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INFORMATIONAL AND BEHAVIORAL
CONSIDERATIONS OF BANKERS IN THE
SMALL BUSINESS LOAN DECISION

A Dissertation Presented

by

ANNE JACKERSON RICH

Submitted to the Graduate School of the
University of Massachusetts in partial fulfillment
of the requirements for the degree of

DOCTOR OF PHILOSOPHY

September   1978

School of Business Administration

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ABSTRACT

Informational and Behavioral
Considerations of Bankers in
Small Business Loan Decision
(September, 1978)

Anne J. Rich, B.A. Queens College
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Directed by: Dr. Martin J. Gosman

Users of financial information have become the focus of account-
ing in recent years. Bankers have always been a primary audience for
accounting reports but little has been understood sbout their infor-
mation needs or about their decision process. Most of the literature
on bankers' decision models has been written with respect to the large
business loan request. Comparatively little regard has been given to
the special requirements of small business loan applications.

The present study examines the decision process of commercial
bankers and the differences due to bank size in the perceived impor-
tance of information inputs. Empirical studies have indicated bankers
understood their decision models after making a decision. In this
study, first, bankers' predisposition to information was measured and
used as a starting point for anlyzing differences due to bank size.
Then, demographic variables of the same marginal loan application was
used to explore their decision process.

The impact of the form of financial information presented in a
loan package was explored. Three alternative treatments often found
in loan situations were selected for study: client-prepared statements,

accountant-prepared, and accountant-prepared with cash flow projections. One case, created from an actual Connecticut business, was developed for use in the experiment. The case contained the same environmental and financial information about the business and its owner. However, only one of the three forms of the financial information were included in each treatment group. The study explores whether bank size or information treatment has an effect on the decision outcome. In addition to the information variables, two behavioral variables, job-felt pressure and attitude toward risk were incorporated in the project.

Data was collected from bankers who were associated with different size banks located in both cities and towns in the Connecticut and Massachusetts regions. The instruments used to collect the data was specifically designed for this experiment and pre-tested, using bankers, before administering them to the subjects. The total sample size consisted of 64 bankers from 24 banks.

The data was analyzed to determine if there was a difference due to bank size in the perceived importance of financial information. Log-linear analysis was utilized to support the hypothesis that either the form of the information or bank size affected the decision outcome.

Hypotheses pertaining to the ability to identify specific variables that discriminate between grants and denials were tested using discriminant analysis. Hypotheses concerning the calculation of a probability of the loan being successful before arriving at a decision, as well as those including behavioral variables were tested using chi-square procedures.

The following conclusions were reached:

(1) Bankers from large banks perceive financial information to be of greater importance than do their counterparts in medium and small banks.

(2) Neither the form of the information nor bank size had an impact on the loan decision.

(3) The reliability of the source of repayment was the discriminating variable for this particular loan decision.

(4) Both behavioral measures, job-felt pressure and attitude towards risk, had no impact on the decision outcome.

(5) Bankers made subjective estimates of the probability of payback as part of their decision process.

(6) A decision model which incorporates comparisons of payback probabilities to minimum acceptable levels was shown to be consistent.

The results have led the author to the conclusion that accountants should be responsive to bankers who have special information needs regarding small businesses. These requirments are often not uniform among bankers themselves. The bank, the banker, and the applicant must all be considered in small business loan decisions.

Future research in the area of small business loans should seek to determine the information needs in both other marginal and risky situations.

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INTRODUCTION

Accounting as an Information System

The definition of accounting has gone through numerous changes in
the past two decades. These changes were promoted by governmental,
social and peer pressures to make accounting responsive to users' needs
for relevant economic information. The shift in thinking from account-
ing as an end in itself to that of accounting as a communication pro-
cess, is supported by individual accounting researchers and authorita-
tive accounting entities. By viewing accounting as a communication
process, accountants must assume the role of message transmitters,
sending the message to the decision makers (the receivers). The model
(Figure 1) of the communication process shows elements being combined
by the accounting process. The output of this sequence is financial
reports used by decision makers to make economic decisions.

accountant (sender)	selects	inputs elements dimensions	accounting process	outputs financial information	sends message	decision maker (receiver)

Figure 1

Accounting Viewed as an Information System

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Communication theory is often linked with information theory. While each theory has separate identifiable roots, the combination of the two has led to modern information systems design. Information systems designers are concerned with viewing the entire set of interrelated goal-directed objects, in order to identify the process by which inputs are converted to outputs and to determine the extent to which the final desired outcome is realized.

The impact of systems design on the accounting profession is visible in the "Objectives of Financial Statements," prepared by the Study Group of the American Institute of Certified Public Acountants in October, 1973. This document represents the AICPA's input to a then newly established rule-making body of the accounting profession, the Financial Accounting Standards Board. The Study Group identified the basic objective of financial statements as providing information useful for making economic decisions.

For accounting researchers, the logical step following the charge to the accounting profession to provide useful information to end users is to analyze the decision models of specific users in order to improve the inputs, the process and/or the output of financial information. This research project was undertaken to respond to this challenge.

The focus of this research study is to examine the information needs of a commercial loan officer. These needs will be analyzed in the context of a commercial loan application being made by a small business wishing to expand. The amount of the loan it has applied for is $90,000. The loan officer must grant or deny the request based on both financial and non-financial information. All of the traditionally required inputs were presented in case form to the decision-makers.

The purpose of the research is to examine the impace of accountant-prepared versus client-prepared information and the presentation of cash flow projections versus no presentation of cash flow. Thus, three forms of the case material were developed to include client-prepared with no cash flow, accountant-prepared with no cash flow, and accountant-prepared with cash flow projections.

In addition to the information treatments described above, variables potentially having an impact on the decision-maker himself, such as age, experience, education, position and bank size, are introduced in the study.

Background and Significance of this Project

Throughout its history, accounting has developed without significant feedback from the users of accounting reports. Government, corporate and social agencies have challenged accountants to respond to users' needs, and the profession has met these pressures by increasing financial and non-financial disclosures. However, increasing the quantity of disclosures has not been totally satisfactory in solving the problem because more disclosures do not necessarily provide relevant information needed to make decisions. The pressure on the field of accounting by government, corporate and social agencies continues to climb. Indeed, two separate committees of the government recently have investigated the ability of the accounting profession to regulate itself.

In response to these numerous demands, the accounting profession has tried to adopt an ever-broadening role. In 1973 the AICPA established the Financial Accounting Standards Board to integrate corporate and consumers' needs into the accounting framework. Price Waterhouse & Company commissioned May, Mueller and Williams to prepare a research study that would provide an overview of accounting in the economic decision-making environment. By combining earlier theories proposed by Bedford & Baladouni (1962) and Sterling (1967) with the recent efforts of May, Mueller and Williams as well as the contributions of the Study Group, the definition of accounting has taken on a new dimension. Accounting is currently viewed as a user-oriented information system.

The current user-orientation of accounting output has significant implication for evaluating financial statements in any business sector.

In this study the focus will be on the information requirements of bankers for their decision to grant loans to a small business.

The aforementioned authorities emphasize the need for accountants to carry out their role in a logical and consistent manner. However, Lev has documented the lack of usefulness of the traditional approach in financial statement analysis because of accounting's detachment from economic decision models. It is evident that current research must be integrated within the information systems approach. Decision makers must be approached by accountants and alternative information treatments must be studied in order to determine their relative usefulness with a specific problem-solving context. Improved communication between the accountant and the banking profession is necessary in order to provide effective, efficient information to those who use it to make ultimate resource allocations. The bankers' decisions have a significant effect on who gets richer and who gets poorer.

In 1975, Prakash and Rappaport identified the significant role accounting information plays in purposeful decision-making elements. In their model, the "flows of (accounting) information among such elements are basic to all social systems."[1] They view accounting as an open information system involving five processes:

1. Planning

2. Decision Making

3. Implementation Cum Observation (data gathering)

4. Data Structuring (accounting)

5. Performance Evaluation

1. P. Prakash and A. Rappaport, "Informational Interdependencies," *The Accounting Review*, October, 1975, p 724.

They suggest that the profession's performance has consequences in terms of (1) the use or misuse of information by those for who it was produced, (2) the use of information by those who piggyback on it, and (3) the change in the economic behavior of the information sender in anticipation of the feedback effects.

From a social viewpoint, accounting information has served as a basis for resource allocation. The following statement by John W. Buckley, Professor of Accounting & Information Systems at UCLA Graduate School of Management, highlights the power of the accounting profession to influence allocation of resources through the generation of financial statement figures:

> "Historically, accounting has been defined as a data
> processing and reporting function, but this is changing.
> Since its formation in 1973, the Financial Accounting
> Standards Board has assumed the posture and prerogatives
> of a legislative organ, and, in its own way acts as a
> sort of mini-Congress. In establishing rules, it affects
> resource allocation and in the ultimate sense decides who
> gets rich, and who gets or stays poor."[2]

The preceding section has provided reasons for the accounting profession to incorporate the information systems approach in research on accounting information. The next section will provide support in maintaining interest in the American small business.

2. Wall Street Journal, March 7, 1977.

Need for Research in the Small Business Credit Decision

Based on Internal Revenue Service statistics for the latest year computed, 1973, there are approximately 13.6 million businesses in the United states, including 3.3 million farms. By the Small Business Administration standards, 97% of these businesses are considered "small."

John C. Narver and Lee Preston (1976) studied the recent growth of small businesses. They found that not only did small businesses survive the transition to a post-industrial economy, but their number has remained stable. They also found that small businesses will be found scattered across the entire economic spectrum. Detailed information concerning the major divisions of industry of small businesses, at the close of FY 1976, can be found in Table 1.

Table 1

Major Divisions of Small Businesses

	Percentage
Agriculture, Forestry & Fishing Including Farms	27
Services	25
Retail Trade	17
Finance, Insurance & Real Estate	12
Construction	8
Wholesale Trade	4
Manufacturing	3
Transportation, Communication, Electric, Gas & Sanitary Services	3
Mining	1

Source: U.S. Small Business Administration
1976 Annual Report, pg. 15.

Clearly there are economic, political and social reasons for studying banker's small business decisions. Economically small businesses rely more heavily on bank-borrowed funds than large businesses in obtaining capital to begin operating activities.

One government agency, the Small Business Administration, has been the administrative arm extending assistance to small enterprises. In the past decade, billions of dollars have been budgeted for this program. Decisions as to how to allocate these funds are based in part on financial statements. The increasing volume of loans granted is reflected in the statistics for fiscal year 1976 (Table 2).

Table 2
1976 Small Business Administration Loans

	Number	Millions
July - September	6035	477
October - December	6268	512
January - March	6536	510
April - June	7239	572
	26078	$2.071

Source: U.S. Small Business Administration
1976 Annual Report, pg. 24.

Furthermore not only has direct loan volume increased, but other business loan programs showed considerable increase as well. Regular (Section 7-A) business loans increased from 18,184 loans totaling $1.44 billion to 27,997 loans totaling $1.92 billion in 1976. Under Economic Opportunity Acts (Section 8-A), the SBA increased its activity from $76.4 million to

$86.1 million of loans to disadvantaged firms. In addition, the
Annual Report also gives the following account of the effect of recent
economic stimulants on small business.

Effect of Economic Stimulants

"In general small business benefited from Federal
efforts to stimulate economic activity and control
inflation. The Tax Reduction Act of 1976, frequent-
ly cited as a key factor in the recovery, provided
substantial rebates on the 1974 personal income tax
and tax reductions, particularly for low-income in-
dividuals, which increased the effective purchasing
power of consumers. Consumer confidence improved
markedly, and during the first three quarters of
FY1976 personal consumption expenditures were the
force of the recovery. Retail sales and manufac-
turing profits of small corporations improved.

Monetary policy, which alternately contributed to
and restrained demand, did curtail the rate of
growth of inflation and brought a general decline
in short-and long-term money market rates through
the first three quarters. In the fourth quarter,
the rates generally rose again but did not reach
their levels of the first half. These changes
were accompanied by improved investment prospects
in the stock market, and large firms turned to
large, money center banks and to equity markets
for a greater portion of their financing needs.
The availability of funds for small borrowers who
depend heavily on business loans from the smaller
banks appeared to increase. This, at least, is
indicated by the substantial increase in the num-
ber and amount of SBA guaranteed bank loans to
small business." [3]

Another agency of the SBA, Small Business Investment Corporations
under the SBIA of 1958, assists new, innovative-type firms in their
financing activities. Since this program began in 1958, the SBIC indus-
try has provided in excess of $2.6 billion to small concerns.

3. U.S. Small Business Administration, *1976 Annual Report* (Washington,
   D.C.: 1977), p 15.

Continued evidence of political concern for the survival of small business is reflected in the policies and activities of the present administration. On January 27, 1977, the <u>Wall Street Journal</u> carried an article entitled, "Small Business Expects President Carter, An Ex-Entrepreneur, to Press Its Cause." The article reiterated President Carter's pledge to strengthen government financing programs for small enterprises, to work to maintain "an adequate capital supply...at reasonable interest rates," to assure that small business "received a fair share of the federal procurement dollar," and to reform "federal regulatory agencies and their reporting practice." Even more recently, on March 29, 1977, President Carter's top officials spent three hours with small-business leaders. The President attended personally, and the talks covered a vast range of issues. Small business leaders in attendance commented favorably on the continued ready accessibility of White House officials.

Thus with economic, social and political forces so hard at work to maintain small business in America, there is a definite need to perform research to help identify decision models and to evaluate the effectiveness of decisions concerning the financing needs of these small businesses.

In February, 1978, Chazen and Benson suggested that the possibility of the application of uniform accounting principles to both large and small businesses may be causing hardship to the small business client. While their remarks were intended to reduce the reporting requirements for small business, there is a need to explore not only the elimination of unnecessary data, but to identify what information is relevant to users of small-business financial reports. However, most of the research done to date has concentrated on large businesses requiring bank financing. It will be shown in

chapter two that small businesses have special needs and are perceived differently by bankers in terms of the information bankers require for loan application, thus justifying separate research.

Scope of Project

The focus of this research project is on the accounting information presented to loan officers by the small business entrepreneur who plans to expand his existing business activities. This type of loan was selected because it requires complete business financial information for the current period as well as from the three preceding fiscal years. Since the actual loan process also requires information concerning character, collateral and credit history, these variables were included in the research project. In addition, the loan officers' attitudes towards risk and job-felt pressure were considered potentially important to the decision outcome, and therefore included in this study. However, bank factors such as interest rate, loanable funds and bank policy were not introduced as independent variables but were controlled for in the research project.

In the "Objectives of Financial Statements," the committee pointed out that decision makers who do not have easy access to the firm have a special need for reliable financial information. However, this research study will add insight into the decision process of bankers who have a high degree of control over information presented to them in the course of a loan application, but who initially accept statements prepared under generally accepted accounting principles. Additional information not traditionally part of the reporting process must be obtained at a high cost to the applicant. By examining the amount and form of the information presented to bankers, accountants have the potential to improve the flow of

information to bankers to reduce costs of supplying the information and to assist bankers in allocating resources to small businesses more efficiently.

In order to explore the decision process of bankers in this research study, a loan request was prepared in case form. The case material contained the following information: loan application, background of principal, description of business, financial statements, credit history, collateral available, appraiser's report, and industry statistics.

The business selected was a gas station and camping supplies operation which has been in existance for over ten years. The owner was well recognized in his community but had high investment in inventory and an unprofitable gas operation. It reflected a classic small business marginal risk situation where the principal's character and managerial experience was high (he was a community leader), but his financial position was overextended.

Three loan packages were developed. The first reflected a customer-prepared financial statement, the second reflected an accountant-prepared financial statement and the third included both an accountant-prepared financial statement and cash flow data.

Purpose of the Study

This study investigates the impact of these three types of loan packages on commercial loan officers' decisions to grant a loan to a small business entrepreneur. The specific objective of the study is to determine whether form and content of the information have a significant impact upon the lenders' evaluations of the business entity or upon the decision

outcome. Specific behavioral factors, such as attitude towards risk and bank-related pressures, were also considered.

The objective of the inquiry may be stated as a test of the following research hypotheses:

1. Bankers from large banks will assign greater importance to financial information than bankers from small banks.

2. The form and content of the loan package have a significant impact on an individual's evaluation of a business entity.

3. Some or all of the informational variables can be used to predict the decision outcome for bankers from different size banks.

4. Some or all of the information variables can be used to predict the decision outcome for all subjects without regard to bank size.

5. Bankers make subjective information valuations of a numerical nature when making loan decisions.

6. Bankers' attitudes towards risk have a significant impact on their assessment of information variables.

7. Bankers who are risk-takers will make different decisions than bankers who are not risk-takers.

8. Bankers who feel strong environmental bank
    pressures will make different decisions
    than bankers who do not feel strong environ-
    mental bank pressures.

This chapter has introduced the objectives of the study, the back-
ground and significance of researching the decision to grant loans to
small businesses within the information systems context, and the eight
research hypotheses. Prior to a more detailed presentation of the re-
search findings, chapter two will summarize literature found in the
finance, accounting and behavioral areas to further understand the deci-
sion process of bankers.

C H A P T E R II
LITERATURE REVIEW

In this chapter, finance theories will be presented in order to help the reader gain insights into bankers' evaluation of the riskiness of a firm. The banking literature will summarize past findings describing the present state of knowledge relevant, and identify a need for the research in the small business loan decision. This chapter concludes with a synopsis of research findings concentrating on human processing of financial information in order to present a foundation for the present research study.

Financial Theory

In Lev's book, <u>Financial Statement Analysis: A New Approach</u>, the author makes three strong statements in favor of integrating economic theories and models into the design of financial statements:

"1. Financial statement analysis is no longer detached from economic theories and models. The production of information (financial analysis) is now an integral part of the information use (economic and finance models).

2. The construction and verification of financial analysis systems require considerable analytical sophistication. The informational demands of modern decision models, such as those derived from portfolio theory, cannot be satisfied by simple financial ratios. Accordingly, advanced

statistical techniques, such as regression analysis, are used to develop and verify the financial statement information systems.

3. Modern financial analysis is no longer restricted to the accounting data conventionally reported in financial statements. Use is made of unreported data such as market values of assets and management's forecasts of future earnings. The analysis also encompasses non-accounting data, such as security prices and bond ratings."[4]

While Lev's remarks, indeed, his entire book, focus on financial statement analysis for large businesses, financial theories of risk are relevant to understanding the small business loan decision as well.

In the financial literature, the value of a particular issue of corporate debt is found to depend essentially on three items:

1) the required rate of return on riskless (in terms of default) debt (e.g., government bonds, or very high-grade corporate bonds);

2) the various provisions and restrictions contained in the indenture (e.g., maturity date, coupon rate, call terms, seniority in the event of default, sinking fund, etc.);

4. Baruch Lev, *Financial Statement Analysis: A New Approach* (Englewood Cliffs, N.J. : Prentice-Hall, 1974) p 5.

3) the probability that the firm will be unable to

satisfy some or all of the indenture requirements

(i.e., the probability of default).[5]

These relationships can be summarized in the following equations:

(P_B) (DC)   = R

P_B =   Probability of default (bankruptcy)

DC   =   Debt capacity

R   =   Risk level in $

DC is a function of systematic risk, life cycle of firm and assets em-

ployed. Restated in terms of the probability of default, $P_B = \frac{R}{DC}$ where

the probability of default is directly related to risk and inversely

related to debt capacity. For example, if the probability of default (P_B)

is 20% and debt capacity has been determined to be $30,000, then the amount

the lender would risk is $6,000. This, after considering the potential

market value of the collateral upon liquidation, the banker would add the

bank's risk of $6,000 to the value of the collateral and the amount loaned

would be determined.

Since it is assumed that a banker would not inherently prefer one

individual over another, then R, the risk level in dollars, is considered

constant over all individuals. It follows that the product (P_B) (DC) must

be constant for all firms. Thus, we should expect when DC and R are held

constant, P_B will fluctuate. In this research study, we can examine bankers'

perceptions of risk in terms of the probability of default which different

bankers assign to a specific loan applicant. Then we can analyze both the

5.   Robert C. Merton, "On the Pricing Corporate Debt : The Risk
     Structure of Interest Rates" (Department of Finance, CUNY,
     Nov. 1973) p 1.

individual decision-maker variables as well as information variables that contribute to the differences among bankers in their assignment of probability of default.

Banking Needs

In 1974, four professional organizations concerned with corporate financial reporting met to discuss problems of mutual concern. The American Institute of Certified Public Accountants and Robert Morris Associates participated in the symposium which focused on banker's needs and financial information. Both groups were aware of the important role bankers play in bankers determining which corporations receive capital. The representatives of all groups at the meetings attempted to reach agreement on a basic core of information that should be reported by all corporations, as well as criteria for disclosing additional supplementary information.

By looking at companies like duPont, Occidental Petroleum, and Douglas Aircraft, the focus of the participants was clearly on large corporations. On judging the usefulness of information, William S. Gray said:

"Information or knowledge that is likely to alter expectations about the earnings growth rate, the relative certainty of the growth rate, the volatility of the earnings stream, the sense of current normal earnings or dividends, or some combination of the foregoing would seem most likely to have more than a temporary effect on price. It is, therefore, that the relative usefulness of different kinds of information disclosure should be viewed accordingly."[6]

6. William Gray III, "The Need for Disclosure Criteria" in *Corporate Financial Reporting : The Benefits and Problems of Disclosure,* (N.Y.: American Institute of Certified Public Accountants, 1976) p. 58.

Gray was concerned with setting forth a criteria for usefulness rather than suggesting a lengthy list of specific information items.

To date, most bank-related research attempts have been aimed at obtaining predictions of success or failure of large corporations. Backer & Gosman's[7] NAA study of Financial Reporting and Business Liquidity, were found to:

1. Organizationally follow a three-tier approval process.

2. Stress different financial measures when undertaking term loan as opposed to seasonal loan analysis.

3. Emphasize somewhat different financial measures then other groups interested in a firm's performance, e.g., security analysts, trade credit rating agencies, and bond rating agencies and bond raters.

4. Believe they are in a particularly unique position to assess the relevant qualitative factors.

5. Demonstrate a renewed interest in the balance sheet.

While Backer & Gosman's observations are applicable to all size loans, we find all of the empirical studies performed on the usefulness of accounting select large companies as the population for study.

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7. Morton Backer and Martin Gosman, *Financial Reporting and Business Liquidity* (N.Y., National Association of Accountants, 1978).

Another recent attempt to identify information needs of bankers regarding publicly held industrial firms was reported by Stanga & Benjamin in June, 1978. Information presented in this article will be summarized and contrasted with the present research in the final chapter.

Since a lack of empirical research focusing on information needs of bankers granting loans to small businesses has been established, only one additional task remains in order to establish a foundation for the re-search study. The importance of behavioral research, more specifically current studies on information processing, will be presented and analyzed in order to help the reader gain insight into the decision process of bankers, whose inputs are predominantly qualitative and subjective.

Human Information Processing Research in Accounting

When accounting is viewed as a user-oriented information system, the traditional systems component approach emerges as a useful framework for summarizing previous research. As discussed earlier, this system con-sists of inputs, a process and outputs. Libby and Lewis have identified two goals for accountants who supply information to decision makers: the first goal, which focuses on the process, is to improve decisions based upon accounting information; the second goal, which focuses on the in-puts, is to improve the flow of information to decision makers. In their article, "Human Information Processing Research in Accounting," Libby and Lewis presented the following information processing variables studied by psychologists.

Table 3
Classification of Information

Input	Process	Output
I. <u>Information Set (Cues)</u> Variables of Interest	**II.** <u>Judge (Decision Maker)</u> Variables of Interest	**III.** <u>Judgment - Prediction-Decision</u> Variables of Interest

I. <u>Information Set (Cues)</u>
Variables of Interest

A. Scaling Characteristics of
Individual Cues
1. Level of measurement (nominal,
ordinal, etc.)
2. Discrete or continuous
3. Deterministic or probabilistic

B. Statistical Properties of the
Information Set
1. Number of cues
2. Distributional characteristics
3. Interrelationships of cues
4. Underlying dimensionality

C. Information Content (predictive
significance)
1. Bias (systematic error)
2. Reliability (random error)
3. Form of relationship to criterion

D. Method of Presentation
1. Format (numerical-graphical-
verbal)
2. Sequence
3. Aggregated or disaggregated
(precombination of data)

E. Context
1. Physical viewing conditions
2. Instructions
a. Objectives
b. Costs and rewards
c. Information about cue attributes
3. Task Characteristics
a. Type
b. Response mode
c. Social influences
d. Uniformity of information
over cases
4. Feedback

II. <u>Judge (Decision Maker)</u>
Variables of Interest

A. Judge Characteristics
1. Human-Mechanical
2. Number of Judges
3. Personal character-
istics
a. Intellectual ability
b. Personality
c. Cognitive structure
d. Attitudes
e. Demographics (e.g.,
age, sex)
4. Task related character-
istics
a. Prior experience-
stored information
b. Interest and
involvement

B. Characteristics of Decision
Rule
1. Form (linear, configural,
compensatory, etc.)
2. Cue usage (weighting)
3. Stability (change-learning)
4. **Heuristics**

III. <u>Judgment - Prediction-Decision</u>
Variables of Interest

A. Qualities of the Judgment
1. Accuracy (validity)
2. Speed
3. Reliability
a. Consistency
b. Consensus
c. Convergence
4. Response Biases
5. Predictability

B. Self-Insight
1. Subjective cue usage
2. Perceived decision
quality
3. Perceptions of
characteristics of
Information set

Source: R. Libby & B. Lewis, Accounting Organizations & Society, Vol. 2 N.3, p 247

Furthermore the amount and type of data required by decision makers depend on the financial state of health of the borrowing firm. Accounting research studies concentrating on the aggregation of financial data on the input stage have shown that more detailed data is needed wherever the borrowing firm is a marginal or bad risk (Abdel-Khalik 1973). Thus, in the present research study, substantial disaggregated information was prepared as inputs into the loan decision.

The focus of the present study is on the process stage. Both the characteristics of the decision maker and his decision rule will be considered. In the proposed research study, personal demographic characteristics of age, years of experience and education will be accumulated. In addition, loan officers' attitudes towards risk and job-felt pressures will be recorded in an effort to determine their effect on the decision outcome. This author is unaware of any previous research in the area of characteristics of the loan-officer as a decision maker.

As Libby and Lewis suggest in their classification of information, the characteristic of the decision rule comprise another component. In the psychological literature, linear additive models have been shown to capture the essence of a decision rule where positive values on one aspect compensate for negative values on another. Such a decision rule is applicable to the small business loan situation. These same psychologists have found that the analysis of variance approach to structuring experiments has been useful.

While analysis of variance combined with linear decision models will be used in this study to explain the impact of alternative inputs in the small business loan decision, three other basic approaches have been con-

sidered to explain decision behavior in different business frameworks. The three approaches considered are (1) lens model (2) probabilistic judgment and (3) cognitive style. The first attempt in an accounting environment to apply these approaches utilized stockbrokers (Slovic, 1969). This work was further expanded by Barefield (1972), Dickhaut (1973), and Mock, Estrin and Vosarhelyn (1972).

The lens model, developed by Brunswik in 1952, and adapted for accounting research by Ashton (1974) Libby (1975), is useful in analyzing judgmental situations where decision makers must choose an outcome on a set of explicit cues (or pieces of information from an environment) which are probabilistically related to a relevant criterion. An information set is shown to have predictive significance, relationships exist between the information set and cue usage and between response and accuracy. Within the lens model approach, a large number of cases can be evaluated based on the same set of cues. This approach has been used in experimental designs in which stockbrokers and students make recommendations to buy (Slovic, 1969) (Slovic, Fleissner, Bauman, 1972) as well as in studies of auditors judgments on internal control (Ashton, 1974). In addition, Hofstedt and Hughes (1977) studied factors affecting the disclosure decision by students acting as auditors. The lens model can be statistically analyzed using ANOVA, MANOVA, discriminant analysis and regression.

In the banking environment, Libby asked 43 commercial loan officers to distinguish between successful and unsuccessful firms on the basis of five ratios, using 60 existing companies as cases to be classified. Using the lens model as a theoretical base and discriminant analysis statistics,

he found a highly linear decision rule form, high predictability (88%)
high accuracy, high consistency and high consensus.

In three major psychological studies, linear models have been shown
to out-perform the individual himself in a prediction situation, Goldberg
(1950) Wiggins-Kohen (1971) and Dawes (1971). The application of the
concept to business was introduced by Forrester (1962), who felt business
decisions could be modeled and led the way for Bowman (1963), Moskowitz
and Miller (1972) to support the theory that a linear regression model
could predict as well or better than the human decision maker.

Models have been developed using both students and real-world decision
makers. Slovic et al (1972) asked stockbrokers and students to evaluate
the expected capital appreciation of a set of hypothetical companies.
Students' responses correlated positively between their perceptions and
actual weights; however, stockbrokers produced negative Spearman rank-
order correlations over time. Thus, the author concluded more research
in real-world decision was needed.

