of pertinent characteristics takes its place. The content and order in which component characteristics are considered appears to be peculiar to the deciding organism, its environment, and to its perception of the available alternatives at that particular time.

Each of these changes in the specific organization or structure of the component factors is due to changes in the organism's perception of the total situation. Similarly, objective changes in the environment during consideration of the alternatives or changes perceived by the organism, will also bring about changes in this structure (providing the change is perceived as being pertinent to the situation). Gartner, Kolmer, and Jones, for example, point out that:

> A decline in ready cash or increase in debt may cause one individual to reduce immediately the number of alternatives under consideration and to re-evaluate the desirability (satisfaction-derived) of existing alternatives. (24:12)

Katona expanded on this idea by stating that the occurrence of something new, such as an increase in income or a new opportunity to purchase something, demands re-organization of the situational field. (36:68)

"Aspirations," according to Katona, "are not static; they are not established once for all time." (35:130) Basically the effect of changes in level of aspiration on decision appears to be that of limiting or expanding the number and types of alternatives being considered. (39:91) It is not relative changes in aspiration level alone, however, that may account for this effect, but the frequency, or perhaps the range, through which aspirations change that is the predominant influence.

In a slightly different context of decisionmaking, Simon points out: "As long as aspirations are fixed, the planning horizon is limited, and there is a sharp distinction between means and ends, the existence of multiple goals does not create any real difficulties in choice." (69:263) Similarly, it appears that a decrease in the means by which a contemplated purchase is to be made does not necessarily lead to acceptance of the alternative "not to purchase," but would be very likely to bring about reorganization of component factors in the decision situation that are specific to the new circumstance and would demand consideration of possible sacrifices in other areas of spending.

So far in this discussion, organization and reorganization of component factors in the decision situation appear to coincide with perceived changes in the deciding organism's environment and changes in

the organism's perception during consideration of alternatives. In so doing, emphasis develops concerning the importance of perception to structuring in the decision situation. Katona lists motives, frames of references, attitudes and expectations (36:69) as well as perception (36:68) as influences on organization of the decisionmaking field, but the role of perception in motives, frames of reference, etc., is obvious.

As a result of the foregoing consideration, this study proceeds under the assumption that the major determinants of the specific structuring of the component factors in the decision situation (with reference to their relative influence) have their basis in the perception of the deciding organism.

Generalizations due to perception of similar features in separate decision situations also appear to influence the particular strategies used in consideration of the behavior alternatives. In cases of perceived generalization between situations with similar alternatives, the perception of the decision situation might follow Simon's concept of programming. He says, "If a particular problem recurs often enough, a routine procedure will usually be worked out for solving it." (70:56) In a similar context, Shaffer writes of technique as, "a plan differentiated as appropriate for dealing with a generalized group of situations based upon past experiences." (66:5)

The foregoing paragraphs have discussed the organization of basic concepts underlying this study in the form of a model. Special emphasis has been given to the decision situation as the intervening variable or central element of this model. On the basis of this work, the following section of this chapter will attempt to relate these

considerations to a specific area of household decision behavior and formulate hypotheses based on relationships assumed to exist among elements of the model.

## Description of Hypothetical Relationships in Model

The model for this study states an indirect relationship of environmental characteristics to purchasing behavior; this relationship will be the primary topic of this section as a means of deducing the direct relationship between the decision situation and purchasing behavior. In addition, however, two incidental relationships are derived from the review of literature and are implied in the model although neither comes under study here. The first is an interrelationship among the environmental characteristics typically exemplified by a relationship between age and income (Figure 3.2:H, page 61). The second is a net-change relationship in the makeup of the environmental background from that found prior to awareness of alternate behavior and that following outcome of the decision (Figure 3.2:J, page 61).

### General Hypothesis: Decision Situation to Rate of Fulfillment

According to the relationship indicated (A) in the model (Figure 3.3, page 62), this study hypothesizes that: Variation in the frequency of fulfillment of purchase intentions will be directly related to variation in the net influence of all factors operative in the decision situation. Empirical testing, however, requires more-specific forms of this general hypothesis in which variation in the rate of fulfillment will correspond to variation in, for example, the spending

unit's level of income at a given level of attitude. In this sense, the following hypotheses are specific forms of the above dealing with the net influence of two spending unit characteristics bearing indirect relationship to dependent behavior. The spending unit characteristics are denoted in the model by (B) anticipatory factors, (C) demographic factors, and (D) economic factors.

Spending Unit Characteristics to Rate of Fulfillment (Figure 3.3:B,C, & D, page 62)

Hypothesis 1: Attitude index (Figure 3.3:B)

Considering that attitude level has been shown to exhibit a relatively powerful influence on a number of forms of purchasing behavior, Hypothesis 1 will attempt to establish specifically the relationship of attitude level to rate of fulfillment of purchase intentions. In the remainder of the hypotheses, attitude level is used as a constant covariable to the several economic and demographic characteristics.

Hypothesis 1 states that: Frequency of fulfillment of intentions to purchase will vary with the attitude level of the spending unit at given levels of selected economic and demographic characteristics of the spending unit, including that case in which specific levels of these characteristics are disregarded.

Review of the literature has shown that optimistic judgements concerning a spending unit's present and future financial condition show positive relationship at certain times to purchasing behavior. On this basis, spending units rated as optimistic might be expected to fulfill substantially more often than would spending units rated as pessimistic at a given level of some environmental covariable.

Hypotheses 2a, 2b, 2c: Spending unit income level (Figure 3.3:D)

Reviews of empirical research and theoretical argument establish income as an enabling factor in purchase decision, at times positively related to increases in rate of purchase, rate of planning, and to net outlay. Following this lead, the current study hypothesizes that (a) variations in frequency of fulfillment of purchase intentions among spending units of a given attitude level will be related to variations in their reported level of income.

Since the study deals only with planned purchases, plans made by spending units lower on the income scale might more often concern durables that are considered "necessary" to daily life (see discussion of standard-prestige durables: Chapter II, page 17). In this sense, plans made by high-income families concerning prestige or luxury durables--or with second acquisitions--appear to be more postponable leading to a lower percentage of fulfillment of expressed intentions.

Nevertheless, in consideration of the enabling power of income, this study assumes that among low-income families, regardless of the class of durable, the alternative "to purchase" is either never actually open to the spending unit or is so tenuous as to be frequently offset by economic contingencies.

On this basis the current study hypothesizes that: For a given level of spending unit attitude, frequency of fulfillment of intentions to purchase will be (b) greatest among those units reporting a medium level of income, and (c) least among those units reporting low levels of income.

Hypotheses 3a, 3b, 3c: Debt level (Figure 3.3:D)

In the model for this study debt status appears to hold an

indirect relationship to decision behavior operationally similar to that of income in that they are each economic environmental characteristics.

By extending the arguments presented in the review of literature by Enthoven and Tobin, (13:922) (77:521-545), those spending units reporting the largest amounts of debt would be least likely to fulfill their intentions to purchase while those with the least debt would be most likely. This assumption implies a relationship between debt level and rate of fulfillment that can be supported by testing of the following hypothesis: (a) Variations in frequency of fulfillment of purchase intentions among spending units of a given attitude level will be related to variations in their reported level of total outstanding installment debt.

Some portion of the spending units reporting outstanding installment debt are likely to be referring to small loans made for purposes other than purchases--that is, medical expenses and the like. Therefore, differentiation between total installment debt and that debt incurred specifically in the purchase of household durables appears to be necessary and leads to formulation of a corollary hypothesis concerning debt level. (b) Variations in frequency of fulfillment of purchase intentions among spending units at a given attitude level will be related to variations in their reported level of outstanding installment debt incurred in the purchase of household durables.

From another point of view, one may assume that if the debt level of a spending unit is--in terms of the unit's subjectivity--"uncomfortably high," the unit will probably not report a plan and thus will not be included in the study. Among those units who do report

plans, then, the higher debt levels are either 1) unrealistically appraised or 2) comfortable enough to permit additional spending on durables during the planning period. In that credit as a means toward fulfillment is rather easily appraised, the frequency of cases of the first type is likely to be low. Following this consideration, if a unit reports a level of outstanding debt and a plan to make an additional durables purchase concurrently, 1) the debt level is comfortable; 2) the unit approves of the use of credit; 3) it has appraised its access to credit; and, consequently, 4) the plan has a high probability of fulfillment in that access to credit often takes the form of a chattel mortgage in which the financed durable acting as collateral requires completion of the transaction.

The following corollary hypothesis concerning debt level is formulated to permit testing of the above assumptions: (c) <u>For a given level of spending unit attitude, frequency of fulfillment of intentions to purchase will be greater among those units reporting any positive level of outstanding installment debt incurred in the purchase of household durables than among those units reporting no such debt</u>.

Hypothesis 4: Level of liquid asset holdings (Figure 3.3:D)

In that liquid assets are of such nature that their use and amount can be quite easily determined, cases in which these assets are intended as means toward fulfillment of purchase intentions appear to have a high probability of fulfillment. Similarly, in cases where the intended means are income or credit the influence of the presence of liquid savings on rate of fulfillment should also be positive in that they represent emergency means in case of failure of income and/or credit. Spending units reporting a level of liquid asset holdings

suitable for purchase of a major household durable have at their disposal three enabling means or conditions toward fulfillment, whereas units reporting little or no liquid asset holdings are dependent on income or credit alone. To test these assumptions, the following hypothesis has been formulated: (a) Variation in frequency of fulfillment of purchase intentions by spending units at a given attitude level will be related to variation in the unit's level of liquid asset holdings.

Hypothesis 5: Income-producing status of wife (Figure 3.3:D)

Although there was little empirical material to guide assumptions concerning the hypothetical relationship of cases in which the wife contributes to spending unit income to the purchasing behavior of that unit, there are several clues that can be drawn from discussion presented in the review of literature.

To begin, there is the obvious consideration that contribution to spending unit income represents additional means increasing the probability of fulfillment of intentions. Further, the factors associating with the presence of a wife in the labor force--such as higher income and higher levels of education--suggest increased rates of fulfillment for spending units in which the wives have outside jobs. Closely related to the above, but depending somewhat on the type of job the wife has, is the likelihood that the working wife can contribute toward development of a more realistic, i.e., more fulfillable, plan due to a wider range of experience and communication.

A final consideration suggesting improved rates of fulfillment in cases where the wife contributes to spending unit income is that--in the many instances in which the wife will for all practical purposes double as wage-earner and homemaker--planned purchases concerning

household durables appear to be less postponable because the object of the purchase may often be calculated to ease or reduce time spent in housekeeping. In this sense, the ability of the wife to maintain outside employment might depend on purchase of the particular durable and probability of fulfillment is increased.

On the basis of the above arguments, testing of the following hypothesis is proposed: Frequency of fulfillment of purchase intentions by spending units at a given attitude level will be greater among those units in which the wife makes a positive contribution to spending unit income than among those in which she does not.

Hypothesis 6: Housing status (Figure 3.3:C)

This study contends that housing status as a demographic variable will be indirectly related to rate of fulfillment of purchase intentions. In that an association of homeownership with other factors (such as increased planning and purchasing activity), and with enabling factors (such as higher income) has been found in review of the literature, the following hypothesis concerning the relationship of housing status and rate of fulfillment is formulated: Frequency of fulfillment of purchase intentions by spending units of a given attitude level will be greater among units that own their home than among those that do not.

Hypothesis 7: Housing value (Figure 3.3:D)

The relationship of housing value to rate of fulfillment in the model for this study appears to be a special case of housing status and thus leads to the following hypothesis: Variation in the frequency of fulfillment of purchase intentions by spending units at a given attitude level will be related to variation in the unit's level of

housing value.

Hypothesis 8: Sex of head of spending unit (Figure 3.3:C)

In that there was relatively little to draw on concerning the use of sex of the head of a spending unit as a variable in studies of decision behavior, this relationship must develop on the basis of an assumed association of female heads and age due to probable inclusion of a large proportion of widows. This fact suggests a lower probability of fulfillment among female heads on the assumption that optimism declines with age and that purchasing activity is (at times) positively related to optimism.

