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Title: THE RELATIONSHIP OF FAMILIES' MONEY MANAGEMENT PRACTICES AND THEIR CONTROL OF CREDIT CARD USE

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The use of credit cards by young families, their money management practices, and the relationship between money management practices and their control of credit card use was researched in this study.

A sample of 60 Oregon families was drawn from the 1975 Johnson's Albany Area City Directory. These families were composed of a married couple living together with at least 1 child between the ages of 6 and 10 years, who used credit cards monthly. The husbands had a mean age of 33 years, and had completed a mean of 14 years of schooling. The wives were younger with a mean age of 30 and had completed a mean of 13 years of schooling. The couples were married a mean of 10 years, and 60 percent had 2 children. The husbands were principally employed in operative and laborer occupations, and the wives were largely homemakers. Sixty-three percent

of the families earned a total yearly income between $10, 000 and $22, 000. The mean yearly income was $17, 857.

The number of credit cards used by the families in a month ranged from 1 to 21 with a mean of 4 cards. Credit cards were used 1 to 61 times in an average month, with a mean frequency of 9 times per month. The mean number of types of purchases made with credit cards in a month was 6. Sixty-seven percent of the families used an oil company credit card regularly, followed closely by 65 percent who used a retail store card. Clothing was the commodity purchased with credit cards by the largest number of families, gasoline was the second most frequently purchased item. Most families charged under $100 per month with credit cards. Eighty-seven percent of the families reported that both the husband and wife decided upon the purchases to make with credit cards, although 60 percent reported that the wives made the most purchases using credit cards. Most of the wives used a credit card bearing their names, including those whose accounts were in the husbands' names.

Spending plans were used by 78 percent of the families; the most common being unwritten plans for a month. Eighty-two percent of the families kept their sales slips from credit card purchases as a means of keeping records of their purchases.

A regression analysis was used to test the hypotheses that control of credit card use was linearly related to the money management practices of the families. The money management practices included 1) the number of credit cards used by the families, 2) the number of types of purchases for which the families used a credit card, 3) record keeping practices used by the families, 4) budgeting practices employed by the families, and 5) the frequency with which the families made purchases using a credit card.

Hypothesis 1. Hypothesis 1, the number of credit card bills paid in full is linearly related to the money management practices employed by a family, was not supported by the data at the .10 level of significance. Fifty percent of the families paid their credit card bills in full 11 or 12 months of the year. The mean number of months in which all credit card bills were paid in full was 7.

Hypothesis 2. Hypothesis 2, the number of monthly credit card billings that are missed is linearly related to the money management practices employed by a family, was not supported at the .10 significance level. Eighty percent of the families reported that they never missed payment on a credit card debt.

Hypothesis 3. Hypothesis 3, the degree to which the family buys more with credit cards than if cash were required is linearly related to the money management practices employed by a family was not supported at the .10 level of significance. Sixty-eight percent of the families reported that credit cards caused them to buy no more or just slightly more than if cash were required.

Hypothesis 4. Hypothesis 4, the degree to which the family buys more with credit cards than if another loan were required is linearly related to the money management practices employed by a family, was not supported by the data at the .10 level of significance. Fifty percent of the 60 families reported that credit cards caused them to buy no more than if another type of credit were required to make a purchase.

Hypothesis 5. Hypothesis 5, the degree to which the family indicates that it feels in control of its credit card use is linearly related to the money management practices employed by a family, was supported at the .01 level of significance. A strong direct relationship (significant at the .001 level) was shown to exist between the families' feelings of control of credit card use and their budgeting practices. In the presence of all money management practices, the frequency with which families used credit cards was shown to have an inverse effect upon the families' feelings of control, significant at the .05 level.

The families in the study demonstrated control of their credit card use, and used them for convenience rather than for installment debt instruments. Credit cards were regarded by a large number of families as a temptation to overspend.

The Relationship of Families' Money Management Practices and Their Control of Credit Card Use

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I. INTRODUCTION

"Buying on credit has become a basic fact of life for most Americans" (33:92). The use of credit represents the extension and acceptance of a promise to pay in the future for goods and services purchased today. Credit can be granted in exchange for goods, services, money, or any other debt incurred in the present.

Credit supplements money in the economy, and makes possible the sale of goods or services without the immediate payment of money by the buyer. The major function of credit is to make easier the sale of goods and services. The scope of a modern economy would be severely restricted and mass production would be virtually impossible without it (10:424). Credit is not an outgrowth of modern technological development, however. "The use of credit, in the broad sense of an exchange of current for future resources, is probably as old as society" (35:228). Raihall claims that the idea of credit has existed "since Sumerian times [3, 000 B. C.] at least" (40:83).

Credit can be classified into five categories based upon the purpose for which the credit is granted. These categories include commercial credit, investment credit, real estate credit, agriculture credit, and consumer credit (10:424).

It is the last category of credit--consumer credit--to which persons concerned with family financial management direct their attention.

> Consumer credit consists of short- and intermediate-term loans used to finance the purchase of commodities or services for personal consumption or to refinance debts incurred for such purposes.
>
> The volume of consumer credit available and used in industrialized countries has grown rapidly as more and more people have come to receive regular income in the form of dependably fixed wages and salaries and as mass markets for durable consumer goods have become feasible. Its first growth was in the United States after World War I, but it subsequently developed on a large scale in other industrialized countries, particularly in great Britain and western Europe. (34:98)

Consumer credit represents an extension of purchasing power beyond a family's current income, and allows families to use a good or service while they are still paying for it rather than having to postpone the purchase until sufficient money is saved. To the extent that families make wise use of this income extension, credit is a valuable financial resource.

The category of consumer credit can be further disaggregated. Credit is available to the consumer in the forms of charge accounts, personal loans, service credit, retail installment credit, and credit cards (38:109-110). Charge accounts are generally open accounts in which a store accepts a promise to pay for goods purchased, usually within 30 days of the purchase. No interest is charged if payment is made during that period. A revolving charge account, however, allows a consumer to extend the repayment period, and essentially constitutes a flexible installment loan. A personal loan is granted by a lending institution and provides the consumer with cash to use for purchasing goods and services. Service credit is extended by utility companies and by professionals such as doctors and dentists. Like open charge accounts, service credit is usually granted without interest if payment is made in full within 30 days. Retail installment credit is granted by a retailer, and allows a consumer to extend payment for goods over a length of time longer than 30 days. Interest is charged for this type of credit, just as it is for personal loans and revolving charge accounts. Credit cards represent a combination of types of credit. Generally, they provide an open charge account, a revolving charge account, and in the case of bank credit cards, a personal loan.

The use of credit cards by Americans has increased steadily since their inception in the early 1900's; both in terms of the number of credit cards used and the dollar volume of card-originated transactions (1:119). "Today, more than 50 percent of all families have at least one nongasoline credit card, and fully 25 percent have three or more" (31:114). Another estimate claims that 80 percent of American families have some type of credit card (7 :5).

The popularity of credit cards is felt to lie in their convenience feature. They enable the consumer to purchase a large number of goods and services on the basis of one initial loan contract. In addition, credit cards allow consumers to carry less cash, to write fewer checks, and to maintain an itemized accounting of purchases.

Credit card transactions serve as an extension of purchasing power. Whether used as an open charge account, a revolving charge account, or as a source for personal loan, credit card transactions allow families to make more purchases than their incomes might otherwise permit. Because payment is due at a time later than when the purchase is made, there is a potential for consumers to overextend themselves unless care is taken to keep close account of purchases made with credit cards. Overextension of credit is often cited as a principal contributing factor in bankruptcy petitions (30, 32).

The introduction of the bank credit card in the mid-1960's has perhaps had the greatest impact upon the use of credit cards. Bank credit cards enable cardholders to use one card for innumerable types of transactions. They allow greater freedom in the use of credit, while at the same time open the door for increased overextension of credit use (47:50).

Much attention by bankers and economists is being directed to the role which credit cards are serving in the economy. Particular attention is directed to the use of bank credit cards as replacements for other means of monetary exchange. As the uses for credit cards multiply, and as consumer confidence in credit cards increases, the possibilities for credit card use coupled with electronic banking systems may be virtually limitless.

> No longer is the "piece of plastic" [bank card] strictly a charge card. It has taken on an additional role as the "triggering device" for cash dispensers and automated tellers; . . . it is expected to play a key role in point-of-sale terminals systems and electronic funds transfers. (18:115)

These electronic systems are being investigated as a means of reducing the costs of handling checks and cash. Point-of-sale terminals link retail checkstands directly to banks' computer systems, and perform all accounting matters in a moment's time. Cash dispensers and automated tellers are capable of performing banking transactions for families any time of day or night.

This is the checkless, cashless society to which some have predicted we will eventually turn. The City National Bank and Trust Company of Columbus, Ohio, has installed a computer system in a marketing system ". . . that will make it possible for its customers . . . to buy virtually anything they want with a single credit card" (23:68).

If, as predicted, the popularity of credit cards continues to follow an upward trend, an increasingly larger proportion of American families might be expected to use credit cards. In addition, present card users might become heavier users as credit cards serve an increasing number of functions beyond the purchase of consumer goods in the manner generally experienced today. An increase in the use of electronic systems to perform the duties currently performed by people in retail units and banks will necessarily introduce an impersonal element, and may necessitate increased control on the part of consumers over their financial transactions.

An identification of the uses to which families employ their credit cards, coupled with an assessment of their control of credit card use is an important consideration in evaluating the role that credit cards are presently playing in the family's economy and money management.

Need for the Study

Credit card use has experienced a continued, positive increase over time. In the 14-year period between 1960 and 1974, outstanding credit card debt increased, in 1967 constant dollars, from .387 billion to 3.134 billion dollars. This represented a 710 percent increase (46). If, as projected, use of credit cards continues its upward trend, greater understanding of people's management of credit cards will be necessary.

Although the subject of credit use has been investigated extensively, the author found little research directed specifically to credit card use. The research which has been undertaken relating to the use of credit cards has centered largely upon demographic characteristics of credit card users and upon assessments of attitudes toward the use of credit cards (3, 7, 15, 20). A comprehensive study of credit card use in America was undertaken by the Institute for Social Research at the University of Michigan in 1971. That study was able to identify the principal uses of credit cards, the determinants of credit card use, the extent of credit card use, and some economic implications of credit card use.