Some notable success in model building has been achieved in the
banking environment. For example, Cohen and Hammer (1966) developed a
simulation model of the lending decisions on prospective business bor-
rowers. The model was developed from information obtained from two large
banks and utilized the following three evaluation scores:

1) Credit worthiness of the firm in relation to
   the proposed loan.

2) Extent to which customer relationship with
   the firm will grow with the bank.

3) Expected profitability to the bank of a
customer relationship with the firm.

Weights for each variable were determined by the bank officers. The model was exceedingly complex and required several subroutines to analyze the applicants' credit worthiness. A major component of this model was an analysis of the firms' historical and pro forma financial statements. The latest available statement was modified in the case of firms who did not submit pro forma statements; however, this adjustment may have had adverse effects on small business loan applicants who rarely provide pro forma information because of the high error rate in forecasting for small businesses. In addition, the authors' primary objective, that of determining the normative value of their model in practice, has not been realized. There have not been any significant application of their model to business loan decisions during the past decade. Moreover, the model did not assist preparers of financial information.

More recently, the Libby study explored the use of models in the banking environment and found that man is slightly superior in his own model in the specific task of predicting failure of a business within three years. His subjects were loan officers and success was measured by the correct predictions out of the 60 total decision. Bankers predicted 44.4 firms correctly while their models predicted 43.3. Further, 26 of the 43 subjects out-performed their respective models. Ashton accounts for the differences between Libby's study and previous studies by identifying Libby's subjects as more expert in their task and by the better definition of the dichotomous criterion (failure vs. non-failure). Libby suggested non-linear information utilization might have accounted for the tendency

for men to out-perform their models.

Not only do these predictor models appear to run second to humans in terms of correct decisions, they present several operational problems as well. One problem according to Ashton, is that some predictor variables cannot be coded. If the decision maker utilizes uncoded predictor variables, the model will be inadequate. Ashton has also identified another problem which is the inflexibility of models over a period of time. Lastly, non-quantitative measures were not incorporated into the model and, therefore, did not reflect real world decisions.

While the lens model studies are useful to situations where similar cues are presented, research on small business loan decisions has shown that financial ratios are not a good predictor of business failure (Edmister, 1972). Also, bank size may have an impact on the decision to grant a loan to a small business and should be considered in corresponding research. The probabilistic judgment approach may yield some insight into the small business loan decision outcome. The approach suggests there is a revision of perceived probabilities of future events as each cue is evaluated. Utilizing Bayers' theorem, it may be possible to combine prior probabilities and new information. Slovic and Litchtenstein (1971) concluded as a result of their research that conservative revisions of probabilities occurred. The Bayesian research was then tried into research on information overload. In the banking environment, Kennedy (1975) used Bayes' theorem to describe and measure cue usage in loan officers' predictions of bankruptcy from four financial ratios. In his experiment, twenty-four loan officers each examined twelve companies. However, Kennedy clearly recognized that the ratios were not statistically inde-

pendent. Using Bayes' theorem, he was able to compute a likelihood ratio for each piece of information. Kennedy was also to define the usefulness of regression coefficients he obtained because he knew which companies actually went bankrupt. This research approach could be used in the banking community to assist decision makers in identifying potential bankruptcies. However, the accountant is more concerned with providing information that will assist his client in obtaining the desired loan amount. Thus, the accountant's emphasis should be on obtaining the desired decision outcome.

Another technique developed in order to analyze decision models utilizes an allocation of 100 points to input variables. This technique was developed by Hoffman (1960) and has been used by contemporary researchers because of its ease in use and simplicity. The subject is required to allocate 100 points to variables which can then be used as relative cue weights associated with those variables. Research using this technique has shown that financial decision makers understand their own decision processes. These results have been obtained by correlating the subjective cue weights provided by the decision maker after a decision has been made with the regression cue weights obtained from the regression model. The conclusion, which is supported by the work of Wright (1977), Cook-Stewart (1975), Summers, Taliaferro and Fletcher (1970) and Ashton (1974), is that financial officials understand how they arrived at their decisions after their decisions were made. In the present research study, subjects were asked to record the importance of cue weights prior to a decision situation to (1) determine if there were significant differences among loan granters on information variables in general and (2) to determine if decision outcomes are consistent

with their subjective models.

In another approach to determining probabilistic outcomes, Flamholz (1976) proposed his Subjective Information Valuation Theory. Subjective Information Valuation (S.I.V.) for decision making is defined as that process (which) exists to overcome a gap or void in the information available to decision makers (D.M.). In other words, it is a compensatory mechanism. For example, if there were some way to measure probability of success directly, there would be no need to make subjective valuations of the qualitative information. In addition, the S.I.V. process is inherently a function of D.M. perception. If the hypothesized subjective information valuation process is found to exist, D.M. will assign a numerical value to an info stimulus subjectively when the true numerical value is unknown. It would have significant implications for both decision makers and designers of information systems, particularly the latter group.

In the Flamholz study, which used students as subjects, there was evidence that subjective valuations are made when information is presented on different levels of information-measurement. There were two possible determinants of subjective information valuations: (1) contextual orientation (accounting class or management class) and (2) individual variables (age, sex, work experience). In their study, accounting students made different valuations than management students did. It was also found that managerial experience and number of years of work experience did somewhat effect the direction in which subjective valuations were made, and age was not a significant factor in their study. A more important result reflects the revised decisions of the subjects based on objective information.

The subjective information valuation process will be considered in the present study on decisions made by bankers to grant loans to small business. The Flamholtz's approach was chosen rather than the Bayesian, because actual loan inputs of both quantitative and non-quantitative information were presented simultaneously. Thus, it is important for information suppliers to understand the overall contribution of explicit quantitative information rather than qualitative information which requires the decision maker to make subject valuations.

Recently, accounting researchers have studied the effects of cognitive style on the process stage. Driver and Mock are pioneers in applying Human Information Processing (HIP) theories to decisions involving accounting data. Their research developed from the work of Schroder, Driver and Streufert. In the HIP model two interdependent properties of information processing structures are postulated:

        (1) the parts (or dimensions) and

        (2) the integrating rules.

These properties lead the authors to their "U" curve hypothesis relating environmental complexity and level of information processing as shown by the following diagram:

Figure 2
"U" Curve Hypothesis of Information Processing

Driver and Mock further developed the HIP theory when they tied
decision style into two dimensions: amount of information and degree
of focus.   Their decision style model identified four decision types.

Degree of focus		
Multiple solutions	flexible	integrative
One solution	decisive	hierarchic
	Minimal	Maximum

Amount of Information Used

Figure 3

Four Decision Styles

When the two dimensions were combined, five characteristics concerned
with values, planning, goals, organization, communication were identified
with each decision style.   (Table 4)   Their research findings had impli-
cations for information purchase behavior, decision time, and design of
information systems.

Table 4
Summary of Decision Styles

	Decisive	Flexible	Hierarchie	Integrative
Values	Efficiency Speed Consistency	Adaptability Speed Variety	Quality Rigorous Method System	Information Creativity
Planning	Low data base Short-range Tight control for results	Low data base Intuitive	High data base Long-range Tight control of method and results	High Data base Long-range Adaptive
Goals	Few; organization focus	Many; self-focus	Few; self-focus	Many; self- and organization-focus
Organization	Short span of control Rules Classic organization	Control by confusion Loose	Wide span of control Elaborate procedures Automation	Team process Matrix organization
Communication	Short summary format Results focus one solution	Short Summary format Variety several solutions	Long, elaborate reports Problem, methods, data, give "Best Conclusion"	Long, elaborate Problem analysis from many views; Multiple solution

Source: Driver and Mock, Human Information Processing, Accounting Style Theory and Accounting Information Systems/Accounting Review

San Miguel (1976) applied Driver and Mock's theory to a decision using accounting information. In his experiment subjects knew the nature of the decision and had the opportunity to seek information at a cost to aid them in deciding on an alternative. The results of his experiment support Driver and Mock's contention that there are identifiable decision styles.

More recently, Savich (1977) integrated Driver and Mock's decision style theories with a regression decision model. Using an experiment designed to render a sell/buy decision from his subjects, he then modeled the decisions using multiple regression techniques. He also compared the subjects' perceptions of decision models used with the regression model. His results demonstrated that perceived usage by students corresponded with the actual usage. However, in another study, using stockbrokers as subjects, Savich found negative Spearman rank-order correlations over time between perceptions and actual weights. Thus, more real-world analysis must be conducted.

While cognitive characteristics of the decision maker have been shown to have an effect on usage, information search quality of the decision and learning, cognitive styles will not be identified as a variable in this study. Admittedly, though, they may contribute to an overall understanding of the decision process and should be considered if information systems are to be tailored to specific classes of users.

Finally, the concept of overload during the information processing stage should be considered. Arthur Andersen & Company (1976) gives this account of human effects:

"...investment information must be prepared and disseminated to systematically enable each user to acquire and use as much as he needs for his investment decisions without being overloaded.

Some analysts rely on a few selected items of information that are deemed crucial to the investment decision. However, the items to be selected cannot always be predicted in advance and will differ between companies and industries..."[8]

Birnberg has also considered human information processing implications in accounting research. (1974) He conjectured that when any user of financial statement data experiences information overload, the decision-maker will develop patterns on rules of thumb to cope with what he believes to be the essential parts of the data available to him.

With empirical support from behavioral studies, accounting research must take on a real-world dimension. As Robert Ashton has advocated, "Accounting must have the cooperation of decision makers in determining what information is needed and used for particular decisions. After serious re-assessment of information requirements and information utilization, both parties may find what is really needed is, for example, information presently not reported or more timely information rather than just increased amounts of information."[9]

The focus of the present research study is an investigation into how loan officers decide to grant or deny a loan to an existing small business.

8. Arthur Andersen & Company, *A Management Guide to Better Financial Reporting* (Chicago, Ill., 1976) p 29.

9. Robert Ashton, "Behavioral Implications of Information Overload in Management Accounting Reports," *Cost and Management* (Canada) July/August, 1977, p 60.

The scope will be the form and content of financial information. This study seeks to determine if accountant-prepared financial statements and accountant-prepared cash flow data have an impact on the process and decision outcome of a client's loan request.

Presented in this chapter were financial theories to aid the reader in understanding bankers' needs to assess risk, banking studies supporting the need for research concerned with small business loan decisions and behavioral research adding insights in human information processing of financial information. Chapter three will concentrate on the development of the research design, the inclusion of specific information in the selected case and the statistical methods selected to support the research hypothesis.

C H A P T E R   I I I

SELECTION OF VARIABLES AND EXPERIMENTAL DESIGN

This chapter will first present the rationale for the information presented in the case used in the experiment. Then the independent and dependent variables included in the study will be summarized, and the arguments supporting the specific variables selected for study will be offered. This chapter concludes with a description of the research design and statistical tests employed.

Dependent Information Variables

The dependent variables selected to predict the bankers' decision outcomes were based on the banking literature and Small Business Administration loan application form. The SBA requires the following information to be included in the loan request:

1. Brief description of the business

2. Benefits to be derived from loan

3. Schedule of installment debts

4. Construction plans

5. Equipment to be purchased

6. Balance sheet for the past three fiscal years and the current period

7. Income statement for the past three fiscal years and the current period

8. Statement of net worth

9. Personal financial statements

10. Available collateral

In addition Pace & Simonson reveal the following pertinent information necessary in reaching a loan decision, (Table 5):

Table 5
Pertinent Information Necessary in Reaching the Loan Decision

Ask the borrower:

1. Loan amount.
2. Proposed repayment schedule.
3. Co-makers, endorsers, or guarantors.
4. Collateral and its value.
5. Purpose of loan.
6. Primary source of repayment.
7. Secondary sources of repayment.
8. To explain all major financial statement items.

Ask yourself:

1. Are the borrowers' interests honest? Do we have current credit reports?
2. What are the strengths and weaknesses of management?
3. What are the economic conditions in the industry? In the community? In the state? In the U.S.?
4. Is there sufficient insurance?
5. Is the purpose of the loan well understood and acceptable?
6. Is there an adequate primary source of repayment?
7. Will the loan pay in full at maturity? Why not? If not, is the loan properly structured?
8. What are the secondary sources of repayment?
    a. Collateral? How liquid is it? Can it be controlled? Will it pay all liquidation costs and repay the loan?
    b. Co-maker or guarantor? How much strength do they add to the loan?
9. Is the loan amount adequate? Too little? Too much?
10. Is the loan within the bank's policy guidelines?
11. Whose approval will be required?

Source: Pace & Simonson, Journal of Commercial Bank Lending, March, 1977, p 20.

Pace and Collins provide further insight into the information needed
by bankers and the rationale for requesting the information in Table 6.

Table 6

INFORMATION NEEDED BY BANKS TO ANALYZE A LOAN APPLICATION

Statement Item	Additional Information Needed	Why Information Needed
Cash	Where is it deposited? Is any of it restricted or pledged?	To establish total banking relationships.
Accounts Receivable	How many are current? Are they collectible? How many should be written off?	Frequently bank collateral. Banks need to determine a realistic current value.
Inventory	How is it valued? How marketable is it? Is it excessive or partly obsolete?	Frequently collateral. Bank needs to know its value in the event of liquidation.
Notes Receivable	Why do they exist? Are they collectible? Could they be assigned to the bank?	Only financial institutions should routinely have notes as assets.
Due from Officers and Employees	What circumstances caused these loans to be made? Are they collectible? When will they be paid?	In excess these assets reflect poorly on management.
Due from Affiliated or Related Businesses	What are the circumstances? Are they collectible? When will they be paid?	Indicates a need for consolidated and consolidating statements.
Investments	What are they? Why were they made? How are they valued? How liquid? Could they be assigned to the bank as collateral?	It is hard to support the credit needs of a customer when he uses working capital to make speculative investments.
Property and Equipment	How is it valued? Is it all supporting the needs of the business? Is it encumbered? If so, how much and with whom?	Bank may want to pay these off and secure a first position in support of its loan.
Leases and Leasehold Improvements	What are they? What are the terms? Are they assignable? Any value in liquidation?	Frequent source of off balance sheet accounting. Usually little value in liquidation.
Notes Payable	What are the terms, rates and maturities? Will loan be used to retire all or part of these notes?	Can the customer service these and the proposed loan.
Trade Accounts Payable	Are trade payables being kept current?	The trade can force the customer into liquidation.
Other Current Payables	Insurance current? FICA? Income taxes when due? Payroll?	All are sources of potential trouble.
Term Debt	What assets offset the term debt? What are the current maturities? Can they be serviced on schedule?	Usually a significant part of the demand on a customer's cash flow.

Table 6 (continued)

INFORMATION NEEDED BY BANKS TO ANALYZE A LOAN APPLICATION

Statement Item	Additional Information Needed	Why Information Needed
Contingent Liabilities	What liabilities (real or potential) are there that are not shown on the financial statements?	These can be a serious source of trouble to the customer and the bank.
Sales	How are sales recognized? Are sales made with recourse? Have the goods or services been delivered? How many returns are there?	To establish that sales are actual and not book entries.
Expenses	Are executive salaries adequate or excessive? Is depreciation in line with asset values? What are the trends in C&A expenses?	Executive salaries and unnecessary expense items can be a major source of working capital drain.
Other Income	What is its source? Will it continue?	Can the bank rely on it as a source of repayment.
Other Expenses	Why do they exist? Will they continue in the future?	Can the customer meet these payments?
Income Taxes	Do these appear reasonable? When was the customer last audited by the IRS?	Always a source of potential trouble. The banks wants copies of recent tax returns.
Profits	What are the trends? How reliable? What margin is there? Sufficient to service all debt?	This is the bank's primary source of repayment on most loans.
Dividends or Withdrawals	What is the historical pattern? How much will probably be drawn this year?	The bank may want to control these by a loan agreement.

Source: Pace and Collins, Journal of Commercial Bank Lending, April, 1977, p 19.

The selection of the information contained in the treatments was based on conflicting testimony of bankers. In 1977, Don Alexander wrote:

"If you don't utilize the services of a CPA many bankers will be reluctant to deal with you. There is a strong feeling among bankers that a third party looking in on the records and operations of a business necessitates an objective evaluation."[10]

10. Donald H. Alexander, "Dilemma of Small Business," *Credit and Financial Management*, January, 1977, p 9.

Referring to the involvement of auditors, Pace and Collins write:

"As the size and/or risk of the loan increases the need for indepen-
dent audited statements also increases...often it is in both the customer
and the bank's best interests that his financial records be examined
annually by an independent certified public accountant...the CPA brings
wide and varied experience to his clients...homemade statements...lack
consistency...lack objectivity. In spite of obvious shortcomings, the loan
office can usually supplement homemade statements sufficiently to reach a
loan decision regarding small loans."[11]

In fact, the First National Bank of Albuquerque provides the following
data on types of financial statements recently received, (Table 7):

Table 7
TYPES OF FINANCIAL STATEMENTS BANKS RECEIVE

Type of Statement	As Percentage of Statements Received	As Percentage of Dollar Amount Loaned
Homemade	50	10
Company Prepared by a Professional Accountant	20	10
CPA Prepared, Unaudited	15	20
CPA Audited, Qualified Opinion	5	20
CPA Audited, Unqualified Opinion	10	40
Total	100	100

Source: First National Bank of Albuquerque

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11.   Edmond Pace and Frank Collins, "Four Hurdles of Lending," *Journal
      of Commercial Bank Lending*, April, 1977, p 19.

The authors suggest that bankers' awareness of the cost for accountant-prepared statements led to their acceptance of "homemade" reports from the clients.

In a survey of what bankers think of CPA services, the Michigan Society of CPAs found that:

(1) Only 15% required financial statements all the time, 72% sometimes, and 13% said they do not require financial statements from a prospective borrower.

(2) Forty percent named industry as a major factor in determining which statements are required.

(3) Ninety-one percent said a certified statement makes a difference and

(4) seventy percent said it makes a difference if the CPA firm is known to the banker.

Finally, in the 1976 Report of the Committee on Generally Accepted Accounting Principles for Smaller and/or Closely Held Business, the following problem was identified:

"Financial statements prepared in conformity with GAAP in many cases do not satisfy the needs of the pricipal users of financial statements of smaller and/or closely held businesses. These users are generally owners, owner-managers and principal bankers and they often have little interest in or understanding of information that is principally aimed at financial analysts or public stockholders. The information in general-purpose financial statements often has little relevance to these users."[12]

12. American Institute of Certified Public Accountants, *Report of the Committee on Generally Accepted Accounting Principles for Smaller and/or Closely Held Business* (N.Y., 1976) p 10.

From the above reports and surveys, the accounting profession appears to be uncertain as to how much of an impact accountant-prepared statements have on the decision to grant a loan. Thus, one treatment selected reflected a homemade statement and another included accountant-prepared financial statements.

The third treatment, providing cash-flow data, was selected as a result of additional conflicting reports within the banking and accounting community. In the Michigan Study, eleven percent of the 250 Michigan bankers said they wanted to see cash-flow projections for at least one year. On the other hand, Patricia Ley, a credit analyst with Attleboro Trust Company, flatly states that pro formas are worthless. Yet Robert Boyer, a partner with Laventhal and Horwath and a member of the AICPA Board of Directors, emphasizes that:

"One of the most effective tools to determine the amount of the loan needed and its repayment date is the projected cash-flow statement. It enables the banker to trace the flow of the prospective loan through the seasonal hills and valleys to the time of repayment. The projection should disclose the significant assumptions used by management in preparing the cash forecast..."[13]

Thus, cash-flow projections along with the underlying assumptions were included in the study in order to determine the impact of this data in explicit, quantifiable terms.

Fifteen information variables were selected from the numerous factors that could be included in the study. These variables are:

13.   Robert Boyer, "Helping Your Client Obtain a Bank Loan," *Journal of Accounting,* April, 1978.

1. Accountant-prepared financial statements

2. The amount of the loan

3. The average balances and prospects of other
    banking businesses.

4. The character of the principal

5. The collateral available in terms of its
    value

6. The collateral available in terms of its
    liquidity

7. The experience of the owner-manager

8. The balance sheet information

9. The income statement information

10. The nature of the client's business

11. The repayment history of the client

12. The repayment period of the loan requested

13. The repayment conditions required by the banker

14. The source of repayment

15. Industry reports

Every loan decision involves an assessment of the applicant's position on each of the independent variables. A scale with ranges of high to low, strong to weak, or positive to negative was developed for each variable. Each of these scales was pretested to determine its applicability in the loan context. The scales are presented in the Questionnaire in the appendix.

Demographic Variables

After the information variables were identified, five demographic variables were selected for study. These consisted of bank size, bank position, age, experience and educational background of the decision maker.

Based on preliminary interviews with bankers, bank size emerged as a possible cause of differences among bankers' decision to grant or deny a loan. Either bank policy or the banker himself could contribute to outcome decisions. Since bank policy is held constant in this study, bank size was included to determine if bankers from different sized banks inherently made different decisions than their colleagues in medium and small sized banks. Banking industry norms were used to classify banks according to size; that is, banks whose assets exceed one billion are considered large, banks with a hundred million to a billion dollars of assets are considered medium, and banks with assets of less than a hundred million are considered small. Connecticut banks were classified on the basis of assets reported in the 1976 Report of the Connecticut Banking Commission.

Bank position was also included on the basis of feedback obtained in the preliminary interviews. It was felt that a bank manager is a general-ist with several competing tasks to perform in his job. His loan officer counterpart, on the other hand, is a specialist whose only func-tion is to analyze commercial loan applications. Besides their time con-straint differences, commercial loan officers were thought to be more critical of marginal situations than the bank manager, who is close to his

customers on a day to day basis. Thus the positions of the participants were classified as (1) General Loan Officers and Managers, and (2) Commercial Loan Officers.

Often age is a factor in assessing the riskiness of a situation as well as the experience of the decision maker. These variables were broken down into three categories each. Age groups include (1) less than 25 years (2) between 25-40 years and (3) over 40 years. Experience in positions of granting loans were classified as (1) less than one year (2) between one and three years, and (3) over three years.

The fifth demographic variable included in the study reflects the decision maker's educational background. The banking community hires loan officers with less than a four-year degree as well as those with college degrees. In addition, only some of the officers receive special training from bank-sponsored educational programs. Since special bank training may have affected the banker's perceptions of risk, educational background was included in this study. Bankers were classified as completing (1) less than a four-year college degree, (2) a four-year degree or (3) bank training school, depending on the highest level achieved on this hierarchy.

Two behavioral variables were introduced in the study. These are (1) the banker's attitude towards risk and (2) job-related pressure. The former variable was considered a potentially important factor in predicting the decision outcome in marginal loan situations. If a banker is conservative, a marginal loan may be denied, while the opposite result may be expected from a high risk taker.

The effects of job-related pressures upon individual well-being have been well documented in recent years, however, this variable also can be a key factor in the decision-maker's occupational decisions as well. Loan officers who are not under stress may grant the marginal applicant the amount requested. On the other hand, decision makers who feel high occupational pressure may choose not to take the risk in otherwise identical situations. Thus, this variable was included in the study and was based upon the subject's response to pressure felt by him as a result of the evaluation process.

Selection of the Subjects

A total of 90 subjects were selected to participate in the experiment. All were in the position of granting loans, or having a substantial impact on the decision outcome, either presently or in the immediate past. Decision makers from commercial banks in Connecticut and Western Massachusetts were selected because of the homogenity of the money market in this area. Twenty-six cities and towns are included in the experiment. Twenty different banks encompassing large, medium and small sizes located in cities and suburbs, are represented. Appendix 1 lists the towns and Appendix 2 lists the banks approached to participate in the study.

Almost all of the 90 participants are members of one or more of the following professional groups: The Robert Morris Associates (Connecticut Valley Chapter), Connecticut Bankers Association (Credit Committee) and the National Association of Bank Women. Of the 90 contacted, 61 were approached personally, 15 were contacted through the credit manager of a large bank and 14 agreed to participate through a mail request. The

letters used to solicit involvement in the project are included in Appendix 3.

Sixty-four bankers completed the experiment. Except for one experimental sitting, both the questionnaire and the data sheet required to be completed were filled out by the subject at his place of business or his home. One banker was disqualified because he recognized the principal and his business.

Stimulus Materials

The first step in generating the material used in the study was to prepare the financial statements for an actual small-business owner who initially approached the Small Business Administration for assistance. The owner agreed to supply additional information needed in order to prepare a complete loan package. By combining the financial reports with this additional information, the loan request was prepared in the form suggested by Bangs and Osgood in their Business Planning Guide. The Guide is a well-known and an often-used resource of the banking profession. Since the case is based on factual information obtained from the small-business owner, some information was modified to conceal the actual name, location, and other obvious clues to the identification of the company. In addition, some information was purposely changed in order to present the risk as marginal.

The stimulus materials used in the experiment consisted of three types of loan packages normally found in actual practice, namely:

    a) Bank-requested information prepared by the customer

    b) Bank-requested information prepared by an accountant

c) Bank-requested information and pro forma cash

flow statements prepared by an accountant.

For the experiment, the following categories reflect the content of three

alternative forms of the same loan application:

Information Treatment		Information Content
A_1	=	A_1
A_2	=	A_2
A_3	=	A_3

All of the financial data in the three forms of the case were identical.

Only the form and the preparer of the financial information differed.

Table 8 presents the financial content of each case. All of the non-

financial information was identical and included:

1) credit history of the owner

2) background of the principal

3) pending litigation

4) collateral available

5) appraiser's report

6) industry statistics

Table 8

Financial Information Content of Cases A, B and C

	Case A	Case B	Case C
1. Completed Loan Application	X	X	X
2. Prior Year's Schedule C from Borrower's Tax Return	X		
3. Client-Prepared Income Statement for Current Six-Month Period	X		
4. Account-Prepared Income Statement for Past Three Years		X	X
5. Accountant-Prepared Income Statement for Current Six-Month Period		X	X
6. Earnings Projection	X	X	X
7. Cash-Flow Projection			X
8. Client-Prepared Balance Sheet for Prior Years	X		
9. Accountant-Prepared Balance Sheet		X	X
10. Client-Prepared Balance Sheet, Current	X		
11. Accountant-Prepared Balance Sheet, Current		X	X
12. Supporting Details for Inventory, Accounts Receivable and Accounts Payable	X	X	X
13. Personal Financial Statement, Client-Prepared	X		
14. Accountant-Prepared Personal Financial Statement		X	X

In all references to professional preparers, the accountant and the appraiser, indicated that these persons were known to be reputable. Also the same environmental facts and bank policy statements appear at the beginning of each case. The purpose of including this information was to control for the probable influence these variables have on the decision outcome in actual situations.

Administration of the Experiment

Each subject was instructed to complete the Data Sheet (Appendix 3) before reading the case material. This instrument obtained demographic information on the subject, solicited his attitudes towards risk and job-felt pressure and required him to allocate 100 points to fifteen information variables. It also contained questions concerning the subject's definition of what constitutes a successful loan.

Each subject received only one form of the case, which was randomly assigned after consideration to equal distribution by bank size. The subject was then requested to read and analyze the case material.

At the conclusion of the case material, the subject was directed to complete the Questionnaire (Appendix 4). The overriding issue was whether or not the applicant could be granted a loan. Therefore, the subject was asked to evaluate the applicant's credit-worthiness using the terms and conditions as presented in the case or any other. He was also to record his decision to grant or deny the loan. Then, if the subject so desired, different terms and conditions could have been imposed, and the questionnaire provided for this alternative. Another set of questions asked the subject to indicate the relative value of the information presented for

each major segment of the case. The questionnaire concluded with the

subject's ability to estimate the probability of the loan being successful

as well as the bank's policy of minimum acceptable payback levels.

The experiment began in October, 1977 and continued until January,

1978. All of the bankers were contacted during this time period and were

asked to return the questionnaire and data sheet within two weeks. Most

of the responses were received within the suggested time period. Some

responses required follow-up inquiries because they were not received

within this stipulated time period. The delay was not significant

because there was no major change in the money market during this time.

Statistical Methods

Two methods were selected, to answer research question one which is con-

cerned with the way bank size affect the importance bankers assign to finan-

cial information. The first method is developed from mathematical informa-

tion theory and expresses the value of information according to the initial

uncertainty in an information theoretic sense for a decision problem; as

follows:

$$H = - p_i \log_2 p_i$$

Where p_i = the probability of selecting the "i^{th}" alternative

H = uncertainty estimate for each problem.

This theory may be applied to analyze the 100 point allocation to the

fifteen information inputs. The subject's allocation can be treated as a

measure of the uncertainty associated with each specific variable. If little

uncertainty was associated with a variable in relation to the decision out-

come, a relatively small number of points was expected to be assigned to the

variable. However, if a significant amount of uncertainty existed, the decision maker was expected to assign a large number of points.

For each group of bankers from large, medium and small banks, the above mathematical calculation provides a measure of uncertainty associated with a message. The higher the calculated value, the higher the information value associated with the message because the greater amount of uncertainty was reduced. Analysis of variance on each information variable was calculated using SPSS.