Also, in cases where the head of a spending unit is female, smaller incomes and less-diversified experience may lead to less-realistic plans and a greater frequency of decisions to act contrary to stated intentions. As a result, this study hypothesizes that: Frequency of fulfillment of purchase intentions by spending units at a given attitude level will be greater among units with male heads than among those with female heads.

Hypothesis 9: Number of years married (Figure 3.3:C)

Similarly, inexperience in the technique of household spending decision appears to associate with the number of years that the head of the unit has been married. This observation prompts the following hypothesis: Variation in frequency of fulfillment of purchase intentions by spending units at a given attitude level will be related to variation in the number of years that the head of the unit has been married.

Hypotheses 10a, 10b: Age of head of spending unit (Figure 3.3:C)

Following the general impression gained from review of literature, this study hypothesizes a relationship between fulfillment of purchase intentions and the age of the head of the deciding unit. More precisely: (a) Variation in frequency of fulfillment of purchase intentions among spending units at a given attitude level will be related to variation in the age of the head of the spending unit.

Also, based on the finding of Klein and Lansing (46), rate of fulfillment should appear to fall off along with rate of purchase among units in which the head was more than 55 years of age. This study assumes, however, that the intentions toward purchase by spending units in which the head is retired are of special nature--that is, based more often on functional necessity and, therefore, less postponable. Partial evidence for this is provided by Ferber's study (16), in which the planning rate is shown to drop steadily with increases in age. As a result, the following hypothesis is formulated: (b) Frequency of fulfillment of purchase intentions among spending units of a given attitude level will be lower among those units in which the head is between 55 and 64 years of age than among units in which the head is older or younger.

Hypothesis 11: Number in spending unit (Figure 3.3:C)

The relationship of the number of members in a spending unit to rate of fulfillment appears to be such that those units with the greatest number of members would be the least likely to fulfill their purchase intentions. The underlying argument is that a larger number of members would associate with a larger number of dependents and a consequently larger proportion of income spent for non-durables. Also,

contingencies associated with a large number of dependents would considerably lessen the probability of fulfillment in that displacement of intended means toward fulfillment would be more frequent. On this basis, the following hypothesis was formulated: Variation in frequency of fulfillment of purchase intentions by spending units at a given attitude level will be related to variation in the number of members in the unit.

Hypothesis 12: Occupation of head of spending unit (Figure 3.3:C)

A hypothesized relationship between the occupational class of the head of a spending unit and purchasing behavior is based on the association of higher incomes with certain occupational classes. Thus the enabling characteristic of higher income can be interpreted as more adequate means toward fulfillment of purchase intentions. In addition, white-collar workers can draw on the administrative skills associated with their occupations to create more realistic plans and, again due to their positions, are more likely to have access to precise information concerning the cost and utility of the object of the purchase plan and to additional alternatives leading eventually to the decision "to purchase."

Two considerations, then, lead to formulation of the following hypothesis: Frequency of fulfillment of purchase intentions held by spending units of a given attitude level will be greater among spending units in which the head is employed in a white-collar position than among those in which the head is employed in a blue-collar position.

Hypotheses 13a, 13b, 13c: Education level (Figure 3.3:C)

The assumption that superior planning ability and more adequate

means result in higher probability that a purchase plan will be fulfilled suggests relationship between purchasing behavior and the degree of education held by the head of the planning unit. The possession of skills necessary to formulation of a realistic plan would associate with advances in educational level as would eventual employment in occupations offering a higher level of income. Thus the following hypothesis: (a) Variation in frequency of fulfillment of purchase intentions held by spending units of a given attitude level will be related to variation in the educational level attained by the head of the spending unit.

To more closely examine the relationship of planning ability (and/or more adequate means) to purchasing behavior, corollary hypotheses suggesting a differential in rate of fulfillment among spending unit heads lacking college educations are formulated: (b) Frequency of fulfillment of purchase intentions held by spending units of a given attitude level will be greater among those units having a high school education than among those holding a grade school education only; and (c) greater among spending units whose head has attained a college education than among those units in which the head has not.

## Design of the Study

### Requirements of Model and Decision Event

Considerations presented thus far in this chapter demand an empirical study designed according to the requirements of 1) the concept of the decision event, 2) the model derived for study of the decision event (Figure 3.2, page 61), and 3) the hypotheses concerning relationship among the elements of the model.

The first requirement imposed by the particular concept of the decision event is that the study encompass the time span between awareness of alternative behavior and consequent action. This requirement is met by the use of data from periodic surveys in which reinterview of spending units previously expressing intentions to purchase determined the fulfillment status or decision behavior of the unit. This study assumes that decisions by the spending unit to act contrary to stated intentions are contingent on conditions reported coincidentally with the expression of intentions.

A second requirement implicit in the concept of the decision event is that alternative behavior resulting in action be present in the study. In this case alternative behavior is assumed to be present due to the discretionary nature of durable purchases in general and planned purchases in particular. Selection among the alternatives "to purchase as planned" and "not to purchase as planned" represents resolvement of the decision situation in action as a specific aspect of purchasing behavior.

Data permitting investigation of situational conditions at time $t_1$ cannot be generalized to exist throughout the entire period of consideration of alternatives (which may have continued throughout the period between the two time points). The fact that these data do coincide with the statement of intentions suggests, however, that this phase of the process would have high probability of containing features relating to the eventual decision behavior. Nevertheless, this research assumes for practical purposes to study no more than a single phase of the decision process located at an unknown point between awareness and action in the total decision process.

One of the requirements imposed by the model is that some element of the future concerning the cost and utility characteristics of the object of the purchase plan be operational in the study. This requirement is satisfied, first, by inclusion in each hypothesis of level of economic attitude as measured by an attitude index in which two queries concerning the spending unit's perception of future conditions are included; and, second, by the expression of the purchase plan.

The model also demands that the input variables be modified within a system or intervening variable from which a direct relationship is hypothesized to purchasing behavior (specifically rate of fulfillment of purchase intentions). As a consequence, it is the intent of this study to investigate the relationship of an intervening variable consisting of a hypothetical--certainly oversimplified--decision situation in which the combined influence of a given level of attitude and a particular level of one of several selected economic or demographic characteristics of the spending unit interact. In that attitudes, however, have been argued to constitute--in and of themselves--intervening variables, the investigation will concern the relationship between variation in rate of fulfillment and variation in levels of non-psychological factors at a given level of attitude. Following the arguments in the review of literature that optimism is related to purchasing the planning activity, this study will use a constant level of optimistic attitude as attitudinal input.

In summary, the sample will consist of a group of spending units who at time $t_1$, or initial interview, expressed intentions to purchase one or more items from among a list of selected major household

durables. Concurrent with the expression of intentions, data will be collected concerning selected attitudinal, expectational, demographic, and economic characteristics of the spending unit. Reinterview at time $t_2$ is intended to determine the outcome of the purchasing decision, specifically, whether or not the unit decided to act contrary to its expressed intentions to purchase.

The argument might be presented that the objective environmental conditions at time-point-one might have changed appreciably between that time and time-point-two when data concerning decision behavior is collected. Such changes have been anticipated in this research; but, since the primary object is to collect data that are valid antecedents of the behavior under study, time-point-one data will be used under the assumption that any significant changes that occur in sufficiently large numbers to affect the data will, in turn, be related in an orderly manner to the environmental conditions pertaining to time-point-one. Further, it is not unlikely when considering a different decision context that environmental conditions found at time-point-two might be dependent on decision behavior. A decision to carry out plans to change jobs might of course lead to a higher level of income which could not be considered as input data as it is in no way a behavior antecedent.

Following collection of the data, the attitude level and fulfillment status of each spending unit is determined. This is followed by statistical analysis of the relationship between the decision situation (i.e., particular level of economic or demographic characteristics for a given level of attitude) and purchasing behavior (i.e., rate of fulfillment of purchase intentions).

The following empirical hypotheses have been formulated to facilitate statistical testing of the hypotheses indicated by the model and presented above.

Statistical Hypotheses

1. Chi-square analysis will indicate a significantly higher rate of fulfillment of intentions to purchase major household durables among optimistic spending units than among pessimistic spending units.

2a. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the reported level of total annual spending unit income.

2b. A test of differences of proportions will indicate a significantly greater proportion of fulfilled intentions to purchase major household durables among spending units reporting $4,000 to $7,499 in total annual spending unit income than among those units reporting $7,500 or more.

2c. A test of difference of proportions will indicate a significantly lower proportion of fulfilled intentions to purchase major household durables among optimistic spending units reporting $4,000 or more in total annual spending unit income than among those optimistic units reporting less than $4,000.

3a. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the spending unit's reported level of total remaining installment debt.

3b. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the spending

unit's reported level of remaining installment debt incurred specifically in the purchase of household durables.

3c. A test of difference of proportions will indicate a significantly greater proportion of fulfilled intentions to purchase major household durables among spending units reporting any positive amount of remaining installment debt incurred in the purchase of household durables than among spending units reporting no such debt.

4a. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the spending unit's reported level of liquid asset holdings.

4b. A test of difference of proportions will indicate a significantly greater proportion of fulfilled intentions to purchase major household durables among spending units reporting $200 or more in liquid asset holdings than among those units reporting less than $200.

5. Chi-square analysis will indicate a significantly higher rate of fulfillment of intentions to purchase major household durables among optimistic spending units in which the wife is reported to make a positive contribution to spending unit income than among those in which the wife does not.

6. Chi-square analysis will indicate a significantly higher rate of fulfillment of intentions to purchase major household durables among optimistic spending units classified as homeowners than among those classified as non-owners.

7. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and their reported

level of housing value held.

8. Chi-square analysis will indicate a significantly higher rate of fulfillment of intentions to purchase major household durables among optimistic spending units in which the head of the unit is male than among those in which the head is female.

9. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the reported number of years during which the head of the unit has been married.

10a. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the reported age of the head of the spending unit.

10b. A test of difference of proportions will indicate a significantly lower proportion of fulfilled intentions to purchase major household durables among spending units in which the age of the head is reported between 55 and 64 years than among those units in which the head is older than 64 or younger than 55.

11. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the reported number of members in the spending unit.

12. Chi-square analysis will indicate a significantly higher rate of fulfillment of intentions to purchase major household durables among optimistic spending units in which the head is reported employed in a white-collar position than among those units in which the head is employed in a blue-collar position.

13a. Chi-square analysis will indicate a statistically-significant relationship between rate of fulfillment of intentions by optimistic spending units to purchase major household durables and the reported level of educational attainment of the head of the unit.

13b. A test of difference of proportions will indicate a significantly greater proportion of fulfilled intentions to purchase major household durables among spending units reporting the attainment of a high school education by the head than among those reporting no more than the attainment of a grade school education.

13c. A test of difference of proportions will indicate a significantly greater proportion of fulfilled intentions to purchase major household durables among spending units reporting the attainment of a high school education or less by the head than among those reporting college education.

# CHAPTER IV

# METHODOLOGICAL CONSIDERATIONS

## Introduction

This chapter describes the procedure by which the design of the study as outlined in Chapter III was carried out and discusses features of the sample and data. Also included is description of the procedures used to collect, process, and analyze the data.

Specifically, the object of this study is to investigate the phenomenon of fulfillment of intentions by spending units to purchase major household durables. Fulfillment or non-fulfillment is, then, the dependent decision behavior under study and bears hypothetical relationship to features of the specific decision situation which consists of interacting demographic and economic factors and a given level of economic attitude.

## Selection of the Sample

The design of this study and its subsequently developed hypotheses, as presented in Chapter III, placed certain demands on the selection of a sample for this study and on the specific nature of data to be collected.

First, the data must provide a means for evaluating the spending unit's psychological, economic, and demographic characteristics; second, it must contain expectational and attitudinal information on which an economic-attitude rating can be based. Finally, it must contain time-

series information, spanning an interval during which plans, consideration of alternatives, and the actual purchases of a major household durable can be carried out. Data meeting these requirements were obtainable in IBM tabulated form from the Survey Research Center of the University of Michigan, collected during periodic consumer behavior surveys conducted by the Center since 1954.