Flood concluded from her study of bank credit card use that further research is necessary:

> As bank credit card use continues to expand, more definitive research will be needed to keep the consumer, the merchant, the banker, and the educator abreast of developments.
>
> Specifically, research might be oriented toward behavior, especially with regard to possible changes in expenditure patterns and tendencies toward overextension . . . (20:69).

Questions that might be asked pertaining to families' use of credit cards and money management practices include: 1) To what extent do families plan their use of financial resources, including credit cards? 2) What types of record keeping practices are families employing to govern their use of credit cards? 3) To what extent are families dependent upon credit cards in their daily transactions? 4) Do families possess the skills necessary to assure controlled use of credit cards? 5) Can practices be identified which help or hinder controlled use of credit cards?

Statement of the Problem

Families with young children constitute the largest segment of credit card users (29:6, 20:21). Generally, the consumption needs of the family at this stage of the life cycle are high, while income levels have not yet reached comparable heights. High dependence upon the use of credit may contribute to low levels of financial control.

The purpose of this study was to investigate relationships existing between young families' money management practices and their control of credit card use. This research also examined demographic characteristics of the families who use credit cards regularly.

Objectives of the Study

1. To examine the use of credit cards by young families.
2. To examine the types and degrees of money management practices used by families.
3. To determine if a relationship between the families' money management practices and their control of credit card use can be identified.

Hypotheses

1. The number of credit card bills paid in full is linearly related to the money management practices employed by a family.
2. The number of monthly credit card billings that are missed is linearly related to the money management practices employed by a family.
3. The degree to which the family buys more with credit cards than if cash were required is linearly related to the money management practices employed by a family.
4. The degree to which the family buys more with credit cards than if another loan were required is linearly related to the money management practices employed by a family.
5. The degree to which the family indicates that it feels in control of its credit card use is linearly related to the money management practices employed by a family.

Operational Definitions of Terms

BUDGETING is a plan for allocating financial resources to meet the needs of the family. Budgeting is also referred to as financial planning.

CONTROL is defined as the ability of a family to exercise a restraint or a directing influence over their use of credit cards. The dependent variables indicating control included: 1) the number of months in a year that the family's credit card bills are paid in full, 2) the number of monthly credit card billings that are missed, 3) the degree to which the family indicates that it buys more with credit cards than if cash were required, 4) the degree to which the family indicates that it buys more with credit cards than if another type of loan were required, and 5) the degree to which the family indicates that it feels in control of its credit card use.

CREDIT CARD is a token, usually a plastic card, which authorizes its holder to make purchases against a credit account. This account is generally open-ended up to a specified dollar limit.

FAMILY is composed of a male and female adult who are married to each other and who have at least one child.

MONEY MANAGEMENT PRACTICES are behaviors of family members which are intended to facilitate the allocation and control of their financial resources.

The independent variables representing money management practices included: 1) the number of different credit cards used by the family, 2) the frequency with which a family makes purchases using a credit card, 3) the number of types of purchases for which a family uses a credit card, 4) the number of family members using the credit cards, 5) record keeping practices used by the family, and 6) budgeting practices used by the family.

RECORD KEEPING is the method used by a family to keep an accounting of the purchases made by means of a credit card.

REGULAR CREDIT CARD USE is the use of a selected credit card a minimum of one time during each month of the year.

Assumptions of the Study

This research study is conducted on the premise of the following assumptions:

1. The variables chosen to measure the family's money management practices and control of credit card use are appropriate measures.
2. The respondents will answer the questionnaire completely and truthfully.
3. Families who are not listed or identified in the *Albany Area City Directory* do not differ significantly from the sample.
4. Questionnaires completed by one member of the family,

either the husband or wife, do not significantly differ from those completed by both the husband and wife.

5. Families can be identified who practice uncontrolled use of their credit cards.

Limitations of the Study

1. Generalizations from this study will be limited to a population of Albany, Oregon, families who meet the criteria specified.
2. The sample represents the Albany population to the extent that the Albany Area City Directory is accurate.
3. The responses are limited by the respondents' recall and records.
4. The questionnaire will be the only source of data information used for this study.

II. REVIEW OF LITERATURE

This chapter will review literature related to four general topics: 1) money management principles, 2) use of consumer credit in the United States, 3) historical development of credit cards, and 4) characteristics of credit card use in America.

Money Management Principles

The General Mills American Family Report found that money was a source of argument in 54 percent of the families surveyed (21:9). The same study concluded that ". . . a majority of all families face tomorrow with a sense of insecurity about their future financial status", and that ". . . families quarrel frequently about overspending, poor money management, and their inability to keep better track of where the money goes" (21: 12, 22).

Consumers today find themselves in a different financial environment than was true in years past. According to Raihall:

> Two great new forces have altered our horizons--vast increased incomes and near limitless credit. If many of us have financial problems--and many do--it is largely because we have not yet developed the navigational systems we need to get around in our new surroundings. (40:1)

Successful participation in the economy is facilitated by conscious management of money resources. "Financial management requires determining financial goals or objectives, then identifying means and resources available which will enable one to achieve these goals and objectives" (40:20).

Bailard, et al., distinguish between a money manager and a money spender by the manner in which goals are reached:

> The money manager, on the one hand, carefully plans and forecasts his goals and then controls both the inflow and the outflow of financial resources to achieve them. A money spender, on the other hand, spends his paycheck until it is used up. As a money manager, you control your economic environment rather than being controlled by it (5:8).

Money management is said to be especially important ". . . in today's two-paycheck American homes" (38:31). Budgeting and record keeping are fundamental to an effective management plan. Porter claims that the importance of budgeting is once again becoming recognized:

> For the first time in a full generation, budget keeping is coming back into style--as a result of the oppressively rapid rate of rise in living costs during the early 1970's and skyrocketing prices of many necessities and semi-luxuries (38:8).

Cohen describes a budget simply as ". . . an application of willpower to the management of personal finance" (9:40). A budget provides a means of allocating one's income to cover one's expenses (5:153). "In general, budgeting will help you achieve your goals by allowing you to consider all your spending alternatives within a single framework" (5:154).

There is no one best way to budget one's money. Some advocate that it be written (33:37), others allow that an unwritten plan is acceptable (38:31). Regardless of the form, the purpose of a budget remains the same.

Koza found from her study of young homemaker's management problems that 74 percent of her sample made a spending plan on a regular basis, 22 percent on an irregular basis, while 2 to 4 percent never planned their spending (28:66).

Keeping account of one's expenses, although different than budgeting, is a logical accompaniment to budgeting. Raihall claims:

> The importance of an adequate recordkeeping system cannot be overemphasized. It is essential for the construction of a sound financial plan, in turn the springboard to financial rewards.
>
> The sole concern of recordkeeping is gathering and consolidating available financial data. Budgets are financial plans that estimate and direct financial activities. Budgeting depends on reliable recordkeeping to monitor the progress of the budget, but should not be referred to as recordkeeping or bookkeeping (40:36-37).

Priesz's study of young married couples' credit usage found that 60 percent of those who were having financial difficulties did not keep records of their expenditures, while only 23 percent of the sample without difficulties did not. "Families in the uncounseled group were found to keep records and file them for a longer period of time than those who had financial problems" (39:77).

Flood reported that only five percent of the bank credit card users in her study kept no records of their bank credit card purchases. The most popular method of keeping records was by saving the receipts from each purchase (20:50).

Woods, too, found that an established system of record keeping helped the participants in her study to exercise greater control over their expenditures (52).

As is true with budgeting, no perfect system of record keeping exists (40:36). Families are encouraged to establish a method of record keeping and of budgeting which best suits their personalities, but which allows them to implement an effective means of allocating their resources (40:36).

A successful money manager is able to maintain control of his or her inflow and outflow of financial resources (40:3).

Use of Consumer Credit in the United States

Credit represents a promise to pay in the future for goods and services purchased in the present (10:424) Credit provides an extension of current purchasing power, and facilitates the marketing of goods and services. Using credit to purchase goods and services for personal consumption--consumer credit--is a popular practice in the United States. Nelson calls it ". . . a basic way of life for most Americans" (33:92). Raihall claims that ". . . never has it [credit] been employed in so many forms and so widely as it is today" (40:83). Miller postulates that half of all Americans owe installment credit at any point in time (31:131).

In 1975, 166.17 billion dollars of consumer installment credit was extended, representing 11 percent of that year's gross national product (46) Automobiles headed the list of items purchased with consumer credit, followed by household goods, mobile homes, and the use of bank credit cards.

"All major types of short- and intermediate-term installment and noninstallment consumer credit have shown substantial increases over the past two years [1972-1973] . . ." (37:177). While automobile credit continues to be the largest single component of total consumer credit outstanding, increases in credit for other consumer goods and services have occurred, and ". . . have been centered since late 1971 in three major items--mobile homes, bank credit card accounts, and recreational vehicles" (37:178-179).

The users of consumer credit are not restricted to a particular age group. Holyoak found in her study of high school students that 62 percent of the students participating in her study used credit (26:23). The majority of these young people used their parents' credit accounts, although 27 percent of the credit users indicated that they had a charge account in their own name (26:33). Fifty-nine percent of those who had their own accounts obtained them to make buying easier; however, 21 percent said they opened accounts for the purpose of establishing a credit rating (26:34).

Nelson views credit as a valuable financial tool (33:95). Raihall, too, finds value in the use of credit. "If properly used, the modern credit system can prove to be a convenient and efficient tool for the consumer and a significant factor in the development of the economy" (40:102). The General Mills American Family Report found that two-thirds of American families use credit to pay for many day-to-day expenses, including gasoline, household goods, clothing, and drugs (21:21).

Credit cards represent one type of consumer credit instrument. Porter defines a credit card as:

> an identification card permitting you, the holder, to charge a wide variety of goods and services simply on your signature. You agree, in most cases, to pay for all you charged once a month. If you make only a partial payment on your account, your account is automatically treated as a revolving account and interest is charged accordingly (38:10).