The second procedure to support hypothesis one is a chi-square test on the sum of the responses assigned to by each group three variables: accountant-prepared financial statements, balance sheet, and income statement. The results of this test will show if a significant difference exists in the relative values assigned to the financial information by bankers from different sized banks. A computer program of SPSS was used to calculate the chi-square value.

To answer research question number two, which concern the effect of form and content of information on the individual's evaluation of a business entity, a linear logistic response model will be used.

A log-linear model was selected in order to analyze main and interaction effects of a research design where the response variable is dichotomous. The full, or saturated, log-linear model is defined as:

$$\log Vijk = u + U_i(i) + U_2(j) + U_3(k) + U_{12}(ik) + U_{23}(jk) + U_{123}(ijk)$$

The statistical procedure requires that the full model be reduced in order to identify the predictability of main and interaction effects using

fewer than all the initial parameters. The procedure used to fit log-linear models is based on maximum likelihood techniques. The computer program BMDP3F was used to calculate the predicted proportions of grants and denials using a specific unsaturated model that is appropriately determined. The appendix describes the more technical aspects of this analysis of variance when the response variable is dichotomous. The output is a model that can be used in applying analysis of variance techniques to this research design, indicating whether form or bank size has an effect on the decision outcome.

Discriminant analysis was performed using SPSS to answer research questions numbers three and four. The objective of discriminant analysis is to classify objects into two or more mutually exclusive and exhaustive categories by using a set of independent variables. The procedure calculates for each individual a discriminant score (Z) which is a function of the independent variables. That is:

$$Zi = bo + biX_i + \ldots + b_n X_n$$

If Z is greater than the critical value for the discriminant score, the individual will be classified as belonging to Group 2. The statistical SPSS computer program will be used to generate the discriminant functions. The criterion for discriminating among variables will be WILKS Lamda. The appendix provides a more detailed explanation of discriminant analysis.

A X^2 test was used to support hypothesis #5 which states that bankers make subjective estimates of a numerical nature when making loan decisions. Since there are only two possible outcomes, (either they do or do not), the test will show how close chance alone would account for 50% of the group

stating that they do make subjective judgments.

In order to answer research question number six, which is concerned with the impact of bankers' attitudes towards risk on their assessment of information variables, bankers will be classified as conservative, moderate or risky based upon their responses in the questionnaire. Each banker was classified according to the following personal acceptance of minimum probability of payback:

a) Conservative: At least 95%

b) Moderate: Between 80-95%

c) Risk-Taker: Less than 80%

Analysis of variance using SPSS was performed on the most significant discriminating variable to determine if bankers' attitudes towards risk has a significant impact on their assessment of a specific information variable.

To answer research question number seven, a chi-square test using SPSS was performed. The decision outcome, the dependent variable, and risk, (as classified previously) the independent variable, will be analyzed to determine if there is a relationship between them.

The last hypothesis, which deals with job-related environmental pressures affecting decision outcome, will be supported by a chi-square test on groups determined by subjects' response in the questionnaire and decision outcome.

In addition to the specified statistical tests to support the research hypothesis, the responses given by the subjects provided input to the following extensions of human information processing research:

a) Can bankers' responses to identifying a minimum acceptable proba-
bility of successful payback be compared to their estimates for this unique
loan situation in order to be used as a reliable prediction of their deci-
sion outcome?

b) What is the perceived value of the information inputs provided in
this particular case?

The information in this chapter can be summarized as presenting (1)
the rationale for information selected for inclusion in the case (2) the
development of the independent and dependent variables and (3) the research
design containing a brief description of the statistical tests to be used
to support the research hypothesis. The research findings will be pre-
sented in the next two chapters. Chapter four will summarize responses to
specific questions classified according to bank size, age, experience and
educational background. Chapter five will summarize statistical findings.

C H A P T E R   IV

CATEGORICAL RESPONSES

Two questionnaires were prepared in the experiment. The responses
of all 64 bankers to the first questionnaire (referred to as Data Sheet
and reproduced in Appendix 4) will first be summarized. Next, their
decisions and additional responses, as reported in the second question-
naire (referred to as Questionnaire and reproduced in Appendix 5) will
be presented. All of the statistical tests to support the research
hypothesis will be presented in the following chapter.

Data Sheet Responses

The statistical data sheet was designed to obtain demographic in-
formation on the subjects' age, bank position, bank size, years in loan
granting positions and educational background. The same document solic-
ited responses to two questions concerning the individual's felt-pressure
resulting from his superiors' evaluation of his performance. The subject
also responded to a question requiring him to weigh fifteen information
variables as to their relative importance in a normal loan situation.
The last question in the first questionnaire asked the decision-maker if
he had a preference as to one of five different kinds of commercial loans.

In order to provide insight into the composition of the 64 respon-
dents, the following tables are presented:

Table 9 - Breakdown of respondents by age and

by bank size.

Table 10 - Breakdown of respondents by bank

position and by bank size.

Table 11 - Breakdown of respondents by years of

experience in granting loans.

Table 12 - Breakdown of respondents by educational

background.

An analysis of Table 9 reveals only 3 (4.7%) of the respondents were under 25 years of age. This is not unusual since the position of loan officer usually requires several years of training.

Table 10 identifies two positions, loan officer and generalist, both of whom have authority to grant loans. Loan officers are specialists, while generalists usually have a multi-dimensional job involving office management as well as consumer and commercial lending. Based on initial interviews, many bankers suggested loan officers would weigh informational inputs differently and would be less flexible than supervisors. The proportion of loan officers to supervisors in the sample realistically reflects the probability faced by the small business owner in dealing with his bank.

Tables 9 and 10 reflects the approximately equal distribution of subjects from large, medium and small banks. Large banks are defined as having assets greater than $1,000,000,000; medium banks have assets of between $100,000,000 and $1,000,000,000, and small banks have assets of less than $100,000,000. The assignment of Connecticut banks within these three size categories depended on the reported assets as of 1976 by the Connecticut Banking Commission.

Table 9

Breakdown of Respondents by Age and Bank Size

	Bank Size			
Age	Large	Medium	Small	Total
Under 25	2	1	0	3
25 - 40	17	16	11	44
Over 40	3	5	9	17
Total	22	22	20	64

Table 10

Breakdown of Respondents by Position and Bank Size

	Bank Size			
Position	Large	Medium	Small	Total
Loan Officer	15	7	3	25
General Manager or Officer	7	15	17	39
Total	22	22	20	64

Table 11

Breakdown of Respondents by
Experience and Bank Size

	Bank Size			
Experience	Large	Medium	Small	Total
Less than 1 Year	7	3	0	10
1 - 3 Years	6	5	6	17
Over 3 Years	9	14	14	37
Total	22	22	20	64

Table 12

Breakdown of Respondents by
Educational Background and Bank Size

	Bank Size			
Educational Background	Large	Medium	Small	Total
Less than 4 Years	1	0	4	5
4 Year Degree	16	13	8	37
Banking School	5	9	8	22
Total	22	22	20	64

Appendix 1 indicates the banks whose loan officers or supervisors participated in the study. A small business owner could conceivably approach any size bank. However, unless the loan was very large, the small business owner most probably would approach the bank with which he normally does business. Both cities and towns were represented.

In Table 11 we find a small number, 7 (10.9%), of the loan grantors in their position less than one year. The proportions in each category appear reasonably representative of what exists in the population of loan grantors.

Table 12 shows 57.8% of the respondents have at least a four-year college degree. Thirty percent have been specially trained in bank-sponsored schools, which range from regular to graduate programs. Such training is a significant variable since preliminary interviews with bankers indicated that attendees would be likely to value information differently than their non-trained colleagues.

Every subject was asked to respond to alternative definitions of a successful loan. There was overwhelming agreement (96.7%) that a loan is successful if it is paid back according to its terms. Only 20 percent agreed that timely payment of interest and eventual payback of principal constitutes characteristics of a successful loan. Finally, only 4.7 percent considered late interest and eventual payback as evidence of lending success. There was also an open-ended question which allowed respondents to suggest other criteria. One "write-in favorite" of bankers was the establishment of good business relationships.

Since behavioral measures were introduced in the study, bankers were asked to respond to questions concerning their personal evaluation process. With respect to the variables that were included in their performance measures, 57% felt the percentage of loans defaulted were a significant factor, and 53% thought the dollar amount of defaulted loans were considered by supervisors. At the same time, 48 percent stated that there were still other measures. One can conclude that while the percent and dollar amount of loans defaulted are important factors, loan officers feel other measures are equally significant. The implication for evaluating the outcome of each specific loan request is that there is not tremendous pressure placed on the loan officer. This conclusion is supported by the subjects' responses to individual felt pressure due to the evaluation process (as shown in Table 13):

Table 13

Evaluation Process:Pressure

	Absolute Frequency	Relative Frequency	Cumulative Frequency
Not Much	12	18.8%	18.8%
Acceptable	46	71.9%	90.7%
Excess	4	6.3%	97.0%
No Response	2	3.0%	100.0%
	64	100.0%	

Since 90% of the subjects perceived the evaluation process as creating only minor or acceptable statistical tests, using felt-pressure as an independent variable must be cautiously interpreted.

Each subject was asked to record the minimum probability of payback he would accept as a floor before granting a loan. The purpose of asking

this question was twofold: (1) to classify subjects on the basis of their responses into risk-takers, moderates and conservatives for statistical tests and (2) to determine the consistency in the individual's decision model if, and when, he was able to determine the probability of payback for the experimental case. Table 14 presents the results of the subjects' responses to their own minimum acceptable levels of the probability of being paid back according to the terms of the loan.

Table 14

Individual's Minimum Acceptable

Probability of Payback

	Absolute Frequency	Relative Frequency	Cumulative Frequency
60%	3	4.7%	4.7%
70%	10	15.6%	20.3%
75%	12	18.8%	39.1%
80%	9	14.0%	53.1%
85%	12	18.8%	71.9%
90%	6	9.4%	81.3%
95%	12	18.7%	100.0%
	64	100.0%	

Respondents indicating they would only accept more than 95% of payback were classified as conservative; those whose responses fell between 80-95% were classified as moderate; and those who accepted less that 80% were classified as risk-takers. Table 15 presents the classification statistics.

Table 15
Subjects Classified According to Risk

	Absolute Frequency	Relative Frequency	Cumulative Frequency
Conservative	12	19%	19%
Moderate	27	42%	61%
Risky	25	39%	100%
	64	100%	

Subjects were then asked to allocate 100 points to the following information inputs traditionally requested in loan applications:

1) Accountant-Prepared Information

2) Amount of Loan

3) The Prospects of Receiving Other Business

4) Character of Principal

5) Collateral in Terms of Value

6) Collateral in Terms of Liquidity

7) Experience of Manager

8) Balance Sheet

9) Income Statement

10) Nature of Business

11) Repayment History

12) Repayment Period

13) Repayment Conditions

14) Source of Repayment

15) Industry Reports

The mean response of the amounts allocated to the fifteen information variables for all 64 subjects, as well as a breakdown of results by bank size are presented in Table 16.

Table 16

Perceived Importance of Fifteen Information Variables for the General Loan Situation

	Large		Medium		Small		Total	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Accountant-Prepared Info	8.41	6.06	8.86	6.91	6.35	5.03	7.92	6.08
Amount of Loan	3.36	5.07	3.91	5.34	3.20	3.69	3.50	4.72
Other Business	3.91	4.40	4.86	4.80	3.55	2.87	4.13	4.12
Character	15.23	12.98	14.77	16.07	20.35	10.16	16.67	13.41
Collateral Value	6.27	5.81	5.09	4.67	8.90	7.60	6.69	6.20
Collateral Liquidity	11.55	14.03	6.96	4.61	3.90	4.46	7.58	9.41
Experience of Manager	6.50	4.23	7.59	5.32	11.25	4.59	8.36	5.08
Balance Sheet	13.09	14.49	8.77	4.98	7.60	5.95	9.89	9.73
Income Statement	9.84	7.21	9.82	4.97	6.75	4.76	8.88	5.87
Nature of Business	3.23	4.23	2.73	4.09	4.50	3.29	3.45	3.92
Repayment History	9.32	7.51	8.23	5.22	13.25	16.74	10.17	10.81
Repayment Period	5.41	16.90	3.41	3.02	1.80	2.17	3.59	10.09
Repayment Conditions	1.68	2.28	3.05	3.92	1.45	2.70	2.08	3.09
Source of Repayment	13.46	7.76	10.64	8.39	11.00	6.85	11.72	7.70
Industry Reports	4.41	16.95	1.00	1.85	.55	1.00	2.03	10.01

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The next chapter will summarize the results of a statistical test performed to determine if bankers from large-sized banks weigh financial information more than do all other bankers. Also presented in the next chapter are the results of statistical tests to determine homogenity of bankers on the non-financial information.

The final question in the Statistical Data Sheet asked bankers if they had any preferences towards granting loans for one of five purposes:

1) Working Capital
2) Accounts Receivable
3) Expansion
4) New Business
5) Inventory Financing

Since the loan requested was for expansion of an existing business, it normally would be treated as an independent variable in the statistical analysis, if it had been preferred by a significant group. However, only three bankers (or less than 5%) indicated they preferred this purpose, as shown in Table 17.

Table 17

Bankers' Preferences Towards Kinds of Loans

	Absolute Frequency	Relative Frequency
No Preference	26	40%
Working Capital	25	40%
Accounts Receivable	3	5%
Expansion	3	5%
New Business	3	5%
Inventory	3	5%
	63	100%

Therefore, this variable was not introduced into the statistical tests.

Treatment Breakdowns

Bankers were assigned to treatments randomly after allowing for equal distribution of participants among the three bank sizes. Tables 18-21 report on the demographic makeup of each of the three treatment groups. For all of the variables, a reasonable distribution of bankers to treatments was obtained.

Table 18
Breakdown of Subjects Assigned
to Treatments by Bank Size

Bank Size	A_1	A_2	A_3	Total
Large	8	8	6	22
Medium	8	7	7	22
Small	7	7	6	20
Total	23	22	19	64

Table 19
Breakdown of Subjects Assigned
to Treatments by Age

Age	A_1	A_2	A_3	Total
Under 25	1	0	2	3
25 - 40	16	17	11	44
Over 40	6	5	6	17
Total	23	22	19	64

Table 20
Breakdown of Subjects Assigned
to Treatments by Education

Education	A_1	A_2	A_3	Total
Less than 4 Years	0	2	3	5
4 Year Degree	12	12	13	37
Banking	11	8	3	22
Total	23	22	19	64

Table 21
Breakdown of Subjects Assigned
to Treatments by Experience

Experience	A_1	A_2	A_3	Total
Less than One Year	0	5	5	10
1 - 3 Years	7	7	3	17
Over 3 Years	16	10	11	37
Total	23	22	19	64

Questionnaire Responses

The second questionnaire was presented to the subjects at the conclusion of the case material. The first response required the decision-maker to grant or deny the loan. Each subject was instructed to record a grant decision if he felt the principal was credit-worthy. The decision-maker could then change the interest rate and/or term of loan, or he could place restrictions on the principal. The questions following the decision required the subject to

indicate the value assigned on a five point scale to 13 of the 15 independent variables identified in the first questionnaire. The second questionnaire also solicited the degree of usefulness of the 18 information segments presented in the case as high, medium or low. This survey concludes with two questions; one is concerned with the subject's ability to assign a probability of payback to this particular loan, and the other deals with the bank's policy towards minimum payback levels.

The decision to grant or deny the loan is the most significant response in the study. Table 22 presents the breakdown of all subjects' responses into the two categories: grant or deny.

Table 22
Loan Decision

	Absolute Frequency	Relative Frequency
Deny	23	35.9%
Grant	41	64.1%
	64	100.0%

Further breakdown of the decision by age, position, size of bank, experience of grantor and educational background appear in Tables 23-27.

Table 23
Loan Decision Broken Down by Age

Age	Deny	Grant	Total	
Under 25	2	1	3	(4.7%)
25 - 40	19	25	44	(68.7%)
Over 40	2	15	17	(26.6%)
	23	41	64	(100.0%)

Table 23 reflects the conservatism of younger bankers and greater flexibility of older bankers in analyzing this loan request. Since denials are almost half the number of grants, we would expect "denies" to be approximately half the grants for each age group. However in the under-25 group, there are twice as many. In the over 40 group, grants are seven times as great as denies.

Table 24

Loan Decision Broken Down by Bank Position

Position	Deny	Grant	Total	
Loan Officer	13	12	25	(39%)
Supervisor	10	29	39	(61%)
	23	41	64	

Table 24 shows the breakdown of the loan decision by position. From preliminary interviews it was expected that of the two groups, the loan officers would be less easily assured of the safeness of the loan. The results support this expectation. Loan officers were split between granting and denying, but supervisors granted the loan three times as often as they denied it. Scrutiny of the profiles of both loan officers and supervisors revealed no distinguishing characteristics with respect to age or experience.

Table 25

Loan Decision Broken Down by Bank Size

Bank Size	Deny	Grant	Total	
Large	12	10	22	(34%)
Medium	6	16	22	(34%)
Small	5	15	20	(31%)
	23	41	64	

In Table 25 the loan decision is broken down by bank size. It was expected that small banks would be more likely, than large banks, to extend credit to a local small-business owner in this situation. The results clearly support this expectation. More than half of the bankers from large banks denied the loan, while three times as many bankers from small banks granted it.

Table 26

Loan Decision Broken Down by Experience of Banker

Experience	Deny	Grant	Total	
Less than 1 Year	6	1	7	(11.5%)
1 - 3 Years	7	10	17	(27.9%)
Over 3 Years	10	27	37	(60.6%)
	23	38	61	

Table 26, which classifies 61 subjects according to experience in granting loans, shows the same pattern of denial as does the breakdown by age. Since it appears that younger, less experienced bankers denied the loan more often than older more experienced bankers, a correlation between age and experience was calculated and found to be high. Thus, age and experience are related in this study.

Table 27

Loan Decision Broken Down by Education of Banker

Education	Deny	Grant	Total	
Less than 4 Year Degree	1	4	5	(8.2%)
4 Year Degree	16	21	37	(60.7%)
Banking School	4	15	19	(31.1%)
	21	40	61	

Table 27 gives us the breakdown of the loan decision according to the education of the banker. Since the proportion of denials to grants is approximately 1:2, we would again expect to see the same relationship within each education category, if this variable (education) has no effect on the loan decision. Here the results confirm preliminary expectations. Banking school graduates are trained to weigh the inputs differently than their general background colleagues do. Thus, it is not surprising to find more banking school graduates feeling that this loan can be worked out.

While the subject was asked to make a decision to grant or deny the loan request consistent with   actual job requirements, a banker often feels he can assume higher risks if one or more of the following conditions holds:

(1) The rate of interest is increased

(2) The repayment period is extended

(3) The restrictive covenants are added

In the experimental case, bankers were asked to grant the loan to the applicant if he was credit-worthy. Thereafter, the banker could adjust the rate of interest, period of repayment and/or restrictive covenants. Since the rate of interest offered to the applicant bears directly on the banker's perception of the riskiness of the situation, further analysis is necessary of those subjects who granted the loan, but offered a higher than average rate of interest. The demographic information of this group of bankers is presented in Table 28. Seventeen bankers fell into this group.

Table 28
Analysis of Bankers Granting Loans on the Basis of
Higher Than Average Rate of Interest

Age	Less than 25	0
	25 - 40	13
	Over 40	4
		17
Position	Loan Officer	7
	Supervisor	10
		17
Size	Large	3
	Medium	10
	Small	4
		17
Experience	Less than 1 Year	2
	1 - 3 Years	4
	Over 3 Years	11
		17
Education	Less than 4 Year Degree	0
	4 Year Degree	7
	Banking School	10
		17

In addition to the demographic breakdowns, information is provided on the composition of the treatment groups on the two behavioral variables: attitude towards risk and job-felt pressure. (Table 29-30)

Table 29
Breakdown of Subjects Assigned
to Treatment by Risk Attitude

Risk	A_1	A_2	A_3	Total
Conservative	6	2	3	11
Moderate	4	14	9	27
Risky	12	6	7	25
Total	22	22	19	63

Table 30
Breakdown of Subjects Assigned
to Treatment by Job-Felt Pressure

Level	A_1	A_2	A_3	Total
Excess	1	1	2	4
Acceptable	13	18	15	46
Low	8	2	2	12
Total	22	21	19	62*

* Two not reported.

Analysis of the behavioral variables indicates that treatment A_1 received a highly disproportionate share of both conservatives as well as risk takers and a low share of moderates. It is expected that these influences will off-set each other in the statistical tests. Treatment A_1 also received a disproportionate share of those who felt little pressure related to the evaluation process. It is expected that this proportion will have little effect or

Table 3i

Mean Scores and Descriptive Comparisons

of Bankers on Five-Point Scaled

Information Variables

Question	Large (N=22) Mean	Std. Dev.	Medium (N=22) Mean	Std. Dev.	Small (N=20) Mean	Std. Dev.	Total (N=64) Mean	Std. Dev.
1. Amount of Loan	3.55	1.10	3.18	1.05	3.65	.88	3.45	1.02
2. Profitability	2.77	1.02	2.82	.66	2.55	.69	2.72	.81
3. Character	4.36	.79	4.23	.87	4.25	1.07	4.28	.90
4. Collateral Value	3.32	.84	3.86	.77	3.65	.67	3.61	.79
5. Collateral Liquidity	1.91	.61	2.46	.86	2.10	.45	2.16	.70
6. Managerial Experience	3.27	.70	3.59	.59	3.35	.67	3.41	.66
7. Balance Sheet	2.77	.61	3.14	.83	3.15	.75	3.02	.75
8. Income Statement	3.32	.72	3.64	.66	3.55	.76	3.50	.71
9. Nature of Business	3.82	.59	3.32	.57	3.55	.61	3.56	.61
10. Credit History	3.68	.84	3.77	.53	3.80	.95	3.75	.78
11. Payment Period	2.73	1.32	2.64	1.33	2.75	1.33	2.70	1.31
12. Repayment Source	2.91	1.11	3.09	1.11	3.10	.97	3.03	1.05
13. Industry Reports	3.96	.65	3.91	.43	3.90	.64	3.92	.57

possibly a slight bias towards granting the loan because the subjects are not overly concerned with the negative effects associated with granting a marginal loan.

The question following the decision required the subject to designate the applicant's position on a five-point scale for thirteen independent variables. Each point on these scales was labeled. Table 31 shows the results of both overall responses and by bank size on this question.

The responses confirm that the bankers perceived the applicant to be of high character and have high managerial experience, and have collateral high in terms of value, but low liquidity. The industry was perceived as expanding. The income statement reflected a positive trend, but the balance sheet showed some problems. Clearly, the widest variances are reported in the repayment period, repayment source and the amount of the loan with respect to its difficulty to repay.

The second questionnaire also asked bankers to indicate, for every information segment reported, whether the inclusion of that information was found to be of high, medium or low value. The results are reported in Table 32. The high importance assigned to the inclusion of income statements and balance sheet items suggests a threshold is needed by bankers before other information such as appraisal reports, purpose of loan and description of business can be considered in making a decision. Of the twenty-four bankers who received cash flow projections, (Table 32) half indicated they were of high value. When compared to results reported on the usefulness of the earnings projection (a single figure without support) only 16 out of 64, or one-fourth, found this information to be of high value.

Table 32

Mean Scores and Descriptive Comparisons of Bankers on Value of Inputs

Input	Large (N=22)		Medium (N=22)		Small (N=20)		Total (N=64)	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
1. Business Description	2.64	.49	2.64	.49	2.65	.49	2.64	.48
2. Purpose of Loan	2.64	.49	2.68	.48	2.60	.60	2.64	.51
3. Construction Plans	1.59	.59	2.18	.80	1.90	.64	1.89	.72
4. Supplies to Purchase	1.55	.60	1.73	.70	1.80	.70	1.69	.66
5. Credit Reports	1.82	.73	2.46	.60	2.35	.49	2.20	.67
6. Installment Debts	2.18	.73	2.77	.43	2.80	.41	2.58	.61
7. Background Principal	2.50	.74	2.73	.46	2.70	.47	2.64	.57
8. Balance Sheet - 3 Yrs.	2.59	.59	2.64	.58	2.35	.49	2.53	.56
9. Balance Sheet - Current	2.59	.67	2.64	.49	2.75	.44	2.66	.54
10. Balance Sheet - Personal	2.27	.88	2.64	.58	2.50	.69	2.47	.73
11. Inc. Statement - 3 Yrs.	2.73	.55	2.55	.67	2.80	.41	2.69	.56
12. Inc. Statement - Current	2.50	.67	2.50	.67	2.80	.41	2.59	.61
13. Inc. Statement - Common $	1.91	.81	2.36	.79	2.75	.55	2.33	.80
14. Earnings Projection	1.86	.71	2.00	.87	1.90	.72	1.92	.76
15. Cash Flow*	2.63	.52	2.11	.78	2.57	.54	2.42	.65
16. Pending Litigation	1.59	.59	2.10	.54	2.00	.65	1.89	.63
17. Appraisal Report	2.36	.73	2.41	.73	2.60	.50	2.45	.67
18. Industrial Statistics	1.91	.53	2.14	.71	1.95	.51	2.00	.59

*Only treatment A_3 contained cash flow

Bankers were then asked if they could estimate the probability of this loan being successful. The definition of success was left to the individual subject. Forty-five out of the 64 respondents (70%) indicated that they could estimate the probability. Table 33 summarizes the responses of those who provided a quantitative measure of the probability of the loan being successful.

Table 33
Probability of Loan Being Successful

Probability	Absolute Frequency
100%	2
95 - 99	8
80 - 94	15
70 - 79	7
60 - 69	6
Under 60	7
	45

Each banker was then asked if either a formal or informal policy concerning minimum payback probabilities existed in his bank. Eighteen responded affirmatively, and in Table 34 their responses are categorized by the minimum probability they indicated.

Table 34
Banks' Minimum Acceptable Level
of Probability of Payback

Percentage	Absolute Frequency
100%	3
95 - 99%	4
80 - 94%	10
70 - 79%	1
	18

By comparing the minimum probability accepted by the banker with the probability assigned by this banker for the success of the loan, one could predict the decision outcome as follows:

$$\text{If } P_B > P_L \text{, then Deny}$$
$$\text{If } P_B \leq P_L \text{, then Grant}$$

where:

P_B = Banker's minimum accepted probability of success

P_L = Probability of success banker has assigned to loan

Thus, if the minimum probability of success held by a banker (say, 90%) is higher than the probability assigned to this loan being successful (say, 85%), then we can expect the banker to deny the loan. This result which is shown in Table 35 was found in 95% of the cases where bankers indicated both their personal minimum acceptable levels and the probability of the loan being successful. It was also expected that, the bank's minimum acceptable level would act as a constraint in cases where the individual banker's own expressed level was higher. However, of the 18

Table 35
Minimum Accepted Probabilities by Banker and Bank
Compared to Probability Assigned
to Loan Being Successful

Size	Assigned by Banker	Assigned by Banker	Assigned by Banker	Predicted Decision	Actual Decision
Large	85%	100%	65%	D	D
N=16	98	99	80	D	D
	70		75	G	G
	70	85	90	G	G
	75	90	60	D	D
	75	90	60	D	D
	60		50	D	D
	85	90	50	D	D
	85		90	G	G
	85	90	95	G	G
	80		75	*D	G
	85	85	40	D	D
	99		60	D	D
	90		60	D	D
	85		95	G	G
	90		95	G	G
Mean	82.3%	91.1%	71%		
Medium	90	90	95	G	G
N=17	95	100	100	G	G
	95		100	G	G
	75		90	G	G
	70		20	D	D
	75		85	G	G
	85		90	G	G
	80		90	G	G
	90		95	G	G
	85		50	D	D
	75		80	G	G
	70	75	75	G	G
	95	98	99	G	G
	70		90	G	G
	75	80	90	G	G
	75		90	D	D
	70		75	G	G
Mean	80.6%	88.6%	82%		

Table 35 (Continued)
Minimum Accepted Probabilities by Banker and Bank
Compared to Probability Assigned
to Loan Being Successful

Size	Assigned by Banker	Assigned by Banker	Assigned by Banker	Predicted Decision	Actual Decision
Small	70		75	G	G
N=13	70	99	85	*G	D
	95		95	G	G
	80	85	85	G	G
	60		50	D	D
	70	80	80	G	G
	80		60	D	D
	75		95	G	G
	85		70	D	D
	80		85	G	G
	60		78	G	G
	85	90	90	G	G
	75		80	G	G
Mean	75.8%	88.5%	79%		

D = Deny

G = Grant

* = Predicted Incorrectly

bankers indicating their bank's policies, no such case arose. The probability of the loan being successful always fell below the banker's minimum (and, therefore, was denied), or above or equal to the bank's minimum (and, therefore, was granted). It appears that in this simple decision model, bankers are indeed consistent.