A decision to use data collected by the Survey Research Center required re-evaluation of the model for this study to determine its compatibility with the studies and data collection by the Survey Research Center. Although no discrepancies were noted in the use of major concepts, all hypothetical constructs and ideas specific to this study were explicitly defined relative to work done by the Center. Hypothetical relationships originally formulated in a proposal for this study were restated to make use of Survey of Consumer Finances' data without changing the implied sense or intent. The proposal to investigate, for example, a relationship between rate of fulfillment and income quintiles for spending units of a given attitude level was abandoned due to insufficient cell sizes corresponding to income quintiles. Investigation of this hypothetical relationship is carried out using Survey of Consumer Finances' data on high, medium, and low levels of spending unit income. The result is that ready-to-use data from a large sample, collected under the most up-to-date field and sampling techniques, can be appropriately used and, further, that the completed study is more likely to relate to larger bodies of research.

Among available time-series data were those from a reinterview in 1961 of 1,441 spending units out of 2,972 originally surveyed twelve months earlier. The original survey at time $t_1$ (January to March 1960)

provided the required statement of intentions along with economic, demographic, and attitudinal data coinciding with the expression of intent and concerned with the family as a spending unit. Reinterview at time $t_2$ (January to March of 1961) secured information concerning the outcome of these intentions.

The Survey Research Center considered the original sample of 2,972 units to be composed of "decision makers who . . . are representative of the entire universe from which the sample is drawn." (68:253) In methodological terms, it was considered "a multi-stage, stratified probability sample of dwelling units . . . drawn in . . . (the 12 largest metropolitan areas and 54 other areas, selected on the basis of various controls)." (72:138)

The sample for this study does not include the entire sample surveyed by the Survey Research Center, but only those units expressing intent to purchase a major household durable at time $t_1$ and also available for reinterview at time $t_2$. The representativeness of the original survey sample decreases somewhat among this reinterviewed, planning group for two reasons. First, the units to be reinterviewed were selected by probability sampling in consideration of a panel study simultaneously in progress which was concerned with the ". . . income, assets, and major transactions of the respondents . . . ." As a result, the reinterview sample was reported to contain a ". . . substantial proportion of upper income respondents." (72:139)

A second feature that limits generalization from this study is panel effect or panel bias. Over a period of time panels typically lose respondents through refusals to permit interviews to continue and/or inability to follow respondents who move. The latter seems to

be the most powerful influence leading to panel effect as it tends to increase the frequency of responses associated with residential stability such as homeownership, older heads and, in general, higher levels of income and liquid asset holdings. (75:194)

No attempt has been made to statistically correct bias resulting from these findings because specific levels of spending unit characteristics associating with residential stability, income, and the like are treated separately during analysis.

Complete analysis of consumer behavior of this sample depends on knowledge of the political and economic conditions prevalent at the time the data were collected--that is, January, February, and March of 1960. Description of these conditions, based on information collected during the survey, follows as drawn from reports of the 1960 and 1961 Surveys of Consumer Finances. (71) (72)

For the first two months during which data were being collected, indicators of consumer sentiment and inclinations to buy durable goods were in a process of improvement dating back to November 1959 and the concurrent steel strike. Meanwhile the frequency with which spending units expressed expectations of increasing prices for durables had reached a five-year high due to continuing increases throughout the previous year, particularly spring and fall of 1959. During February 1960, almost half of the respondents indicated that they expected prices would tend to be higher.

Between February and May of 1960 a decline in favorable consumer sentiment took place concurrent with deterioration of relations with the Soviet Union, the U-2 incident, and a general reaction to weakness of the stock market. (Of these specific concurrent events only the

reaction to the stock market has a possibility of influencing data collected at time $t_1$ of this study, since the other events took place after collection of initial data. All of these factors, however, including the 1960 presidential election, are potentially significant factors in the analysis of the rate at which intentions to purchase were fulfilled throughout 1960.) Generally, the decline in consumer sentiment continued until a leveling-off was detected in November of that year.

According to the Surveys of Current Business by the United States Department of Commerce, the following conditions are representative of the general business climate existing from early 1959 when the initial interview took place throughout the early months of 1960 when queries concerning fulfillment of intentions were answered. (79) (80)

In early 1960 the Survey reported "continued recovery since 1958 . . . economic activity continued to rise in the first half of 1960, then traced a cyclical plateau before turning down at year end," so that in February of 1961, a "declining tendency" was noted.

Non-agricultural employment rose to a new high in early 1960 and unemployment was reduced, while payroll cuts and a general decline in industrial output led to a report of employment in January 1961 four per cent below that of May 1960. Long-term unemployment rose by "more than the usual amount."

In 1960 the Survey report stated that "output, income, [and] consumer buying were all up substantially in real terms," and, although 1960 industrial output surpassed that of 1959, by February 1961 industrial output was reported as being "down". Meanwhile personal income remained high, "though somewhat off" in January 1961 showing a

2.5 per cent gain from January 1960. Consumer prices in general were reported up one per cent in early 1960 with "purchases in line with income increases." In 1961 prices were reported as being "even throughout the year after rising in early 1960" for a net gain of two per cent. Also in early 1960, a sharp increase in the use of short- and intermediate-term credit was noted in the purchases of household durables and autos. Installment credit extensions amounted to $41 billion in 1958, $49 billion in 1959, leveling to $50 billion in 1960. Durable purchases were found to be "fractionally lower" by volume and value in January 1961, along with a reduction in auto sales and residential housing starts. (79) (80)

## Purchase Intentions

Expression of intentions to purchase a major household durable was the primary requirement of reinterviewed spending units being considered for inclusion in the sample for this study.

The presence of purchase intentions was determined through the Survey Research Center's questionnaire based on responses to this query:

> Do you expect to buy any large items such as furniture, a refrigerator, stove, washing machine, television set, air conditioner, household appliances, and so on during the next 12 months? -- What do you expect to buy? -- Anything else? -- Would you say you definitely will buy a _____ during the next 12 months, or that you probably will, or are you undecided? (71:282)

Responses that indicated the spending unit planned to purchase a major household durable -- or that they probably would -- constituted, for this study, a statement of intentions to purchase. A response indicating that they had no such plans -- or that they probably would not purchase -- eliminated the responding unit from the sub-sample.

Positive response to the following query drawn from the Survey of Consumer Finances' questionnaire qualifies as fulfillment of intentions to purchase a major household durable:

> How about larger items for the home? -- Did you buy anything of this sort during 1960? -- furniture, a refrigerator, stove, washing machine, television set, air conditioner, household appliances, and so on? -- What did you buy? -- What month did you buy it in? -- How much did it cost? -- (71:281)

The decision alternatives, being studied, are clearly: 1) to buy as planned, 2) to postpone, 3) not to buy. For this study, however, fulfillment within the stated twelve-month period classifies the spending unit as fulfillers; postponement being held as failure to fulfill.

## Attitude Index

Somewhere between the phenomena of expression of intentions and fulfillment or non-fulfillment, lie results of the hypothesized influence of the decision situation. A constant component of this situation, according to the design of this study, is the economic attitude of the spending unit. The use of attitudinal data, as determined by construction and use of an attitude index incorporating a number of economic expectational and outlook characteristics is intended to provide discrete grouping of spending units exhibiting distinct purchasing behavior.

This was done, following Mueller (60:949) on a 12-point attitude index developed earlier by Katona and Mueller (40:56) that considered the spending unit's outlook, expectations, and evaluation of present business conditions. Response to the following queries determined the attitude classification of the spending units in this study:

1) We are interested in how people are getting along financially these days. Would you say that you and your

family are better off or worse off financially than you were a year ago?

2) Now looking ahead -- do you think that a year from now you people will be better off financially, or worse off, or just about the same as now?

3) Now speaking of prices in general, I mean the prices of the things you buy -- do you think they will go up in the next year or go down, or stay where they are now? Why will they do that?

4) And how about a year from now, do you expect that in the country as a whole business conditions will be better or worse than they are at present, or just about the same?

5) Looking ahead, which would you say is more likely -- that in the country as a whole we will have continuous good times during the next five years or so, or that we will have periods of wide-spread unemployment or depression, or what? -- On what does it depend in your opinion?

6) About things people buy for their house -- I mean, furniture, house furnishings, refrigerator, stove, TV, and things like that. In general, do you think now is a good or a bad time to buy such large household items? (71:273-4)

Response indicating that expectations were favorable to the unit were scored two points; expectations of unchanged conditions, one point; and expectations of less favorable conditions, zero. Index scores of zero to five (0-5) were considered as indications of a pessimistic attitude, while ratings of seven to twelve (7-12) indicated economic optimism. Those units scoring six points on the attitude index were dropped from the sample in an attempt to obtain distinct attitude groupings. Units scoring six points represented those stating that they perceived conditions to be unchanged in response to all six queries; or that they perceived conditions to be better in two cases, unchanged in two cases, and poorer in two cases.

## Data Processing

Sorting of the IBM-tabulated decks for the 1961 reinterview

sample was done by Michigan State University's CDC-3600 tabulator system to extract date on the reinterviewed spending units who had expressed intentions to purchase major household durables during the 12-month planning period. Subsequent sorting was done on the basis of attitude as described above, following which appropriate spending unit data were extracted along with information on fulfillment of purchase intentions as output data required by the model.

In general, search for empirical relationship between rate of fulfillment and the spending unit characteristics was carried out by means of chi-square analysis. (13:222)

The above tests were supplemented where possible by t-scores following a formula presented by Kerlinger (43:179) adapted to proportions data.

# CHAPTER V

# DESCRIPTION OF SPENDING UNITS IN SAMPLE

## Introduction

This chapter provides a summary description of the spending units constituting the sample for this study. Table 5.1 compares values of selected characteristics of economically-optimistic planners and non-planners exhibiting differences that might be hypothesized to associate with planning behavior. To illustrate features that could be due to differences in attitude classification, Table 5.2 makes a similar comparison of all reinterviewed optimistic and pessimistic spending units.

## Optimist-Pessimist Differences

Optimist, for purposes of this study, denotes spending units reporting favorable expectations concerning present and future financial and purchasing conditions and thus being rated as optimistic on this study's attitude index. Spending units reporting unfavorable expectations received lower ratings on an optimism-pessimism scale.

Apparent differences in spending unit characteristics corresponding to attitude ratings appear in Table 5.2, in which optimistic spending units tend to have heads that are younger than those of pessimistic spending units. In contrast with younger heads, however, are differences such as greater number of years married,

TABLE 5.1.--Comparison of values of spending unit characteristics among optimistic planners and non-planners

| Spending Unit Characteristic | Value of Characteristic | | |
|---|---|---|---|
| | Optimist Planners | Optimist Non-Planners | All Optimist Units |
| Age of Head (Years) | | | |
| Mean | 41.8 | 45.7 | 44.6 |
| No. of Observations | 243 | 613 | 856 |
| Number in Spending Unit | | | |
| Mean | 3.6 | 3.1 | 3.3 |
| No. of Observations | 243 | 613 | 856 |
| Number of Years Married | | | |
| Mean | 4.9 | 4.5 | 4.6 |
| No. of Observations | 243 | 613 | 8.6 |
| Monthly Rent Payment ($) | | | |
| Mean | 78.89 | 60.35 | 65.95 |
| No. of Observations | 61 | 141 | 202 |
| House Value ($) | | | |
| Mean | 16,085.47 | 14,862.88 | 15,222.22 |
| No. of Observations | 169 | 406 | 575 |
| Amount of Mortgage ($) | | | |
| Mean | 8,094.46 | 7,079.78 | 7,420.69 |
| No. of Observations | 127 | 251 | 378 |
| Monthly Mortgage Payment ($) | | | |
| Mean | 85.65 | 81.67 | 83.03 |
| No. of Observations | 126 | 244 | 370 |
| Remaining Installment Debt (Total) ($) | | | |
| Mean | 918.10 | 879.62 | 892.89 |
| No. of Observations | 149 | 283 | 432 |
| Remaining Installment Debt (Durables) ($) | | | |
| Mean | 242.97 | 224.86 | 230.38 |
| No. of Observations | 64 | 146 | 210 |
| Spending Unit Income ($) | | | |
| Mean | 8,555.85 | 6,673.44 | 7,296.86 |
| No. of Observations | 242 | 612 | 854 |
| Disposable Income ($) | | | |
| Mean | 7,711.48 | 5,758.18 | 6,313.33 |
| No. of Observations | 243 | 612 | 855 |
| Liquid Assets ($) | | | |
| Mean | 5,739.81 | 3,497.21 | 4,193.57 |
| No. of Observations | 227 | 512 | 739 |
| Outlay for Durables During 12-Month Period ($) | | | |
| Mean | 242.98 | 94.13 | 138.48 |
| No. of Observations | 243 | 613 | 856 |