Credit cards are issued by department stores, gasoline companies, banks, and some other retail firms or service establishments. According to the Federal Reserve Bulletin the use of bank credit cards has increased significantly:

> The increase in bank credit card outstandings has exceeded 50 percent since the end of 1971. The rapid expansion in this type of debt indicates the growing importance of "open-ended" credit in consumer financing activity, under which extensions as well as repayments of credit are subject more to borrower discretion than are conventional forms of borrowing.
>
> Consumers have been increasing their use of bank credit cards not only in lieu of cash when making retail purchases of goods and services, but also as a substitute for small short-term personal loans (37:181).

The increase of credit card use has been accompanied by a declining rise in the use of noninstallment credit. However, the amount of noninstallment credit in the form of single-payment loans, service credit, and charge accounts, though changing less rapidly, has expanded by 22 percent since the end of 1971 (37:183). Therefore, it is shown that consumer credit use continues to increase, and occupies an important position in a consumer's financial sphere.

Historical Development of Credit Cards

Credit cards are relative newcomers to the realm of consumer credit in the United States. The first credit cards were developed in the early 1900's. "The department store pioneered in the use of credit cards" (49:11). Oil companies and hotels were also among the first to develop credit card plans as a means of identifying people with charge accounts, and providing a method for keeping records of purchases (29:2). The trend continued, and grew after World War I, until it was stifled during the depression. Credit restrictions during World War II again hampered use of the cards. The major influx of credit card use, therefore, occurred after World War II.

Another dimension was added to the credit card sphere in 1950 when the first travel and entertainment card was created (29:2). For the first time a card could be used at more than one place, unlike department store and oil company cards which were honored only by the issuer of the card. Another difference between the travel and entertainment card and the other two types of cards was that an annual fee was charged to the holder of a travel and entertainment card while the store and oil cards were free. The Diner's Club credit card plan was the first of the new type, followed later by American Express, Carte Blanche, and others (29:2). Ross claims that the Diner's Club card program launched the credit card revolution (42:118). To the extent that it laid the foundation for bank credit cards, he may be right.

Bank credit cards were first developed in the early 1950's by the Franklin National Bank of New York (1 :118). Like the travel and entertainment cards, bank credit cards could be used in a number of places. However, high operating costs and low profits caused the initial program to be unsuccessful (20:2).

"In 1958 and 1959, many banks introduced a new credit card plan which featured the option of repaying balances on an installment basis" (29:4). The Chase Manhattan and Bank of America banks were forerunners in this program. Due to the installment feature, and to increased computer technology, the new bank credit card plan proved more profitable than the earlier bank card program. By the mid-1960's, additional banks had entered the credit card market. In 1966 Mastercharge and BankAmericard were introduced, and by the early 1970's they had reached international importance due to their broad distribution system across the United States (1 :118).

"The volume on bank cards has grown remarkably during recent years" (29:4). In addition, the department store and oil company credit cards have maintained popularity (29:6, 20:30). Many retail establishments will honor, in addition to their own credit cards, bank cards and travel and entertainment cards.

Credit cards, particularly bank credit cards, are projected to play a major role in the economy of the future. Russell predicts a dramatic change:

> Banks have made a commitment to bank credit cards, and their increased monetary role seems assured. Indeed, we firmly believe that, if not bank cards, at least a system recognizably originating in bank credit cards will be the monetary system of the twenty-first century (43:xi).

Others predict an increased, but less complete, adoption of the credit card:

> Actually, nobody expects cash and checks to be completely replaced, even in the distant future. But banks and thrift institutions . . . are already beginning to adopt computer-based systems that could drastically lessen our dependence on checks and cash (22:6).

The credit card has experienced a remarkable rate of development and adoption in the relatively short time since its inception in 1914. The future of credit cards is, of course, unknown, but it seems certain that they will retain a position in America's economy and in families' use of financial resources.

Characteristics of Credit Card Use in America

Fifty percent of all Americans use some type of credit cards (29:14). The median number of cards used is three, but a large proportion use six or more (29:6). Mandell classified credit cards into four major groups based upon their origin and/or the purposes for which they can be used: store; gasoline or oil; bank; and travel and entertainment cards. He points out, however, that the classifications are not mutually exclusive. "Although the four types of cards evolved from different sources and initially served largely different types of functions, within recent years the cards have been gaining more and more overlapping features" (29:1). Store credit cards are the most popular cards in the United States, followed in order by gasoline, bank, and travel and entertainment cards (20:30, 26:39, 29:6, 39:51-52).

Mixed emotions are expressed related to credit card use. "Few Americans tend to think of credit cards as a good thing whether they use them or not" (29:7). Awh and Waters found that ". . . active cardholders have more favorable attitudes toward both credit in general and bank charge cards in particular than do the inactive cardholders" (3 :976). Those who are active users of any one type of credit card are found to use a number of other credit cards as well (20:65, 29:6). Contrary to Mandell, Blackwell _et al._, conclude from their study:

> . . . that American consumers regard credit cards with a positive, generally accepting attitude. The overwhelming majority of consumers regard them as worthwhile and having important characteristics of convenience and safety, while a substantial minority regard them as important for borrowing money (7:6).

Active credit card use is found to be correlated with a number of demographic characteristics of the card holder. Flood found that bank credit card use is significantly related to age, occupation, and education (20:26). In his study of the use of all types of credit cards, Mandell found the four primary determinants of credit card use to be income, education, family life cycle stage, and size and location of the community in which the family lives (29:6). Awh and Waters found attitude toward bank charge cards, age, and socio-economic standing to be important characteristics for differentiating active from nonactive bank credit card users (3:977-979).

The most active users of credit cards are young, particularly in the 25 to 34 year old age group; have a college education; have annual incomes greater than $20, 000; are employed as professional or technical workers; are married and have children at home; and live in suburbs of large cities (20:27-28, 29:14-15, 3:976, 15:34). Credit card use in the United States is most heavily concentrated in the western states (29:18).

Flood found that gasoline is considered to be the most acceptable item to purchase with credit cards, followed closely by hotel or motel accommodations, and clothing (20:31). Clothing and travel were the two most popular items charged according to Mandell's study (29:70-71). Blackwell, et al., reported in their study that clothing, followed by gasoline and oil products were the two most common goods purchased with credit cards (7 :6). Holyoak's study of credit use by teenagers found that gasoline and clothing were the items most often purchased with credit (26:42). Oil company and store cards were those most often used by the young homemakers in Priesz's study.

Consumers using credit cards were described as behaving differently than consumers using other types of payment, particularly cash. Cremer reported that users of retail credit cards spent significantly more than cash customers, were better department store customers, had higher incomes, were more likely to purchase higher priced merchandise more frequently resulting in higher profitability, and generally provided much of the sales strength for the success of a retail operation (13:45).

Azzarone explained that supermarkets were starting to accept bank credit cards for the purpose of offering convenience to their customers, but also to capitalize on potential impulse sales (4). An assistant controller of a supermarket chain in a large midwestern U.S. city cites one favorable aspect of credit cards as being ". . . that the average charge transaction is \$19.00 compared with \$8.50 when the customer forks over cash" (47:50). Another store representative estimated that the average bank card sale was ". . . three times that of the average cash purchase" (47:50).

Overextension of the use of credit is a matter of concern to some consumers. In the General Mills study, 42 percent of the adult family members who were questioned recognized that credit cards often tempted them to buy things they could not afford (21:21). Mandell reported that 78 percent of people who use credit cards feel that they buy more than necessary (29:52). Porter advises families to consider, before buying something on credit, whether they would purchase the same item if using cash (38:83).

The recent period of high inflation had its effect upon the use of consumer credit and credit cards:

> The extensive use of credit coupled with the increasing rate of inflation has caused 3 in every 100 families to overextend themselves, with the expectation of the numbers rising to as many as 10 of every 100 families (9 :159).

Burke states that:

> As of June 10 [1975] N. B. I. [National BankAmericard, Inc.] said BankAmericard delinquencies (amounts overdue 30 days or more) represented 4.16% of outstandings; for Interbank [Mastercharge] the figure was 4.8% (8 :84B).

The relationship of credit use to personal bankruptcies has been examined. The number of personal bankcuptcies filed increased in 1973 (37:187). Mathews found that persons who turned to bankruptcy to solve their financial problems were those who ". . . tended to overextend themselves even though they intended to repay. The end result was intolerable debt and bankruptcy" (30:221).

Priesz also found a relationship between credit use and financial problems. Her findings indicated that families with financial difficulties tend to have a larger number of credit cards, open charge accounts, and accounts for professional services than those families not designated as having financial problems (39:79).

III. METHODOLOGY

This study examined the relationship between families' money management practices and their control of credit card use. Demographic characteristics of a selected group of families who use credit cards were also examined. Data were collected by administering a questionnaire to 60 families in Albany, Oregon.

This chapter describes: 1) the development of the instrument, 2) selection of the sample, 3) collection of the data, and 4) treatment of the data.

Development of the Instrument

A six-page questionnaire containing 23 questions was developed by the researcher to collect data on demographic characteristics of families who are regular users of credit cards, their credit card use, and their money management practices (Appendix B). The questionnaire was reviewed by faculty members of the Home Management and Statistics Departments at Oregon State University, and suggested changes were made. The questionnaire was also reviewed by the Committee for the Protection of Human Subjects.

The questionnaire was pretested by 12 young married couples who used credit cards, but who did not live in the geographic area from which the sample was drawn. Their responses and suggestions served as further basis for development of the questionnaire to its final form.

Selection of the Sample

The families who participated in this study were selected from the 1975 Johnson's Albany Area City Directory. Names of male individuals who were listed as having a wife, whose oldest child was born during the period 1966 to 1970, and who had an Albany telephone number were identified. These names were then numbered. Using a random numbers table, a sample of 146 names was drawn from the 700 families who met the initial criteria. A letter was sent to the 146 families explaining the study and indicating that the researcher would contact them by telephone to make an appointment for administering the questionnaire if they met the sample criteria and were willing to participate in the study (Appendix A).

Sixty families, representing 41 percent of the persons contacted, met the following criteria and participated in the study. The families were composed of a married couple, living together, plus at least one child; the oldest child was born during the period of 1966 to 1970; the families did not have children other than those living with them; and the families used at least one credit card on a regular, monthly basis.