Having presented the categorical responses in this chapter, we will analyze the responses using appropriate statistical tests and models in the following chapter. More specifically, each of the research hypotheses will be supported by the procedures identified in chapter three. The conclusions reached from the analysis as well as suggestions for future research will be found in the final chapter.

C H A P T E R V

STATISTICAL TESTS AND MODELS

The preceding chapter summarized the responses to all of the questions presented in the data sheet and questionnaire. Displaying the data in summary form is informative and allows inferences to be made. However, since the subjects are assumed to be drawn from a population of commercial bankers, statistical tests and models should be employed in order to make the research results generalizable. In this chapter, analysis of variance, long-linear models, discriminant analyses, and chi-square tests of significance are used to support the eight research hypotheses which were introduced in Chapter 1 and are reproduced here for the reader's convenience. The rationale for the specific tests applied in support of each research hypothesis were presented in Chapter 3.

The eight research hypotheses are:

1. Bankers from large banks will assign greater importance to financial information than will bankers from small banks.

2. The form and content of the loan package have a significant impact on an individual's evaluation of a business entity.

3. Some or all of the informational variables can be used to predict the decision outcome for bankers from different size banks.

4. Some or all of the information variables can be used to predict the overall decision outcome for all subjects without regard to bank size.

5. Bankers make subjective information valuations of a numerical nature when making loan decisions.

6. Bankers' attitudes towards risk have a significant impact on their assessment of information variables.

7. Bankers who are risk-takers will make different decisions than bankers who are not.

8. Bankers who feel strong environmental bank pressures will make different decisions than will bankers who do not feel strong environmental bank pressures.

To test the research hypothesis regarding the perceived greater importance of financial information by bankers from large banks, the weights assigned by each banker to (1) accountant-prepared information, (2) the balance sheet, and (3) income statement on the data sheet were added together. Analysis of variance was then computed using the means of each of the three groups of bank size. Data collected and statistical analyses performed are summarized in Tables 36-37.

Table 36
Sum of Weights Assigned to Financial Variables

Group	N	Sum	Mean	Standard Deviation
Large	22	690	31.36	17.7
Medium	22	604	27.45	13.5
Small	20	414	20.70	10.2
	64	1708	26.69	14.3

Table 37

Analysis of Variance on Sum of

Weights Assigned to Financial Variables

Source	Degrees of Freedom	Sum of Squares	Mean Square	F
Between Groups	2	1,211	605.5	2.981*
Within Groups	61	123,390	203.1	

*Significant for α = .058

As Table 37 indicates the preferences of the three groups towards financial inputs were significantly different. Note the direction of the difference: as bank size increased proportionately more weights were assigned to financial information.

As noted earlier, the focus of this study was on the financial inputs. However, since data was obtained on fifteen individual inputs of both quantitative and qualitative natures, analysis of variance was calculated on each of the fifteen variables transformed by the formula:

$$X \log_2 (1/x).$$

$\log_2$ was approximated by using natural logarithms. The groups were broken down by bank size. Table 38 shows the results of univariate analysis of variance on these fifteen transformed variables.

On the basis of the information in Table 38, there is little to support the idea that bankers differ in the way they weigh information inputs for a normal loan situation. Only one category, the experience of the manager, was shown to have significant difference when the responses are broken down to bank size.

Table 38

Analysis of Variance on 15 Transformed Variables

Variable	Source*	Degrees of Freedom	Sum of Squares	Mean Square	F**
Accountant-Prepared Statements	Between Groups	2	725	363	1.08
	Within Groups	61	20,486	336	
Amount of Loan	Between Groups	2	82	41	.26
	Within Groups	61	9,735	160	
Prospects of Other Business	Between Groups	2	203	101	.83
	Within Groups	61	7,494	123	
Character	Between Groups	2	4,453	2,226	.66
	Within Groups	61	204,470	3,352	
Collateral Value	Between Groups	2	1,590	795	2.46
	Within Groups	61	19,754	324	
Collateral Liquidity	Between Groups	2	7,304	3,652	2.64
	Within Groups	61	84,439	1,384	
Experience of Manager	Between Groups	2	2,285	1,142	5.80**
	Within Groups	61	12,020	197	
Balance Sheet	Between Groups	2	5,848	2,924	1.95
	Within Groups	61	91,501	1,500	
Income Statement	Between Groups	2	1,388	694	2.18
	Within Groups	61	19,440	319	
Nature of Business	Between Groups	2	105	53	.47
	Within Groups	61	6,835	112	
Repayment History	Between Groups	2	5,372	2,686	1.32
	Within Groups	61	124,024	2,033	
Repayment Period	Between Groups	2	3,307	1,653	.86
	Within Groups	61	116,943	1,917	
Repayment Conditions	Between Groups	2	168	84	1.83
	Within Groups	61	2,792	46	
Source of Repayment	Between Groups	2	1,223	612	.87
	Within Groups	61	42,837	702	
Industry Reports	Between Groups	2	3,689	1,844	.96
	Within Groups	61	117,005	1,918	

*N = 64 for all groups

**Significant at α = .05

The results of the analysis of variance on both the sum of three financial inputs, and the transformed input variables can be summarized as follows:

1. There is a statistically significant group difference associated with the weights assigned to financial inputs. Bankers from large banks assign greater importance to financial information than do bankers from small banks. This result supports hypothesis one.

2. Analysis of each of the fifteen individual information variables reveals that only managerial experience transmits a statistically signif- icant different message to decision makers.

To test research hypothesis number two, dealing with the treatment and size effect on the decision outcome, a log-linear model was used. (Appendix 6 provides both general and detailed explanations of log-linear analysis.) Table 39 summarizes the data included in the analysis.

Table 39

Grants and Denies by

Treatments and Bank Size

Loan Decision	Bank Size	Treatment A_1	A_2	A_3	Total
Deny	Large	6	4	2	12
	Medium	3	1	2	6
	Small	2	2	1	5
Grant	Large	2	4	4	10
	Medium	5	6	5	16
	Small	5	5	5	15
		23	22	19	64

Table 40 presents the results of the statistical procedure using a log-linear model.

The probabilities associated with the significance of the treatment or size effect must be considered insignificant. Therefore, there is empiracal support to indicate that the groups may be considered homogeneous. Also, the probabilities associated with the interactions among these experimental units lead to the conclusion that the interactions are not significant.

Table 40

Log-Linear Analysis Using

Large, Medium and Small Banks

Effect	Degrees of Freedom	Chi - Square	Prob.
Information	2	.36	.835
Bank Size	2	.11	.946
Decision	1	4.48	.034
2-Way Interactions			
Info-Bank Size	4	.18	.996
Info-Decision	2	2.00	.369
Bank Size-Decision	2	4.33	.115
3-Way Interaction			
Info-Banking-Decision	4	1.36	.851

Since the decisions made by bankers from medium and small banks appear similar, the log-linear analysis was repreated twice, using each of the following two groups: (1) large and medium, (2) large and small. The results are reported in Tables 41-42.

Table 41

Log-Linear Analysis Using

Large and Medium Banks

Effect	Degrees Of Freedom	Chi - Square	Prob.
Information	2	.28	.868
Bank Size	1	.0	1.000
Decision	1	1.29	.257
2-Way Interactions			
Info-Bank Size	2	.25	.881
Info-Decision	2	2.26	.324
Bank Size-Decision	1	3.12	.078
3-Way Interaction			
Info-Banking-Decision	2	.86	.650

Table 42

Log-Linear Analysis Using

Large and Small Banks

Effect	Degrees Of Freedom	Chi - Square	Prob.
Information	2	.38	.826
Bank Size	1	.08	.773
Decision	1	1.34	.247
2-Way Interactions			
Info-Bank Size	2	.05	.974
Info-Decision	2	1.93	.382
Bank Size-Decision	1	3.34	.068
3-Way Interaction			
Info-Banking-Decision	2	.57	.751

To explore further the possibilities that treatment or bank size may be important factors in understanding the decision models of bankers, these variables were analyzed using analysis of variance technique incorporating the continuous independent variable "source of repayment." The bankers' responses to the degree of reliability of the source of repayment based on a five-point scale, studied by use of the analysis of variance technique, are reported on Table 43.

Table 43

Analysis of Variance on Repayment Source

by Bank Size and Treatment

Source	Degrees Of Freedom	Sum of Squares	Mean Square	F
Main Effects	4	5.323	1.331	1.199
Bank Size	2	.272	.136	.123
Treatment	2	4.993	2.497	2.250
2-Way Interactions	4	3.644	.911	.821
Explained	8	8.908	1.113	1.003
Residual	55	61.029	1.110	
Total	63	69.937	1.110	

The data reveals no significance attributed to treatment, bank size, or interaction effects.

To answer research questions three and four, which concern the possibility of identifying independent variables that can be used to predict the decision outcome of each group or the overall group, discriminant analysis was performed. The weights assigned by bankers to the thirteen variables in the second questionnaire, using a five-point scale, constituted the data. Two of the original fifteen variables were dropped from the analysis: (1)

accountant-prepared statements and (2) purpose of the loan. The reason for eliminating the former is that the treatment dictated whether or not it was present. The latter was dropped because responses in part one indicated that the purpose of the loan was not an important consideration in the decision outcome.

In the discriminant function using all 64 subjects, eight variables were introduced in a stepwise method in SPSS using Wilks Lamda criterion accounting for 90% of the sum of the eigenvalues (Appendix 7 provides both general and detailed explanations of discriminant analysis). Table 44 enumerates the variables entered into the analysis and the significance of changes resulting from each variable's introduction.

<div align="center">

Table 44

Discriminant Analysis - Information Variables

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Step Number	Variable	F	Significance of Change
1.	Repayment Source	111.13	.00
2.	Character	4.30	.00
3.	Nature of Business	2.57	.005
4.	Balance Sheet	2.50	.004
5.	Industry Report	1.44	.025
6.	Repayment Period	1.40	.024
7.	Amount of Loan	2.13	.005
8.	Credit History	1.05	.040

Table 45 shows the standardized discriminant function coefficients, which indicate the relative importance of each variable in the decision-maker's model. Clearly, the repayment source outweighs by almost four times in importance every other variable in the function. Since the function predicts "denies" as the first group, a negative weight must be interpreted as a movement away from a deny decision.

Table 45
Information Variables - Standardized
Discriminant Coefficients

Variable:

Amount of Loan.................	.179
Character.....................	-.132
Balance Sheet.................	-.124
Nature of Business............	.144
Credit History................	-.115
Repayment Period..............	.172
Repayment Source..............	-.732
Industry......................	.162

This procedure resulted in a discriminant analysis prediction for the decision outcome based on the eight independent variables selected. Correct predictions for each group are indicated in Table 46.

Then the discriminant procedure was reproduced using a hold-out sample in the Biomed P7M Program, the number of cases correctly classified dropped to 95.7% for Deny, 85.4% for Grant and 89.1% Overall.

Table 46
Prediction Results Using Eight
Information Variables

Actual Group	N	% Right	Overall
Deny	23	100%	92%
Grant	41	88%	
	64		

The discriminant analysis was repeated using demographic variables for all 64 subjects. Three of the five demographic variables were introduced into the discriminant function at the 5 percent level of significance. The variables included age, position, and experience. The variables excluded were bank size and education. The exclusion of bank size in the discriminant function further supports the conclusion that it is not a significant factor in predicting the decision outcome for this loan situation. The standardized coefficients and the prediction results are shown in Tables 47 and 48 respectively.

The results in Table 47 support previous findings reported in Chapter 4. As age and experience increased, the decision-maker was more likely to grant the loan.

Table 47

Demographic Variables - Unstandardized

Discriminant Function Coefficients

Variables	Coefficient
Age	-.487
Position	-.557
Experience	-.335

Table 48

Prediction Results Using Three

Demographic Variables

Actual Group	N	% Right	Overall
Deny	21	61.9%	72.4%
Grant	37	78.4%	
	58		

The same statistical procedures were repeated in order to answer research hypothesis number three, which concerns discriminant functions by bank size. The procedure was completed statistically by using a small number of observations. The results are reported in Table 49.

The last four research hypotheses were tested using both the normal distribution and analysis of variance techniques.

With regard to the hypothesis that bankers make subjective judgments of a numerical nature, the null hypothesis was stated to reflect the equal probability of finding bankers either making or not making subjective estimates. The data is shown in Table 50.

Table 49
Standardized Discriminant Coefficients
by Bank Size

Large Variable	Coef.	Medium Variable	Coef.	Small Variable	Coef.
Repayment Source	.58	Repayment Source	.66	Balance Sheet	.65
Profitability	.34	Manager Exper.	.36	Amount of Loan	.39
Credit History	.19	Industry Report	.36	Nature of Bus.	.27
Character	.10	Character	.35	Collateral Value	.19
Collateral Value	.17	Collateral Liq.	.22		
Income Statement	.14	Collateral Value	.14		

Table 50
Subjective Estimates

	Sample	Population Estimate
Make	71%	50%
Do Not Make	29%	50%

When compared to the expected proportion, the null hypothesis is rejected. Thus, there is statistical evidence to support that bankers do make estimates of a numerical nature concerning the probability of the loan being successful before arriving at their decision to grant or deny. Further investigation revealed that bank size was not a factor in identifying bankers who made quantitative estimates.

Hypothesis number six is concerned with the way in which bankers' attitudes towards risk affect their assessments. Bankers' responses to the five-point scale on the reliability of the repayment source served as the continuous independent variable used in analysis of variable procedure. There were three risk groups (risky, moderate, and conservative) as defined in Chapter 3. The results of the test appear in Table 51. The results do not show any statistically significant difference in the bankers' assessment of the reliability of the repayment source that can be explained by their individual attitude towards risk.

Table 51

Analysis of Variance on Risk

by Repayment Source

Source	Degrees of Freedom	Sum of Squares	Mean Square	F
Between	3	1.402	.467	.409
Within	60	68.536	1.142	

The next research question extended the inquiry into the effect bankers' attitudes towards risk might have on the final decision outcome. Table 52 shows the breakdown of the decision outcome by risk category.

Table 52

Decision by Attitude Towards Risk

	Conservative	Moderate	Risky	Total
Grant	9 (75%)	16 (59%)	16 (64%)	41
Deny	3 (25%)	11 (41%)	9 (36%)	23
	12	27	25	64

No clear relationship is established by the results to support the hypothesis that banker's attitude toward risk affected their decision.

The last research hypothesis, number eight, is concerned with establishing a relationship between job-felt pressure due to the evaluation process and the bankers' perceptions of the reliability of the source of repayment. The analysis of variance results are reported in Table 53.

Table 53

Analysis of Variance on Job-Felt

Pressure by Repayment Source

Source	Degrees of Freedom	Sum of Squares	Mean Square	F
Between Groups	2	3.127	1.563	1.422
Within Groups	59	64.873	1.100	

There is no statistical support of hypothesis eight. However, one of the groups, "high-felt pressure," contained the responses of only four subjects.

To summarize the results of the eight research hypotheses, Table 54 is presented.

Table 54

Summary of Research Results

Hypothesis Number	Description	Statistical Significance Found?
1.	Bankers from large banks will assign greater importance to financial information than bankers from small banks.	Yes
2.	The form and content of the loan package have a significant impact on an individual's evaluation of a business entity.	No
3.	Some or all of the informational variables can be used to predict the decision outcome for bankers from different size banks.	Yes
4.	Some or all of the information variables can be used to predict the overall decision outcome for all subjects without regard to bank size.	Yes
5.	Bankers make subjective information valuations of a numerical nature when making loan decisions.	Yes
6.	Bankers' attitudes towards risk have a significant impact on their assessment of information variables.	No
7.	Bankers who are risk-takers will made different decisions than bankers who are not risk-takers.	No
8.	Bankers who feel strong environmental bank pressures will make different decisions than bankers who do not feel strong environmental bank pressures.	No

The following chapter will give an overview of the limitations of the results, present conclusions based upon the information presented in this study, and offer suggestions for future research.

CHAPTER IV

Conclusions, Limitations, and Areas for Future Research

In this final chapter the author presents a discussion of the research
results and arrives at conclusions with respect to both the decision-makers
and the information inputs. Limitations of the study are pointed out to
assist the reader in arriving at his own conclusions. The closing para-
graphs of the study indicate areas for future research.

Discussion of Research Results

Results of both the categorical responses and statistical tests indicate
size is not a relevant demographic variable in predicting the decision out-
come. Using log-linear analysis, bank size was shown to be statistically not
significant in predicting the decision outcome. In discriminant analysis,
performed initially using thirteen input variables weighted by each banker's
assessment of each variable for the case, the reliability of the repayment
source emerged as the most significant discriminating variable. Then using
this significant variable, analysis of variance revealed no statistical dif-
ferences associated with bank size. Thus, bank size was shown to be statis-
tically insignificant not only in predicting the decision outcome, but also
in the bankers' assessment of the reliability of the repayment source. In
preliminary interviews, bankers communicated their feeling that bank size would
make a difference in the way bankers evaluated the loan information and in the
final decision outcome. Thus, the research results are contrary to the author's
expectations.

The research study extended its examination of bank size differences
focusing on another dimension. Bankers were asked to assign 100 points to
fifteen input variables. It was expected that bankers from the larger banks

would assign more importance to financial input variables. Using analysis of variance techniques, this result was supported.

A contradiction concerning the decision-makers appears at this point. How can we explain the findings that bankers from large banks assign greater weight to financial information than do their colleagues (before a specific loan decision is to be made), but at the same time bank size is not found to be a significant factor in predicting the decision outcome? In the case, a high character, experienced business owner was pictured in a marginal loan situation. One might expect that bankers who assigned more weight to the financial inputs would then deny the loan while bankers who assigned more weight to the qualitative inputs would grant the loan. However, while bankers from large banks did assign greater weight to the financial inputs, bank size was not found to be a predictor of decision outcome. A suggested answer to resolve this contradiction is the author's "Threshold Theory." The decision process of bankers is complex and requires a combination of several quantitative and qualitative inputs. The steps involved may be as follows: The bankers select the most important input variable, then compare the value they calculated to a certain threshold level, determining that the minimum acceptable level for that criterion was met, and then continue to examine all the other variables of importance to check if other threshold levels are also met. If bankers from large, medium, and small banks began with the variables which they individually perceived as most important and followed the sequence described, they would converge on the variable in which threshold levels were not realized. Thus, pre-decision weights assigned by bankers would have little influence on their final outcome. This explanation could also be used to understand why bank size had no effect on the banker's perception of the

reliability of the repayment source. The study also found relative homogeneity of bankers on the value they assigned to the information <u>outputs</u> presented in the case. This threshold theory provides a logical basis for finding different weights assigned to general information inputs <u>before</u> a specific loan case is presented and at the same time obtaining general consensus on the value assigned to the output.

The finding that three other demographic variables - age, experience, and position - could be used in explaining decision outcome was not surprising. It was also determined that age and experience were highly correlated. The research results confirmed that older, more experienced general managers viewed marginal loan situations as more workable than their younger, less experienced or loan officer counterparts. Follow-up discussions with the subjects confirmed that the older, more experienced managers were more likely to be favorably influenced by the business owner's participation in the community and his diversity of business experience, and tried to work out the situation.

The bankers' attitudes towards risk and job-felt pressure were not shown to be a significant factor in the decision outcome or in the perceived reliability of the repayment source. It is difficult to explain why bankers' attitude towards risk turned out to be so insignificant with regard to the decision outcome. In the analysis of the data, it was found that bankers who perceive themselves to be riskier, actually compensate for their riskiness by assigning lower probabilities of success to each specific loan situation than do their conservative counterparts. Concerning the findings that there was no relationship between job-felt pressure and the decision outcome, the majority of the respondents fell into the "not much" or "acceptable" level

of job pressure groups. One might expect that if more subjects felt high job pressure, some true conservative bias would be introduced.

The results which focus on the variables used to discriminate between loan approvals and rejections are easily understood. Borrowed funds must be repaid in order for the bank to survive, and the reliability of the repayment source becomes a critical factor. In a preliminary interview, one banker predicted that he would grant the loan in the case presented to him provided that he accepted the projections as reasonable. The other variables included in the discriminant functions were character, nature of business and balance sheet. Under the threshold theory previously described, these four variables became important for this particular case.

In interpreting the results of the discriminant function for each bank size group, caution must be exercised due to the small number of responses compared to a large number of variables. It was interesting to see that the most significant discriminating factor in large and medium sized banks was repayment source, while it was the balance sheet in small-sized banks. This discrepancy may occur because the bankers from small banks might not have been as familiar with financial statement analysis. Their lack of familiarity could have been led to variations in their decisions. It was also interesting to note that the second most significant discriminating variable was profitability, managerial experience and amount of loan for bankers from large, medium and small banks, respectively. This result is understandable in terms of the alternatives available to large bankers. It is possible that the profitability of this loan is not as predictable as other opportunities to large banks. Some bankers from small-sized banks might not have been familiar with loans of this size and consequently

their perceptions of the owner's ability to repay the debt might have been different. The fact that in all cases the collateral value was a discriminating factor leads one to surmise that appraisal reports are viewed with different degrees of reliability among bankers from all sizes of banks. Results concerning the value assigned to the inputs reported by Stanga and Benjamin are compared to the conclusions obtained in this study in Table 55.

Table 55

Comparison of Research Results on

Value of Information Items

	Stanga & Benjamin's Results	Present Research Study
Comparative Income Statements, Past 2 Years	High	
Past 3 Years		High
Comparative Balance Sheet, Past 2 Years	High	
Past 3 Years		High
Major Details on Long-Term Debt	High	Medium
Current Liabilities	Medium	Low
Projected Earnings	Medium	Medium
Narrative History of Company	Medium	High
Major Industry Statistics	Low	Medium

The research results reported by Stanga & Benjamin were developed from a questionnaire concerning the importance of information items for a term loan of a publicly held industrial company. When compared to the results obtained in this study for a small retail and service company, one finds both similarities and differences. Interestingly, the similarities are found in the value of financial information. The differences are found in projections, the notifi-

cation of contingent liabilities, the need for a history of the company and in industry statistics.

As an input to accounting regulatory bodies considering standards of reporting for small business, earnings projections are considered somewhat important. The accountant, therefore, must learn to present this information in a meaningful form.

Drawing attention again to the input variables, cash flow projections (including the underlying assumptions) were more valuable than an unsupported earnings projection. The conclusion that there was no treatment effect can be explained by the relative lack of sophistication of the client-prepared financial statement. The only difference between the client-prepared information and the accountant-prepared information was the accountant's letter. While the result may be attributed to the unaudited nature of the accountant-prepared data, the author believes the segmented balance sheet and income statement with appropriate notes, which were presented in all three case forms, served to improve the bankers' perceptions of the client-prepared information. Indeed, even the binding of all the information in the case form appeared to the bankers who normally receive their customers' information in piecemeal fashion. Bankers' personal reactions to the case form support the author's view.

Limitations of This Study

Aside from the similarity among the financial statements in all three treatments, other limitations must be identified in order to interpret the results properly. The limitations fall into two categories: (1) Statistical and (2) simulation of decision conditions.

With regard to the statistical limitation, the small sample size must be considered in the log-linear analysis and the discriminant functions calculated for each bank size. Both procedures perform better when the sample size is large.

A further limitation concerning the 100 point allocation process deserves mention. Since there were fifteen variables but only 100 points to be allocated, bankers were forced to assign zero to some variables. The subjects needed at least 120 points if they simply wanted to rank-order the fifteen variables. Also, the allocation of only 100 points might have led to less than desired point spreads among the variables.

With regard to simulating actual decision conditions, the following factors should be pointed out:

1) There was no cost (i.e., credit check, etc.) to the bankers except for time spent to analyze the case and to respond to the questions.

2) The material was presented all at one time, in case form. Actual situations involve a series of information requests which allow the decision maker to build up a file.

3) No additional information was supplied to the subjects. If a banker desires additional inputs in an actual situation, the information is usually provided.

4) No personal interview was allowed. Bankers say they often rely on "gut" feeling and were uncomfortable in making a decision without personal contact.

5) All bankers received only one marginal case study. Additional loan cases in this category, as well as risky loans, must be carefully considered.

6) Bank policy was given in the case. In actual decisions, bank policy may vary widely.

Since the objective of this paper was to explore the decision process of bankers in an effort to determine the role financial statements play, these limitations are not severe.

Suggestions for Further Study and Conclusion

The primary motive for this research project was to serve as a bridge of communications between the banking community and the accounting profession. Accountants who provide information to bankers must realize that while financial inputs are perceived as necessary, a banker actually weighs variables, both quantitative and qualitative, before arriving at a decision.

The bankers who request financial information must be aware that there is a high cost of providing this information. Interim or unusual reports should be requested only where threshold levels are in question.

In order for authoritative accounting bodies to make decisions concerning the required financial reporting of small closely-held companies, additional research is needed on the impact on the loan decision due to: (1) segment reporting, (2) interim reporting, (3) audited versus non-audited financial statements, and (4) form of disclosure of financial information. Future research must explore the way in which the financial reporting needs of bankers differ when they consider loans with varying risk.

In conclusion, future research must relate the findings of bankers' decision models back to the banking community to establish interfaces necessary for the smooth running of the accounting reporting system.

Appendix I
Cities and Towns Represented
in the Study

Connecticut

Branford

Bridgeport

Danbury

Derby

East Hartford

Enfield

Glastonbury

Guilford

Hamden

Hartford

West Hartford

East Hartford

Meriden

Milford

Naugatuck

New Milford

North Branford

Norwalk

Southington

Stamford

Waterbury

Westport

Wolcott

Willimantic

Windsor Locks

Massachusetts

Springfield

Appendix II

Banks Participating in the Study

Connecticut:

American National
Charter Oak Bank & Trust
Citizen's National Bank of Glastonbury
Citizen's National Bank of Southington
City Trust
Colonial Bank
Community Banking
Connecticut Bank & Trust
Connecticut National Bank
Danbury Bank & Trust
First Bank
Hartford National Bank
Home Bank
Liberty National Bank
Mattatuck Bank & Trust
New Britain National Bank
New England Bank & Trust
North American Bank & Trust
Northern Connecticut National Bank
State National
Union Trust
United Bank
Williamantic Trust

Massachusetts:

Shawmut National
Third National

APPENDIX III

Correspondence Sent During Experiment

I have undertaken a research project in connection with my doctorate studies which is intended to bridge the communication gap between accountants and bankers who are involved with small business loan decisions. The focus of the research is the effect of the form and content of financial information on the decision to grant a loan to a small business owner who desires to expand his present business.

The purpose of this letter is to enlist your assistance in identifying loan officers who would participate in a research experiment. The experiment requires the loan officer to:

1) Complete statistical information on the officer's background.

2) Consider a loan request in case form, and

3) Respond to questions concerning the evaluation and use of the informational inputs.

Participation in the experiment could be accomplished in two ways:

1. The case and questionnaire can be mailed directly to the loan officer to be completed within two weeks and mailed back to the researcher. (The case requires approximately an hour to review.)

or

2. On November 3 at 2:30 P.M., prior to the joint meeting of the Connecticut Society of Certified Public Accountants and The Robert Morris Associates, at the Yale Motor Inn, Wallingford, Connecticut, an experimental session will be conducted for the prupose of allowing the loan officers sufficient time to read the case and complete the questionnaire. This is the preferred alternative because it achieves tighter control over the participants.

(please continue)

In order for research results to be useful, bankers from large, medium and small banks must participate.

The committee on Cooperation with Bankers and other Credit Grantors of the Connecticut Society of Certified Public Accountants feels this is a useful research project that, when completed, could benefit both the accountants, who supply the information, and loan officers, who receive the financial information as part of the inputs to the small business loan request.

If you, or loan officers from your bank, could participate in either the mail survey or personal attendance at the experimental session, please complete the enclosed response card and mail as soon as possible.

Your cooperation is sincerely appreciated and research results will be mailed directly to all respondents.

I have enclosed a brief description of my background for your information.

In addition, in order to assure anonymity of the loan officers who come to the experimental session, I have enclosed a letter to the participants and assigned each participant a control number. It is necessary that the officer (s) follow the directions, complete the statistical data sheet and mail the data sheet to me as soon as possible. If the officer(s) cannot attend the session on November 3, I will mail the entire package directly to you to distribute.

Thank you for your assistance in this research project which is intended to give accountants insights into improving information flows to bankers who make small business loan decisions.

Sincerely,

Anne Rich,
Research Director

AJR/me
Encl.

Anne Rich
10 Promontory Drive
Cheshire, CT   06410

EDUCATION:

Ph.D. Candidate - University of Massachusetts
                         School of Business Administration

MBA (1971)   - University of Bridgeport

BA   (1966)   - Queens College

PROFESSIONAL DESIGNATIONS:

Certified Public Accountant - Texas, 1971

Certificate in Management Accounting, 1976

TEACHING EXPERIENCE:

University of Connecticut - Department of Accounting
                             1977 - present

University of New Haven   - Department of Accounting
                             1971-77

PROFESSIONAL EXPERIENCE:

Staff Accountant, Price Waterhouse & Co., 1966-7

MEMBERSHIPS:

American Accounting Association
American Institute of Certified Public Accountants
American Women's Society of Certified Public Accountants
Connecticut Society of Certified Public Accountants
National Association of Accountants (Board Member)

OTHER RELEVANT EXPERIENCE:

Director, Samll Business Institute Program
University of New Haven, 1975-7

Dear Loan Officer,

You have been selected to participate in a research project which will assist small business entrepreneurs to better understand bankers needs.