TABLE 5.2.—Comparison of values of spending unit characteristics among reinterviewed optimists and pessimists

| Spending Unit Characteristic | Value of Characteristic | | |
|---|---|---|---|
| | Reinterviewed Optimists | Reinterviewed Pessimists | All Reinterviewed Units |
| Age of Head (Years) | | | |
| Mean | 44.6 | 53.7 | 47.0 |
| No. of Observations | 856 | 310 | 1166 |
| Number in Spending Unit | | | |
| Mean | 3.3 | 2.6 | 3.1 |
| No. of Observations | 856 | 310 | 1166 |
| Number of Years Married | | | |
| Mean | 4.6 | 3.9 | 4.4 |
| No. of Observations | 856 | 310 | 1166 |
| Monthly Rent Payment ($) | | | |
| Mean | 65.95 | 59.04 | 63.87 |
| No. of Observations | 202 | 87 | 289 |
| House Value ($) | | | |
| Mean | 15,222.22 | 12,741.22 | 14,620.77 |
| No. of Observations | 575 | 184 | 759 |
| Amount of Mortgage ($) | | | |
| Mean | 7,420.69 | 6,375.50 | 7,259.35 |
| No. of Observations | 378 | 69 | 447 |
| Monthly Mortgage Payment ($) | | | |
| Mean | 83.03 | 70.21 | 81.09 |
| No. of Observations | 370 | 66 | 436 |
| Remaining Installment Debt (Total) ($) | | | |
| Mean | 892.89 | 801.46 | 873.01 |
| No. of Observations | 432 | 120 | 552 |
| Remaining Installment Debt (Durables) ($) | | | |
| Mean | 230.38 | 205.32 | 224.88 |
| No. of Observations | 210 | 59 | 269 |
| Spending Unit Income ($) | | | |
| Mean | 7,206.86 | 4,415.22 | 6,472.22 |
| No. of Observations | 854 | 305 | 1159 |
| Disposable Income ($) | | | |
| Mean | 6,313.33 | 3,930.14 | 5,686.72 |
| No. of Observations | 855 | 305 | 1160 |
| Liquid Assets ($) | | | |
| Mean | 4,193.57 | 3,528.04 | 4,044.66 |
| No. of Observations | 739 | 213 | 952 |
| Outlay for Durables During 12-Month Period ($) | | | |
| Mean | 138.40 | 71.46 | 120.60 |
| No. of Observations | 856 | 310 | 1166 |

and larger numbers of members in the optimistic spending unit. Financially, optimists received, spent, held, and owed larger amounts of money in every instance than did pessimistic units. But, also in every case, these amounts represented smaller proportions of the annual spending unit income. (Table 5.3)

## Planner-Nonplanner Differences

Planners are operationally defined for purposes of this study to denote spending units that stated they would--or probably would--purchase at least one of a set of selected major household durables within the twelve-month period following interview.

The sample for this study consists of all planning spending units responding to interview and reinterview by the 1960 and 1961 Surveys of Consumer Finances, 84.5 per cent of which are rated as optimists.

Tabulations show that 62.0 per cent of all planning spending units, optimists and pessimists, fulfilled those plans. This statistic is, then, the minimum figure that could represent the durable purchasing rate for these units as compared to an overall purchase rate of 39.0 per cent for the entire group of spending units interviewed. (72:26) Optimistic spending units will be shown to fulfill at a rate of 65.2 per cent, a statistically-significant 21 percentage points higher than pessimistic spending units also expressing purchase plans.

The direction in which optimistic spending units tend to differ from pessimistic units appears generally to hold true for optimistic planners when compared to optimistic nonplanners (Table 5.1), although the amount of difference is often modified. Optimistic-planning units,

TABLE 5.3.--Comparison of selected financial characteristics of spending units by attitude classification as percentages of annual spending unit income

| Financial Characteristics | All Reinterviewed | | | |
|---|---|---|---|---|
| | Optimists | | Pessimists | |
| | Income = $7206.86 (100%) No. of Observations 854 | | Income = $4415.22 (100%) No. of Observations 305 | |
| | Value of Characteristic | Value as % of Spending Unit Income | Value of Characteristic | Value as % of Spending Unit Income |
| Monthly Rent Payment ($) | | | | |
| Mean | 65.95 | 0.9 | 59.04 | 1.3 |
| Observations | 202 | | 87 | |
| House Value ($) | | | | |
| Mean | 15,222.22 | 211.2 | 12,741.22 | 288.6 |
| Observations | 575 | | 184 | |
| Amount of Mortgage ($) | | | | |
| Mean | 7,420.69 | 103.0 | 6,375.50 | 144.4 |
| Observations | 378 | | 69 | |
| Monthly Mortgage Payment ($) | | | | |
| Mean | 83.03 | 1.2 | 70.21 | 1.7 |
| Observations | 370 | | 66 | |
| Remaining Installment Debt (Total) ($) | | | | |
| Mean | 892.89 | 12.4 | 801.46 | 18.1 |
| Observations | 432 | | 120 | |
| Remaining Installment Debt (Durables) ($) | | | | |
| Mean | 230.38 | 3.2 | 205.32 | 4.6 |
| Observations | 210 | | 59 | |
| Disposable Income ($) | | | | |
| Mean | 6,313.33 | 87.1 | 3,930.14 | 89.0 |
| Observations | 855 | | 305 | |
| Liquid Assets ($) | | | | |
| Mean | 4,193.57 | 58.2 | 3,528.04 | 79.9 |
| Observations | 739 | | 213 | |
| Outlay for Durables 12-Month Period ($) | | | | |
| Mean | 138.40 | 1.9 | 71.46 | 1.6 |
| Observations | 856 | | 310 | |

following the pattern for all optimists, reported younger heads who have been married longer and have greater numbers of members than reported by optimistic nonplanning units.

Like all optimists, optimistic planners received, spent, owed, and held larger amounts than did optimistic-nonplanners; but in the case of disposable income, liquid asset holdings, and dollar outlay for durables during a twelve-month period, the amounts represented a larger proportion of spending unit income than did amounts reported for comparable financial characteristics of optimistic nonplanners (compare Tables 5.1 and 5.4).

## Reinterviewed-Nonreinterviewed Differences

The differences associated with the availability of a spending unit for reinterview discussed in Chapter IV, tend to increase the frequency of older, more well-established spending units, an assumption borne out by Table 5.5. Further differences, generally in the same direction, result from probability sampling by the Survey Research Center for purposes of the reinterview.

As shown in Table 5.5, reinterviewed spending units tend to differ from nonreinterviewed units in the same direction as optimists differ from pessimists and planners from nonplanners, except in regard to age. Of particular note is the smaller amount of liquid asset holdings among nonreinterviewed units, holdings representing 67 per cent of that for reinterviewed units and 47 per cent of that for reinterviewed optimistic planning units.

In summary, the subgroups of this sample representing optimists and planners typically report younger ages for spending unit heads,

TABLE 5.4.--Comparison of selected financial characteristics of spending units by planning status as percentages of annual spending unit income

| Financial Characteristics | All Reinterviewed Optimists: Planners — Income = $8555.85 (100%), No. of Observations 242: Value of Characteristic | Planners: Value as % of Spending Unit Income | Non-planners — Income = $6673.44 (100%), No. of Observations 612: Value of Characteristic | Non-planners: Value as % of Spending Unit Income |
|---|---|---|---|---|
| Monthly Rent Payment ($) | | | | |
| Mean | 78.89 | 0.9 | 60.35 | 0.9 |
| Observations | 61 | | 141 | |
| House Value ($) | | | | |
| Mean | 16,085.47 | 188.0 | 14,862.88 | 222.7 |
| Observations | 169 | | 406 | |
| Amount of Mortgage ($) | | | | |
| Mean | 8,094.46 | 94.6 | 7,079.78 | 106.1 |
| Observations | 127 | | 251 | |
| Monthly Mortgage Payment ($) | | | | |
| Mean | 85.65 | 1.0 | 81.67 | 1.2 |
| Observations | 126 | | 244 | |
| Remaining Installment Debt (Total) ($) | | | | |
| Mean | 918.10 | 10.7 | 879.62 | 13.2 |
| Observations | 149 | | 283 | |
| Remaining Installment Debt (Durables) ($) | | | | |
| Mean | 242.97 | 2.8 | 224.86 | 0.3 |
| Observations | 64 | | 146 | |
| Disposable Income ($) | | | | |
| Mean | 7,711.48 | 90.1 | 5,758.18 | 86.3 |
| Observations | 243 | | 612 | |
| Liquid Assets ($) | | | | |
| Mean | 5,759.81 | 67.3 | 3,497.21 | 52.4 |
| Observations | 227 | | 512 | |
| Outlay for Durables 12-Month Period ($) | | | | |
| Mean | 242.50 | 2.8 | 97.13 | 1.5 |
| Observations | 243 | | 613 | |

TABLE 5.5.--Comparison of values of spending unit characteristics among reinterviewed and nonreinterviewed units

| Spending Unit Characteristic | Value of Characteristic: All Reinterviewed Units | Value of Characteristic: All Non-Reinterviewed Units |
|---|---|---|
| Age of Head (Years) | | |
| Mean | 47.0 | 43.8 |
| No. of Observations | 1166 | 1405 |
| Number in Spending Unit | | |
| Mean | 3.1 | 3.0 |
| No. of Observations | 1166 | 1405 |
| Number of Years Married | | |
| Mean | 4.4 | 3.8 |
| No. of Observations | 1166 | 1405 |
| Monthly Rent Payment ($) | | |
| Mean | 63.87 | 61.80 |
| No. of Observations | 289 | 567 |
| House Value ($) | | |
| Mean | 14,620.77 | 12,706.00 |
| No. of Observations | 759 | 657 |
| Amount of Mortgage ($) | | |
| Mean | 7,259.35 | 6,359.00 |
| No. of Observations | 447 | 386 |
| Monthly Mortgage Payment ($) | | |
| Mean | 81.09 | 72.45 |
| No. of Observations | 436 | 365 |
| Remaining Installment Debt (Total) ($) | | |
| Mean | 873.01 | 752.82 |
| No. of Observations | 552 | 683 |
| Remaining Installment Debt (Durables) ($) | | |
| Mean | 224.88 | 227.13 |
| No. of Observations | 269 | 325 |
| Spending Unit Income ($) | | |
| Mean | 6,472.22 | 5,172.82 |
| No. of Observations | 1159 | 1396 |
| Disposable Income ($) | | |
| Mean | 5,686.72 | 4,551.59 |
| No. of Observations | 1160 | 1396 |
| Liquid Assets ($) | | |
| Mean | 4,044.66 | 2,706.55 |
| No. of Observations | 952 | 1003 |
| Outlay for Durables During 12-Month Period ($) | | |
| Mean | 120.60 | n/a |
| No. of Observations | 1166 | |

a greater number of years married, and larger numbers of members than do pessimist or nonplanning spending units. In addition they appear to have handled larger amounts of money during the time period under consideration although the amounts spent, saved, and owed more often than not represented smaller percentages of the total received.

# CHAPTER VI

## PRESENTATION AND DISCUSSION OF THE FINDINGS

Following statistical analysis of the data as indicated by the hypotheses, this chapter presents: first, the results of this analysis in terms of statistical support for each hypothesis; the second part of this chapter attempts to summarize the implications that may be derived from the statistical analysis.

### Part One: Factors Relating to Fulfillment

The general hypothesis -- Variation in the frequency of fulfillment of purchase intentions will be directly related to variation in the net influence of all factors operative in the decision situation -- was not supported by the findings of most empirical tests.

Support was provided by significant findings in tests of three of the thirteen hypotheses formulated in Chapter III (Table 6.1). In addition, tests of corollaries to one hypothesis proved significant although the hypothesis suggesting a general relationship did not offer support.

A hypothesized relationship concerning attitude level of the spending unit (a constant covariable in this study) and rate of fulfillment was found to be statistically significant in all cases when specific levels of economic and demographic spending unit characteristics were disregarded -- and at the specific levels of those variables indicated in Table 6.1.