Of the remaining 86 families contacted, 24 (16%) did not use credit cards at all, 22 (15%) did not use credit cards on a regular basis, 10 (7%) had moved or could not be reached, 6 (4%) did not meet the marriage criterion, 7 (5%) declined for personal reasons, 11 (8%) could not find time to meet with the researcher, and 6 (4%) did not qualify for other reasons.

Collection of the Data

To collect the data, appointments were made with the wives of the families who had indicated willingness to participate in the study. A questionnaire was used and was administered to the wife as the representative of the family. The questionnaire was administered at the woman's home, except in two cases where it was completed at the woman's place of employment.

The researcher was present as the respondents wrote their answers on the printed questionnaire. She was able to clarify questions for the respondents, and to leave the home with the completed questionnaire. Administration of the questionnaire began on April 29, 1976, and was completed on May 25, 1976. The respondents averaged about 20 minutes to complete the questionnaire.

Analysis of Data

After the questionnaires were completed by the respondents, their responses were coded to facilitate computer analysis.

The Occupation Reference File Workbook and the Occupation

Reference File Workbook Appendix A compiled and used by the Coding Section of the Survey Research Center, Institute for Social Research at the University of Michigan, were used to classify the occupations of the husbands and wives (44, 36).

Descriptive statistics and regression analysis tests were used to analyze the data. Hypotheses were accepted or rejected on the basis of the magnitudes of F-test statistics. A .10 level of significance was the minimal level used for acceptance or rejection of the hypotheses.

IV. FINDINGS

This study investigated the relationship between families' money management practices and their control of credit card use. The findings in this chapter will be discussed under the topics of: 1) description of the sample, 2) money management practices, 3) control of credit card use, and 4) other questions related to the use of credit cards.

Description of the Sample

Sixty families participated in the study, representing 41 percent of the 146 families contacted. Fifty-eight families were disqualified from participating in the study because they did not meet the criteria specified for the sample. These criteria were that the families used credit cards regularly; were headed by married couples living together; had one or more children, the oldest being 6 to 10 years of age; and had no children other than those living with them. Twenty-four families (16% of the total number contacted) were disqualified because they did not use credit cards, 22 (15%) did not use credit cards on a regular basis, and 12 (8%) did not meet the family criteria.

Ten families (7%) had moved or could not be reached, 11 (8%) could not find time to meet with the researcher, and 7 (5%) declined to participate in the study for personal reasons.

Ages of the husbands and wives: The husbands in the sample ranged in age from 24 to 47 years. The mean age was 33.1 years. The wives were generally younger than the husbands. The ages of the wives ranged from 23 to 42 years, with a mean age of 30.3 years. Table 1 presents a summary of the ages reported by the husbands and wives.

Table 1. Ages of 60 Husbands and Wives

Age in years	Number		Percent	
	Husbands	Wives	Husbands	Wives
Under 25	1	3	2	5
25 - 34	38	51	63	85
35 - 44	18	6	30	10
45 and over	3	0	5	0
TOTAL	60	60	100	100

Number of children: The number of children reported by the families ranged from 1 to 4, the mean being 2.1. The largest proportion of the sample, 36 families (60%), reported having 2 children. Ten families (17%) had 1 child, 10 (17%) had 3 children, and only 4 families (7%) had 4 children.

Number of years of marriage: The number of years that the couples had been married ranged from 5 to 18 years. The mean number of years of marriage was 10.

Education of the husbands and wives: A summary of the education levels completed by the husbands and wives is presented in Table 2. The education level of the husbands ranged from 9 to 25 years. The mean level of education was 14 years. Two of the husbands were physicians who reported receiving 13 years of post-high school education, including 4 years of medical school and 5 years of medical residency training. Forty-three percent of the husbands had completed 12 years of schooling, 34 percent had completed some post-high school education, and 12 percent had attained a bachelor's degree.

The minimum level of education reported by the wives was 10 years, 1 year higher than that reported by the husbands. However, the mean level of 13 years was lower for the wives than was the mean level for the husbands, and the maximum level attained by the wives was 18 years compared to the 25 years reported by the husbands. Sixty-two percent of the wives had completed 12 years of schooling, 23 percent had received some post-high school education, and 8 percent had completed a bachelor's degree.

Occupations of husbands and wives: The occupational classifications used by the Institute for Social Research (36,44) were used to classify the occupations of the husbands and wives. Fourteen husbands (24%) worked in operative occupations. This category included such occupations as machine operators in mills or factories,

Table 2. Education Levels of 60 Husbands and Wives

Highest grade completed	Number		Percent	
	Husbands	Wives	Husbands	Wives
9 - 11	2	1	3	2
12	26	37	43	62
13 - 15	20	14	34	23
16	7	5	12	8
More than 16	5	3	8	5
TOTAL	60	60	100	100

Table 3. Occupations of 60 Husbands and Wives

Occupation classification	Number		Percent	
	Husbands	Wives	Husbands	Wives
Professional, technical and kindred workers	11	4	18	6
Managers, officials	2	0	3	0
Self-employed businessmen	6	1	10	2
Clerical-salesworker	3	11	5	18
Craftsmen-foremen	10	0	17	0
Operatives	14	0	24	0
Laborers and service	11	7	18	12
Farmers and farm managers	1	0	2	0
Homemakers, students	2	37	3	62
TOTAL	60	60	100	100

deliverymen, and assemblers. Eleven husbands (18%) were employed as production workers not operating machinery, and 10 (17%) were craftsmen or foremen. The majority of husbands in these occupation categories were employed by the wood product or metal processing mills which dominate Albany industry. Two physicians were among the 11 husbands (18%) employed in the professional and technical occupations, as were 4 teachers, 1 dental technician, 2 accountants, and 1 minister. One husband was reported to be a homemaker (Table 3).

Sixty-two percent of the wives, by far the largest proportion, reported their occupations as homemaker. This may be explained by the ages of the families, and the fact that most of the families had preschool children at home for whom the women provided care.

If the wife indicated that she was employed part-time, she was included in the category of her employment rather than as a homemaker. This involved 7 (12%) of the women.

The second largest group of women (18%) worked as clerical or sales workers. Women were not represented in the occupation categories of managers and officials, craftsmen-foremen, operatives, or farmers and farm managers (Table 3).

Income: The families were asked to report their 1975 income using categories in intervals of $2, 000. One family reported an income in the $4, 000 to $5, 999 category, 55 families had incomes higher than $6, 000, and 4 families did not report their incomes. Two families reported having incomes greater than $48, 000, the highest category provided on the questionnaire. Thirty-five percent of the families reported having incomes between $10, 000 and $16, 000, and 28 percent were between $16, 000 and $22, 000. Table 4 presents a distribution of the families' annual gross income.

Table 4. Total Gross Annual Income of 60 Families in 1975

Income	Number	Percent
Under $10, 000	5	8
$10, 000 - 15, 999	21	35
$16, 000 - 21, 999	17	28
$22, 000 - 27, 999	5	8
$28, 000 and over	8	14
No response	4	7
TOTAL	60	100

The mean annual income of the 60 families in the sample was $17, 857. This was $768 greater than an estimated national mean family income figure of $17, 089. The $15, 000 median income of the families studied was comparable to the $15, 227 estimated national mean family income figure. The methods used for computing the mean and median income data are explained in Appendix C.

Money Management Practices

The money management practices examined in this study included: 1) the number of family members using credit cards, 2) the number and types of purchases for which the families used a credit card, 3) record keeping practices used by the families, 4) budgeting practices employed by the families, 5) the number of different credit cards used by the families, and 6) the frequency with which the families made purchases using a credit card.

Number of family members using credit cards: All 60 families reported that both the husband and wife used credit cards, but that no other family members used them. This is probably due to the fact that the children in the families were 10 years old or younger and therefore considered too young to use the cards.

Numbers and types of purchases made with credit cards: The number of types of purchases made with credit cards ranged from 1 to 14, with a mean number of 5.8. The types of purchases for which the families used credit cards are summarized in Table 5. Clothing was the item for which most of the families used credit cards; 80 percent reported buying clothing with credit cards. Gasoline followed closely behind clothing as the item most often purchased with credit cards; 77 percent of the families reported that they purchased gasoline. Only 1 family reported buying groceries

Table 5. Types of Purchases Made with Credit Cards

Type of purchase	Number (N=60)	Percent
Auto: Gasoline	46	77
Service	14	23
Supplies	21	35
Clothing	48	80
Education	2	3
Entertainment	3	5
Food: Groceries	1	2
Restaurant	14	23
Gifts	37	62
Hobbies	21	35
Household items:		
Appliances	25	42
Furnishings	25	42
Furniture	18	30
Medical services and supplies	8	13
Personal items	23	38
Sporting goods and services	17	28
Travel: Lodging	22	37
Transportation tickets	4	7

with credit cards, that being candy which was purchased at a large variety store which honored credit cards. Generally, grocery stores in the Albany area did not honor credit cards at the time of this study.

Record keeping practices: Most of the families reported that they kept track of their credit card purchases. Fifty-one of the families (85%) reported that they used some type of record keeping system, while 8 families (13%) said they did not, and 1 (2%) was not sure. The most frequent method of keeping an account of credit card purchases was by retaining the sales slips after each purchase;

42 families (82%) reported keeping their sales slips. This supports Flood's conclusion that keeping sales slips is the most popular method of keeping records of credit card purchases (20:50). Thirty-nine families (76%) reported comparing sales slips to the bills before paying, and 30 (59%) stored all sales slips in a certain place (Table 6). Four families reported methods of record keeping other than those listed by the researcher. These other methods included keeping mental accounts of the purchases made, and writing totals on a calendar as part of the monthly bills to pay.

Table 6. Record Keeping Practices Used by 51 Families

Record keeping practice	Number (N=51)	Percent
Keep sales slips from purchases	42	82
Compare sales slips to bill before paying	39	76
Store all sales slips in a certain place	30	59
Keep a running total of all purchases made with credit cards	11	22
Keep written record of purchases as they are made	9	18
Deduct amount of purchase from bank balance as purchase is made	6	12
Other	4	8

The numbers of ways by which the 60 families in the study kept an account of their credit card purchases ranged from 0 to 6, with a median number of 3, and a mean number of 2.3.