The project requires that you consider a hypothetical loan request and respond to a number of questions concerning the information supplied in the case.

It is also necessary to obtain some statistical information on the participants. All responses are identified only by a randomly assigned control number and your personal identification is never known. Your randomly assigned number is_____.

The enclosed statistical data sheet should be filled out and mailed in the enclosed envelope. You should retain your assigned number which will be used when the hypothetical case is presented to you.

··The administration of the case will take place on_____ at_____ at_____o'clock.

Research results will be available early in 1978, and will be mailed to participants,

Thank you for your cooperation.

Sincerely,

Anne Rich,
Research Director

Thank you for accepting to participate in my research study on the small business loan decision.

Enclosed is the hypothetical loan application with supporting information. At the end of the loan case is a questionnaire. Please answer all the questions and return the questionnaire in the enclosed envelope within two weeks.

Research results will be available early in 1978, and will be mailed to all participating banks. If you personally desire a copy of the research results, complete the enclosed request form and mail with your questionnaire in the same enclosed envelope.

Thank you for your time and professional contribution to this research study.

Sincerely,

Anne Rich,
Research Director

AR/me

APPENDIX IV

STATISTICAL DATA SHEET

:-5

1. AGE:

   Under 25 Years_____ :

   25-40 Years _____ 2.

   Over 40 Years_____ 3

   5

2. BANK POSITION:

   _____

   | | 7

3. BANK SIZE:

   Large (For example - HNB, CBT, Union Trust)_____ 1

   Medium (For example - CNB, Colonial, First
            Bank, Second New Haven)_____ 2

   Small (For example - Plainville Trust,
            Orange National Bank) _____ 3

   5

4. NUMBER OF YEARS EXPERIENCE IN POSITIONS OF GRANTING LOANS:

   Less than 1 year_____ 1

   Between 1-3 years_____ 2

   Over 3 years _____ 3

   9

5. EDUCATIONAL BACKGROUND: (Check all that apply)

   Associate of Arts Degree _____   Commercial Lending School_____

   Bachelor of Arts Degree in:_____   Graduate Commercial School_____

      Accounting _____

      General Business _____

      Finance _____

      Other Business Areas _____ | . | 10

      Non-Business _____

6. ARE YOU A CERTIFIED COMMERCIAL LENDING OFFICER?

   Yes_____1   No_____2

   11

7. HOW WOULD YOU DEFINE A SUCCESSFUL LOAN? (Check all that apply)

   1 _____Payback of principal and interest according to the terms of
      the loan.

   12

   1 _____Interest payments timely, and eventual payback of principal.

   13

   : _____Late interest and eventual payback of principal.

   14

   : _____Other, please explain_____

   15

   _____

   _____

   _____

8. IN YOUR EXPERIENCE AS A LOAN OFFICER AT YOUR BANK, HAVE YOU BEEN LED
TO BELIEVE THAT PART OF YOUR PERSONAL EVALUATION (BY YOUR SUPERIORS)
WOULD BE BASED ON: (Check all that apply)

  1_____ a) Percentage of loans defaulted   16

  1_____ b) Dollar amount of loans defaulted   17

  1_____ c) Other quantitative measures; please specify: 18

  _____

  _____

9. DO YOU BELIEVE THAT THE PROCESS OF EVALUATING YOU AS A LOAN OFFICER
CREATES PRESSURE ON YOU?

                    Excessive pressure_____1

                    Acceptable   _____2   19

                    Not much pressure _____3

0. ASSUMING (1) NO BANK POLICY CONSTRAINTS (2) LOANABLE FUNDS ARE AVAILABLE
AND (3) A FIXED INTEREST RATE SET BY MANAGEMENT TO MEET PROFITABILITY
STANDARDS, WOULD YOU ACCEPT A LOAN WITH THE PROBABILITY OF PAYBACK ACCORD-
ING TO ITS TERMS AS FOLLOWS:

		NO	YES
a)	100% Probability of Payback	___	___
b)	99% Probability of Payback	___	___
c)	98% Probability of Payback	___	___
d)	97% Probability of Payback	___	___
e)	96% Probability of Payback	___	___
f)	95% Probability of Payback	___	___
g)	90% Probability of Payback	___	___
h)	85% Probability of Payback	___	___
i)	80% Probability of Payback	___	___
j)	75% Probability of Payback	___	___
k)	70% Probability of Payback	___	___
l)	Under 70%	___	___

20-21

11. CONSIDER A NORMAL LOAN SITUATION.

Please allocate 100 points to the information variables so as to indicate the relative impact each variable has on your decision. The variables which you consider to be more important should be assigned more points than the less important variables. You may allocate many points to some, and none to other variables, but no ties are allowed.

_____Accountant prepared financial information	22-23
_____Amount of loan	24-25
_____Average balances and prospects of other business	26-27
_____Character of principal	28-29
_____Collateral in terms of value	30-31
_____Collateral in terms of liquidity	32-33
_____Experience of manager/owner	34-35
_____Financial statement: Balance Sheet	36-37
_____Financial statement: Income Statement	38-39
_____Nature of business	40-41
_____Repayment history	42-43
_____Repayment period of loan	44-45
_____Repayment conditions	46-47
_____Source of repayment	48-49
_____Industry reports	50-51

100 TOTAL

12. RANK THE FOLLOWING PURPOSES FOR LOAN FUNDS BASED ON YOUR PREFERENCE.

(If you do not have any preferences, indicate here: No preference [1]) 52

Otherwise, assign the number 1 - 5 to the following: (1 for most pre-ferred, number 5 to least preferred.)

1_____Working capital   53

1_____Accounts receivable financing & Inventory   54

1_____Expansion   55

1_____New Business   56

1_____Fixed Asset Acquisition   57

BLANK 58-79

1   80

113

	R			

1-5

QUESTIONNAIRE

1. Please indicate your decision: (check one)

A. Concerning extension of credit:

_____1. Deny Loan   6

_____2. Grant Loan

If you denied the loan, skip 1B, continue with Question #2.
If you granted loan, answer 1B before you continue with Question #2.

B. Concerning the terms:

1. Interest rate will be:

Greater than 11%_____ 1

Equal to 11%   _____2   7

Less than 11%   _____3

2. Time period will be:

More than 5 years_____ 1

Equal to 5 years _____2   8

Less than 5 years_____3

3. The restrictive covenants will be:

Many_____1

Some_____2   9

None_____3·

2. In making your decision, please indicate the importance of the following information by circling one level on the following 5 point scales that reflect your assessment of the facts in the Norris case:

(IF YOU ARE INDIFFERENT OR IF YOU CANNOT RESPOND TO THE STATEMENT, SELECT THE MID-POINT AND CIRCLE NUMBER 3.)

		1	2	3	4	5
a.	The amount of the loan (in relation to the company's ability to repay) appears to be:	·1 Extremely Easy to Repay	2 Somewhat Easy to Repay	3 Average Difficulty to Repay	4 Somewhat Difficult to Repay	5 Extremel Difficul to Repay 10
b.	At the interest rate given in the case, the average balance and prospects of other business reflect:	1 Extremely Low Prof- itability	2 Somewhat Low Prof- itability	3 Average Profit- ability	4 Somewhat High Prof- itability	5 Extremely High Prof itability 11
c.	The character of Mr. Norris appears to be:	·1 Extremely Question- able Character	2 Somewhat Question- able Character	3 Average Character	4 Somewhat High Character	5 Extremel High Characte 12
d.	Compared to the loan requested, the available collateral in terms of dollar value is:	1 Extremely Partial	2 Somewhat Partial	3 Equal to Loan	4 Somewhat Excessive	5 Extremel Excessiv 13
e.	Collateral in terms of liquidity is:	1 Extremely Difficult to Convert to Gash	2 Somewhat Difficult to Convert to Cash	3 Average Convert- ability	4 Somewhat Easy to Convert to Cash	5 Extremel Easy to Convert to Cash 14
f.	Mr. Norris' managerial experience appears to be:	1 Extremely Little in this Field	2 Somewhat Little in this Field	3 Average Expe- rience	4 Somewhat Extensive in this Field	5 Extremely Extensive in this Field 15
g.	The general financial condition presented in the balance sheet (s) reflect:	1 Extremely Weak Position	2 Somewhat Weak Position	3 Average Position	4 Somewhat Strong Position	5 Extremely Strong Position 16

		1	2	3	4	5
h.	The information presented in the income statements reflect:	Extremely Negative Trend	Somewhat Negative Trend	Neither Negative Nor Positive	Somewhat Positive Trend	Extremely Positive Trend 17
i.	The nature of Mr. Norris' business can be considered:	Extremely Riskless	Somewhat Riskless	Of Average Risk	Somewhat Risky	Extremely Risky 18
j.	Mr. Norris' credit history reflects:	Extremely Low Probability of Repayment	Somewhat Low Probability of Repayment	Average Probability of Repayment	Somewhat High Probability of Repayment	Extremely High Probability of Repayment 19
k.	The period of the loan as stated in this case is:	Totally Inadequate to Allow Repayment According to its Terms	Somewhat Inadequate to Allow Repayment According to its Terms	Neither Adequate Nor Inadequate	Somewhat Adequate to Allow Repayment According to its Terms	Totally Adequate to Allow Repayment According to its Terms 20
l.	The source of repayment as shown in this case is:	Completely Unreliable	Somewhat Unreliable	Neither Reliable Nor Unreliable	Somewhat Reliable	Extremely Reliable 21
m.	Reports reflect that the industry is:	Completely Contracting	Somewhat Contracting	Neither Contracting Nor Expanding	Somewhat Expanding	Extremely Expanding 22

3. (A) Regarding the information presented in the case, please
         indicate if you found the following to be of low, medium,
         or high value.

		LOW 1	MEDIUM 2	HIGH 3	
1.	Description and History of Business	___	___	___	23
2.	Purpose of Loan	___	___	___	24
3.	Construction Plans	___	___	___	25
4.	Supplies to be purchased	___	___	___	26
5.	Credit reports	___	___	___	27
6.	Schedule of Installment Debts	___	___	___	28
7.	Background of Principal	___	___	___	29
8.	Balance Sheets a) past 3 yrs.	___	___	___	30
	b) current period	___	___	___	31
	c) personal	___	___	___	32
9.	Income Statements a) for past 3 years	___	___	___	33
	b) current, 1st qtr.	___	___	___	34
	c) common dollar	___	___	___	35
10.	Earnings Projection	___	___	___ ←37	36 BLANK
11.	Pending Litigation Report	___	___	___	38
12.	Appraisal Report	___	___	___	39
13.	Industry Statistics	___	___	___	40

(B) In addition, what information considered by you to be impor-
     tant in normal situations was not found in the case material?

_____

_____

_____

_____

4. Do you feel that it is possible to estimate the probability of the loan being successful?

<div align="center">Yes_____1 No_____2</div>

41

If yes, what probability did you assign to this loan being a success-ful loan? (Indicate a number between 0% and 100%)

<div align="center">_____% .</div>

42-44

5. Can you state the formal or implicit minimum acceptable probability of payback that most often would be tolerated by your bank?

<div align="center">Yes_____1 No_____2</div>

45

If yes, what minimum probability of payback would be accepted? (Indicate a number between 0% and 100%)

<div align="center">_____%</div>

46-48

<div align="right">

BLANK   49-79

2   80

</div>

APPENDIX VI
LOG-LINEAR ANALYSIS

Less Technical Aspects

Traditional analysis of variance procedures can be applied only to situations where the response variable is continuous. When a research question can only be answered categorically, such as grant or deny, a log-linear model may be used. In this procedure, a model is developed from qualitative variables which are used to predict decision outcome. Log-linear analysis is superior to a simple cross-tabulation test of association such as chi-square whenever there is an interest in developing a predictive model. Thus, main effects and interactions could be tested within the log-linear framework.

The technique requires calculations of joint probabilities considering grants versus denials as a third (two-level) variable. Bank size and treatment are the first two variables (each with three levels) in the study. The joint probability of each of the eighteen cells is determined as a result of frequency with which it occurs and the total number in the sample.

Next taking the natural logarithm of each of the cells' joint probability leads to a full log-linear model. This full model is known as a "saturated model" because there is a parameter estimate for each data point.[13] Since there are as many parameters as data

13. Paul E. Green, et al. "On the Analysis of Qualitative Data in Marketing Research," *Journal of Marketing Research*, February 1977, p. 56.

points, the data will be fitted perfectly. Thus, the saturated model is of little value in itself. Instead, we examine each component of the model (main effects and interactions) to determine which variables are statistically significant. The procedure can be accomplished by fitting[14] specific unsaturated models (excluding some main effect and interactions until all possible combinations are tested) to statistically support significant main effects and interactions.

More Technical Aspects

The log-linear model superimposes on the traditional 3 x 3 contingency table, a third categorical variable. In the study, the first two variables are bank size and treatment, each with three levels, while the third categorical variable has two levels, (3 x 3 x 2) cells' estimated joint probabilities are calculated by:

$$Pijk = \frac{fijk}{n}$$

$$\text{where } i = \text{bank size}$$

$$j = \text{treatment}$$

$$k = \text{loan decision}$$

The fijk's denote the frequency with which each three-variable combination appears. After all 18 values are computed, a log-linear model is developed as follows:

14. Details concerning fitting technique are presented in more technical section.

$$Yijk = n\ Pijk$$

The full log-linear model, resembling ANOVA is defined as:

$$Yijk = u + u(i) + u(j) + u(k) + u(ij) + u(ik) + u(jk) + u(ijk)$$
$$\quad\quad\quad A \quad\quad B \quad\quad C \quad\quad AB \quad\quad AC \quad\quad BC \quad\quad ABC$$

This form is referred to as a saturated model because there is a parameter estimate for each data point. All main effects and inter-actions are included.

Once proportions are predicted for each cell, Pijk, specific un-saturated models are fitted using maximum likelihood or weighted least square calculations, to determine if a specific model is statistically significant. The reader is referred to Fienberg[15] for the technical aspects of fitting models. The result is statistical support for main effects and/or interaction effects.

In the BIOMED program, a constant (.5) is added to all observations in order to avoid the statistical problem of estimating proportions if zeroes, or no observations, are found in one or more cells.

15. Stephen E. Fienberg, *The Analysis of Cross-Classified Categorical Data*, Massachusetts Institute of Technology, 1977.

APPENDIX VII

MULTIPLE DISCRIMINANT ANALYSIS

Less Technical Aspects

Multiple discriminant analysis is a statistical technique employ-
ing two or more independent variables to classify objects into one of
two or more mutually exclusive and exhaustive categories. Similar to
linear regression, a multiple discriminant function is a linear combi-
nation of independent variables and their associated weights. However,
in multiple discriminant analysis, the function calculates a Z_i
score for each individual observation. Every Z_i score is compared
to a critical value, Zcrit is a line separating the group centroids.
In a two group problem, the Zcrit line can be described as:

Continuing with the two group problem, the classification procedure
can be described as:

if Z_i > Zcrit., classify Individual i as belonging to Group 1;

if Z_i < Zcrit., classify individual i as belonging to Group 2.
and assign randomly if Z_i = Zcrit.

The linear form of the discriminant function can be written as:

$$b_o + b_1 X_{1i} + \ldots + b_n X_{ni} = Z_i$$

Where $b_i \ldots b_n$ are weights associated with independent variables $X_1 \ldots X_n$ respectively. The advantage of the linear function lies in the interpretation of the unstandardized weights ($b_i \ldots b_n$). The higher the value of positive weights, the more likely an individual will be classified in Group 1 because the Z_i score will be high. When the weights are standardized, we can identify the relative importance of each variable to the calculation of the Z_i score.

More Technical Aspects

Two discriminant programs were used: SPSS Statistical Package for the Social Sciences and BMDP3F, Biomedical Computer Programs. Both performed the calculations on a step wise basis where the variables are initially ranked on the basis of univariate F-Tests. Since there are only two groups in the present study, grant and deny, only one discriminant function could be generated. Both programs utilized the Wilks' lambda criterion for measuring differences among group centroids.

In SPSS the program provides for an F ratio = 1.0 as the minimum criteria for inclusion of each additional variable in the function. Each time a variable is selected a test is performed to determine if the preceeding variables still possess high discriminating power. The criterion for removal referred to as F-to-remove (FOUT) is $\leq$ 1. The output for a two group situation is one discriminant function accounting

for 100% of the sum of the eigenvalue. (The sum of the eigenvalues is a measure of the total variance existing in the discriminating variables). The canonical correlation, b measure of how closely the function and the group variables are related, is also presented in the SPSS probram. Finally, the program calculates a chi-square statistic using Wilks' lambda. "Lambda is an inverse measure of the discriminating power in the original variables which has not yet been removed by the discriminant function - the larger lambda is, the less information remaining."[16] The chi-square statistic can thus be used to support the statistical significance of the discriminant function.

In BIOMED,[17] the leaving-one-out procedure was employed in order to overcome the statistical problem of developing a model and testing it with the identical observations. The discriminant function was calculated employing an F to enter criterion of 4.00 and an F to remove of 3.996.

16. Nosmar Nie, et al, *Statistical Package for the Social Sciences*, 2nd Ed. (NY: McGraw-Hill, 1975,) p. 442.

17. W.J. Dixon, ed, *Biomedical Computer Programs* (University of California Press, Berkeley, 1975.)

APPENDIX VIII

TREATMENT A_3

THE NORRIS CASE

APPENDIX VIII

Dear Loan Officer:

    Thank you for participating in this research project. All participants are identified solely by the control number assigned to them. Your individual identity has never been recorded and you are assured anonymity.

    In order to obtain valid research results, it is important that you follow the enclosed instructions and answer all of the required questions.

    Please do not consider the time others take to complete this project. There are several different cases being used in this experiment. Thus, you may complete the project in a shorter or longer time than your colleagues.

    You are free to write on the case material or use it in any way that is comfortable to you. The case material may be taken with you at the end of the experiment. Only the questionnaire will be retained.

    Thank you again for your cooperation.

PLEASE MAIL YOUR QUESTIONNAIRE IN THE ENCLOSED ENVELOPE

BY

Sincerely,

Anne Rich
Research Director

INSTRUCTIONS

Following these instructions, you will find an application for a loan from Mr. Norris, who is presently the owner of a gas station and camping supplies store. You will be asked to make a decision to grant or deny him the loan. After you read the case, you will be required to make a decision based on the information provided. Additional information cannot be obtained. Obviously, neither can a personal interview. Make any inferences you need exclusively from the information provided and your own experiences. Then complete the questionnaire found at the end of the case information.

The following is true about your economic banking environment:

1) You are to assume the money market is the same as it exists today.

2) You have loanable funds. Your branch is not concerned with branch loans/dep. ratio.

3) The amount of the loan requested for this individual does not exceed bank policy.

4) The purpose of the loan is acceptable to the bank.

5) The interest rate of 11% was set by top bank management in order to achieve acceptable profit margins on the overall loan portfolio.

6) Terms of longer than 5 years are discouraged for long-term installment loans.

7) You have authority to lend Mr. Norris the amount requested. No additional committee approval is required.

8) Mr. Norris is not a minority owner.

9) The SBA has not been asked to guarantee this loan.

10) Mr. Norris has not been a customer of your bank, but is willing to use your bank for his banking needs.

11) <u>If you feel the risk is acceptable, but not at the stated terms, interest rate and conditions, you may state your terms, interest rate, and conditions.</u>

MR. PETER NORRIS

Route 6

Princeton, Connecticut

1. Application for loan

2. Terms desired by borrower

3. Amortization schedule

4. Brief description and history of business

5. Purpose of loan:

    a. Construction plans
    b. Supplies to be purchased
    c. Repayment of existing loan

6. Background of principal

7. Financial information:

    a. Business balance sheet year-years
       ended 74/75/76
    b. Business balance sheet - June 1, 1977
    c. Schedule of accounts receivable
    d. Schedule of inventory
    e. Schedule of equipment
    f. Schedule of real estate
    g. Schedule of accounts payable

8. Income statements for years ended 74/75/76:

    a. Income from camping and equipment,
       74/75/76
    b. Income statement, six months ended
       June 30, 1977

9. Credit history:

    a. Schedule of installment debts
    b. Credit bureau report
    c. Relationships with banks

10. Income projections

11. Cash flow

12. Pending litigation

13. Collateral available and appraisal results

14. Industry statistics

PERSONAL STATEMENT

o not leave any
unanswered.

Date Ack.	Processed By

ENT. OF .... **Peter and Kathy Norris**

.... **Route 6, Princeton, Connecticut 06464**

PERSONAL AND EMPLOYMENT BANK

ndersigned for the purpose of procuring credit from time to time, in whatever credit may be asked or extended, hereby furnishes the following as a true and atement of the financial condition of the undersigned on the 30

August 19 77, and as a substantially correct condition of the undersigned at the time when this statement

ndersigned agrees to notify said The First New Haven National Bank immediately, if any material unfavorable change in financial condition and agrees that notice is given, the statement furnished herewith is to be considered as con-d substantially correct.

lso agreed that upon any application for further credit after the day upon accompanying statement is furnished, said statement shall be considered as fully letely stating the financial condition of the undersigned at the time such further requested, except for minor changes in the ordinary course of business since hing of said statement, unless at said time corrections are furnished in writing. ition to all other remedies it may have, the undersigned hereby give(s) to said ntinuing lien for the amount of all obligations of the undersigned to said Bank, ng or hereafter contracted upon all interests of the undersigned in any property to the undersigned now or hereafter in the possession of said Bank in any and also upon the balance of any deposit account of (any of) the undersigned Bank at any time existing, and upon all property and securities of every

description now or hereafter left in the possession of, or custody of said Bank for safe-keeping, or otherwise, by or for account of the undersigned, such deposit balance and other property to be regarded as additional collateral security for all of said liabilities with a right to said Bank to resort, in its discretion, to said collateral and/or other property and/or deposit in such order as it shall deem best.

In consideration of the granting of any credit at or after the time when the within statement is furnished, or the extension or renewal of any obligation now or hereafter existing, it is agreed that if the undersigned at any time fails, or becomes insolvent or commits any act of bankruptcy, or permits any note or other credit instrument held by said bank upon which the undersigned is liable as maker or indorser to become overdue; or fails to notify the bank immediately of any change in financial condition as herein agreed, or in case any part of the statement furnished herewith is untrue, or if, at any time, in the opinion of the Bank, any such change occurs in the financial condition of the undersigned as, in the opinion of the Bank, increases its risk; then in any such case all obligations of the undersigned held by the Bank, or by any person on its behalf, or which have been in any manner assigned by the Bank to any other person, firm, or corporation, shall immediately become due and payable, without demand or notice.

Said Bank may, at its option, resort to such method of collection as it may deem appropriate, with or without resort to any collateral or other property or rights against which the lien, herein given, shall exist, and the undersigned agree(s) to pay all costs of collection and reasonable attorneys' fees in the case of non-payment of any obligation of the undersigned to said Bank when due.

ASSETS					LIABILITIES				
ng Account Balance	$ SEE				Accounts and Bills Owing	$			
	ATTACHED				Notes Payable to This Bank	SEE			
s Account Balance					Notes Payable to Other Banks	ATTACHED			
	BALANCE SHEET				Bank(s)				
ts and Notes Receivable					Other Notes Payable	BALANCE SHEET			
les (see schedule)					Loans Covered by Security Agreements				
Value Life Insurance (see schedule)					(Chattel Mortgages)				
state Owned (see schedule)					Taxes				
obiles (see schedule)					Due to Others				
Assets — Itemize (see schedule)					Mortgages on Real Estate (see schedule)				
					Total Liabilities				
					Net Worth				
TOTAL	$				TOTAL	$ 321	812	27

EMPLOYMENT	IF IN BUSINESS FOR SELF
	Firm or Trade Name ...... **Norris' Auto Sales**
	Address ...... **Route 6, Princeton, Conn**
Phone	Phone
of Business	Kind of Business **Retail camping and service stat**
osition	Your Interest in **100%** How **18 years**
ong With This Employer	the Business Long
s Employer	Trade References

INCOME				FIXED EXPENSES			
and Commissions				Rental or Mortgage Payments ...... SEE ATTACHED SCHEDULE			
ds				Other Installment Payments			
state Income	SEE ATTACHED SCHEDULE			Taxes — Real Estate			
				Federal Income Tax Paid Last Year			
ncome (income from alimony or child support need revealed if you do not choose to rely upon it as a or undertaking or repaying this credit obligation.)							
TOTAL				**GENERAL INFORMATION**			

GENERAL INFORMATION	
Amount of Contingent Liabilities	NONE
Have you ever taken bankruptcy?	NO
Explain	

PERSONAL INFORMATION

cation should not be completed if for a single signature, unsecured. Married ☒ Separated ☐ Unmar-(the term "unmarried" includes widowed and divorced).

Dependents .....2.....
Will — Yes ☐ No ☒

Executor .....

SCHEDULES ON REVERSE SIDE

LIST HERE ALL REAL ESTATE YOU OWN

Location and Description of Property	Title in Name Of	Assessment	Cost	Market Value	Mortgages	
					Amount	Holder
See attached schedule						

LIST HERE ALL SECURITIES YOU OWN

Description	Title in Name of	Units	Market Value	Total
NONE				

GENERAL INSURANCE

Fire—
Burglary—
Public Liability—
Other—

LIFE INSURANCE CARRIED

Insured	Name of Company	Beneficiary	Face Amount	Cash Surrender Value	Loans
Peter Norris	John Hancock	Kathy Norris	$50,000	none	none
Peter Norris	Combined Ins. of America	Kathy Norris	10,000	none	none

OTHER ASSETS

Description	Purchase Price	Date Purchased	Present Value
None			

GIVE NAMES OF BANKS, FINANCE COMPANIES, DEPARTMENT STORES AND OTHER SOURCES WHERE CREDIT HAS BEEN OBTAINED

Name	Address	High Credit	Balance Now
Colonial Bank	Naugatuck, Connecticut		
Princeton Trust	Princeton, Connecticut		
State National	Bridgeport, Conn		

TERMS DESIRED BY BORROWER

MR. NORRIS IS SEEKING A FIVE YEAR LOAN AT AN 11% RATE OF INTEREST.

A schedule of periodic payments at various terms and interest rates

is presented :

SCHEDULE OF MONTHLY PAYMENTS NECESSARY TO AMORTIZE A LOAN OF $90,000.

Rate of Interest	1 Year	2 Years	3 Years	4 Years	5 Years
10%	7,912	4,153	2,904	2,283	1,912
11%	7,954	4,195	2,947	2,326	1,957
12%	7,996	4,237	2,989	2,370	2,002

BRIEF DESCRIPTION
AND
HISTORY OF BUSINESS

Mr. Norris owns commercial and residential property running along
Route 6, a heavily trafficked road, 1½ miles from Route 74, a major
interstate thruway. The property consists of a gas station, repair
shop, body shop, campers and camping supply shop, a commercial build-
ing, and two homes (one used for residence, the other is rented).

DESCRIPTION OF BUSINESS

Norris Camping Sales and Supplies is a proprietorship. The main sources of income come from merchandising camping equipment and supplies. Equipment includes caps, trailers, campers. Supplies includes hundreds of small and large items. Other sales are made involve snowmobiles, used cars, hitches, and boats. Service income is also received throughout the year from repairs, hitching and wiring. Rental income is received from the renting of a motor home and smaller campers. The high revenue months are from April to October, but the camping business is open throughout the year to accommodate vacation camping, hitches, and labor services for hitching and wiring new cars and equipment.

Market

Presently the market consists of local customers attracted by (1) newspaper advertisements, (2) a sign clearly seen from Route 6, and (3) goodwill built up over the years. In addition, catalogs, distributed at camping shows, bring in customers from as far as 20 miles away.

The customers' needs for supplies are met by inventory on hand and special orders. Catalog sales are filled in 2-4 days. Customers needs for equipment are satisfied through current inventory on hand and special orders. Delivery on special orders take 2-4 weeks. Rentals are made only from available stock.

With an easily accessible showroom and continued distribution of the catalog, Mr. Norris feels he can increase his supplies business five-fold and double his present large equipment sales.

Prices will remain at manufacturer's suggested prices for supplies and equipment (25% gross profit). Used equipment can achieve higher gross profit margins when careful buying is achieved.

Mr. Norris will continue to participate in local camping shows, and mini-mall displays.

In the past, Mr. Norris arranged "floor-plan" agreements with major suppliers, but found the agreement required purchase of more equipment than he desired and thus it was discontinued.