TABLE 6.1.--Variation in influence of attitude level on rate of fulfillment

| Variable Being Tested (levels) | Rate of Fulfillment Optimists | Pessimists | Level of Significance |
|---|---|---|---|
| Attitude only | 65.2 | 44.2 | 0.05 or less |
| Income | | | |
| Under $4,000 | 65.8 | 33.3 | n/a* |
| $4,000 to $7,499 | 56.0 | 40.0 | greater than 0.05 |
| $7,500 and over | 71.3 | 61.5 | greater than 0.05 |
| Debts (total) | | | |
| None | 64.9 | 55.0 | greater than 0.05 |
| $ 1 to $199 | 67.7 | 42.9 | n/a |
| $ 200 to $999 | 66.2 | 36.4 | n/a |
| $1,000 and over | 63.0 | 20.0 | n/a |
| Debts (Durables) | | | |
| None | 62.8 | 51.7 | greater than 0.05 |
| $ 1 to $199 | 74.2 | 28.6 | n/a |
| $200 and over | 70.6 | 28.6 | n/a |
| Liquid Assets | | | |
| Less than $1,000 | 62.0 | 30.0 | n/a |
| $1,000 and over | 69.3 | 68.8 | greater than 0.05 |
| Income-producing status of wife | | | |
| No Income | 62.4 | 51.7 | greater than 0.05 |
| Has Income | 69.8 | 28.6 | n/a |
| Housing status | | | |
| Owners | 64.5 | 58.6 | greater than 0.05 |
| Non-owners | 66.7 | 14.3 | n/a |
| Housing value | | | |
| $ 1 to $9,999 | 58.1 | 45.5 | greater than 0.05 |
| $10,000 and over | 66.7 | 57.1 | n/a |

TABLE 6.1.--Continued

| | | | |
|---|---|---|---|
| **Sex of head** | | | |
| Male | 64.4 | 40.5 | 0.05 or less |
| Female | 73.7 | 66.7 | n/a |
| **Years married** | | | |
| Non-married | 62.1 | 45.5 | greater than 0.05 |
| 1 through 9 years | 68.1 | 33.3 | 0.05 or less |
| 10 years and over | 64.4 | 47.8 | 0.05 or less |
| **Age of head** | | | |
| 18 to 34 | 67.1 | 37.5 | n/a |
| 35 to 64 | 64.3 | 38.7 | 0.05 or less |
| 65 and over | 66.7 | n/a | n/a |
| **Number in spending unit** | | | |
| One | 61.1 | 57.1 | n/a |
| Two | 58.9 | 30.7 | n/a |
| Three or more | 67.7 | 47.8 | 0.05 or less |
| **Occupation** | | | |
| White-collar | 70.1 | 62.5 | greater than 0.05 |
| Blue-collar | 55.9 | 31.6 | 0.05 or less |
| **Education** | | | |
| None through grade school | 52.7 | 27.8 | n/a |
| Attended high school, completed high school and other non-college training | 63.8 | 53.3 | greater than 0.05 |
| College, with or without a degree | 73.4 | 60.0 | greater than 0.05 |

* Not available.

The hypothesis suggesting a relationship between the occupation of the head of an optimistic spending unit and that unit's rate of fulfillment was supported by the findings. More specifically, among optimistic spending units, rate of fulfillment appeared to be 24.2 per cent greater among those units in which the head was employed in a white-collar occupation than among units in which the head was employed in a blue-collar occupation.

Similarly, optimistic spending units in which the head has a higher degree of education tend to fulfill at a significantly higher frequency. Testing of corollary hypotheses concerning the level of education attained by the head, moreover, show that the proportion of fulfilled intentions among college graduates is significantly greater than that of all spending units containing heads who have not attended college. A test of differences in rate of fulfilled intentions among spending units in which the head has attended high school or other non-college training and those in which head has not gone beyond the eighth year show no significant difference statistically.

The hypothesis indicating a relationship between rate of fulfillment and an optimistic spending unit's level of income was unsupported, but the difference in proportion of fulfilled intentions between those units reporting medium incomes ($4,000 to $7,499) and those reporting high incomes ($7,500 and over) was statistically significant. Units reporting the higher incomes ($7,500 and over) fulfilled intentions more frequently than those reporting medium incomes, although no significant difference was found in the fulfillment rates of units reporting income of $4,000 or more and those reporting income of less than $4,000.

Further consideration of these findings along with statements concerning their implication to this study's conceptual framework will

be presented in Part Two of Chapter VI.

## Part Two: Implications of the Findings

The foregoing results represent the statistical findings of this research. The following section will attempt to provide literal expression of these empirical results along with a summary of what seems to be implied in them as it concerns the principles underlying this study.

### Hypothesis 1: Attitude Level

According to the findings, optimistic spending units fulfilled their intentions to purchase at a significantly greater rate than did pessimistic spending units--when specific levels of spending unit characteristics were disregarded. (Table 6.1, page 111) At the more substantial levels of what are currently considered to be enabling characteristics, the difference in fulfillment rate between attitude classes was found to be not statistically significant. Generally, the change amounted to a small or negligible decrease in fulfillment rate among optimistic units along with a substantial increase among pessimistic units. Among spending units with better educated heads and among those in which the head was employed in a white-collar position, however, the difference corresponding to attitude disappeared despite significant increases among optimistic units.

The increases in fulfillment rate for pessimists took place among spending units reporting $4,000 or more in income, no outstanding installment debt, or $1,000 or more in liquid asset holdings. Similar improvement in the fulfillment rate for pessimists was found at specific levels of characteristics generally associated with favorable enabling

conditions, such as white-collar occupations, homeownership, units with unmarried heads, and heads with eight or more years of education.

The implication seems to be that among spending units reporting less-favorable enabling conditions (or means toward fulfillment), the presence of favorable expectations concerning the conditions surrounding the purchase associates with a higher frequency of fulfillment. Among units reporting more-favorable enabling conditions--the presence or absence of favorable expectations is of reduced consequence.

### Hypotheses 2a, b, c: Income Level

Chi-square testing of three income groups rated as optimists showed no statistical relationship between rate of fulfillment and level of spending unit income. Statistical comparison of the fulfillment rates of optimistic units reporting incomes of $7,500 or over, however, showed that such units fulfilled at a rate significantly greater than those reporting $4,000 to $7,499 annual income, but also that there was no significant difference in the fulfillment rates of units reporting less than $4,000 and all units reporting $4,000 or more. (Tables 6.2 and Appendix A.1)

TABLE 6.2.--Rate of fulfillment of purchase intentions by selected income levels

| Optimists | No. of fillers | No. of Cases | % of Fulfillment |
|---|---|---|---|
| $4,000 to $7,499 | 47 | 84 | 56.0 |
| $7,500 and over | 87 | 122 | 71.3 |
| Totals | 134 | 206 | 65.0 |

$X^2$ significant at 0.05 level

These findings generally contradict hypotheses based on the suggestion that the type of durable represented by purchase plans among higher-income families would be more postponable, leading to a reduced fulfillment rate. On the other hand, expectations were that the limited income of the lowest income group would limit rate of fulfillment. Consideration follows that either the hypothesized postponability of purchase plans among high-income groups does not exist or does not affect the fulfillment rate of the units in this sample. But, in that the rate for the high-income group is not significantly different from that of the low-income group and is significantly different from that of the medium-income group, limited income appears to not necessarily lead to a higher frequency of unfulfilled plans. These findings suggest that if even a low-income spending unit makes an accurate appraisal of its ability to make a given purchase, the absolute income level has little effect on fulfillment.

Since all units planned purchases, the effect of income on rate of fulfillment must be obscured here by variation in planning ability of the spending units and/or by variation in the frequency of contingencies that thwart the plan, suggesting more intensive investigation of factors such as education, occupation, and stability of income before the effects of income can be clearly seen.

Although small cell frequencies prevent valid testing of similar data reported by pessimistic spending units and exclude study of variation in attitude at specific levels of income (and most other levels of spending unit characteristics), Table 6.1, page 111, shows that the significant difference in fulfillment rates of optimists and pessimists disappears among spending units reporting $4,000 or more

annual income. This finding implies that a strongly significant difference exists among units reporting smaller income even though direct testing is impossible due to inadequate cell frequencies. A further implication is that, among pessimists, the enabling power of income is a stronger influence on rate of fulfillment of purchase intentions than it is among optimists.

### Hypotheses 3a, b, c: Debt Level

The presence or amount of outstanding debt, whether it was total installment debt or installment debt incurred specifically in the purchase of durables, appears to have no significant association with rate of fulfillment. (Tables 6.3 and 6.4) At no level of indebtedness were there significant differences between sub-groups regardless of debt level. These findings suggest that, insofar as this study was able to detect, the presence of an existing debt of any amount does not relate to changes in rate of fulfillment, nor does the implied willingness to use credit affect the rate at which plans are carried out.

Comparison of fulfillment rates among optimistic and pessimistic units reporting no outstanding installment debt of any type (Table 6.1, page 111) shows that the statistically-significant rate found when attitude level alone is considered is not present among debt-free units. The enabling factor of debt-free status appears to override the influence of attitude on rate of fulfillment, suggesting a unique relationship between debt level and rate of fulfillment when the decision situation includes the fact of pessimistic economic outlook and expectations.

TABLE 6.3.--Findings of statistical analysis of variables hypothesized to relate to rate of fulfillment at a given level of economic attitude

| Empirical Hypotheses | Variable Being Tested | Attitude Grouping | Levels of Comparison | Values of $X^2$ | df |
|---|---|---|---|---|---|
| 1 | Attitude only | n/a | Optimist/Pessimist | * 6.00 | 2 |
| 2a | Income | Optimist | | 5.18 | 2 |
| b | | Optimist | $4000 to $7499/7500 and over | * 4.50 | 1 |
| c | | Optimist | Less than $4000/4000 and over | 0.69 | 1 |
| 3a | Debt (total) | Optimist | | 2.09 | 2 |
| b | Debt (durable) | Optimist | | 1.64 | 2 |
| c | Debt (durable) | Optimist | No debt/$1 or more | 1.55 | 1 |
| 4 | Liquid Assets | Optimist | | 1.72 | 2 |
| 5 | Income-producing status of wife | Optimist | | 1.32 | 1 |
| 6 | Housing status | Optimist | | 1.64 | 2 |
| 7 | Housing value | Optimist | | 0.45 | 1 |
| 8 | Sex of head | Optimist | | 0.66 | 1 |
| 9 | No. of years married | Optimist | | 0.43 | 2 |
| 10a | Age of head | Optimist | | 2.50 | 2 |
| b | | Optimist | 18-54 and 65 and over/ 55-64 | 1.77 | 1 |
| 11 | Number in spending unit | Optimist | | 1.55 | 2 |
| 12 | Occupation | Optimist | | * 4.1 | 1 |
| 13a | Education | Optimist | | * 6.61 | 2 |
| b | | Optimist | 0 through 8 years/8 through 12 years | 1.4 | 1 |
| c | | Optimist | 0 through 12 years/ college | * 4.2 | 1 |

* p = 0.05 or less

TABLE 6.4.--Findings of statistical analysis of variables hypothesized to relate to rate of fulfillment at a given level of economic attitude

| Empirical Hypotheses | Variable Being Tested | Attitude Grouping | Levels of Comparison | t-score | df |
|---|---|---|---|---|---|
| 1 | Attitude only | n/a | Optimist/Pessimist | * 2.20 | 285 |
| 2b | Income | Optimist | $4000 to $7499/7500 and over | * 2.25 | 204 |
| c | | Optimist | Less than $4000/4000 and over | 0.10 | 242 |
| 3c | Debt (durable) | Optimist | No debt/$1 or more | 0.06 | 242 |
| 5 | Income-producing status of wife | Optimist | | 1.16 | 241 |
| 6 | Housing status | Optimist | | 0.27 | 242 |
| 7 | Housing value | Optimist | | 0.89 | 140 |
| 8 | Sex of head | Optimist | | 0.81 | 242 |
| 10b | Age of head | Optimist | 18-54 and 65 and over/ 55-64 | 1.56 | 240 |
| 12 | Occupation | Optimist | White-collar/Blue-collar | * 2.18 | 218 |
| 13b | Education | Optimist | 0 through 8 years/8 through 12 years | 1.34 | 147 |
| c | | Optimist | 0 through 12 years/ college | * 2.17 | 241 |

* significant at p = 0.05 or less

## Hypotheses 4a, b: Liquid Assets

Chi-square analysis shows there is no significant relationship between level of liquid assets held by optimistic spending units and the rate at which they fulfill their intentions to purchase major household durables. (Table 6.3) Further, tests of differences in proportions of spending units fulfilling intentions between those units reporting some liquid asset holdings and those reporting none, showed no statistical significance.