Budgeting practices: Forty-seven families (78%) reported that they planned how to spend their money, 9 (15%) did not plan their spending, and 4 (7%) were not sure. Unwritten plans were used by 36 families, 12 had written plans, 6 used other types of plans which included planning only large expenditures, 3 spent until the money ran out, and 1 allocated money into envelopes according to categories of spending. Discrepancies in the total number of responses may be explained by the families' confusion as to what constituted financial planning. A few gave contradicting answers between whether or not they planned their spending and the methods which they used. Most families planned spending for a month at a time. Some planned for a year or longer, but a few planned for a week.

In their spending plans, 33 families (70%) separated their fixed expenses from their variable expenses, 32 (68%) provided a savings fund, and 20 (43%) set dollar limits. A summary of the responses given by the families relating to their budgeting practices is presented in Table 7.

The number of budgeting practices reported by the 60 families ranged from 0 to 7 with a median of 3.

Table 7. Budgeting Practices of 47 Families

Practice	Number (N=47)	Percent
Separated fixed expenses from variable expenses	33	70
Provided a savings fund	32	68
Set dollar limits	20	43
Itemized spending categories	18	38
Set time limits	17	36
Recorded expenditures	16	34
Totaled expenditures as they occurred	13	28

Number of credit cards used: The families were asked to indicate the number of credit cards which they used on a regular basis --at least 1 time during a month. All cards which they possessed but did not use monthly were not to be included in this study. The minimum number of credit cards used regularly by a family was 1, the maximum was 21, the median number was 4 cards.

A distribution of the number of credit cards used by the 60 families in the study is provided in Table 8. Almost half of the families used 3 cards or less, and 87 percent of the families used no more than 6 cards.

Oil company cards were used by more families than was any other type of credit card. Sixty-seven percent of the families used an oil company card regularly, 65 percent used a retail store card, and 53 percent used a bank credit card (Table 9).

Table 8. Number of Credit Cards Used by 60 Families

Number of cards	Number of families (N=60)	Percent
1 - 3	28	47
4 - 6	24	40
7 - 9	5	8
10 or more	3	5
TOTAL	60	100

Table 9. Types of Credit Cards Used Regularly by 60 Families

Type of card	Number of families (N=60)	Percent
Bank	32	53
Oil company	40	67
Retail store	39	65
Telephone	1	2
Travel and entertainment	1	2

Table 10. Number of Credit Cards Used Per Month by 60 Families by Type of Card

Number of cards	Number of families (N=60)			
	Bank	Oil	Retail	Other
1	13	13	11	1
2	16	17	11	1
3	0	5	4	0
4	1	4	8	0
More than 4	1	1	5	0

<u>Frequency of use of credit cards</u>: The credit card used most often during a month was reported to be the oil company card. An oil card was used 6 or more times a month by 16 families, while 10 families used bank cards, and 4 used retail store cards that frequently (Table 10).

Considering all credit cards together, the families reported using their cards 1 to 61 times a month. The mean number of uses was 8.7, the median number was 6. Table 11 provides a distribution of the number of times the families in the study used their credit cards each month. Slightly less than half of the families (44%) used their credit cards 1 to 5 times per month. Another 38 percent used credit cards 6 to 10 times in a month.

Table 11. Frequency of Use by 60 Families of All Credit Cards

Number of times per month	Number of families (N=60)	Percent
1 - 5	26	44
6 - 10	23	38
11 - 15	3	5
More than 15	8	13
TOTAL	60	100

Control of Credit Card Use

The variables examined in this study as representing control of credit card use were: 1) the number of months in a year that the families paid their credit card bills in full; 2) the number of months in a year that the families missed payment on a credit card bill; 3) the degree to which the families made more purchases with credit cards than if they had had to use cash to make the same purchases; 4) the degree to which the families made more purchases with credit cards than they would have if another credit arrangement had been required; and 5) the level of control that the families felt they exercised over their use of credit cards.

Hypotheses predicting regression (linear) relationships between these variables representing control of credit card use, and the money management variables discussed earlier were tested. Control of credit card use was considered to be dependent upon the management practices employed by the families.

Because all of the families reported that two family members used credit cards, the money management practice variable regarding number of family members using credit cards was not entered into the regression. Including the variable into the model would have added nothing to the results since the value was the same for all families. The coefficients resulting from the regression analysis are presented in Table 12, and are discussed in the pages following. Analysis of variance tables are provided in Appendix D.

Hypothesis 1. The number of credit card bills paid in full is linearly related to the money management practices employed by a family.

One element of the control of credit card use is the ability to avoid overextension of credit. This element was measured in this study using the payment practices employed by the families in the sample. The researcher chose, for the purposes of this study, to disregard the fact that credit cards can be used as controlled installment instruments, and considered controlled use of credit cards to be at the highest level when all bills are paid in full during each billing period.

Most of the families in the study indicated that they paid their credit card bills in full 11 or 12 months of the year. Avoiding a high interest charge was given as one reason for paying promptly. Many also noted that they used credit cards for convenience--in place of cash or checks--rather than as debt instruments, and as a consequence settled their accounts monthly. There were some families, however, who did not pay their credit card bills regularly. The mean number of months in which all credit card bills were paid in full was 7, the median number was 9 months in a year. Table 13 provides a summary of the responses by the families about the payment

Table 12. Regression Coefficients. Control as a Function of Money Management Practices

$$Y = b_o + b_1 T + b_2 R = b_3 B + b_4 C + B_5 P + e$$

Dependent variable	K	T	R	B	C	P	F value	d.f.
Y_1	7.98 (2.01)[a]	-.265 (.263)	+.495 (.600)	-.406 (.422)	-.276 (.334)	+.173 (.112)	.79	5, 47
Y_2	.677 (.311)	+.023 (.041)	-.049 (.078)	-.058 (.061)	-.070 (.052)	+.011 (.017)	.83	5, 51
Y_3	2.98 (0.340)	+.045 (.046)	-.042 (.088)	-.003 (.070)	+.104 (.059)	-.038 (.020)	.82	5, 53
Y_4	2.89 (0.35)	+.015 (.047)	-.048 (.091)	-.019 (.072)	+.021 (.061)	-0.023 (.020)	.47	5, 53
Y_5	4.43 (.275)	-.056 (.038)	-.044 (.071)	+.200*** (.056)	-.088 (.048)	+.039* (.016)	3.39**	5, 53

* significant at the .05 level of significance
** significant at the .01 level of significance
*** significant at the .001 level of significance

[a] Figures in parentheses are the calculated standard errors of the coefficient estimates.

Y_1 Number of months in a year that the families' credit card bills were paid in full.

Y_2 Number of monthly credit card billings that were missed; no payment was made.

Y_3 Degree to which the families bought more with credit cards than if cash were required.

Y_4 Degree to which the families bought more with credit cards than if another type of loan were required.

Y_5 Degree to which the families indicated they felt in control of their credit card use.

K - Constant intersect value.
T - Number of types of purchases for which the families used credit cards.
R - Record keeping practices used by families.
B - Budgeting practices used by the families.
C - Number of different credit cards used regularly by the families.
P - Frequency with which the families made purchases using a credit card.

Table 13. Number of Months in a Year that 54 Families Paid Their Credit Card Bills in Full

Number of months	Number of families	Percent
0 - 1	15	28
2 - 3	5	9
4 - 5	0	0
6 - 7	4	7
8 - 9	3	6
10 - 11	7	13
12	20	37
TOTAL	54	100

of credit card bills. Six families did not respond to the question.

Testing the dependent variable, the number of months which credit card bills are paid in full, against the management practices indicated no significant linear relationship. An F value of 0.79 (5, 47 d. f.) resulting from the statistical test was less than the 1.97 F value needed to accept the hypothesis at the .10 level of significance. Hypothesis 1, the number of credit card bills paid in full is linearly related to the money management practices employed by a family, was not accepted.

Additional regression analysis was done to test whether any individual independent variable had influence upon the dependent variable. The independent variable found to have the most effect upon control was the frequency with which families used credit cards. However, the F value of 1.13 (1, 51 d. f.) was less than the 2.81 F value needed at the .10 level of significance to support the hypothesis that a relationship existed between the two variables. Inasmuch as the best variable was found to be insignificant alone, it was safe to conclude that the remaining money management variables would also not be significantly related to the dependent variable of control.

Hypothesis 2. The number of monthly credit card billings that are missed is linearly related to the money management practices employed by a family.

The families were asked to indicate how many months in a year they did not make any payment toward one or more credit card debts. Default of payment may be one indication that families are under less than complete control of their credit card use. Forty-eight of the 58 families who responded to the question reported that they never missed a payment on their credit card debts. This number represented 83 percent of the families who responded. Four families missed a payment 1 month of the year, and 2 groups of 3 families each indicated missing a payment 2 or 3 months in a year (Table 14).

Regressing the dependent variable, the number of months that credit card bills are missed, against the management practices employed by the families produced an F value of 0.83 which was less than the 1.97 (5, 51 d.f.) F value needed to accept the hypothesis at the .10 significance level. On the basis of the full model, it

Table 14. Number of Months in a Year that 58 Families Missed a Credit Card Payment

Number of months	Number of families	Percent
0	48	83
1	4	7
2	3	5
3	3	5
More than 3	0	0
TOTAL	58	100

could not be shown that the number of monthly credit card billings that are missed is linearly related to the management practices employed by a family.

Further analysis was conducted to assess whether any one independent variable alone demonstrated an influence upon the dependent variable of control. The independent variable found to have the most effect upon the number of credit card billings missed was the amount of budgeting which families practiced. The F value of that relationship was 1.35 (1, 55 d.f.), less than the 2.8 value necessary for acceptance at the .10 level of significance. The additional management variables did not, therefore, affect the dependent variable since they, too, were insignificant.

Hypothesis 3. The degree to which the family buys more with credit cards than if cash were required is linearly related to the money management practices employed by a family.

Lack of control may be evidenced by a family's use of credit cards for impulse or unnecessary spending. Porter suggested that consumers ask themselves, before making a purchase with credit, whether they would buy the item if they had to pay cash (38:83). Marketers attempt to influence people to use credit cards for impulse buying (4).

Given a scale of "2" to "5", the families in this study were asked to indicate the degree to which they felt their family members bought more with credit cards than if cash were required. An answer of "2" indicated the families did not spend any more with credit cards than with cash; "3" represented that to a small degree, credit cards caused families to buy more; an answer of "4" indicated a higher degree of spending; while an answer of "5" signified that the families were very much influenced to buy more with credit cards than they would if they had needed to pay cash.