Mr. Norris selects only top quality merchandise by suppliers who stand behind their products. Norris' pricing strategy is that it is pegged to competitive prices - usually list prices set by vendors. The pricing often reflects a total package of product and service, and Mr. Norris will not underprice his service. His major suppliers are:

1) For major equipment: AMF Scamper and Vega

2) For supplies: Cowen Distributors, Campus Pride and Connecticut Recreational Supply

Competition

There are no close competitors for major camping equipment. There are no close competitors for supplies although the discount stores carry some of the necessary camping supplies. There are no close competitors experienced with wiring and hitching.

Location

Princeton, Connecticut is a small town in the valley area of Connecticut and located 10 miles north of New Haven and 15 miles south of

Waterbury. Since it is a highly industrial area, often hit hard by changes in the economy, camping offers the people in the area an inexpensive vacation. Thus, the present location offers easy access to the community as well as being adjacent to the gas station, and repair shop, which is well-known to the community.

However, the second floor office and storeroom is not adequate to obtain full benefits of marketing strategy. A showroom is needed to display supplies inventory and store items as well as provide catalog descriptions of goods available.

Mr. Norris feels a 50' x 45' building will accommodate his present needs and could be expanded for future growth. The building will have adequate display room as well as repair and office space.

Management

Mr. Norris has been in the camping sales and supplies business since 1968. His previous experience in garage work allows him to identify problems and repair them efficiently. Mr. Norris makes all the business decisions.

Mr. Norris' wife, Kathy, supervises the office work. His two teenage children also assist in the business.

Other Resources

One full time employee, paid from body shop income, provides labor services for camping repairs, hitching, and wiring. This is estimated to be 20% of employee's time. If future needs demand additional labor assistance, another employee will be added.

PURPOSE OF LOAN

Benefits the business will receive if loan is granted.

The purpose of the loan is to:

Buy camping supplies..........................$40,000

Pay off existing installment loans............$20,000

Erect showroom and storeroom..................$30,000

$90,000

Construction Plans (a)

Since the business now operates from a second floor office and storeroom, the loan will enable Mr. Norris to erect a showroom for customer access to supplies and better display of inventory. Construction extimates have been obtained from Brista Company, (Exhibit I). Additional inside work will be completed by Mr. Norris.

Supplies Purchases (b)

In addition, loan will enable Mr. Norris to increase his inventory of supplies. Presently, the inventory on hand does not provide sufficient selection for customers. Supplies from Cowen Distributors and Campus Pride will be increased with the following items:

Batteries
Lanterns
Coleman Stoves
Hitches
Tire Carriers
Electrical Supplies
Plugs

Existing Loans (c)

These were drawn in order to finance the motor home, framing machine, cash flow, and truck.

EXHIBIT I

Construction Quote

May 3, 1977

Mr. Peter Norris
Norris' Sales and Service   Re: Proposed Building
Route #6   Princeton, CT.
Princeton, Connecticut

Dear Mr. Norris:

In accordance with your recent request we are pleased to offer our proposal
to construct an ATLANTIC Pre-Engineered building on your property located
in Princeton, Connecticut.

The building proposed is as follows:

SIZE: 50' wide clear span by 45' long with an eave height of
       10' at the sides. (Building to sit on concrete wall).
       The front endwall includes a frame for future expansion.

ROOF AND WALL PANELS will be 26 ga. gal. prefinished at the factory.

INSULATION for the roof and walls will be 2" thick 3/4# density, with
a 6 mil vinyl vapor barrier. INSULATION RETAINER STRIPS have been in-
cluded for the roof area.

ACCESSORIES for the building include:

a) Three (3) 10' wide by 12' high wood overhead doors prime painted.
b) Two (2) 3 x 7' x 1-3/4# thick steel pass doors.

Our proposal price for the above including erection, freight, and
Connecticut State Sales Tax is in the amount of $19,410.00.

CONCRETE FOUNDATION AND FLOOR:

To furnish all labor to form and pour the foundation including a 5"
concrete floor, add $7,300.00 to the above price. The foundation will
have 10" concrete walls 4' above the floor line. The building would sit
at this elevation. Eave height for the finished building will then be
14' high.

To furnish and install an INTERIOR LINER PANEL on all walls from the
top of the concrete to the roof add $2,629.00 to the above prices. The
panel will be the same as the exterior and prefinished. This will pro-
tect all wall insulation from damage and will allow you to wash the
interior walls.

If GUTTERS AND DOWNSPOUTS are required for both sides of the building, add $336.00 to the above prices.

ROOF SYSTEM ONLY:

If the owners construct the foundation, building walls and install the overhead doors the cost of the roof system only will be in the amount of $6,814.00.

We thank you for the opportunity to furnish our proposal and hope we may be of service to you.

RESPECTFULLY SUBMITTED BY: The Brista Company, Inc.

BACKGROUND OF PRINCIPAL

Peter Norris, age 43, grew up in Princeton, Connecticut, one of the valley towns. He worked in a rubber shop for three years after graduating from Princeton High School. After marrying Kathy in 1955, he continued to work there for three more years until an opportunity arose to rent and manage his own garage. In 1958, the property he now owns became available and through savings, he was able to place a down payment on the property and give the former owner, a widow, a note for the remainder. Through hard work and his own labor, Peter built up the gas station and repair shop and added a body shop. In 1963, a fire destroyed the existing gas station and adjacent building, but no damage was done to the two-family house, or his own residence. Insurance proceeds only covered enough to replace the structures.

Peter refused to declare bankruptcy, but instead chose to rebuild his business, replenish his stock and repay his creditors. He accomplished this over the next several years. He rebuilt most of the internal structure by himself.

In 1968, he expanded his business to include camping equipment and supplies. By 1971, he was distributing a 200 page catalog and attending camping shows.

In 1973, in order to give the camping business more attention, he leased the gas station, but kept the body and repair shop. In 1976, the leasee left and Norris again took over operations of the gas station.

During these years of business in Princeton, Peter has been active in the Men's Club, holding the office of President in two of the past years. He is also a member of the Chamber of Commerce, Connecticut's Small Business Federation, as well as a member of Recreation Vehicles Associations. He has also chaired the town's Heart Fund Campaign.

People in the area believe him to be an honest business person who deals in quality merchandise and service. He stands by the guarantees he and his suppliers make.

His two employees, a body shop serviceman and a bookkeeper, believe him to be a respectable person and good employer.

THE FOLLOWING INFORMATION WAS
PREPARED BY YOUR BANK FROM CLIENTS
RECORDS. M. ZERN, A REPUTABLE CPA
KNOWN TO YOUR BANK, ASSISTED IN
THE PREPARATION OF THE CLIENT'S
FINANCIAL INFORMATION.

Peter Norris L/D/A NORRIS   AUDITOR _____ (FIRM)
RESS Pt 6 Princeton   Auto   BUSINESS Camping & Auto Service   CORP. D.&B.

ASSETS			%	1976	%	1975	%	1974	%			%
ETABLE SECURITIES				.3		.7		1.0				
UNTS RECEIVABLE				4.0		1.9		2.0				
RECEIVABLE												
QUICK ASSETS				5.3		3.6		3.0				
TORY				70.7		71.3		67.3				
CURRENT ASSETS				76.0		73.9		70.3				
FIXED ASSETS												
ACCUMULATED DEPRECIATION												
IXED ASSETS				24.0		26.1		29.1				
TMENTS												
AID INSURANCE, TAXES, ETC.									✓			
GIBLES												
ASSETS				100.0		100.0		100.0				
LIABILITIES												
PAYABLE BANKS				16.1		18.8		18.0				
UNTS PAYABLE				9.1		7.3		8.7				
UALS												
NT MATURITIES L.T.D.				1.8		1.4		1.1				
CURRENT DEBT				27.0		27.5		27.8				
TERM DEBT				23.0		24.3		26.5				
UNSUBORDINATED DEBT				23.0		24.3		26.5				
RDINATED DEBT												
LIABILITIES				50.0		51.8		54.3				
ners Equity				50.0		48.2		45.7				
AL - PREFERRED STOCK												
AL - COMMON STOCK												
IN SURPLUS												
NED EARNINGS												
ORTH				100.0		100.0		100.0				
LIABILITIES & NET WORTH				100.0		100.0		100.0				
ORKING CAPITAL												
AL FUNDS												
S: QUICK				.2		.1		.1				
NT				2.8		2.7		2.5				
TO WORTH				.5		.5		.6				
TO WORTH				1.0		1.1		1.2				
ORDINATED DEBT TO CAP. FUNDS												
TO RECEIVABLES (DAYS)				5.93		6.06		8.18				
OF SALES TO INVENTORY (DAYS)				134		321		384				
TO NET WORKING CAPITAL												
TO NET WORTH				7.8		2.4		2.3				
OFIT TO NET WORTH				13.6		8.3		11.8				
OFIT TO TOTAL ASSETS				6.9		4.0		5.4				

E 13   REVISED 2/72

PETER NORRIS D/B/A NORRIS' AUTO SALES

INCOME STATEMENTS (Common Dollar)
For Years Ending 1976, 1975, 1974

	1976		1975		1974	
	$	%	$	%	$	%
Net Sales (1976 includes Gas Station)	382194	100%	182250	100%	139783	100%
Cost of Sales	301049	79%	125973	69%	96479	69%
Gross Profit	81145	21%	56277	31%	43304	31%
Operating Expenses	74245	19%	63292	35%	46040	33%
Operating Profit	6900	2%	(7015)	(4%)	(2736)	(2%)
Other, Real Estate Rental and Lease Income (1975 and 1974 Gas Station Lease)	3900	1%	13300	7%	10900	8%
Profit	10800	3%	6285	3%	8164	6%

MARK JOHN ZERN

CERTIFIED PUBLIC ACCOUNTANT

————

TELEPHONE (203) 272-7343

10 PROMONTORY DRIVE
CHESHIRE, CONN. 06410

September 1, 1977

Dear Loan Officer:

Mr. Peter Norris has requested that I furnish your office with
financial information to be considered part of his loan application.

The accompanying balance sheets of Peter Norris, D/B/A Norris' Auto
Sales, as of December 31, 1974, December 31, 1975, December 31, 1976 and
June 30, 1977 and the related statements of operations were not audited by
me and accordingly I do not express an opinion on them.

Mark Zern

PETER NORRIS D/B/A NORRIS' AUTO SALES

Balance Sheets
Years Ending 1976, 1975, 1974

	1976	1975	1974
Assets:			
Current			
Cash	2013	1095	1528
Accounts Receivable, net	6211	3022	3124
Inventory	110920	110917	101620
TOTAL CURRENT ASSETS	119144	115034	106272
Fixed and Other Assets			
Lands and Buildings, net	33559	36524	40003
Machinery and Equipment, net	4233	3981	4505
TOTAL FIXED & OTHER ASSETS	37792	40505	44508
TOTAL ASSETS	156936	155539	150780
Liabilities:			
Current			
Notes Payable to Banks	25612	29246	27212
Accounts Payable	14298	11391	13116
Current Portion-Mortage	2918	2154	1602
TOTAL CURRENT LIABILITIES	42728	42791	41930
Long-Term Mortgage Payable	35000	37818	39972
TOTAL LIABILITIES	77728	80609	81902
NET WORTH	79208	74930	68878

NORRIS' AUTO SERVICE
Balance Sheet - June 30, 1977

Assets:	CAMPING	BODY SHOP	GAS STATION	REPAIR SHOP	UNALLOCATED	TOTAL
Cash					2800	2800
Accounts Receivable (Sch.A)					11440	
Less Doubtful Accounts					(2600)	
Net Receivables					8840	8840
Gasoline			1600			1600
Supplies (Note 1)	13812		4092	12000		29904
Used Cars	5550					5550
Used Equipment	2825					2825
Boats, Trailers, Canoes,	25434					25434
Snowmobiles						
Hitches, Bumpers	3400					3400
TOTAL INVENTORY	51021		5692	12000		68713
Machines & Equipment (Sch.C)						
Motor Home (At Cost)	11000					11000
Equipment, Other (At Cost)	3500	11619	4161	13000		32280
Office Equipment (At Cost)	3000					3000
Trucks & Auto (At Cost)	13500			15000		28500
TOTAL	31000	11619	4161	28000		74780
Less Accumulated Depreciation					(10154)	(10154)
Total Machines & Equipment						64626
Buildings (Sch.D)						
Garage (At Cost)				28324		28324
Improvements (At Cost)					15479	15479
TOTALS				28324	15479	43803
Less Accumulated Depreciation				(9736)	(9808)	19544
Net Buildings & Improvements				18588	5671	24259
Land (Sch.B)					9300	9300
TOTAL ASSETS	82021	11619	9853	58588	16457	178538

NORRIS' AUTO SERVICE - Balance Sheet - June 30, 1977 (Page 2)

Liabilities:

	CAMPING	BODY SHOP	GAS STATION	REPAIR SHOP	UNALLOCATED	TOTAL
Notes Payable (Sch. C)	10078.53	3584.68				13663.21
Notes Payable, Secured/Unsecured			2823.60		7850	10673.60
Accounts Payable (Sch. D)					12629.92	12629.92
Mortgage Payment (Sch. C)					34400.00	34400.00
TOTAL LIABILITIES (Note 2)	10078.53	3584.68	2823.60		54879.92	71366.73
Net Worth At Original Cost						107171.27

SCHEDULE A
ACCOUNTS RECEIVABLE

	30 Days	60 Days	90 Days	More than 90 Days
$1.00 to $100.	$ 858.55	$ 343.04	$ 260.43	$ 870.13
$100. to $200.	231.15	113.67	118.50	1239.03
$200. to $300.	261.76			270.51
$300. to $400.				
$400. to $500.				440.20
$500. and Up	2545.25	1366.86		2520.93
TOTALS	$3896.65	$1823.57	$ 378.93	$5340.85

SCHEDULE B: INVENTORY

Camper Stock Inventory

233.95	1 8545 22" MM Electric St. 4 Hp.
1,387.89	3 Snowblowers, New
250.00	1 Snowblower Att. for Tractor
850.00	1 Used 10 Hp. Gilson Riding Tractor with Mower
1,200.00	1 New 8 Hp. G. 9 Bolen Riding Tractor with Mower
132.55	1 Model No. 9635 Bolen Rotary Mower
155.95	1 Model No. 8535 Bolen Rotary Mower
263.68	1 Model No. 2150 Bolen 5 HP. Tiller
298.60	1 4 Hp. Johnson Outboard
410.00	1 6 HP. Johnson Outboard
370.00	1 Bianchi MoPed Bike Eagle
1,650.00	2 Used Snowmobiles
240.00	1 Aluminum Canoe, 15'
175.00	1 500 Lb. Boat Trailer, Dilly, New
4,500.00	Pickup Caps
1,800.00	Sk131C Scamper Popup, 1976
5,600.00	1 SK260F, Scamper, Fifth Wheel
1,100.00	Used 1971 Apache Solidstate
750.00	Used 20' Cabin Cruiser, 1963 Rebel Craft
250.00	Used Tent, TR1
400.00	3 Plastic Boats
125.00	Scamper Tent Tri. Roof, New
3,301.00	Caps
$25,434.00	

SCHEDULE B: INVENTORY

Used Car Inventory

150.00	64 Dodge GT
2,000.00	66 Corvair Corga Spring) unfinished 1900 mi.
150.00	5 Cars for Parts
200.00	66 International Cab & Chassis for Parts
150.00	62 Chev. Pickup
200.00	62 Chev. Walkin Van
500.00	69 Fairlane, 2 Dr. Htp., 28,000 MI.
1,000.00	72 Toyota, 2 Dr. Sedan
1,200.00	68 Buick Riviera, 32,000 Mi.
$5,550.00	

Used Equipment-Inventory for Resale

1,000.00	2 Rigging Winches w/4 Cyl. Gas Engine
300.00	16' Fiberglass Boat & Trailer
1,200.00	Used Outboard Motors
250.00	Used Plow, Complete
75.00	Tire Machine
$2,825.00	

SCHEDULE B: INVENTORY

Parts Room, Gas Station - Inventory

	2 Boxes Sparkplug w/Boots
681.00	681 Sparkplugs
90.00	45 Distributor Caps
	13 Distributor Caps w/Rotors
	9 Wire Sets
	50 B.C.U.
	130 Point Sets
82.00	82 Condensers
	48 Rotors
	46 Brush Sets
	14 Volt Regulators
	1 Coil
	26 O.I.P.S.
	33 Tem. S.S.
	9 Modulators
	21 Starter Drives
	40 Stoplite Switches
	5 Coil Resistors
	7 Dimmer Switches
	12 Battery Cables
	10 Starter Switches
	3 Dash Pots
	7 Vacuum Controls
	13 Horn Relays
	6 Battery Ends
	5 Brake Takeups
	3 Radiator Caps
	3 Thermostats
	32 Brake Shoes
	5 Disc Pads
	6 Water Pumps
	18 Fuel Pumps
	1 Asst. Brake
	Expander Cups
	20 Roller Bearings
	18 Seals and Cones
	66 Muffler Clamps
	6 Hangers
	45 Universal Joints
	2 Tierod Ends
	1 End Yoke
	53 Oil Seals
	2 Water Outlets
	38 Carb. Jiffy Kits, Used
	3 Boxes Gasket Making Material
	14 Boxes Hose Clamps
11.00	½ Roll 3/16 Hose
15.00	50' 3/4 Hose, Water
15.00	50' 5/8 Hose, Water
23.00	50' 5/16 Gas Hose
11.00	25' 3/8 Gas Hose
100.00	50 Gasket Sets, All Parts Used
50.00	5 Rebuilt Starters
30.00	3 Rebuilt Generators
	Nut and Bolt, Asst.
4,092.00	

SCHEDULE B: INVENTORY

Repair Shop - Inventory for Resale

500.00	Fanbelt, Assort.
300.00	11 Batteries
400.00	14 New Reg. Tires
250.00	13 Recap Snow Tires
105.00	42 Air Filters
20.00	16 Gas Filters
200.00	45 Used Tires
77.50	31 Oil Filters
90.00	30 Used Rims
60.00	11 Cartine Tubes
7,898.50	Ignition, Sparkplugs, Seals, etc.
600.00	Chemicals, Waxes, etc.
200.00	Anti-Freeze, 5 Cases
90.00	Misc. Light Bulbs, Fuse & Flashers
150.00	Soda
120.00	Windshield Wipers, Plus Cabinet
150.00	Oil
200.00	Tire Patches, Plugs, etc.
140.00	Key Blanks
450.00	Used Tires & Rims, Outside
29.00	2 New Mufflers
250.00	Snap-on Trans. Tool Kit
12,000.00	

SCHEDULE C: EQUIPMENT

<u>CAMPING</u> - Trucks & Autos Equipment

68 Chevy 4 x 4 Pickup (Utility) & 4 Way Plow	$ 3,000
76 Chevy Pickup, Heavy Duty Camper	6,000
73 Cadillac, 4Dr. Sedan, DeVille	4,500
	$13,500

<u>MOTOR HOME</u>

1977 Scamper Motor Home, Model SK226	
Used for Rental	11,000
	$11,000

<u>OFFICE</u>

Misc. Desks, Files, Typewriters,	
Duplicating Machines	3,000
	$ 3,000

<u>OTHER EQUIPMENT</u>

Storage Trailer, 60 Foot	800
Boat Trailers (30', 22', 15')	2,200
Pickup Cap Racks	350
Pickup Boat Racks	50
Display Racks	100
	$ 3,500

SCHEDULE C: EQUIPMENT

Body Shop Equipment

400.00	1	Electric Welder
250.00	1	Acetylene Torch and Cart
5,000.00	1	Frame Straightening Machine Complete
	1	Set Frame Gauges
250.00	1	Porto Power Set
35.00	1	Masking Machine
150.00	2	Paint Spray Guns
90.00	1	Air Jitterbug Sander
40.00	1	Air D.A. Sander
110.00	1	Air Sanding Board
40.00	1	Air Drill
25.00	1	416 Dent Puller
50.00	3	Suction Cups
5.00	1	Rubber Sanding Block
6.00	1	Hand Sanding Board
60.00	1	Air Panel Cutter
35.00	1	Pop Rivet Gun and Kit
40.00	2	100' Electric Extension Board
40.00	2	50' Air Hose
85.00	1	Air Regulator
2.00	1	Caulking Gun
30.00	1	Work Bench, 1 Cabinet
16.00	1	Foot (50') Garden Hose
110.00	1	Exhaust Fan in Wall
150.00	1	Battery Charger

Body Shop Stock

600.00	Paint, Sandpaper, etc.
500.00	New and Used Body Parts
75.00	Anvil
3,000.00	3 Rollaway Snap on Tool Bodies w/Tools
150.00	Body Shop Manuals
125.00	Welding Supplies
$11,619.00	

SCHEDULE C: EQUIPMENT

Repair Shop Equipment

6,500.00	1 Hunter Frontend Machine and Acc. and Special Tools
3,500.00	1 Amco Brake Service Machine, Complete
400.00	1 Steam Jenny
200.00	2 Battery Chargers
150.00	1 Auto Trans. Jack
300.00	1 Air Jack
400.00	1 20 Ton Press
700.00	1 Engine Analyzer and Tester
80.00	Jack Stands
300.00	2 Air Conditioner Service Kits
50.00	1 Bench Grinder
25.00	1 Bench Vise
1,000.00	1 Tire Machine
850.00	1 Hydraulic Engine Hoist
850.00	1 Cash Register
1,120.00	1 Soda Vending Machine
150.00	1 Bubble Wheel Balancer plus Wheel Weights
50.00	1 Speed Balancer
35.00	1 Portable Air Tank
	1 Service Desk
25.00	1 Workbench
150.00	1 Drill Press
428.00	1 Key Machine
110.00	1 Exhaust Fan in Wall
400.00	Miscellaneous
	1 Battery Tester
	2 25' Drop Lights
	1 Water Tank Tube Tester
	Repair Manuals
	Greasing and Equipment
	Funnels and Pans
9,727.00	Tool Room Equipment
500.00	7 Sets of Tire Chains for Shop
$28,000.00	

Schedule D: Business Real Estate

Description	Original Cost	Date Acquired	Yearly Rental
Garage	28,324	1958	12,000
Land	9,300	1958	
Improvements	15,479		_____
	$53,103		$12,000

Note: Original mortgage of $80,000 includes garage ($28,324),

land ($9,300), personal residence ($16,174), two family

house ($20,502) and commercial building ($5,700).

SCHEDULE E
ACCOUNTS PAYABLE

Bowman Products	$ 255.32
Curtis Industries	496.73
Frost Company	328.16
Goodyear Tires	195.39
Larry's Auto Parts	830.00
New England Welding	116.37
Oxford Paint & Hardware	440.00
Seymour Lumber	2,000.00
Seymour Auto	901.00
Suburban Propane	105.85
Jack Thorp	678.00
Tire Shack	554.59
W.O.W.W.)	394.33
W.F.I.F.) Radio	70.00
W.I.O.U.)	934.50
Snap-On-Tool	72.25
Skamper Corp.	3,000.00
Misc.	862.94
Eastern Auto Parts	391.49
	$12,629.92

PETER & KATHERINE NORRIS
Income Statement
For Years 1974, 1975, 1976

	1976	1975	1974
Gross Receipts (See Note 2)	$382,194	$182,250	$139,783
Less C/G/S			
Beginning Inventory	110,917	110,620	63,380
Purchases	298,055	132,113	133,773
Labor	965	870	698
Freight	2,032	2,287	248
	$411,969	$236,890	$198,099
Less Ending Inv.	110,920	110,917	101,620
C/G/S	301,049	125,973	96,479
Gross Profit	81,145	56,277	43,304
Rental Income (See Note 2)	3,900	13,300	10,900
Total Income	85,045	69,577	54,204
Less Expenses			
Depreciation	4,922	3,993	4,263
Taxes	14,699	15,639	10,158
Repairs	899	671	505
Salaries & Wages	26,769	20,044	11,143
Insurance	5,480	3,822	4,521
Interest	4,089	4,154	3,861
Legal & Acctg.	449	1,173	400
Station Auto	2,152	1,875	1,390
Utilities	6,873	6,154	4,422
Misc.	296	---	82
Supplies	2,879	119	291
Advertising	2,473	2,956	2,282
Dues & Subs.	150	203	40
Laundry & Cleaning	157	100	98
Office Supplies & Expenses	804	1,687	1,547
Bank Charges	809	457	589
Licenses & Permit	345	245	448
Total Expenses	$74,245	$63,292	$46,040
Net Profit (Sch.C)	10,800	6,285	8,164
Other Income:			
Rental Income	3,125	3,000	3,300
Rental Expenses	1,637	1,536	1,752
Depreciation	1,048	905	1,121
	1,048 1,488	589 1,464	631 1,548
Total Income	$12,288	$7,749	$9,712

NORRIS' AUTO SERVICE
Income Statement
For Six Months Ended June 30, 1977

	Camping & Body Shop	Rental	Gas Station (Note 1)	Total
Revenue				
Cars & Caps	10320			10320
Campers	21809			21809
Motor Boats & Trailers	4670			4670
Supplies	14438		3652	18090
Gas & Oil			117720	117720
Vending			672	672
Rental Income	1130	3644		4774
Service Income	5105			5105
TOTAL INCOME	57472	3644	122044	183160
Less Cost of Goods Sold				
Purchases	16607		112907	129514
Labor	5016		2642	7658
TOTAL COST OF GOODS SOLD	21623		115549	137172
GROSS MARGIN	35849	3644	6495	45988
Less Expenses				
Depreciation	1996	300	502	2798
Office	294		42	336
Utilities	4011			4011
Misc. Purchases			489	489
Shop Expenses			957	957
Insurance	1018		1018	2036
Advertising	520			520
Dues & Licenses	252			252
Donations	65			65
Accounting	420			420
Interest & Service Charges	818			818
Auto Expense	838		880	1718
Freight	268		12	280
Property Taxes	1150		1149	2299
Salaries	3025			3025
Payroll Taxes	642		211	853
Rent Expense		118		118
Outside Labor			90	90
Laundry			126	126
TOTAL EXPENSES	15317	418	5476	21211
NET INCOME	20532	3226	1019	24777

1. Summary of Significant Accounting Policies

The company, a sole proprietorship, follows the cash basis of accounting except for inventories which are on the accrual basis.

Inventory - Inventory is determined by the lower of cost or market on a Fifo basis.

Property & Depreciation - Operating property and equipment is depreciated on a straight-line basis to estimated residual values over the estimated lives of the equipment. Transportation equipment is depreciated over 5 years. Improvements are depreciated over 10 years and the garage is depreciated over 40 years. All assets are recorded at original cost. Rental property is depreciated over 40 years.

2. Operations

The company consists of a gas station, repair shop, body shop, and camping supplies and equipment. During 1974-1975 the gas station was leased. In 1976 revenue from gas station sales is reported.

On July 1, 1977 the gas station and repair shop, as well as the equipment therein, was leased at the rate of $1000 and $500 respectively.

3. Notes Payable and Long Term Debt

	Interest Rate	Amount	Last Payment
Monthly Installment Notes - Secured			
State National	13.5%	10,078.53	4/1/80
First New Haven	13.0%	3,584.68	5/1/79
Monthly Installment Notes - Unsecured			
Connecticut National	12.0%	2,823.60	3/1/79
Princeton Trust	9.0%	7,850.00	12/1/78
Mortgage Payable: Mrs. Fox	4.5%	34,400.00	1/1/83
		58,136.81	
less - due within one year		13,104.00	
Long term debt		45,032.81	

4. Pledged Assets

The company has pledged to lenders under the institutional loan agreements having a book value at June 1, 1977 of $18,000 consisting of: Motor Home and truck

5. Income Taxes

The company files no direct federal income tax returns. Owner reports operating income on personal tax return or Schedule C. There are no tax loss carryovers as a result of the operations.

6. Commitments & Contingencies

There exist no other commitments and no known law suits or contingencies.

PERSONAL FINANCIAL STATEMENT

Mr. & Mrs. Peter Norris
June 1, 1977

Assets:

Residence (Note 1) (at FMV)	$ 46,000
Real Estate (Note 1) (at FMV)	100,000
Net Worth Business, Fair Market Value (Note 2)	177,612.27
TOTAL ASSETS (Note 3)	$ 323,612.27

Liabilities:

Income Taxes Payable (Note 4)	1,800
NET WORTH - PERSONAL	$ 321,812.27

NOTES TO PERSONAL FINANCIAL STATEMENTS

Note #1.   Personal Real Estate:

	DATE ACQUIRED	COST	YEARLY GROSS RENTAL
Residence	1958	$ 16,174	
Two-Family House	1958	20,502	$ 3,900
Commercial Building	1958	5,700	3,600
		$ 42,376	$ 7,500

Original mortgage of $80,000 includes business ($37,624) and personal real estate ($42,376).

Note #2.   Net Business Worth Determined as follows:

	FMV
Cash	$ 2,800
Accounts Receivable	8,840
Inventory	68,713
Machines & Equipment	64,626
Building & Improvements	58,000
Land	46,000
Total Business Assets	$248,979
Less Business Liabilities	71,366.73
Net Worth - Business(at market value)	$177,612.27

Note #3.   Life insurance policies totally face value $60,000, are owned by wife. No cash surrender value.