Failure of these tests to show significant relationships might lie in an explanation offered independently by Katona (34:214) and Fisher (21:68): that is, doubt as to the actual liquidity of what are commonly termed "liquid asset" holdings. Liquid assets reported by spending units in this study, then, may not represent enabling conditions, much less, means toward fulfillment of the specific purchase intentions.

Again, as has been pointed out in the sections on income and debt levels, the significant difference in rates of fulfillment among optimistic and pessimistic units disappears among spending units reporting the more substantially enabling level of the characteristic. In this case, the difference in rate of fulfillment by attitude level is not found among those units reporting $1,000 or more in liquid asset holdings.

## Hypothesis 5: Income-Contributing Status of Wife

Despite the argument that units in which the wife contributes to total spending unit income would fulfill at a higher rate because of increased means, superior planning ability and, further, that the object of the purchase plan would be less postponable, findings show that decisions among these units to act contrary to stated purchase intentions occurred at a frequency not statistically different from that

of spending units in which the wife was not employed outside the home. (Tables 6.3 and 6.4, pages 118 and 119, respectively)

A likely reason that the findings failed to show a relationship in this case is that no attempt was made to determine whether or not the wife's income was "necessary" to maintain the spending unit's level of living, or whether it was additional income available for discretionary spending. If the wife's income is perceived by the spending unit to be necessary to maintain its present level of living, the effect on fulfillment rate could be different than if the additional income were spent or saved without reference to the spending unit budget.

### Hypothesis 6: Housing Status

Housing status appears, according to the findings (Tables 6.3 and 6.4) to have no relationship to rate of fulfillment. In that the relationship was hypothesized in part on the basis of the association of homeownership with higher levels of income, explanation in part lies in the lack of relationship of income to rate of fulfillment. On the other hand, homeownership also reportedly associates with increased frequency of planning, providing a contradiction between the expected and actual results. Although homeowners do have higher frequencies of planning and purchasing, the rate of fulfillment of planned purchases will not necessarily be significantly higher.

Many of the purchases made by homeowners, especially recent purchasers of homes, may be unplanned in the sense that the concept of planning is used here. Also many of the plans made by spending units taking possession of a new home may be of such short duration as to be completely enveloped within the twelve-month planning period of this study. (12:72) This consideration suggests that the frequent purchases

made by homeowners may be contingent on the necessities of homeownership; essentially different from the purchases concerning which plans are expressed in answer to survey queries.

Another factor that may tend to balance out the hypothesized positive relationship of homeownership with fulfillment may be that increased complexities concerning homeownership especially with newly acquired homes may reduce the probability of fulfillment through displacement of the means or by presenting increased difficulty in the planning procedure.

When differences in housing status are not considered, optimistic units were found to fulfill purchase intentions at a rate significantly greater than pessimistic units. When such investigation is limited to homeowners, however, no difference corresponding to attitude appears. (Table 6.1, page 111) A similar finding has been reported among spending units at the more substantially enabling levels of income, debt-freedom, and assets. The review of literature has indicated an association between higher levels of these enabling factors and homeownership; a fact that may well account for the increase in fulfillment rate among pessimistic homeowners as indicated by the absence of significant difference between attitude groups.

### Hypothesis 7: Housing Value

Similarly, the findings show no relationship between amount of housing value held and rate of fulfillment. (Tables 6.3 and 6.4, pages 118 and 119) Part of the failure to support this hypothesis may lie in the fact that the highest level of housing value ($20,000 and over) is relatively "unoccupied" by the spending units in this sample. Only 15 cases, or approximately 5.0 per cent of 256 cases, reported housing

values of $20,000 or more while the percentage distribution of the parent sample (Table 6.5) was 15.0 per cent.

TABLE 6.5.--Percentage distribution of homeowning nonfarm families (1959)

| House Value | | | | |
|---|---|---|---|---|
| Total of all cases[2] | Under $10,000 | $10,000 to $19,999 | $20,000 and over[2] | |
| 100 | 33 | 50 | 15 | (1960 Survey of Consumer Finances (68: Table 3-12)) |
| 100 | 25 | 66 | 9 | (Reinterviewed Planning Units[1]) |
| 100 | 22 | 68 | 10 | (Reinterviewed Planning Optimists[1]) |

Note[1]: Details may not add to totals due to rounding.

Note[2]: In this study, value categories have been combined to read "Less than $10,000," and "$10,000 and over" on the basis of small cell frequencies.

Also, strict association of housing value to income (the basis for the hypothesized increase in fulfillment rate among units with high value housing), may be disturbed by the ownership of high-value housing by low-income units through inheritance or longevity. For example, an aged spending unit may occupy housing of considerable value although the unit's income has diminished to a retirement or subsistence level since the time they purchased.

### Hypothesis 8: Sex of the Head

The findings for this study show no relationship to exist between sex of the head of the spending unit and the rate at which that unit

fulfills its purchase intentions. (Tables 6.3 and 6.4, pages 118 and 119) This lack of relationship may be due in part to the fact that among spending units with female heads, predominant use of the durable and complete responsibility for its purchase plan are held more often by the same person; therefore, the probability of fulfillment is increased. The inclusion in plan-making of members of the spending unit who are not as directly aware of the utility of the durable may be a constraining factor leading more often to failure to fulfill the purchase plan.

### Hypothesis 9: Number of Years Married

No differences as great as five per cent appeared among spending units in the sample regardless of whether the head reported being unmarried, married one to nine years, or married ten years or more. (Table 6.3) These findings suggest that the increased complexity of spending units in which husband and wife have been married a greater number of years offsets the accompanying greater experience in planning. These complexities would include education of children, greater financial involvement, aging parents, and the like, which make planning more difficult and displacement of intended means toward fulfillment more frequent. Also to be considered is the likelihood that the type of durable involved in the purchase plans of spending units in which the head has been married longer may be less functionally-necessitated and, therefore, more likely to be postponed than would a similar purchase planned by a newly-married family.

Among spending units in which the head is reported to be married, there is a significant difference in the fulfillment rate of optimistic and pessimistic units regardless of the number of years the marriage has

existed. This difference corresponding to attitude level does not exist among spending units in which the head is reported to be single, widowed, or divorced. (Table 6.1, page 111)

### Hypotheses 10a, 10b: Age of Head of Spending Unit

The findings of this study show no relationship to exist between levels of age of the head of a spending unit and the rate at which that unit fulfills its intentions to purchase. (Tables 6.3 and 6.4, pages 118 and 119) Differences were hypothesized on the basis of decreases in rate of purchase associated with increases in age as reported in the review of literature. Also, purchases planned by very young or retired families were hypothesized to be based on functional necessity and, therefore, to be less postponable, leading to higher rates of fulfillment.

The implication is accepted that factors leading to variation in purchasing rates among age-of-head groups are taken into account during planning and, therefore, do not lead to variation in rate of fulfillment of planned purchases. Factors tending to thwart the purchase between statement of intentions and fulfillment either balance out among age groups or are not strong enough to provide statistically significant data.

### Hypothesis 11: Number in Spending Unit

Analysis of the data for this study failed to show a significant association between number in the spending unit and the rate at which it fulfilled intentions to purchase. (Table 6.3, page 118)

These findings tend to contradict the argument underlying this hypothesis that spending units with larger numbers of members would

fulfill at a lower rate than those with fewer members. That there is no relationship among the variables suggests that the tendency for larger families to purchase durables as suggested by David balances out by the increased necessity of non-durable expenditures and by cases of contingencies leading to non-fulfillment of purchase plans. (8:95)

Further, although it is economically advantageous for the larger family to purchase durables that eliminate need for commercial services and the payment of labor fees to others, the fact that these services are available increases the probability that intentions toward purchase of a durable to eliminate them can be postponed. This margin of postponability might quite often lead to decisions by spending units with greater numbers of members to act contrary to their stated intentions despite a temporary economic disadvantage. On the other hand, intentions to purchase durables such as ranges that cannot be replaced by commercial services should be less postponable among spending units with larger families. These factors may balance out to obscure a relationship existing among these variables. Further, the proportion of durables represented in this study that can be replaced by commercial services is rather small.

## Hypotheses 12 and 13: Occupation and Education of Head

This study's hypotheses concerning the relationship of rate of fulfillment to the occupational and educational class of the head were supported by the findings (Tables 6.6 and 6.7), implying that access to improved enabling conditions--and to a greater quantity of more precise information concerning the object of the planned purchase--do lead to increased frequency of fulfillment among spending units with better

educated heads and among those in which the head is employed in more lucrative positions exercising skills similar to those necessary to the planning and execution of a discretionary household expenditure.

TABLE 6.6.--Frequency and rate of fulfillment of purchase intentions by occupation class among economically-optimistic spending units

| Optimists | No. of Fillers | No. of Cases | % of Fulfillment |
|---|---|---|---|
| White Collar: Professional, Managerial, Clerical, and Sales | 89 | 127 | 70.1 |
| Blue Collar: Craftsmen, Operatives, and Laborers | 52 | 93 | 55.9 |
| Totals | 141 | 220 | 64.1 |

$X^2$ significant at 0.05 level

TABLE 6.7.--Frequency and rate of fulfillment of purchase intentions by level of educational attainment of the head of economically-optimistic spending units

| Optimists | No. of Fillers | No. of Cases | % of Fulfillment |
|---|---|---|---|
| None through grade school | 29 | 55 | 52.7 |
| Attended high school, completed high school or other non-college training | 60 | 94 | 63.8 |
| College--with or without degree | 69 | 94 | 73.4 |
| Totals | 158 | 243 | 65.0 |

$X^2$ significant at 0.05 level

Corollary hypotheses suggested that improved fulfillment rates among spending units with better educated heads might be due to attainment of academic skill acquired at specific levels of education. The findings show that rates of fulfillment do not necessarily become significantly greater with each advance in level of education. Specifically, spending units with heads who have attended high school did not fulfill at a rate significantly greater than those in which the heads have not; units in which the heads have attended college fulfill at a rate greater than those in which the heads have not gone beyond high school. (Table 6.8)

TABLE 6.8.--Rate of fulfillment of purchase intentions by selected levels of educational attainment

| Optimists | No. of Fillers | No. of Cases | % of Fulfillment |
|---|---|---|---|
| College | 69 | 94 | 73.4 |
| 0 through 12 years | 89 | 149 | 59.7 |
| Totals | 158 | 243 | 65.0 |

$X^2$ significant at 0.05 level

Differences in fulfillment rates among optimistic and pessimistic spending units reported at the beginning of this chapter were not found among units in which the head was employed in a white-collar position or among those reporting eight or more years of education. (Table 6.1, page 111) By implication, variation in rate of fulfillment corresponding to lower levels of educational attainment and to blue-collar

employment is somewhat more dependent on variation in attitude level, while variation corresponding to eight years or more of education and to white-collar employment is somewhat more dependent on the presence of associated enabling conditions.

# CHAPTER VII

# SUMMARY, CONCLUSIONS, AND SUGGESTIONS FOR FURTHER RESEARCH

## Summary

The intent and purpose of this study has been to expand the body of knowledge concerning home management in the area of decisionmaking: an area that has been authoritatively considered to be crucial to the art and science of all management. The primary objective of this study was to explore the phenomenon of decisionmaking within a conceptual framework generally suited to the field of home management.