Sixty-one percent of the families indicated that credit cards caused them to buy no more, or slightly more, than if they had to use cash (Table 15). These findings can be compared to those of Flood who reported in her study of bank credit card users that

Table 15. Degree to Which Credit Cards Caused 60 Families to Buy More Than if Cash Were Required

Degree on scale	Number of families	Percent
2	10	17
3	26	44
4	17	28
5	5	8
Not sure	2	3
TOTAL	60	100

78 percent of her sample did not feel that credit cards caused them to buy more than when paying cash (20:54).

The hypothesis that the degree to which the family buys more with credit cards than if cash were required is linearly related to the money management practices employed by a family could not be supported by statistical analysis. Regression analysis gave an F value of 0.82 (5, 53 d.f.). Acceptance at the .10 level of significance required an F value of 1.97.

Further analysis indicated that no money management variable could be singled out which showed an effect upon the degree of control over credit card use. The best variable was found to be the frequency with which families made purchases with credit cards. However, with an F value of 0.35 (1, 57 d.f.) it was not significant; the F value necessary at the .10 level of significance was 2.79.

Hypothesis 4. The degree to which the family buys more with credit cards than if another loan were required is linearly related to the money management practices employed by a family.

The scale of "2" to "5" was again used to determine whether the families felt that they made more purchases with credit cards than if another type of consumer loan were required. This other type of loan would include a personal loan, a charge account, a lay-away account, and other similar types of credit arrangements. Again, 2 families reported that they were not sure of the degree to which credit cards caused them to buy more. Thirty families responded that credit cards caused them to buy no more than if another type of loan were required, and 16 families reported that credit cards caused them to buy a little more. Only 3 families indicated that credit cards caused them to buy very much more compared to other types of credit. Table 16 provides a summary of the families' responses.

Table 16. Degree to Which Credit Cards Caused 60 Families to Buy More Than if Another Loan Were Required

Degree on scale	Number of families	Percent
2	30	50
3	16	26
4	9	16
5	3	5
Not sure	2	3
TOTAL	60	100

Hypothesis 4 could not be supported at the .10 level of significance. Regression analysis revealed an F value of 0.48 (5.53 d.f.) for the full model. An F value of 1.97 was required to accept the hypothesis at the .10 significance level. The best independent variable considered alone in the model was found to be the frequency with which the families used credit cards. However, with an F value of 0.35 (1, 57 d.f.) the variable was insufficient to cause a significant effect upon the degree to which families felt that they made more purchases with credit cards than when other types of loans were required. The F value for acceptance at the .10 level was 2.79 (1, 57 d.f.).

<u>Hypothesis 5</u>. The degree to which the family indicates that it feels in control of its credit card use is linearly related to the money management practices employed by a family.

The final question on the questionnaire asked the families to indicate on the scale of "2" to "5" the degree of control that they felt their family members exercised over their credit card use. Interpretation of the term "control" was left to the families. All families felt that they had control over their credit card use to some degree. Sixty-six percent of the families felt that they were very much in control of the use of credit cards (Table 17).

Table 17. Degree to Which 60 Families Felt They Were in Control of Their Credit Card Use

Degree on scale	Number of families	Percent
2	0	0
3	7	12
4	12	20
5	40	66
Not sure	1	2
TOTAL	60	100

Regression analysis supported the fifth hypothesis at the .01 level of significance with an F value of 3.39 (5.53 d.f.). The value is very close to the 3.4 value required for acceptance at the .01 level of significance. Significance at the .05 level is certain, the F value required for acceptance at that level is 2.40 (5, 53 d.f.).

Analysis of the regression showed that the families' feelings of control over credit card use were directly related to their budgeting practices and to the frequency with which they made purchases using credit cards. Control was inversely related to the number of types of purchases made with credit cards, the record keeping practices of the families, and the number of different credit cards used regularly by the families.

Further analysis to determine whether particular independent variables exerted influence upon the dependent variable of control revealed that two variables, the budgeting practices of families and the frequency with which families used credit cards, demonstrated more effect upon the families' feelings of control than did any of the additional money management practices.

The budgeting variable considered alone produced an F value of 9.4 (1, 57 d.f.) which was greater than the 7.1 F value required for acceptance at the .01 level of significance. When the frequency of credit card use was added to the model with budgeting, the frequency variable produced an F value of 1.1 (1, 56 d.f.), less than the 2.8 (1, 56 d.f.) necessary for acceptance at the .10 level of significance.

However, in the presence of the full model, the frequency variable was found to have significant influence upon the families' feeling of control of credit card use; having a t value of 2.4, greater than the 2.0 t value required for acceptance at the .05 level of significance with 53 degrees of freedom. In the presence of the full model, the budgeting variable produced a t value of 3.6, greater than the 3.5 t value required for acceptance at the .001 level of significance with 53 degrees of freedom.

Other Questions Related to the Use of Credit Cards

In addition to the variables used in the regression analysis, data were collected related to the families' use of credit cards to enable the researcher to gain insight as to the manner with which families manage their credit card use.

Years of experience using credit cards: The families were asked the length of time since they first used a credit card in either the husbands' or wives' names. If the time exceeded the length of marriage, the number of years of marriage was used on the assumption that it represented the period during which the people acted as members of their present families. The number of years of experience with the use of credit cards ranged from 1.25 to 16, with a mean of 8.5 years and a median of 8.75 years.

Deciding what should be purchased with credit cards: The families were asked who decided what should be purchased with credit cards. Fifty-two families (87%) reported that both the husband and wife decided, 5 (8%) indicated that the wife was the principal decision-maker, and 3 (5%) answered that the husband decided what should be purchased with credit cards.

Principal purchaser using credit cards: The families were asked to indicate which family members made the most purchases using credit cards. Of the 57 families who answered the question, 34 (60%) reported that the wife made more purchases, 13 (23%) indicated that the husband and wife made equal amounts of purchases, and 10 (18%) said that the husband made the most purchases using credit cards.

<u>Calculating the outstanding credit card balance</u>: One element of control of credit card use is the ability to calculate the amount of charges outstanding at any point in time. The families were asked if they had the necessary information to be able to calculate their outstanding balance at the time of the interview. Examples of the necessary information include sales slips from purchases, receipts from prior billings, literature from the credit card issuers, ledgers, and records of purchases.

Fifty-three families reported that they did have the necessary information to be able to calculate their outstanding balance at that time. This represented 88 percent of the group. Three families (5%) did not have the information, and 4 families (7%) were not sure. The families were not asked to calculate their balances for the researcher.

<u>Ability to contact a credit card company</u>: One of the values of the credit card system is that computers can be used to assume the responsibility for billing and record keeping, thus allowing the card system to be fast and economical. However, this computerization can be a detriment to a cardholder should he or she have a problem with billing for the personal contact between cardholder and card issuer is virtually eliminated.

Another aspect of the credit card system is the risk associated with losing a credit card, due to the ease with which stolen credit cards can be used before proper measures can be taken to cancel the cardholder's account.

The families in the study were asked whether they had the necessary information to contact their credit card company or companies if they lost a credit card or had a question about billing. Such information would include addresses and/or telephone numbers of the card issuers, credit card account numbers, and instructions regarding procedures for cancelling accounts or for receiving response concerning billing questions.

All but one of the families reported that they did have the necessary information to contact their credit card companies. Most of the families (89%) kept this information in a home file, desk drawer, box, or similar home storage facility. Other places where families reported they kept their information included: in a checkbook, in a billfold, in a briefcase, taped under a kitchen drawer, on the back of the credit card, and "all over the place." Four families did not indicate where they kept their information.

Credit cards in wife's name: Because of a change in federal law in October 1975, credit is expected to become more available to women than was previously true. The researcher was interested in assessing the number of women in the sample who used credit cards bearing their names. This included cards for which accounts were established in the husband's name but which bore the wife's name.

Of the 60 families studied, 35 (58%) reported that the wives used a credit card bearing their names, 25 (42%) used credit cards in the husbands' names only. One family reported that the credit cards used by the family were in the wife's name only.

Amount charged on credit cards in an average month: The families were asked to estimate the dollar amount charged with credit cards by their family members in an average month. The amount ranged from $10 to $300, the mean being $68.76 per month. Fourteen families were not able to estimate their monthly credit card charges. Of the 60 families, 37 percent charged under $50 in an average month, another 20 percent charged between $50 and $100, and only 5 percent charged $200 or more in an average month. Table 18 provides a summary of the distribution of average monthly charges made with credit cards by the families in the sample.

Table 18. Amounts of Dollars Charged With Credit Cards in an Average Month by 60 Families

Amount	Number of families	Percent
Under $50	22	37
$ 50 - $99.99	12	20
$100 - $149.99	6	10
$150 - $199.99	3	5
$200 or more	3	5
Not sure	14	23
TOTAL	60	100

V. SUMMARY AND CONCLUSIONS

This study examined 1) the use of credit cards by young families, 2) the money management practices used by the families, and 3) the relationship between the families' money management practices and their control of credit card use.

Summary

Data for this study were collected by means of a questionnaire administered to 60 families. Of the 146 families contacted, 24 (16%) did not use credit cards at all and 22 (15%) did not use credit cards regularly; therefore these 46 families did not meet the sample criteria. The sample represented 41% of the families contacted.

The husbands in the families studied ranged in age from 24 to 47 years with a mean age of 33 years. The wives were younger than the husbands, ranging in age from 23 to 42 years with a mean age of 30. Sixty-three percent of the husbands and 85 percent of the wives were between 25 and 34 years of age.

The number of children reported by the families ranged from 1 to 4 with a mean of 2. The fewest years married was 5, the most 18. The mean number of years married was 10.

The highest level of education completed by 43 percent of the husbands was 12 years. The years of schooling of the husbands ranged from 9 to 25 years with a mean of 14. The mean years of education completed by the wives was 13. Their education levels ranged from 10 to 18 years of schooling; 62 percent of the wives reported 12 years as the highest level of education completed.