Note #4.   Income taxes payable reflect unpaid Federal Income Taxes for the year 1976.

CREDIT HISTORY

Schedule of Installment Debts (a)

WHOM PAYABLE	ORIGINAL AMOUNT	PRESENT BALANCE	RATE OF INTEREST	MATURITY DATE	MONTHLY PAYMENT	SECURITY	PURPOSE
State National	$10,994.76	$10,078.53	13.5%	4/1/80	$305.41	77 Motor Home	Motor Home
Connecticut National	$ 4,231.76	$ 2,823.60	12%	3/1/79	$141.18	None	Framing Machine
First New Haven	$ 3,910.56	$ 3,584.68	13%	5/1/79	$162.94	76Truck	Truck
Princeton Trust	$ 7,900.00	$ 7,850.00	9%	12/1/78	$109.25	None	Working Capital
Mrs. Fox	$80,000.00	$34,400.00	4.5%	1/83	$540.08	Real Estate Includes Residential home	Home and Buildings

NAME. PETER NORRIS

DATE Sept. 1, 1977

ADDRESS Route 6, Princeton, Ct.

BY Your Bank

Central File (Checking & Savings)

TITLE	ACCOUNT NUMBER	BR	OPENED	AVERAGE BALANCES	RATING N.

Loans

ACCOUNT NUMBER	OPENED	ORIG. AMT.	TERMS	BALANCE	DUE DATE	RATING
See credit bureau report			@			
			@			
			@			
			@			

M/C # _____ ON _____ LIMIT _____ BALANCE _____ HIGH _____

RATING _____

Mortgage Bank

BANK	ORIGINAL AMT.	OPENED	TERMS	BALANCE	RATING
See credit bureau report					

Bank Credit

BANK	TYPE	OPENED	HIGH	TERMS	BALANCE	DUE	RATING
See				@			
Credit				@			
Bureau				@			
Report				@			

COMMENTS: (2) Trade creditors report on time
(3) Trade creditors report 3 times 15 days late
2 Trade creditors report 2 times 30 days late

REPORT ON (NAME)		SOCIAL SECURITY NUMBER:	SPOUSE'S NAME:
NORRIS, PETER		077-38-1207	KATHY

CURRENT ADDRESS:	MKT AREA	SPOUSE SOCIAL SECURITY NO.
ROUTE 6, PRINCETON, CONN.	E HV	983-03-434

PRESENT EMPLOYER AND ADDRESS:	CLOCK #	POSITION	DATE VERIFIED	SINCE:	INCOME BASIS:

BIRTH DATE: 1934	NUMBER OF DEPENDENTS INCLUDING SPOUSE → 3	OWNS/BOARDS/RENTS	TEL. NO. 888-1234

FORMER ADDRESSES:		FROM:	TO:

FORMER EMPLOYER AND ADDRESS:	CLOCK #	POSITION	DATE VERIFIED	SINCE:	INCOME BASIS:

SPOUSE'S EMPLOYER AND ADDRESS:	CLOCK #	POSITION	DATE VERIFIED	SINCE:	INCOME BASIS:
					$

THE FOLLOWING CREDIT INFORMATION INCLUDES: TRADES, INQUIRIES, COLLECTION DATA AND PUBLIC RECORDS.

SUBSCRIBER CODE	VERIFICATION DATE	DATE OPENED	DATE OF LAST SALE(S) PAYMENT (P) REPORTED (R) OR CLOSED (C)	HIGH CREDIT	AMOUNT OWING	ACCOUNT NUMBER	AMOUNT PAST DUE	TERMS	TYPE LOAN	TYPE OF ACCOUNT MANNER OF PAYME
BHV111	8/77	3/77		10,994	10,078	18035914	0	36x305		MTIC01
B649200	6/75	2/73		700	0	27378194	0	14x50		USIC01
BHV6123	8/77	5/77		3,900	3,584	747093242	0	24x163		USIC01
DHV403	10/76	8/75		1,000	0	1792423	0			RU01
BHV321	7/77	1/75		7,900	7,850		50	36x109		USIC02
BHV2	4/77	1/68		M3S	SVG	07148		U		
BHV1	6/77	3/72		L4S	CHK			C		

INQR -1 BHV3620 - 7/20/77 I

Relationships With Banks (c)

There are four banks currently servicing Mr. Norris' business accounts:

	TYPE OF ACCOUNT	OTHERS
Colonial Bank..................Checking		Financed Motorhomes for customers
Princeton Trust...............Checking		Working Capital Loan
First New Haven...............Checking		Master Charge Accounts
Second Waterbury..............Checking		Bank Americard

Reason for seeking new bank to grant loan.

Mr. Norris knows Princeton Trust, his major present banking source, is not able to grant him a loan in the amount he needs.

SUMMARY OF SOURCES OF INCOME
ASSUMING LOAN IS GRANTED
1977 - 1978

Business Income

Camping	$ 24,316
Body Shop	12,000
	$ 36,316

Rental Income

Two-Family House	$ 3,900
Commercial Building	3,600
Garage and Gas Station	12,000
Equipment Rental	6,000
	$ 25,500

Other Income

Gas Rebate	$ 8,700
	$ 8,700

TOTAL	$ 70,516

THE FOLLOWING PROJECTIONS
WERE PREPARED BY M. ZERN,
CPA, A REPUTABLE ACCOUNTANT,
KNOWN TO YOUR BANK.

Projections are based on the following historic data concerning
camping supplies and equipment:

INCOME FROM CAMPING SUPPLIES - EQUIPMENT

	1976	1975	1974
Cars	$ 28,242	$ 17,873	$ 13,835
Caps	18,272	14,535	11,166
Campers	65,763	57,042	53,313
Trailers and Tractors	3,382	6,424	1,164
Minibikes and Boats	2,782	5,351	13,702
Snowmobiles	900	1,595	2,350
Supplies	12,214	19,316	11,083
	$131,555	$122,136	$106,613
Income from Rental camping, equipment and service	42,117	35,992	13,170
Body Shop	30,070	24,122	20,000
Gas Station	178,452		
TOTAL REVENUE per Schedule C	$382,194	$182,250	$139,783

CASH FLOW

PROJECTION OF CAMPERS & CAMPING SUPPLIES BUSINESS
(Note 1)

1977	June	July	August	September	October	November
Sales:						
Cars & Caps	2192	4788	5265	3661	2461	1330
Campers	11045	337	333	13270	5035	6016
Motor boats, trailers (Note 4)	297	1052	74	111	111	138
Supplies	2922	2178	2447	1018	610	426
TOTAL SALES	16456	8355	8119	18060	8217	7910
Other income:						
Service (Note 2)	2000	2000	2000	2000	2000	2000
Rental (Note 3)	1280	1280	1280	1280	1280	1280
TOTAL INCOME	19736	11635	11399	21340	11497	8960
Cost of Sales:						
Cars & Caps (60%)	1315	2872	3159	2197	1477	780
Campers (75%)	8283	252	249	9953	3776	4512
Boats (75%)	222	789	55	83	83	103
Supplies (65%)	1899	1415	1590	662	397	277
TOTAL COST OF SALES (except labor expense)	11719	5328	5054	12895	5733	5672
GROSS MARGIN (55%) (on total income)	8017	6307	6345	8445	5764	3288
Other expenses (Note 5)						
Office	100	100	100	100	100	100
Telephone (270 mo.)	270	270	270	270	270	270
Utilities	266	267	266	267	266	267
Insurance	200	200	2000	2000	200	200
Advertising	200	200	200	200	200	200
Dues and licenses						
Bank charges	30	30	30	30	30	30
Accounting	75	75	75	75	75	75
Wages & payroll taxes	960	960	960	960	960	960
Taxes - property		1000				
Salaries - office	500	500	500	500	500	500
Employer taxes - office	100	100	100	100	100	100
Auto expense	150	100	100	100	150	150
Mortgage payments	540	540	540	540	540	540
Catalogs	240					
TOTAL EXPENSES	4691	4366	5141	5942	3391	3392
NET CASH INCOME	3326	1941	1204	2503	2373	(104)
before loan payment & withdrawals						

	1977	1978				
	December	January	February	March	April	May
Sales:						
Cars & Caps	3103	337	789	826	2331	440
Campers	6016	6592	6692	31468	6093	9033
Motor boats, trailers (Note 4)	450	526	222	194	4548	355
Supplies	458	792	1961	1137	3269	2557
TOTAL SALES	4011	7671	9664	33625	16241	12385
Other income:						
Service labor (Note 2)	500	500	500	500	2000	2000
Rental (Note 3)	370	370	370	550	1280	1280
TOTAL INCOME	4881	8541	10534	34675	19521	15665
Cost of Sales:						
Cars & Caps (60%)	1861	202	473	495	1399	270
Campers (75%)		4512	5019	23601	4570	6775
Boats (75%)	338	395	167	259	3411	266
Supplies (65%)	298	515	1275	739	2125	1652
TOTAL COST OF SALES	2497	5624	6934	25094	11505	8973
GROSS MARGIN (55%) (except labor expenses) (on total income)	2384	2917	3600	9581	8016	6692
Other expenses:						
Fixed, committed (Note 5)						
Office	100	100	100	100	100	100
Telephone (270 mo.)	270	270	270	270	270	270
Utilities	266	267	266	267	266	267
Insurance	200	200	200	200	200	200
Advertising	200	200	200	200	200	200
Dues & Licenses		110	222		44	
Bank charges	30	30	30	30	30	30
Accounting	75	75	75	75	75	75
Wages, payroll taxes	960	960	960	960	960	960
Salaries, office	500	500	500	500	500	500
Employer taxes - office	100	100	100	100	100	100
Auto expense	150	200	200	200	150	150
Mortgage payments	540	540	540	540	540	540
Catalogs		1000				
TOTAL EXPENSES	3391	4552	3663	3442	3435	3392
NET CASH INCOME	(1007)	(1635)	(63)	6139	4581	3300

Peter & Katherine Morris
Annual Projections - with loan
Years 1977-78, 1978-79, 1979-80

	1977-8 (Note 7)	1978-9 (Note 8)	1979-80 (Note 9)
Sales			
Cars &Caps	$ 27,523	$ 36,698	$ 36,698
Campers	95,338	127,117	127,117
Motor Boats,Trailers	8,007	10,769	10,769
Supplies	19,775	39,550	49,438
Total Sales	$150,714	$214,136	$224,024
Other Income			
Labor(Note 10)	16,500	18,750	21,000
Rental(Note 11)	11,170	13,404	16,084
Total Income	$178,384	$246,290	$261,108
Cost of Sales			
Cars & Caps (60%)	16,513	22,019	22,019
Campers (75%)	71,503	95,338	95,338
Boats (75%)	6,058	8,077	8,077
Supplies (65%)	12,854	25,708	32,135
Total Cost of Sales (except labor)	106,928	151,142	157,569
Gross Margin (55% on total income)	71,456	95,148	103,539
Increase due to inflation(10%)	0	9,514	10,354
Total Margin	71,456	104,662	113,893
Other Expenses (Note 12)			
Fixed Committed			
Office	1,200	1,320	1,452
Utilities (Note 13)	6,440	7,084	7,792
Insurance (Note 13)	6,000	6,600	7,260
Advertising	2,400	2,640	2,904
Dues-licenses	400	440	484
Bank Charges	360	396	435
Accounting	900	990	1,089
Property Taxes (Note 13)	2,000	2,200	2,420
Salaries	6,000	6,600	7,260
Employers Taxes	1,200	1,320	1,452
Auto Exp.	1,800	1,980	2,178
Loan Payments	6,480	6,480	6,480
Fixed: Discretionary (Note 14)			
Salaries - Wages	9,600	21,120	23,232
Employers Taxes	1,920	4,224	4,646
Catalogs	340	374	411
Total Cash Expenses	47,040	63,768	69,495

NOTES TO MONTHLY & ANNUAL PROJECTIONS

Note # 1.   Assumes 50% increase in volume in all areas except supplies
which increase will be 100%. This assumes showroom and busi-
ness continuing to exist with catalog sales and upstairs
office and storeroom. No provision for price increases
during 1977 - 1978.

Note # 2.   Rentals and sales require hitching and wiring. Estimate
reflects $500/week during camping season and $125/week
off season.

Note # 3.   Assumes motor home rented ($125/wk) and 5 campers ($100-$145/wk)
will be rental 1/2 time ($370/wk). After each season, inven-
tory is sold and replaced.

Note # 4.   Also includes snowmobiles and snowblowers.

Note # 5.   Expenses reflect only new store and storeroom.

Note # 6.   Loan payments are made until inventory is sold. At time of
sale, loan is paid off. Sale is recognized when full cash
payment is received.

Note # 7.   When loan is received, sales will increase by 50% over 1976
in all areas except supplies which will increase by 100% for
1977 - 1978.

Note # 8.   For 1978 - 1979, sales will increase by 100% over 1976 in all
areas except supplies which will increase by 400% in 1978-1979.

Note # 9.   For 1979 - 1978 sales will increase by 100% over 1976 in all
areas except supplies which will increase by 500% in 1979-1980.

Note #10.   Reflects $375/week average labor income for 1977 - 1978,

20% increase in 1978 - 1979 and 20% increase in 1979 - 1980.

Note #11.   Reflects 10% increase in rental per year.

Note #12.   Expenses reflect 10% inflation per year.

Note #13.   Utilities, insurance and taxes reflect showroom and store-

room expenses.

Note #14.   Additional expenses for expanded business include:

(a) Two new employees (1½ time) for sales and labor.

(b) Additional catalogs.

PROJECT B (Note 1)

Body Shop Income

	1976 Approximate	1977 Projected
Gross Income	$30,000	$36,800
Variable Costs:		
Labor (10-15%)	3,000	
Supplies (10%)	3,000	
Parts (30%)	9,000	
Contribution Margin (50%)	$15,000	$18,400
Fixed Costs:		
Oil	600	600
Electric	800	800
Idle Time	7,000	5,000
	$ 8,400	$ 6,400
Total Costs	$23,400	$24,800
Income	$ 6,600	12,000

Note #1. This shop was under lease in previous years. Mr. Norris
will spend time generating jobs for the shop.

PENDING LITIGATION

Pending Litigation	None
Endorsements	None
Contigent Liabilities	None

COLLATERAL AVAILABLE

<u>Description of Property</u>

1) House used for residential purposes

2) Two family house - rented

3) Commercial buildings - rented

4) Gas station and repair shop - leased

    (Lease includes use of inventory and equipment)

5) Body shop - retained by Mr. Norris

6) Camping and office - second floor of garage used

    for gas station

7) Display lot - used for display of campers, caps,

    trailers and bumpers (clearly seen from road)

Mr. Norris is willing to pledge any unsecured assets.

The following report was received from Mr. Stone, Appraiser, known to your bank as a reputable experienced appraiser:

<div align="center">

APPRAISER'S REPORT - 5/15/77

Property located Rte. 6, Princeton, CT.

</div>

	60% Assessed Value	100% Assessed Value	FMV
Two Family House	$ 9,450	$ 15,750	$ 58,000
2.2 Acre Lot	8,340	13,900	25,000
One Family House	7,480	12,466	46,000
Commercial Building	16,730	27,883	42,000
Garage	25,460	42,433	548,000
Paving	320	533	1,000
Garage Lot, 1.45 Acres	7,150	11,917	20,000
	$ 74,930	$124,882	$250,000

Original cost of land purchased in 1958, two family house, one family house, garage and 4 acre lot was $80,000. Owner completely remodeled two family house and one family house. Improvements made include addition of the commercial building, paving, and interior office.

In 1976, the town assessed the property at $124,882. Value today considered to be $250,000.

INDUSTRY REPORTS

A) Robert Norris Associates

    1. Campers, Trailers   - Retail 1976

    2. Gasoline Service Station - Retail 1976

    3. Sporting Goods   - Retail 1976

B) Recreational Vehicle Industry Association - 1976

    1. Average RV Retail Prices and Industry Progress

    2. RVIA Five Year Forecast - 1975/1980.

    3. RVIA Five Year Forecast - 1976/1981.

RETAILERS OF—CAMPERS & TRAILERS   RETAILERS—GASOLINE SERVICE STATIONS

RETAILERS OF—CAMPERS & TRAILERS

36 STATEMENTS
ENDED ON OR ABOUT JUNE 30, 1975
62 STATEMENTS
ENDED ON OR ABOUT DECEMBER 31, 1975

RETAILERS—GASOLINE SERVICE STATIONS

34 STATEMENTS
ENDED ON OR ABOUT JUNE 30, 1975
37 STATEMENTS
ENDED ON OR ABOUT DECEMBER 31, 1975

UNDER 250M	250M & LESS THAN 1MM	1MM & LESS THAN 10MM	10MM & LESS THAN 50MM	ALL SIZES	ASSET SIZE	UNDER 250M	250M & LESS THAN 1MM	1MM & LESS THAN 10MM	10MM & LESS THAN 50MM	ALL SIZES
38	50	11		98	NUMBER OF STATEMENTS	25	17	28		71
%	%	%	%	%	**ASSETS**	%	%	%	%	%
6.8	6.0	7.1		6.9	Cash	7.6	14.3	12.2		12.1
.3	.1	.1		1.2	Marketable Securities	.2	.5	1.6		1.2
4.3	4.6	13.3		7.5	Receivables Net	13.0	10.6	11.4		10.2
66.2	64.6	52.4		56.2	Inventory Net	25.7	15.7	13.0		13.4
1.3	2.0	2.0		2.0	All Other Current	3.7	.7	1.1		.9
78.8	77.3	75.0		73.8	Total Current	50.2	41.8	39.3		37.8
17.1	16.0	6.7		11.4	Fixed Assets Net	41.8	55.2	52.9		55.0
4.1	6.7	18.3		14.8	All Other Non-Current	8.0	3.0	7.7		7.3
100.0	100.0	100.0		100.0	Total	100.0	100.0	100.0		100.0
					LIABILITIES					
38.4	40.1	27.4		34.5	Due To Banks—Short Term	8.6	8.6	1.3		1.6
4.7	6.7	14.0		9.2	Due To Trade	20.9	16.9	22.4		23.2
1.6	.7	1.4		2.8	Income Taxes	.7	.5	.8		1.1
2.1	2.2	1.5		1.5	Current Maturities LT Debt	4.3	6.7	4.8		3.9
13.7	11.6	17.0		13.0	All Other Current	11.0	8.0	9.1		7.1
60.5	61.3	61.3		60.9	Total Current Debt	45.6	40.7	38.3		36.9
7.1	11.0	12.6		10.4	Non-Current Debt. Unsub.	16.0	27.0	23.3		22.2
67.6	72.3	73.9		71.3	Total Unsubordinated Debt	61.6	67.8	61.6		59.1
1.3	.0	3.9		4.5	Subordinated Debt	.0	.5	.0		1.5
31.1	27.7	22.2		24.3	Tangible Net Worth	38.4	31.8	38.4		39.4
100.0	100.0	100.0		100.0	Total	100.0	100.0	100.0		100.0
					INCOME DATA					
100.0*	100.0*	100.0		100.0*	Net Sales	100.0	100.0	100.0		100.0*
82.3	81.3	79.7		81.1	Cost Of Sales	83.4	84.4	86.3		87.1
17.7	18.7	20.3		18.9	Gross Profit	16.6	15.6	13.7		12.9
14.7	15.7	18.1		16.3	All Other Expense Net	15.2	13.8	11.0		10.4
3.0	2.9	2.2		2.6	Profit Before Taxes	1.4	1.8	2.7		3.5
					RATIOS					
.4	.3	.5		.4	Quick	.8	.8	.8		.8
.1	.1	.3		.1		.5	.5	.6		.6
.1	.1	.2		.1		.4	.4	.5		.4
1.7	1.7	1.3		1.6	Current	2.2	1.4	1.2		1.5
1.4	1.2	1.2		1.3		1.4	1.0	1.0		1.1
1.1	1.1	1.2		1.1		.8	.7	.8		.7
.2	.2	.2		.2	Fixed/Worth	.3	1.1	.9		.7
.5	.4	.3		.4		.8	2.1	1.4		1.3
.9	.8	.4		.9		1.7	3.2	2.4		2.6
1.2	1.6	2.5		1.7	Debt/Worth	.5	1.3	1.0		.8
2.4	3.4	3.1		3.1		.9	2.8	1.8		1.8
5.2	6.0	4.3		5.5		3.1	4.7	2.8		3.7
1.2	1.6	2.3		1.6	Unsub. Debt/Capital Funds	.5	1.3	1.0		.8
2.2	3.4	3.0		2.6		.9	2.8	1.9		1.8
4.2	6.0	4.3		5.1		3.1	3.5	2.8		3.5
2247.5	1622.3	4 89.6		1458.0	Sales/Receivables	1263.0	2218.7	1279.8		2229.9
3132.7	2186.3	14 25.7		3123.6		7 50.5	8 47.3	10 36.8		8 45.9
8 43.6	6 70.0	25 14.7		8 47.0		10 35.2	11 32.2	15 23.7		14 25.9
60 6.0	77 4.7	66 5.5		67 5.4	Cost Sales/Inventory	10 37.0	10 36.8	6 59.6		8 43.1
90 4.0	95 3.8	76 4.8		92 3.9		18 20.4	14 26.7	11 32.4		14 26.7
128 2.8	120 3.0	92 3.9		124 2.9		33 10.9	19 18.9	16 22.1		23 15.7
22.5	23.8	30.5		24.1	Sales/Working Capital	30.8	36.1	81.3		47.1
13.3	12.7	20.7		16.4		13.5	-436.3	14.3		11.8
7.9	5.2	16.0		6.8		-76.6	-29.0	-48.7		-46.6
15.5	24.8	29.1		21.5	Sales/Worth	32.2	32.3	23.2		24.2
9.4	13.7	13.3		11.5		14.3	17.7	13.1		14.4
5.2	7.1	9.6		7.1		5.7	8.8	9.4		7.8
38.5	57.1	67.5		51.8	% Profit Bef. Taxes/Worth	42.9	49.5	47.0		45.7
21.5	32.1	15.4		26.2		21.9	36.8	31.6		27.3
8.3	10.0	10.1		9.8		5.9	12.4	24.9		17.0
13.3	15.6	12.4		13.6	% Profit Bef. Taxes/Tot. Assets	17.0	14.2	17.4		16.8
6.7	7.3	3.8		6.8		8.6	9.4	11.1		10.0
3.1	2.4	1.8		2.5		3.1	2.6	6.4		3.9
18149M	67773M	70621M		179437M	Net Sales ($)	16971M	42528M	475289M		718655M
5588M	21901M	23573M		62214M	Total Assets ($)	2608M	9849M	98972M		139376M

M = $ thousand
MM = $ million

* See Footnote Page 43

Source: Robert Morris Associates, 1976

RETAILERS OF—SPORTING GOODS & BICYCLES

65 STATEMENTS
ENDED ON OR ABOUT JUNE 30, 1975
122 STATEMENTS
ENDED ON OR ABOUT DECEMBER 31, 1975

RETAILERS OF—VENDING MACHINE OPERATORS, MERCHANDISE

34 STATEMENTS
ENDED ON OR ABOUT JUNE 30, 1975
41 STATEMENTS
ENDED ON OR ABOUT DECEMBER 31, 1975

Retailers of—Sporting Goods & Bicycles

	UNDER $250M	$250M & LESS THAN $1MM	$1MM & LESS THAN $10MM	$10MM & LESS THAN $50MM	ALL SIZES
NUMBER OF STATEMENTS	78	91	18		187
	%	%	%	%	%
ASSETS					
Cash	6.8	5.6	6.3		5.6
Marketable Securities	.2	.7	1.1		1.4
Receivables Net	9.3	15.2	7.7		10.0
Inventory Net	66.3	60.5	51.3		55.5
All Other Current	1.3	1.5	2.4		1.2
Total Current	85.0	83.5	68.9		73.8
Fixed Assets Net	9.4	1.9	25.0		21.5
All Other Non-Current	4.6	4.6	6.1		4.7
Total	100.0	100.0	100.0		100.0
LIABILITIES					
Due To Banks—Short Term	12.9	14.9	10.8		8.1
Due To Trade	21.9	24.5	19.0		20.4
Income Taxes	1.2	1.2	2.3		1.8
Current Maturities LT Debt	2.8	1.5	3.7		3.4
All Other Current	8.1	8.4	14.3		10.1
Total Current Debt	46.9	50.6	50.1		43.8
Non-Current Debt, Unsub.	12.2	10.2	17.2		14.5
Total Unsubordinated Debt	59.0	60.6	67.3		58.3
Subordinated Debt	1.7	1.9	2.8		1.5
Tangible Net Worth	39.2	37.5	29.8		40.2
Total	100.0	100.0	100.0		100.0
INCOME DATA					
Net Sales	100.0*	100.0*	100.0		100.0*
Cost Of Sales	68.5	69.8	59.6		64.0
Gross Profit	31.5	30.2	40.4		36.0
All Other Expense Net	27.3	26.9	35.3		31.6
Profit Before Taxes	4.2	3.3	5.1		4.5
RATIOS					
Quick	.8 / .4 / .2	.7 / .4 / .2	.6 / .3 / .2		.7 / .4 / .2
Current	2.9 / 1.8 / 1.4	2.5 / 1.7 / 1.3	1.9 / 1.4 / 1.2		2.5 / 1.7 / 1.3
Fixed/Worth	.1 / .2 / .7	.1 / .2 / .5	.1 / .3 / .9		.1 / .2 / .6
Debt/Worth	.6 / 1.6 / 5.6	.8 / 1.8 / 3.1	1.1 / 2.3 / 3.2		.8 / 1.8 / 3.6
Unsub. Debt/Capital Funds	.6 / 1.5 / 4.3	.8 / 1.7 / 2.8	1.0 / 2.3 / 3.2		.7 / 1.6 / 3.1
Sales/Receivables	3 111.0 / 8 41.6 / 20 18.5	5 72.2 / 15 24.5 / 38 9.6	2 199.6 / 14 26.0 / 27 13.5		4 102.0 / 11 33.3 / 28 13.1
Cost Sales/Inventory	88 4.1 / 187 2.3 / 225 1.6	100 3.6 / 139 2.6 / 190 1.9	116 3.1 / 171 2.1 / 190 1.9		103 3.5 / 150 2.4 / 200 1.8
Sales/Working Capital	9.1 / 5.8 / 3.6	9.1 / 6.1 / 4.5	17.9 / 9.0 / 5.0		10.1 / 6.1 / 4.1
Sales/Worth	7.8 / 4.9 / 3.0	9.6 / 5.8 / 4.6	13.3 / 8.3 / 4.2		9.6 / 5.4 / 3.9
% Profit Bef. Taxes/Worth	54.3 / 23.7 / 4.0	38.5 / 19.1 / 8.4	53.6 / 36.3 / 21.0		45.4 / 21.1 / 6.5
% Profit Bef. Taxes/Tot. Assets	18.9 / 7.5 / .8	11.7 / 7.2 / 3.5	14.6 / 9.4 / 5.9		14.6 / 7.6 / 2.5
Net Sales ($)	26509M	98612M	107901M		392076M
Total Assets ($)	10086M	43285M	52184M		165673M

Retailers of—Vending Machine Operators, Merchandise

ASSET SIZE	UNDER $250M	$250M & LESS THAN $1MM	$1MM & LESS THAN $10MM	$10MM & LESS THAN $50MM	ALL SIZES
NUMBER OF STATEMENTS	20	35	18		75
	%	%	%	%	%
ASSETS					
Cash	6.3	7.6	5.2		7.1
Marketable Securities	.0	.6	.4		1.5
Receivables Net	6.2	8.4	13.8		18.0
Inventory Net	14.1	20.6	18.3		25.5
All Other Current	.8	1.9	2.6		2.3
Total Current	25.3	39.0	40.1		54.4
Fixed Assets Net	67.5	47.6	48.2		35.6
All Other Non-Current	7.2	13.4	11.7		10.0
Total	100.0	100.0	100.0		100.0
LIABILITIES					
Due To Banks—Short Term	7.3	6.6	4.8		6.3
Due To Trade	20.3	11.2	15.2		14.0
Income Taxes	.9	1.6	.7		1.7
Current Maturities LT Debt	11.2	7.3	8.8		4.9
All Other Current	6.3	7.4	9.2		9.9
Total Current Debt	46.0	34.1	36.8		36.9
Non-Current Debt, Unsub.	17.3	17.6	32.2		20.3
Total Unsubordinated Debt	63.3	51.8	69.0		57.2
Subordinated Debt	3.2	.0	1.1		2.0
Tangible Net Worth	33.5	48.2	29.9		40.8
Total	100.0	100.0	100.0		100.0
INCOME DATA					
Net Sales	100.0	100.0*	100.0		100.0*
Cost Of Sales	55.2	64.1	62.3		68.6
Gross Profit	44.8	35.9	37.7		31.4
All Other Expense Net	41.8	33.4	38.8		29.3
Profit Before Taxes	3.0	2.5	-1.1		2.1
RATIOS					
Quick	.4 / .2 / .1	.8 / .4 / .1	1.0 / .6 / .3		.8 / .4 / .2
Current	1.3 / .6 / .4	1.6 / .8 / .6	1.7 / 1.2 / .9		1.7 / .9 / .6
Fixed/Worth	1.0 / 2.3 / 3.3	.5 / 1.0 / 2.3	.8 / 1.3 / 1.9		.7 / 1.3 / 2.6
Debt/Worth	.8 / 2.2 / 3.8	.6 / .9 / 2.8	1.0 / 1.5 / 3.5		.7 / 1.3 / 3.7
Unsub. Debt/Capital Funds	.6 / 2.2 / 3.8	.6 / .9 / 2.8	.5 / 1.5 / 3.5		.6 / 1.2 / 3.7
Sales/Receivables	0 INF / 2187.3 / 8 44.5	1 406.5 / 4 88.2 / 16 22.4	4 104.2 / 14 26.5 / 28 12.8		1 389.3 / 5 66.6 / 20 18.5
Cost Sales/Inventory	22 16.1 / 30 11.9 / 36 9.9	26 13.8 / 37 9.7 / 53 6.8	27 13.6 / 39 9.2 / 53 6.8		26 14.1 / 36 10.1 / 52 6.9
Sales/Working Capital	13.9 / -15.4 / -10.8	9.8 / -60.3 / -13.0	23.3 / 8.7 / -96.8		15.5 / -98.8 / -13.1
Sales/Worth	15.4 / 8.7 / 4.5	14.3 / 6.1 / 4.1	7.4 / 5.5 / 5.0		12.5 / 6.1 / 4.4
% Profit Bef. Taxes/Worth	115.4 / 31.1 / 10.5	25.7 / 11.6 / 5.1	36.8 / 18.3 / 8.8		34.7 / 17.6 / 7.5
% Profit Bef. Taxes/Tot. Assets	21.3 / 8.0 / 3.8	11.2 / 5.7 / 1.1	11.1 / 5.9 / 3.6		13.6 / 6.4 / 1.9
Net Sales ($)	7613M	54691M	189098M		365491M
Total Assets ($)	2476M	17336M	58187M		132039M

M = $ thousand
MM = $ million

* See Footnote Page 43

Source: Robert Morris Associates, 1976

AVERAGE RV RETAIL PRICES - 1975 (a)

TRAVEL TRAILERS: All Types & Sizes . $ 5,901

Conventional Types: All Sizes .... $ 5,436

Fifth Wheel Type: All Sizes .... $ 7,684

CAMPING TRAILERS: All Types & Sizes . $ 2,091

TRUCK CAMPERS: All Types & Sizes ... $ 2,534

PICKUP COVERS: .... $ 331

MOTOR HOMES: All Types & Sizes ... $12,042

Convention (Type A): All Sizes $19,644

Van Campers (Type B): All Sizes ...... $ 7,820

Chopped Van (Type C): All Sizes $11,241

INDUSTRY PROGRESS

Recreation vehicle products are designed and produced by nearly 500 recreational vehicle manufacturers located throughout the U.S.A. and Canada. Recreational vehicles are sold in all 50 states and Canadian provinces by approximately 15,000 dealers. In addition to manufacturers and dealers, the industry is comprised of an expanding group of supplier/accessory and service firms.