In pursuit of this objective, a model was developed for decision research representing a conceptual framework derived from review of literature dealing with household decision and decisionmaking in general. Following a trend in decision research indicated in the review of literature, the model incorporated an intervening variable or system within which fundamental factors present in the organism's environment interact to become a complex factor associated with consequent decision behavior. Unlike previous studies in which the household or deciding organism served as the intervening variable, this study employed a hypothetical decision situation within which varying values of characteristics relevant to the decision event are assumed to interact. Also particular to the model for this study is a demand for inclusion of some element of the future representing the expectations or anticipations of the deciding organism concerning behavior

alternatives. In this study the demand is assumed to be satisfied by inclusion of expectational data inherent in the attitude index. Hypothetical relationships indicated by the model served as the basis for formulation of hypotheses concerning interaction of elements in a household spending decision.

In general form the hypotheses state that variation in the presence and value of a number of factors in the decision situation will affect the net influence of the decision situation on selection among the behavior alternatives. Elements of a household purchasing decision were substituted as elements in the conceptual model of decision behavior, the behavior alternatives being fulfillment or nonfulfillment of intentions to purchase, while the economic attitude level of a household spending unit and selected levels of spending unit characteristics such as income, age, occupation, etc., made up the elements of the decision situation. Empirically, a search was made for relationship between rate of fulfillment and each of the various levels of spending unit characteristics among units exhibiting a substantial degree of optimism in their outlook and expectations concerning present and future economic conditions.

Data used to test the hypotheses originated during a consumer behavior survey conducted by the Survey Research Center of the University of Michigan and consisted of characteristics of domestic spending units expressing intentions to purchase a major household durable during a twelve-month period. Response to interview and reinterview queries provided data concerning what were assumed to be potentially relevant factors in decisions by the spending unit to act contrary to stated intentions.

To provide background information, a comparison of mean values of selected spending unit characteristics was made for optimistic and pessimistic attitude classifications and for planning and non-planning subgroups of the sample. Further comparison was based on similar data of spending units in the parent sample that were not available for re-interview to determine the outcome of their intentions to purchase.

Optimists and planners have, on the average, higher incomes, heads who are younger and have been married longer, and larger numbers in the spending unit in comparison to pessimists and/or non-planning spending units.

In all cases in which levels of spending unit characteristics were not considered, optimistic spending units showed a significantly higher rate of fulfillment than did pessimistic units. At specific levels of certain spending unit characteristics suggesting improved ability to make a purchase, increases in rate of fulfillment among pessimistic units were sufficient to narrow the range to a statistically non-significant level. This was true among spending units reporting incomes of $4,000 or more, liquid asset holdings of $1,000 or more, no outstanding installment debt, homeownership, white-collar occupations, more than eight years of education, and/or a single head. Small cell sizes among pessimistic spending units prevented the use of attitude level as a direct variable in this study.

## Conclusions

This study's findings failed, for the most part, to support the hypotheses indicated by the model although they do provide evidence that variation in decision behavior may associate with variation in a given spending unit characteristic provided other factors in the

decision situation are accounted for.

This study's findings, for example, show an association between rate of fulfillment of purchase intentions and attitude level at specific levels of particular spending unit characteristics or when attitude alone is considered. These findings support the belief that the association of attitude to decision behavior is dependent on peculiar features inherent in certain values of particular spending unit characteristics, such as income less than $4,000, and are held in support of the validity of the decision situation as an operative factor in decision behavior.

Significant findings indicate an association of rate of fulfillment and the educational and occupational levels held by the head of the spending unit. Spending units in which the head had not gone beyond high school fulfilled purchase intentions at a significantly lower rate than did those in which the head had attended college. Comparison of the proportions of spending units fulfilling intentions showed that no statistically significant improvement in fulfillment rate is found among those units in which the head attended high school when compared to units in which the head had eight years of education or less. (Table 6.8, page 128)

Spending units in which the head was employed in what are commonly accepted as white-collar positions fulfilled intentions to purchase significantly more often than did blue-collar spending units.

Although no association was indicated between rate of fulfillment and the spending unit's income level, a test of difference of proportions showed that those units earning $4,000 to $7,499 annually decided significantly more often to act contrary to purchase intentions

than did those units reporting incomes of $7,500 or more. This distinction based on variation in fulfillment rates does not exist between spending units reporting $4,000 or more and those reporting less than $4,000 annually.

These findings suggest that variation in the presence and value of spending unit characteristics in the decision situation produces a complex variable potentially associated with decision behavior and that variations in relative levels of interacting characteristics of a spending unit's decisionmaking situation do function as constraining or enabling factors in selection of a particular alternative.

In this sense, the predictive and/or explanatory power of a given input variable is limited to a given type of decision taking place within a given set of economic, demographic, and psychological circumstances, and in reference to a particular set of expectations held by the deciding organism.

Primarily responsible for failure to support additional hypothesis is the operationally-imposed limitations to a single set of covariables, in this case, a constant level of attitude mapped into selected economic and demographic characteristics. A second operationally-imposed handicap was that of small sample size and cell frequencies due to intensive cross classification on the basis of reinterview, planning, and attitude status.

## Suggestions for Further Research

Implications of findings for this study seem to demand revision of the model especially as to the nature of the hypothetical decision situation in the event of further research. These implications as summarized from Chapter VI suggest that variation of factors concerning

the relationship of the spending unit to the purchase plan, and to contingencies occurring between the time of expression of the plan and purchase, are responsible for variation in rate of plan fulfillment.

Juster viewed purchase intentions as judgements or probability statements by the household concerning what it will do providing the things it expects to happen to it turn out to be correct. (31) Variability, then, can be introduced in the reality of the situation on which the judgement is based and again in the frequency of contingencies unfavorable to fulfillment of the purchase plan.

The degree of realism inherent in the spending unit's judgement of what it will do depends on basic planning skills and on its ability to appraise its objective condition relative to the purchase being planned. Variation in this planning factor would correspond to variation in the occupation, education, and perceptive ability of the spending unit and on the quantity and quality of information concerning the behavior alternatives. Variation in these characteristics that tend to improve the accuracy of the spending unit's perception of the real situation would tend to produce a planning factor favorable to fulfillment of the purchase plan.

Variation in the planning factor occurs prior to statement of intentions but probability of fulfillment may also depend on variation in the frequency of occurrences tending to thwart the purchase plan taking place between the time of the intentions statement and the purchase. In general, contingencies reducing the probability of fulfillment may be divided into two categories: surprise expenditures and income disappointments. Surprise expenditures would appear to correspond to certain spending unit characteristics such as greater

numbers of dependents, very young or very old dependents, and embryo investment activities such as acquisition of a unit's first house or business.

The set of contingencies termed surprise expenditures would include situations in which expenditures (or necessities to save) of a less-postponable nature than the planned purchase become evident, displacing the means toward fulfillment in favor of some other purchase, contingent expense, or perhaps an annuity premium. In this sense the contingency factor would vary according to the spending unit's perception of the necessity of the planned purchase relative to other potential expenditures.

Income disappointment on the other hand appears to associate with certain occupations having unstable incomes, with concurrent unfavorable business fluctuations, and with the age of the wage-earning members of the spending unit.

In terms of elements of the model, this revision amounts to specification of hypothesized planning and contingency factors within the decision situation without revision to the hypothesized nature of this hypothetical construct as presented in Chapter III. This revision is illustrated in Figures 7.1 and 7.2 to facilitate comparison.

Future research based on the model as revised will depend on collection of data concerning the spending unit's subjective perceptions concerning the object of the purchase along with data regarding the quantity and condition of the unit's present stock of durables to test hypothesized relationships between the planning and contingency factors

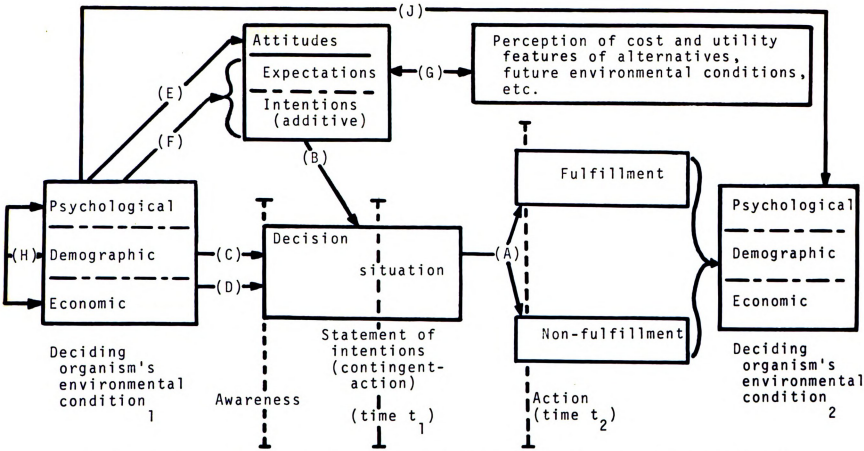


Figure 7.1 **Model adapted for study of decision concerning fulfillment or non-fulfillment of purchase intentions as presented in Chapter III, Figure 3.2.**

(Letters in parentheses denote relationships as discussed in this study. Relationships A,B,C, and D indicate relationships on which hypotheses for this study are based.)

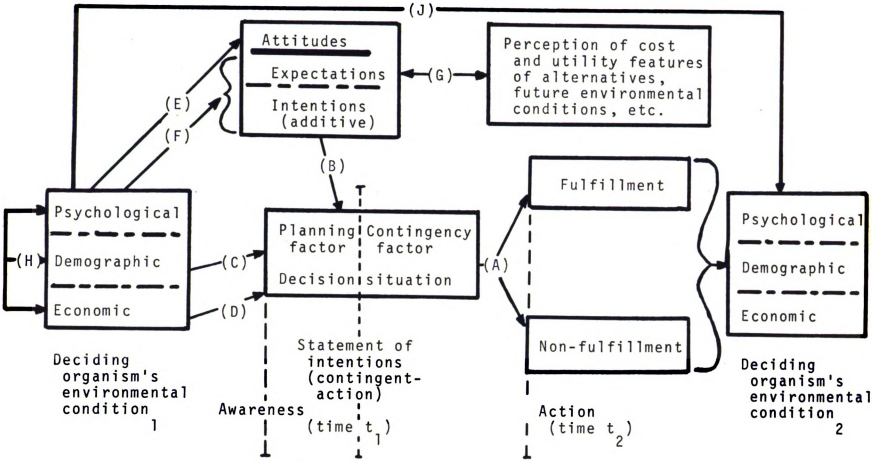


**Figure 7.2** Revised model for study of decision concerning fulfillment and non-fulfillment of purchase intentions

(Letters in parentheses denote relationships as discussed in this study. Relationships A,B,C, and D indicate relationships on which hypotheses for this study are based.)

and probability of fulfillment of intentions to purchase. Finally, examination of the relationship of the spending unit to its ability to carry out the proposed purchase will aid in testing assumptions concerning the effect of contingent events on decisions to carry out planned purchases.

To make the product and contingency factors operational, the research design must be such that variation in one or the other is controlled, while data hypothesized to be valid for the other is examined relative to the dependent decision behavior.

### Contingency Factor

Control of occupation of the head, for example, might serve as a control for the planning factor in that it would somewhat establish a level of planning ability deriving from vocational skills. In addition, the researcher might expect to find some association of occupational class with education that would add further control to the level of planning ability. Within this occupational class, then, the investigation of dependent decision behavior relative to data such as the number and ages of dependents, income stability, stage of the life cycle, income reserves, and the like, could take place in search of valid indicators of the <u>contingency</u> factor.

This type of objective data might be supplemented or replaced by data obtained in response to queries of a more direct nature that are intended to determine the likelihood that the means toward this purchase will be displaced in favor of other expenditures. For example, the likelihood of displacement might depend somewhat on the method of purchase as was discussed in Chapter III.

"How do you intend to carry out this transaction? Cash? Credit?

Other?"

Credit as intended means toward fulfillment seems quite unlikely to be displaced, while liquid savings and income would be more often diverted to other use. The demand for the product upon which the plan is based may also provide some indication of the probability of displacement of means due to contingent events.

"How likely is it that you could possibly postpone this purchase for another year? Do you have this product in your home now? Is it in good working condition? Are you buying a standard or deluxe model?"

When demand is based on function, such as the first range being purchased by a newly-formed family, displacement seems less likely even in cases of low income than it would be in a similar purchase plan intended to upgrade a functionally sound durable currently in the inventory of a more well-established spending unit.