Fifty-nine percent of the 60 husbands were employed in occupations associated with factory or mill work, including foremen, operatives, and laborers; 18 percent were employed as professionals; 10 percent of the husbands were self-employed. Sixty-two percent of the wives reported their occupations as homemakers, 18 percent were employed as clerical or salesworkers, and 12 percent held laborer or service positions.

Only 1 family had an income under $5, 000; however, 2 families reported an annual income in excess of $48, 000. The mean yearly income was $17, 857, the median income was $15, 000. Sixty-three percent of the families earned yearly incomes between $10, 000 and $22, 000.

To participate in the study, the families had to use credit cards at least once a month. The number of credit cards used in an average month ranged from 1 to 21, the median number was 4 cards. Of the 60 families, 52 (87%) used 1 to 6 cards per month.

All 60 families indicated that both the husbands and wives used credit cards. No other family members used the families' cards.

Eighty percent of the families reported that the husband and wife jointly decided what purchases should be made with credit cards. However, 57 percent of the families reported that the wife made the most purchases using credit cards.

The dollar amount charged with credit cards in an average month ranged from $10 to $300, with a mean of $68.76. Fifty-seven percent of the families charged less than $100. Fourteen percent of the families were not sure how much they charged in an average month.

Most families (88%) had the necessary information to calculate their outstanding credit card balances. Ninety-eight percent of the 60 families had information required to contact their credit card companies in the event of a lost card or a question related to billing. The most popular place for storing this information was in a home file or desk drawer.

Thirty-four families (57%) reported using credit cards in the husband's and in the wife's name, 25 (42%) used credit cards in the husband's name only, and 1 (2%) used cards in the wife's name only. The credit card used by the largest number of families was the oil company card. Sixty-seven percent of the families used an oil company card regularly, 65 percent used a retail store card each month, and 53 percent used a bank credit card.

Clothing was purchased with credit cards more than any other commodity. Eighty percent of the families used credit cards for clothing, followed closely by gasoline (77%). Credit cards were rarely used by the families to purchase education services, entertainment, groceries, medical services and supplies, or transportation tickets. The number of types of purchases made by families with credit cards ranged from 1 to 14, with a mean number of 6.

Fifty-one families (85%) reported that they kept records of their credit card purchases. The most frequently used method of record keeping was to keep the sales slips after each purchase; 42 families kept records by that method. Most families used a combination of methods to keep records of their credit card expenditures. The number of methods used ranged from 0 to 6, with a mean of 2 and a median of 3.

Spending plans were used by 49 of the families studied. More families used unwritten plans than used written plans, and spending was usually planned for a month at a time. The number of budgeting practices used by the families ranged from 0 to 7, with a median of 3. Seventy percent of the families who planned their spending separated their fixed expenses from their variable expenses, 68 percent provided a savings fund, 28 percent totaled expenditures as they occurred.

Credit cards were used by the families 1 to 61 times in an average month. The mean number of uses was 9, the median was 6. Forty-four percent of the 60 families reported using their credit cards a total number of 1 to 5 times per month, and 38 percent used their cards 6 to 10 times. Thirteen percent used credit cards more than 15 times per month.

Half of the families in this study paid all of their credit card bills in full each month or all but one month of the year. The mean number of months in which all credit card bills were paid in full was 7, the median was 9 months in a year. Hypothesis 1, the number of credit card bills paid in full is linearly related to the money management practices employed by a family, was not supported at the .10 level of significance.

Hypothesis 2, the number of monthly credit card billings that are missed is linearly related to the money management practices employed by a family, was not supported by the findings, and could not be supported at the .10 significance level. Forty-eight families reported that they never missed payment on a credit card debt, and the maximum number of billings missed in a year was reported to be 3.

Findings did not support, at the .10 level of significance, Hypothesis 3, the degree to which the family buys more with credit cards than if cash were required is linearly related to the money management practices employed by a family. Most families (68%) felt that credit cards did not cause them to buy more, or caused them to buy only slightly more than they would otherwise.

Fifty percent of the 60 families reported that credit cards caused them to buy no more than if another type of credit were required to make a purchase. Hypothesis 4, the degree to which the family buys more with credit cards than if another loan were required is linearly related to the money management practices employed by a family, was not supported by the findings at the .10 level of significance.

Hypothesis 5, the degree to which the family indicates that it feels in control of its credit card use is linearly related to the money management practices employed by a family was supported by the data, and was accepted at the .01 level of significance.

Further analysis to determine the significance of particular independent variables showed that in the presence of all money management practices, a positive relationship, significant at the .05 level, was found between the frequency of credit card use variable and the families' feelings of control of credit card use. However, when considered without the presence of the other money management variables, the frequency of use was not found to influence the families' feelings of control over their credit card use. A significant positive relationship between the families' budgeting practices and their feelings of control resulted when all of the money management practices were included in the model, and also when the budgeting variable was considered alone. In the presence of the full model, the variable was significant at the .001 level, alone it was significant at the .01 level.

Conclusions

Credit cards are not replacing cash and checks as the principal means of monetary exchange for the young families studied. This was evidenced by the number of families who were disqualified from participating in the study on the basis that they did not use credit cards at all or that they did not use them regularly. Also supporting this conclusion was the small number of cards used and the minimal dollar amounts charged by the majority of families in this study. A general attitude of skepticism toward the use of credit cards was voiced even by those families who used credit cards regularly. The cards were viewed by many as a temptation to buy more than necessary or than could be afforded.

The families who participated in this study used credit cards for convenience credit rather than as installment instrument. The majority of families paid their credit bills within each billing period in order to avoid interest charges. Many families in the study used credit cards for ease of purchasing goods or services outside of as well as within their local commerce area.

Oil company cards continue to be the most popular type of credit card used by families, followed closely by retail cards. Bank credit cards trail behind gasoline and retail store cards for the young families in this study. Clothing and gasoline are the two items for which credit cards are used by most young families studied, but there are many goods and services for which credit cards are not used. If the use of credit cards by the families in this study are indicative of a more general pattern, a cashless, checkless system of transactions may not be readily accepted by young families.

The families who participated in this study demonstrated control over their use of credit cards. Because no families were identified who exhibited low levels of control, regression analysis did not show significant relationships between money management practices and control of credit card use in four of five cases. Theories that credit cards cause uncontrolled impulse buying may need to be more closely examined.

A very significant relationship was found to exist between the families' money management practices and their feeling of control of credit card use. The findings showed that those families who felt in control of their credit card use were those who used few credit cards, made a small number of purchases, used credit cards infrequently, and employed high levels of budgeting and record keeping practices.

Suggestions for Further Research

Most families in this study reported a high degree of control over their use of credit cards. Regression analysis of data collected from 60 families showed that one hypothesis predicting a linear relationship between families' money management practices and their control of credit card use was supported at greater than a .10 level of significance. Another study using a larger sample to test the hypotheses proposed in this study could be undertaken to see whether the sample size was a particularly limiting factor in this research.

Families with young children were the focus of this study. Additional research which examined the use of credit cards by other family types would be valuable. Is control of credit card use different for singles, for married couples without children, or for families with older children? Of particular interest might be an examination of the use and control of credit cards by families in which teenage children are allowed to use the cards.

A study similar to this one but conducted in an urban center or rural area could help in determining whether geographic location causes a pronounced effect upon the use and control of credit card use by young families.

Control of credit card use may be a very personal subject for some families. For this reason, assessment of the control of credit card use might be better determined if sources other than direct questioning were used. Families in difficulty with their credit card use may have been among those who declined to participate in this study. Therefore, if a study were to be done on families having problems with credit cards, another method of selecting the sample and/or collecting data would perhaps need to be used. Indirect sources such as records secured from issuers of credit cards or from financial counseling services might provide information about persons having difficulties as well as those exercising control over their credit card use. Direct questioning could then be undertaken, if desired, to collect data in addition to those provided in the records.

If, as some predict, credit cards are to become the basis for all future transactions, it will be necessary to continue to assess people's acceptance of credit card use, and to predict the effect which widespread use of credit cards could have upon the control of use. Also, consideration will need to be given to how families might manage credit cards efficiently and effectively.

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APPENDICES

APPENDIX A

OREGON STATE UNIVERSITY
School of Home Economics
Corvallis, Oregon 97331

Dear

I am a graduate student working towards a master's degree in family economics. My research project involves a study of families' credit card use. In order to complete this study I need your help!

Your name was selected from the Albany City Directory to be included in the sample for my survey. I would very much appreciate your helping me by completing a questionnaire which I have designed to examine the use of credit cards by young families.

I will be contacting you by telephone within a few days after you receive this letter to see if you are willing to help me, and to arrange a time when I can visit your home to administer the questionnaire. The questionnaire will ask questions about your family, your money management practices, and your use of credit cards.

If you decide to answer the questionnaire your answers will be treated with complete confidentiality, and will be grouped with those from a large number of other families to be used as statistical data only.

For the sample, I am concentrating upon Albany families who fit into the following criteria:

1. Are composed of a married couple, living together; plus children. (Other adults may be living with the family.)
2. Oldest child was born during the years 1966-1970.
3. Do not have children other than those living with them.
4. Use at least one credit card monthly.

If your family fits these criteria, I hope that you will consent to help me with my study. I will be in touch with you soon.

Sincerely yours,

/s/ Julie Wright

/s/ Martha A. Plonk, Adviser

/s/ Geraldine I. Olson, Department Head

APPENDIX B

INTRODUCTION TO ADMINISTERED QUESTIONNAIRE

Statement of Informed Consent

Hello,

I am Julie Wright, a graduate student from Oregon State University. Recently, I telephoned you concerning a study that I am conducting through the Department of Home Management. My study is designed to ask Albany families about their credit card use, including money spending practices, planning, and feelings about control of credit card use.

You were one of the families selected from the city directory to see if you would be willing and eligible to participate in the study. To participate, you must be a married couple living together, have at least one child between the ages of 6 and 10, have no children other than those living with you, and use at least one credit card monthly. If you meet these four criteria, I hope that you will choose to be interviewed.

I think that you will find the interview to be a worthwhile experience. Your participation will be essential for the accuracy of the study because there is no other way we can substitute for the information you can share.

Be assured that your responses to the questionnaire will be kept confidential. You do not have to answer questions that you feel infringe upon your privacy.

If you have any questions upon completion of our interview, I will be happy to discuss them with you. You are also welcome to call Dr. Martha Plonk, my adviser, at 754-4992 at Oregon State University for further information about my study.