## Planning Factor

In a similar manner, control of life cycle stage seems appropriate as a hypothetical control over variation in the likelihood of contingencies that prevent carrying out of the purchase plan in that it roughly establishes the number and ages of dependents; a likely source of unfavorable contingent events. Meanwhile data concerning occupation and education, years married, the amount and accuracy of information concerning the planned purchase, and the like, might be examined for operational characteristics as indicators of the <u>planning factor</u>.

In lieu of objective data on environmental characteristics, more subjective queries might be made of respondents to determine the degree of realism in the purchase plan. For example, data might be collected

on the amount of information that the spending unit reports to have been assimilated concerning the alternatives open to it. Also, how extensive a search has it made to discover more suitable alternatives than those it was originally aware of?

"Have you obtained brochures on this product? Have you also read brochures or talked to salesmen concerning competitive products? Have you considered how you could possibly do without this product?"

One other likely approach might be to query the respondent concerning budgeting practices of the spending unit as an indicator of the amount of financial consideration that has gone into the plan.

"Do you budget expenditures of this type? How detailed is this budget? What period of time does it cover? Have you allocated the means of paying for this purchase in this budget? Do you have other expenses or plans for expenditures that might compete for this allocation?"

Of particular interest to researchers in Home Management, a similar study with a considerably larger sample might also include such variables as the amount and proportion of spending unit income provided by the wife, educational level of wife, and the like. In order to do so, however, the role of the wife in the spending unit decisionmaking process and the manner in which her income is perceived by the spending unit must be taken into account to insure meaningful data.

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# APPENDIX

TABLE A.1.--Rate of fulfillment of purchase intentions by selected income levels

| Optimists | No. of fill-ers | No. of cases | % of ful-fill-ment |
|---|---|---|---|
| Under $4,000 | 25 | 38 | 65.8 |
| $4,000 and over | 134 | 206 | 65.0 |
| Totals | 159 | 244 | 65.2 |

$X^2 = 0.2$ @ df = 1

TABLE A.2.-- Rate of fulfillment of purchase intentions by selected levels of educational attainment

| Optimists | No. of fill-ers | No. of cases | % of ful-fill-ment |
|---|---|---|---|
| 0 - 8 | 29 | 55 | 52.7 |
| 8 - 12 | 60 | 94 | 63.8 |
| Totals | 89 | 149 | 59.7 |

$X^2 = 1.4$ @ df = 1

TABLE A.3.--Frequency and rate of fulfillment of purchase intentions by attitude class and income level

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| Under $4,000 | 5 | 15 | 33.3 | 25 | 38 | 65.8 | 30 | 53 | 56.6 |
| $4,000 to $7,499 | 6 | 15 | 40.0 | 47 | 84 | 56.0 | 53 | 99 | 53.5 |
| $7,500 and over | 8 | 13 | 61.5 | 87 | 122 | 71.3 | 95 | 135 | 70.4 |
| Total | 19 | 43 | 44.2 | 159 | 244 | 65.2 | 178 | 287 | 62.0 |

$X^2 = 2.41017$ $df = 2$ $X^2 = 5.17747$ $df = 2$

TABLE A.4.--Frequency and rate of fulfillment of purchase intentions by attitude class and level of total outstanding installment debt

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment |
| None | 11 | 20 | 55.0 | 61 | 94 | 64.9 | 72 | 114 | 63.1 |
| $1 - $199 | 3 | 7 | 42.9 | 21 | 31 | 67.7 | 24 | 38 | 63.2 |
| $200 - $999 | 4 | 11 | 36.4 | 43 | 65 | 66.2 | 47 | 76 | 61.8 |
| $1,000 + | 1 | 5 | 20.0 | 34 | 54 | 63.0 | 35 | 59 | 59.4 |
| Total | 19 | 43 | 44.2 | 159 | 244 | 65.2 | 178 | 287 | 62.0 |
| | $X^2$ = n/a<br>df = n/a | | | $X^2$ = 1.644<br>df = 2 | | | | | |

TABLE A.5.--Frequency and rate of fulfillment of purchase intentions by attitude class and level of outstanding installment debt for durables

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment |
| No debt | 15 | 29 | 51.7 | 112 | 179 | 62.6 | 127 | 208 | 61.0 |
| $1 - $199 | 2 | 7 | 28.6 | 23 | 31 | 74.2 | 25 | 38 | 65.8 |
| $200 plus | 2 | 7 | 28.6 | 24 | 34 | 70.6 | 26 | 41 | 63.0 |
| Total | 19 | 43 | 44.2 | 159 | 244 | 65.2 | 178 | 287 | 62.0 |
| | $X^2$ = n/a | | | $X^2$ = 2.085<br>df = 2 | | | | | |

TABLE A.6.--Frequency and rate of fulfillment of purchase intentions by attitude class and level of liquid asset holdings

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment |
| Has none | 5 | 12 | 41.7 | 10 | 18 | 55.6 | 15 | 30 | 50.0 |
| $1 - $999 | 3 | 15 | 20.0 | 77 | 122 | 63.1 | 80 | 137 | 58.4 |
| $1,000 and over | 11 | 16 | 68.8 | 72 | 104 | 69.2 | 83 | 120 | 69.2 |
| Total | 19 | 43 | 44.2 | 159 | 244 | 65.2 | 178 | 287 | 62.0 |

$X^2$ = n/a

$X^2$ = 1.715
df = 2

TABLE A.7.--Frequency and rate of fulfillment of purchase intentions by attitude class and income-producing status of wife

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| No income | 15 | 29 | 51.7 | 98 | 157 | 62.4 | 113 | 186 | 60.8 |
| Income | 4 | 14 | 28.6 | 60 | 86 | 69.8 | 64 | 100 | 64.0 |
| Total | 19 | 43 | 44.2 | 158 | 243 | 65.0 | 177 | 286 | 61.9 |
| | $X^2$ = n/a | | | $X^2$ = 1.319<br>df = 1 | | | | | |

TABLE A.8.--Frequency and rate of fulfillment of purchase intentions by attitude class and housing status

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| Owners | 17 | 29 | 58.5 | 109 | 169 | 64.9 | 126 | 198 | 63.6 |
| Non-owners | 2 | 14 | 14.3 | 50 | 75 | 66.7 | 52 | 89 | 58.5 |
| Total | 19 | 43 | 44.2 | 159 | 244 | 65.2 | 178 | 287 | 62.0 |
| | $X^2 = 0.03334$ df = 1 | | | $X^2 = 1.644$ df = 2 | | | | | |

TABLE A.9.--Frequency and rate of fulfillment of purchase intentions by attitude class and level of housing value

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| $1 - $9,999 | 5 | 11 | 45.5 | 18 | 31 | 58.1 | 23 | 42 | 54.8 |
| $10,000 and over | 8 | 14 | 57.1 | 74 | 111 | 66.7 | 82 | 125 | 65.6 |
| Total | 13 | 25 | 52.0 | 92 | 142 | 64.7 | 105 | 167 | 62.9 |

$X^2$ = n/a

$X^2$ = 0.45416
df = 1

TABLE A.10.--Frequency and rate of fulfillment of purchase intentions by attitude class and sex of head

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| Men | 15 | 37 | 40.5 | 145 | 225 | 64.4 | 160 | 262 | 61.0 |
| Women | 4 | 6 | 66.6 | 14 | 19 | 73.6 | 18 | 25 | 72.0 |
| Total | 19 | 43 | 44.1 | 159 | 244 | 65.1 | 178 | 287 | 62.0 |
| | $X^2$ = n/a<br>df = n/a | | | $X^2$ = 0.659<br>df = 1 | | | | | |

TABLE A.11.--Frequency and rate of fulfillment of purchase intentions by attitude class and number of years married

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| Inappropriate | 5 | 11 | 45.4 | 18 | 29 | 62.0 | 23 | 40 | 57.5 |
| 1 through 9 years | 3 | 9 | 33.3 | 47 | 69 | 68.1 | 50 | 78 | 64.1 |
| 10 years and over | 11 | 23 | 47.8 | 94 | 146 | 64.3 | 105 | 169 | 62.1 |
| Total | 19 | 43 | 44.1 | 159 | 244 | 65.1 | 178 | 287 | 62.0 |
| | $X^2$ = n/a<br>df = n/a | | | $X^2$ = 0.426<br>df = 2 | | | | | |

TABLE A.12.--Frequency and rate of fulfillment of purchase intentions by attitude class and age of the head

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| 18 - 24 | | | | 7 | 11 | 63.6 | 7 | 11 | 63.6 |
| 25 - 34 | 3 | 8 | 37.5 | 44 | 65 | 67.7 | 47 | 73 | 64.3 |
| 35 - 44 | 3 | 8 | 37.5 | 51 | 75 | 68.0 | 54 | 84 | 64.3 |
| 45 - 54 | 6 | 13 | 46.2 | 36 | 55 | 65.5 | 42 | 68 | 61.8 |
| 55 - 64 | 3 | 10 | 30.0 | 14 | 27 | 51.9 | 17 | 37 | 46.0 |
| 65 - over | 4 | 4 | 100.0 | 6 | 9 | 66.7 | 10 | 13 | 77.0 |
| Total | 19 | 43 | 44.2 | 158 | 242 | 65.3 | 177 | 285 | 62.0 |

$X^2$ = n/a

$X^2$ = 1.644
df = 2

TABLE A.13.--Frequency and rate of fulfillment of purchase intentions by attitude class and age of the head

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| 18 - 34 | 3 | 8 | 37.5 | 51 | 76 | 67.1 | 54 | 84 | 64.2 |
| 35 - 64 | 12 | 31 | 38.7 | 101 | 157 | 64.3 | 113 | 188 | 60.1 |
| 65 plus | 4 | 4 | 100.0 | 6 | 9 | 66.6 | 10 | 13 | 76.9 |
| Total | 19 | 43 | 44.1 | 158 | 242 | 65.2 | 177 | 285 | 62.1 |
| | $X^2$ = n/a | | | $X^2$ = 2.582<br>df = 5 | | | | | |

TABLE A.14.--Frequency and rate of fulfillment of purchase intentions by attitude class and number in spending unit

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment | No. of fulfillers | No. of cases | % of fulfillment |
| One | 4 | 7 | 57.1 | 11 | 18 | 61.1 | 15 | 25 | 60.0 |
| Two | 4 | 13 | 30.7 | 33 | 56 | 58.9 | 37 | 69 | 53.6 |
| Three or more | 11 | 23 | 47.8 | 115 | 170 | 67.6 | 126 | 193 | 65.2 |
| Total | 19 | 43 | 44.1 | 159 | 244 | 65.1 | 178 | 287 | 62.0 |
| | $X^2$ = n/a | | | $X^2$ = 1.551<br>df = 2 | | | | | |

TABLE A.15.--Frequency and rate of fulfillment of purchase intentions by attitude class and occupation

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| White-collar professional managerial clerical and sales | 10 | 16 | 62.5 | 89 | 127 | 70.0 | 99 | 143 | 69.2 |
| Blue-collar craftsmen operatives laborers | 6 | 19 | 31.5 | 52 | 93 | 55.9 | 58 | 112 | 51.7 |
| Total | 16 | 35 | 45.7 | 141 | 220 | 64.0 | 157 | 255 | 61.5 |

$X^2 = 2.21638$ $df = 1$ $X^2 = 4.08515$ * $df = 1$

* significant at 0.05 level

TABLE A.16.--Frequency and rate of fulfillment of purchase intentions by attitude class and level of educational attainment

| | Pessimists | | | Optimists | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment | No. of ful-fil-ers | No. of cases | % of ful-fill-ment |
| None through grade school | 5 | 18 | 27.7 | 29 | 55 | 52.7 | 34 | 73 | 45.5 |
| Attended high school, completed high school and other non-college training | 8 | 15 | 53.3 | 60 | 94 | 63.8 | 68 | 109 | 62.3 |
| College - with or without degree | 6 | 10 | 60.0 | 69 | 94 | 73.4 | 75 | 104 | 72.1 |
| Total | 19 | 43 | 44.1 | 158 | 243 | 65.0 | 177 | 286 | 61.8 |
| | $X^2 = 3.488$ df = 2 | | | $X^2 = 6.618$ * df = 2 | | | | | |

* significant at 0.05 level