QUESTIONNAIRE

This questionnaire has been developed to collect information about your family's use of credit cards. Please answer the questions as completely and as accurately as you can. If a question seems unclear, please feel free to ask me to clarify it for you. If you feel that you do not want to answer a question, please mark a line through the question so that I know you have not skipped it.

The information that you furnish on the questionnaire will be treated with complete confidentiality and will be grouped with other families' answers to arrive at statistical measures. Please DO NOT put your name or any other identifying marked on this questionnaire.

I appreciate very much your helping me with my study. If you are interested in the results of my research, I would be very happy to share them with you.

NOTE: For the purposes of this study, the term "family" refers to those persons living in your household who are related by blood, marriage, or adoption. Also, I am interested in the credit cards that your family USES rather than those which you possess but never use. There are NO right or wrong answers to the questions asked. Answers will vary with every family.

THESE QUESTIONS DEAL WITH GENERAL INFORMATION ABOUT YOUR FAMILY:

( ) ( ) 1. Your ages: Husband ________ Wife ___________

( ) 2. Ages of your children: ______________________________

( ) ( ) 3. What is the highest level of education that you have completed?
Husband __________
Wife _____________

( ) 4. Number of years that you have been married? _________

( ) ( ) 5. What is your current occupation?
Husband ____________
Wife ______________

( ) 6. In which of these categories does your TOTAL gross annual income fall? (This includes wages from husband's and wife's employment, interest from savings or investments, dividends, rents, gifts, etc.)

$ 0 - 1999	____	$24, 000 - 25, 999	____
$ 2000 - 3999	____	$26, 000 - 27, 999	____
$ 4000 - 5999	____	$28, 000 - 29, 999	____
$ 6000 - 7999	____	$30, 000 - 31, 999	____
$ 8000 - 9999	____	$32, 000 - 33, 999	____
$10, 000 - 11, 999	____	$34, 000 - 35, 999	____
$12, 000 - 13, 999	____	$36, 000 - 37, 999	____
$14, 000 - 15, 999	____	$38, 000 - 39, 999	____
$16, 000 - 17, 999	____	$40, 000 - 41, 999	____
$18, 000 - 19, 999	____	$42, 000 - 43, 999	____
$20, 000 - 21, 999	____	$44, 000 - 45, 999	____
$22, 000 - 23, 999	____	$46, 000 - 47, 999	____
		Over $48, 000	____

THESE QUESTIONS DEAL WITH YOUR FAMILY'S USE OF CREDIT CARDS:

( ) 7. How many MONTHS ago did your family FIRST use a credit card?
In the husband's name? ____
In the wife's name? ____

( ) 8. List everyone in the family who uses your credit cards.
____

9. Who decides what should be bought with credit cards?
____

( ) 10. Who makes the most purchases using credit cards?
____

( ) 11. Check the types of purchases for which your family uses credit cards.

FOOD: Groceries ____
Restaurant ____

AUTO: Gasoline ____
Supplies ____
Service ____

HOUSEHOLD ITEMS:
Furnishings ____
Furniture ____
Appliances ____

MEDICAL SERVICES AND SUPPLIES: ____

ENTERTAINMENT (movies, plays, concerts, spectator sports, etc.) ____

TRAVEL:
Lodging ____
Transportation tickets ____

PERSONAL ITEMS (grooming aids, jewelry, etc.) ______
CLOTHING ______
EDUCATION ______
SPORTING GOODS OR SERVICES ______
GIFTS ______
HOBBIES ______
Other (please specify) ________________
None of the above ________

( ) 12. In terms of dollars per month, how much would you estimate that your family usually charges with credit cards?
___________ Not sure ___________

( ) 13. How many months out of the year does your family pay its credit card bills IN FULL? ________ Not sure ________

( ) 14. How many times out of a year does your family MISS a month's payment on a credit card bill due to insufficient funds? ___________ Not sure _________

( ) 15. Do you have the necessary information to be able to calculate your outstanding balance at this time?
Yes _____ No ______ Not sure ________

( ) 16. Do you have the necessary information to contact your credit card company (or companies) if you lost a credit card or had a question about billing?
Yes _____ No _____ Not sure _______
If yes, where do you store this information? __________

( ) 17. Do your family members keep track of their credit card purchases? Yes _____ No _____ Not sure ________
If yes, check as many of the following items as generally apply to the way in which your family keeps track of its credit card purchases.
____ Keep sales slips from purchases.
____ Keep written record of purchases as they are made.
____ Compare sales slips to bill before paying.
____ Deduct amount of purchase from bank balance as purchase is made.
____ Keep a running total of all purchases made with credit cards.
____ Store all sales slips in a certain place.
____ Other (please specify) _____________
____ None of the above.

( ) 18. Does your family plan how to spend your money?
Yes_______ No ________ Not sure _______
If yes, check the item(s) below which indicates the method your family uses to plan how to spend.

_____ Have an unwritten plan
    _____ For a week.
    _____ For a month.
    _____ For a year.
    _____ For longer than a year.
_____ Have a written plan
    _____ For a week.
    _____ For a month.
    _____ For a year.
    _____ For longer than a year.
_____ Have an accountant or other person outside of the family plan our spending.
_____ Allocate money into envelopes according to categories of spending.
_____ Spend until the money runs out.
_____ Other (please specify) _______________
_____ None of the above.

( ) 19. If you answered yes to question #18, does your spending plan include any of the following characteristics? Check as many as apply.

_____ Separates fixed expenses from variable expenses.
_____ Sets dollar limits.
_____ Sets time limits. (such as projecting for future payments)
_____ Itemizes spending categories.
_____ Records spending expenditures.
_____ Totals expenditures as they occur.
_____ Provides a savings fund.
_____ Other (please specify) _______________________
_____ None of the above.

( ) 20

Please provide the following information about the DIFFERENT CREDIT CARDS that your family uses.

Type of card	A No. in husband's name *	B No. of times used in aver. mth.	C No. in wife's name *	D No. of times used in aver. mth.	E No. in another's name	F No. of times used in aver. mth.
1. Bank card (BankAmericard, Master Charge, etc.)						
2. Oil company card (Shell, Mobil, etc.)						
3. Retail store card (Sears, Penney's, etc.)						
4. Travel and entertainment (American Express, Diner's Club, etc.)						
5. Airline card (TWA, United, etc.)						
6. Telephone credit card						
7. Other (please specify)						

*This pertains to cards bearing the husband's or wife's name, regardless of who the account is assigned to.

If your family has two BankAmericard credit cards, but both bear the name of the wife, then they are counted as one card on the chart above. If you have two BankAmericards, one with each name, this counts as one in each of the columns A and C next to No. 1.

THE FOLLOWING QUESTIONS ARE TO BE ANSWERED ON THE BASIS OF A SCALE OF 2 THROUGH 5; 2 BEING LOW AND 5 BEING HIGH. Circle your answer.

( ) 21. To what degree have credit cards caused your family members to buy more than if they had to pay cash?
2 3 4 5
Not at all Very much ______Not sure

( ) 22. To what degree have credit cards caused your family members to buy more than if they had to use other types of credit?
2 3 4 5
Not at all Very much ______Not sure

( ) 23. To what degree to you feel that your family members are in control of their credit card use?
2 3 4 5
Not at all Very much ______Not sure

THANK YOU!!

APPENDIX C

METHODS USED TO COMPUTE THE MEAN AND MEDIAN FAMILY INCOME FIGURES

Incomes of the Families in the Study

The families were asked to report their 1975 total gross income by marking an income category on the questionnaire. The categories were distributed in intervals of $2, 000, and the mid-points of the intervals were used to code the income data for analysis. For example, a family who reported its income in the $10, 000-$11,999 category was coded as having an income of $11, 000. This amount was the number used when computing the arithmetic mean and median figures. Because the incomes were coded on the basis of 1000's, the median income figure fell at exactly $15, 000.

National Mean and Median Income Estimates

Data for 1975 mean and median U.S. family incomes were not yet available at the time this study was conducted. Consequently, extrapolation of available related data was necessary. This was accomplished by multiplying 1974 income data by the rate at which U.S. personal income changed from 1974 to 1975 to arrive at a comparable change in median and mean incomes.

The figures used in the computations are given below:

1) U.S. personal income rose 7.9 percent from 1974 to 1975 (19:2).

2) Mean family income in 1974 for a white family with a male head, wife present was $15, 823 (43:45).

3) Median family income in 1974 for a white family with a male head, wife present was $14, 099 (43:45).

APPENDIX D

ANALYSIS OF VARIANCE TABLE

Model	Source	d.f.	Sum of squares	Mean square (SS ÷ d.f.)	F value
Y_1	Total	52	1348.83	25.94	
	Regression	5	104.45	20.89	.79
	Residual	47	1244.38	26.48	
Best variable added (Frequency)	Total	52	1348.83	25.94	
	Regression	1	29.23	29.23	1.13
	Residual	51	1319.60	25.88	
Y_2	Total	56	36.67	.66	
	Regression	5	2.75	.55	.83
	Residual	51	33.91	.66	
Best variable added (Budgeting)	Total	56	36.67	.66	
	Regression	1	.88	.88	1.35
	Residual	55	35.79	.65	
Y_3	Total	58	50.68	.87	
	Regression	5	3.63	.73	.82
	Residual	53	47.04	.89	
Best variable added (Frequency)	Total	58	50.68	.87	
	Regression	1	.31	.31	.35
	Residual	57	50.37	.88	
Y_4	Total	58	52.51	.91	
	Regression	5	2.27	.45	.48
	Residual	53	50.23	.95	
Best variable added (Frequency)	Total	58	52.51	.91	
	Regression	1	1.71	1.71	1.9
	Residual	57	50.80	.89	
Y_5	Total	58	.41	.70	
	Regression	5	9.88	1.97	3.39**
	Residual	53	30.87	.58	
Best variable added (Budgeting)	Total	58	40.75	.70	
	Regression	1	5.77	5.77	9.46***
	Residual	57	34.98	.61	
Next best variable added (Frequency)	Total	58	40.75	.70	
	Regression	2	6.46	3.23	5.29***
	Residual	56	34.29	.61	

** significant at .01 level
*** significant at .001 level