A brief examination of the industry's progress shows that travel trailer production on a commercial basis began in the 1930's. Moderate growth continued after World War II and into the 1950's reaching 15.7 trailers by 1954. By 1961 this total had grown to 28,800. In the late 1950's other vehicle types were developed — camping trailers and truck campers. By 1961, industry shipments had grown to 62,600 units. The 1960's saw the beginning of a boom in sales that lasted through 1973. During the period, motor homes and pickup covers were introduced into the product mix. By the close of the 1960's, shipments had increased over 700% to 514,000 units.

There was a small decrease in shipments in the 1970 recession year, but this drop was followed by renewed growth that lasted until the energy problems developed in late 1973. Year end totals for 1973 showed that shipments had reached 752,500 units or 46% larger that the previous peak in 1969.

Entering the year 1974 the RV industry was facing the most difficult period in its history. A Sunday ban on gasoline sales and other limitations on the supply, coupled with the uncertainty of future availability of gasoline, caused manufacturer shipments of most RV types to drop 70 percent from 1973 levels. Shipments stayed at these depressed levels until late in the first quarter of 1974 when the embargo was lifted. This started a dramatic turn around that extended the traditional peak selling season of April through June until well into September. Improvement continued in spite of the substantial gasoline price increases, high interest rates and shortage of financing dollars.

The pattern established in late 1974 extended, and even advanced, in 1975, with production soaring by 15 percent over the previous year, and sales — aided greatly by price increases — jumping a whopping 63 percent.

Significant, along with the amazing "comeback" of the industry, is the success story of the Type B (van conversion) and Type C (mini motorhome) units during 1975.

Type C units lead the parade, with production jumping from 21,400 in 1974 to 39,900 in 1975, an increase of 86 percent. Type B unit production increased 27 percent, from 20,800 in 1974 to 26,400 in 1975.

Higher unit sales, to a great degree, were attributed to the fact that the "pent up" demand of the nation's populace to enjoy the great outdoors, curtailed by the energy crisis, emerged full force in 1975. Soaring industry sales even extended into winter months, keeping demand for units high, as the economy improved and the nation's employment picture brightened.

As before, surveys showed that people stayed close to home on their RV trips, but took more weekend excursions, and stayed longer that they did in days before the energy-short period of 1973-74.

*Motor Home and Travel Trailer numbers if national economy should experience a leveling off.

	1976	1977	1978	1979	1980
TRAVEL TRAILERS					
Conventional	161,000	189,000	207,900	222,500	238,100
	(+20%)	(+17%)	(+10%)	(+ 7%)	(+ 7%)
Fifth Wheel	19,700	21,500	22,600	23,500	24,400
	(+19%)	(+ 9%)	(+ 4%)	(+ 4%)	(+ 4%)
ALL TRAVEL TRAILERS	180,700	210,500	230,500	246,000	262,500
	(+20%)	(+16%)	(+10%)	(+ 7%)	(+ 7%)
CAMPING TRAILERS	56,200	61,000	64,700	67,900	72,700
	(+17%)	(+ 9%)	(+ 6%)	(+ 5%)	(+ 7%)
MOTOR HOMES (A)	39,800	46,000	50,600	52,600	55,800
	(+31%)	(+16%)	(+10%)	(+ 4%)	(+ 6%)
MOTOR HOMES (Б)	135,200	143,800	154,300	165,200	178,200
	(*)	(+ 6%)	(+ 7%)	(+ 7%)	(+ 8%)
MOTOR HOMES (C)	65,500	85,200	92,900	100,300	113,300
	(+64%)	(+30%)	(+ 9%)	(+ 8%)	(+13%)
ALL MOTOR HOMES	240,500	275,000	297,800	318,100	347,300
	(*)	(+14%)	(+ 8%)	(+ 7%)	(+ 9%)
TRUCK CAMPERS	46,500	47,700	45,800	44,400	43,100
	(+ 5%)	(+ 2%)	(− 4%)	(− 3%)	(− 3%)
TOTAL RV's	523,900	594,200	638,800	676,300	725,600
	(*)	(+13%)	(+ 8%)	(+ 6%)	(+ 7%)

*Type B Motor Home numbers include minimum life support Type B's as well as maximum life support Type B's . . . Pre-1976 figures include only maximum life support Type B Motor Homes.

Source: Recreation Vehicle
Figures, Facts & Forecasts 1961-1981
Recreational Vehicle Industry Assn.
Chantilly, Virginia - 1976

FIVE-YEAR FORECAST

	1976 (Actual)	1977	1978	1979	1980	1981
TRAVEL TRAILERS	168,300 (25.6%)	197,400 (17.2%)	224,100 (13.5%)	244,400 (9.1%)	266,000 (8.8%)	283,200 (6.5%)
FIFTH WHEELS	21,400 (28.9%)	25,700 (20.0%)	29,300 (14.0%)	32,500 (10.9%)	35,800 (10.2%)	38,800 (8.4%)
TRAVEL TRAILERS (ALL)	189,700 (26.0%)	233,100	253,400	276,900	301,800	322,000
FOLD-DOWN CAMPING TRAILERS	53,300 (10.8%)	58,300 (9.4%)	62,800 (7.7%)	67,600 (7.6%)	74,100 (9.6%)	81,700 (10.3%)
TRUCK CAMPERS	42,000 (-5.2%)	40,800 (-3.0%)	40,900 (.2%)	41,100 (0%)	41,400 (1.0%)	42,300 (2.2%)
MOTOR HOMES (A)	45,200 (49.2%)	51,700 (14.4%)	53,700 (3.9)	65,200 (+21.4%)	70,500 (8.1%)	76,300 (8.2%)
MOTOR HOMES (B1)*	36,100 (*)	46,300 (28.3%)	52,900 (14.3%)	63,000 (19.1%)	69,800 (10.8%)	78,600 (12.6%)
MOTOR HOMES (B2)**	100,000	120,000 (20.0%)	152,000 (26.7%)	167,000 (9.9%)	186,000 (10.8%)	200,500 (7.8%)
MOTOR HOMES (C)	74,800 (87.5%)	93,600 (20.7%)	106,300 (13.7%)	118,700 (11.7%)	132,700 (11.4%)	147,300 (11.0%)
MOTOR HOMES (ALL)	256,100 (21.7%)	311,600 (17.1%)	364,900 (13.4%)	413,900 (10.9%)	459,000 (9.5%)	502,700
RV TOTALS	541,100 (30.0%)	633,800 (17.2%)	722,000 (13.9%)	799,500 (10.7%)	876,300 (9.7%)	948,700 (8.3%)

*Maximum life support system type B motor homes.
**Minimum life support system type B motor homes.

APPENDIX IX
PERSONAL FINANCIAL STATEMENT
AND INCOME STATEMENTS
INCLUDED IN TREATMENT A_1

PERSONAL FINANCIAL STATEMENT

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IMPORTANT: Read these directions before completing this Statement.

☒ If you are applying for individual credit in your own name and are relying on your own income or assets and not the income or assets of another person as the basis for repayment of the credit requested, complete only Sections 1 and 3.

☐ If you are applying for joint credit with another person, complete all Sections providing information in Section 2 about the joint applicant.

☐ If you are applying for individual credit, but are relying on income from alimony, child support, or separate maintenance or on the income or assets of another person as a basis for repayment of the credit requested, complete all Sections, providing information in Section 2 about the person whose alimony, support, or maintenance payments or income or assets you are relying.

☐ If this statement relates to your guaranty of the indebtedness of other person(s), firm(s) or corporation(s), complete Sections 1 and 3.

TO:

SECTION 1 - INDIVIDUAL INFORMATION (Type or Print)	SECTION 2 - OTHER PARTY INFORMATION (Type or Print)
Name **Peter & Kathy Norris**	Name
Residence Address **Route 6**	Residence Address
City, State & Zip **Princeton, Connecticut**	City, State & Zip
Position or Occupation **Self-employed**	Position or Occupation
Business Name **Norris' Auto Sales**	Business Name
Business Address **Route 6**	Business Address
City, State & Zip **Princeton, Connecticut**	City, State & Zip
Res. Phone **888-1234** Bus. Phone **888-1235**	Res. Phone Bus. Phone

SECTION 3 - STATEMENT OF FINANCIAL CONDITION AS OF _____ 19 ____

ASSETS (Do not include Assets of doubtful value)	In Dollars (Omit cents)		LIABILITIES	In Dollars (Omit cents)	
Cash on hand and in banks	2	800	Notes payable to banks - secured	13	663
U.S. Gov't. & Marketable Securities - see Schedule A			Notes payable to banks - unsecured	10	673
Non-Marketable Securities - See Schedule B			Due to brokers		
Securities held by broker in margin accounts			Amounts payable to others - secured		
Restricted or control stocks			Amounts payable to others - unsecured	12	630
Partial interest in Real Estate Equities -			Accounts and bills due		
see Schedule C			Unpaid income tax	1	800
Real Estate Owned - see Schedule D Mkt. Value	250	000	Other unpaid taxes and interest		
Loans Receivable			Real estate mortgages payable -		
Automobiles and other personal property			see Schedule D	34	400
Cash value-life insurance-see Schedule E			Other debts - itemize:		
Other assets - itemize:					
Accounts Rec. Net book value	8	840			
Inventory Cost	68	713			
Machines & Equip. net book value	64	626	TOTAL LIABILITIES	73	166
			NET WORTH	321	813
TOTAL ASSETS	394	979	TOTAL LIAB. AND NET WORTH	394	979

SOURCES OF INCOME FOR YEAR ENDED _____, 19____	PERSONAL INFORMATION
Salary, bonuses & commissions $	Do you have a will? **No** if so, name of executor.
Dividends	
Real estate income	Are you a partner or officer in any other venture? If so, describe.
Other income (Alimony, child support, or separate maintenance	**No**
Income need not be revealed if you do not wish to have it	Are you obligated to pay alimony, child support or separate maintenance payments? If so, describe.
considered as a basis for repaying this obligation)	**No**
	Are any assets pledged other than as described on schedules? If so, describe.
TOTAL **See attached schedule** $ 70 516	**No**

CONTINGENT LIABILITIES	
Do you have any contingent liabilities? If so, describe. **No**	Income tax settled through (date) **1975**
	Are you a defendant in any suits or legal actions? **No**
As indorser, co-maker or guarantor? **No** $	Personal bank accounts carried at:
On leases or contracts? **No** $	
Legal claims **No** $	**Princeton Trust**
Other special debt **No** $	Have you ever been declared bankrupt? If so, describe.
Amount of contested income tax liens **No** $	**No**

(COMPLETE SCHEDULES AND SIGN ON REVERSE SIDE)

SCHEDULE A - U.S. GOVERNMENTS & MARKETABLE SECURITIES

Number of Shares or Face Value (Bonds)	Description	In Name Of	Are These Pledged?	Market Value

SCHEDULE B - NON-MARKETABLE SECURITIES

Number of Shares	Description	In Name Of	Are These Pledged?	Source of Value	Value

SCHEDULE C - PARTIAL INTERESTS IN REAL ESTATE EQUITIES

Address & Type Of Property	Title In Name Of	% Of Ownership	Date Acquired	Cost	Market Value	Mortgage Maturity	Mortgage Amount

SCHEDULE D - REAL ESTATE OWNED

Address & Type Of Property	Title In Name Of	Date Acquired	Cost	Market Value	Mortgage Maturity	Mortgage Amount
1 family house, 2 family house, garage and land	Peter Norris	1968		250,000	1983	34,400.00

SCHEDULE E - LIFE INSURANCE CARRIED, INCLUDING N.S.L.I. AND GROUP INSURANCE

Name Of Insurance Company	Owner Of Policy	Beneficiary	Face Amount	Policy Loans	Cash Surrender Value
John Hancock	Peter Norris	Kathy Norris	50,000		—
Combined Ins. of America	Peter Norris	Kathy Norris	10,000		—

SCHEDULE F - BANKS OR FINANCE COMPANIES WHERE CREDIT HAS BEEN OBTAINED

Name & Address Of Lender	Credit In The Name Of	Secured Or Unsecured?	Original Date	High Credit	Current Balance
Conn. Nat. Bank, Main St, New Haven, Ct.		Unsecured			2823
Princeton Trust, Main St. Princeton, Ct.		Unsecured			7850
State Nat'l, Middle St. Bridgeport, Ct..		Unsecured			10078

The information contained in this statement is provided for the purpose of obtaining, or maintaining credit with you on behalf of the undersigned, or persons, firms or corporations in whose behalf the undersigned may either severally or jointly with others, execute a guaranty your favor. Each undersigned understands that you are relying on the information provided herein (including the designation made as to ownership of property) in deciding to grant or continue credit. Each undersigned represents and warrants that the information provided is true nd complete and that you may consider this statement as continuing to be true and correct until a written notice of a change is given to you by e undersigned. You are authorized to make all inquiries you deem necessary to verify the accuracy of the statements made herein, and to etermine my/our creditworthiness. You are authorized to answer questions about your credit experience with me/us.

Signature (Individual) _Peter Norris_

S.S. No _071-38-1207_ Date of Birth _11-13-34_

Signature (Other Party) _____

S.S. No _____ Date of Birth _____

FINANCIAL INFORMATION

These comparative figures
were   prepared by your
bank from the client's
information that follows
the Summary.

Form 1040) (Sole Proprietorship)
Partnerships, Joint Ventures, etc., Must File Form 1065.
► Attach to Form 1040. ► See Instructions for Schedule C (Form 1040).

Department of the Treasury
Internal Revenue Service

1976

Name of proprietor: Peter + Katherine Monroe

Social security number: 077 138 1207

A Principal business activity (see Schedule C Instructions) ► Retail ; product ► Mobile Campers Boats

B Business name ► Monroe Auto Service   C Employer identification number ► 077-38-1207

Business address (number and street) ► Route 6

City, State and ZIP code ► Princeton Ct

E Indicate method of accounting: (1) ☑ Cash (2) ☐ Accrual (3) ☐ Other ►

	Yes	No
F Were you required to file Form W-3 or Form 1096 for 1976 (see Schedule C Instructions)?	✓	
If "Yes," where filed ► Andover Mass		
G Was an Employer's Quarterly Federal Tax Return, Form 941, filed for this business for any quarter in 1976?	✓	
H Method of inventory valuation ► Cost Was there any substantial change in the manner of determining quantities, costs, or valuations between the opening and closing inventories? (If "Yes," attach explanation)		✓
the manner of determining quantities, costs, or valuations between the opening and closing inventories? (If "Yes," attach explanation)		✓

1 Gross receipts or sales $ Less: returns and allowances $ Balance ►	1	382194	—
2 Less: Cost of goods sold and/or operations (Schedule C-1, line 8)	2	301049	—
3 Gross profit	3	81145	—
4 Other Income (attach schedule) . Rental Income	4	3900	—
5 Total Income (add lines 3 and 4)	5	85045	—
6 Depreciation (explain in Schedule C-3)	6	4922	—
7 Taxes on business and business property (explain in Schedule C-2)	7	14699	—
8 Rent on business property	8		
9 Repairs (explain in Schedule C-2)	9	899	—
10 Salaries and wages not included on line 3, Schedule C-1 (exclude any paid to yourself)	10	26769	—
11 Insurance	11	5480	—
12 Legal and professional fees	12	449	—
13 Commissions	13		
14 Amortization (attach statement)	14		
15 (a) Pension and profit-sharing plans (see Schedule C Instructions)	15(a)		
(b) Employee benefit programs (see Schedule C Instructions)	(b)		
16 Interest on business indebtedness	16	4089	—
17 Bad debts arising from sales or services	17		
18 Depletion	18		
19 Other business expenses (specify):			

19 Other business expenses		
(a) Station Auto Expense	2152	—
(b) Utilities + Telephones	6873	—
(c) Miscellaneous	296	—
(d) Supplies	2829	—
(e) Advertising	2473	—
(f) Dues + Subscriptions	150	—
(g) Laundry + Cleaning	157	—
(h) Office Supplies + Exp	804	—
(i) Bank Serv. Chgs	809	—
(j) Licenses + Permits	345	—

(k) Total other business expenses (add lines 19(a) through 19(j))	19(k)	16938	—
20 Total deductions (add lines 6 through 19(k))	20	74245	—
Net profit or (loss) (subtract line 20 from line 5). Enter here and on Form 1040, line 29. ALSO enter on Schedule SE, line 5(a)	21	10800	—

SCHEDULE C-1.—Cost of Goods Sold and/or Operations (See Schedule C Instructions for Line 2)

Inventory at beginning of year (if different from last year's closing inventory, attach explanation)	1	110917	—
Purchases $ Less: cost of items withdrawn for personal use $ Balance ►	2	298055	—
Cost of labor (do not include salary paid to yourself)	3	965	—
Materials and supplies	4		
Other costs (attach schedule) Freight	5	2032	—
Total of lines 1 through 5	6	411969	—
Less: Inventory at end of year	7	110920	—
Cost of goods sold and/or operations. Enter here and on line 2 above	8	301049	—

you claim a deduction for expenses of an office in your home? ☐ Yes ☑ No

SCHEDULE C-2.— Explanation of Lines 7 and 9

Explanation	Amount.	Line No	Explanation	Amount
	$ 1504 -			$
State — Gas Tax	2936 -			
Ins. Amount	1196 -			
4. Tax	1003 -			
Total	14699 -			

SCHEDULE C-3.—Depreciation (See Schedule C Instructions for Line 6)
If you need more space, use Form 4562.

a. Description of property	b. Date acquired	c. Cost or other basis	d. Depreciation allowed or allowable in prior years	e. Method of computing depreciation	f. Life or rate	g. Depreciation for this year
1 Total additional first-year depreciation (do not include in items below) ——→						
2 Other depreciation:						
LAND	9-24-62	9300 -	—	—	—	—
GARAGE	4-1-63	28324 -	9058 -	SL	40yrs	708 -
TRANSPORTATION Equip.	VAR	8420 -	5800 -	SL	5	1310 -
MAchinery + Other Equip	u.t.s.	5717 -	2392 -	SL	VAR	647 -
Improvements	VAR	15429	755 -	SL	10	2257 -
			24776 -			
Totals		67490 -				4922 -
Less amount of depreciation claimed in Schedule C-1, page 1						
Balance—Enter here and on page 1, line 6						4922 -

SCHEDULE C-4.—Expense Account Information (See Schedule C Instructions for Schedule C-4)

Enter information with regard to yourself and your five highest paid employees. In determining the five highest paid employees, expense account allowances must be added to their salaries and wages. However, the information need not be submitted for any employee for whom the combined amount is less than $25,000, or for yourself if your expense account allowance plus line 21, page is less than $5,000.

	Name	Expense account	Salaries and Wages
Owner			
1			
2			
3			
4			
5			

Profit or (Loss) From Business or Profession
(Sole Proprietorship)
Partnerships, Joint Ventures, etc., Must File Form 1065.

➤ Attach to Form 1040. ➤ See Instructions for Schedule C (Form 1040).

SCHEDULE C
(Form 1040)

Department of the Treasury
Internal Revenue Service

1975

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Name as shown on Form 1040 — *Peter + Katherine Norris*

Social security number — 077 38 1207

Principal business activity (see Schedule C Instructions) ➤ *Retail Sales*; product ➤ *Mobile Campus Boats*

Business name ➤ *Norris Auto Sales + Service*

C Employer identification number ➤ 077-38-1207

Business address (number and street) ➤ *Route 6*

City, State and ZIP code ➤ *Princeton Connecticut 06510*

		Yes	No
Indicate method of accounting: (1) ☒ Cash (2) ☐ Accrual (3) ☐ Other ➤			
Were you required to file Form W-3 or Form 1096 for 1975? (see Schedule C Instructions)			X
If "Yes," where filed ➤ *Andover, Mass.*			
Was an Employer's Quarterly Federal Tax Return, Form 941, filed for this business for any quarter in 1975?		✓	
Method of inventory valuation ➤ *Lower of cost or market* Was there any substantial change in the manner of determining quantities, costs, or valuations between the opening and closing inventories? (If "Yes," attach explanation)			X

Income

1 Gross receipts or sales $ *184073* Less: returns and allowances $ *1823* Balance ➤	1	182250	—
2 Less: Cost of goods sold and/or operations (Schedule C-1, line 8)	2	125973	—
3 Gross profit	3	56277	—
4 Other income (attach schedule) . *Rental Income*	4	13300	—
5 Total income (add lines 3 and 4)	5	69577	—

Deductions

6 Depreciation (explain in Schedule C-3)	6	3993	—
7 Taxes on business and business property (explain in Schedule C-2)	7	15639	—
8 Rent on business property	8		
9 Repairs (explain in Schedule C-2)	9	671	—
10 Salaries and wages not included on line 3, Schedule C-1 (exclude any paid to yourself)	10	20044	—
11 Insurance	11	3822	—
12 Legal and professional fees	12	1173	—
13 Commissions	13		
14 Amortization (attach statement)	14		
15 (a) Pension and profit-sharing plans (see Schedule C Instructions)	15(a)		
(b) Employee benefit programs (see Schedule C Instructions)	(b)		
16 Interest on business indebtedness	16	4154	—
17 Bad debts arising from sales or services	17		
18 Depletion	18		
19 Other business expenses (specify):			
(a) *Station Auto Expense* — 1875 —			
(b) *Utilities - Telephone* — 6154 —			
(c) *Miscellaneous* — —			
(d) *Supplies* — 119 —			
(e) *Advertising* — 2956 —			
(f) *Dues + Subscriptions* — 203 —			
(g) *Laundry - Cleaning* — 100 —			
(h) *Office Supplies & Exp* — 1687 —			
(i) *Bank Service Charges* — 457 —			
(j) *Licenses + Permits* — 245 —			
(k) Total other business expenses (add lines 19(a) through 19(j))	19(k)	13796	—
20 Total deductions (add lines 6 through 19(k))	20	63252	—
21 Net profit or (loss) (subtract line 20 from line 5). Enter here and on Form 1040, line 28. ALSO enter on Schedule SE, line 5(a).	21	6285	—

SCHEDULE C-1.—Cost of Goods Sold and/or Operations (See Schedule C Instructions for Line 2)

1 Inventory at beginning of year (if different from last year's closing inventory, attach explanation)	1	101620	—
2 Purchases $ Less: cost of items withdrawn for personal use $ Balance ➤	2	132113	—
3 Cost of labor (do not include salary paid to yourself)	3	870	—
4 Materials and supplies	4		
5 Other costs (attach schedule) *Freight*	5	2287	—
6 Total of lines 1 through 5	6	236890	—
7 Less: Inventory at end of year	7	110917	—
8 Cost of goods sold and/or operations. Enter here and on line 2 above	8	125973	—

SCHEDULE C-2.—Explanation of Lines 7 and 9

Line No.	Explanation	Amount	Line No.	Explanation	Amount
17	ICA Tax	$ 2083 —			$
	State Sales Tax	1051 —			
	Internal Revenue	128.5 —			
	Property Tax	1765 —			
	Total	15654 —			

SCHEDULE C-3.—Depreciation (See Schedule C Instructions for Line 6) If you need more space, you may use Form 4562.

Note: If depreciation is computed by using the Class Life (ADR) System for assets placed in service after December 31, 1970, or the Guideline Class Life System for assets placed in service before January 1, 1971, you must file Form 4832 (Class Life (ADR) System) or Form 5006 (Guideline Class Life System). Except as otherwise expressly provided in income tax regulations sections 1.167(a)–11(b)(5)(vi) and 1.167(a)–12, the provisions of Revenue Procedures 62–21 and 65–13 are not applicable for taxable years ending after December 31, 1970. (See Publication 534.)

Check box if you made an election this taxable year to use ☐ Class Life (ADR) System and/or ☐ Guideline Class Life System.

a. Group and guideline class or description of property	b. Date acquired	c. Cost or other basis	d. Depreciation allowed or allowable in prior years	e. Method of computing depreciation	f. Life or rate	g. Depreciation for this year
1 Total additional first-year depreciation (do not include in items below)						
2 Depreciation from Form 4832 (See Note above)						
3 Depreciation from Form 5006						
4 Other depreciation: LAND	9-24-62	9300 —	—	—	—	
Buildings . GARAGE	4-1-63	28324 —	8320 —	SL	40yr	708 —
Furniture and fixtures						
Transportation equipment	VAR	8670 —	4490 —	SL	5	1310 —
Machinery and other equipment	VAR	3508 —	1971 —	SL	VAR	426 —
Other (specify)						
Improvements	VAR	15479 —	6002 —	SL	10	1549 —
5 Totals		65281 —	20783 —			3993 —
6 Less amount of depreciation claimed in Schedule C-1, page 1						
7 Balance—Enter here and on page 1, line 6						3993 —

SCHEDULE C-4.—Expense Account Information (See Schedule C Instructions for Schedule C-4)

Enter information with regard to yourself and your five highest paid employees. In determining the five highest paid employees, expense account allowances must be added to their salaries and wages. However, the information need not be submitted for any employee for whom the combined amount is less than $25,000, or for yourself if your expense account allowance plus line 21, page 1, is less than $25,000.

Name	Expense account	Salaries and Wages
Owner		
1		
2		
3		
4		
5		

Did you claim a deduction for expenses connected with:

(1) Entertainment facility (boat, resort, ranch, etc.)? ☐ Yes ☐ No (3) Employees' families at conventions or meetings? ☐ Yes ☐ No

(2) Living accommodations (except employees on business)? ☐ Yes ☐ No (4) Employee or family vacations not reported on Form W-2? ☐ Yes ☐ No

Profit or (Loss) From Business or Profession

SCHEDULE C
(Form 1040)
(Sole Proprietorship)

1975

Partnerships, Joint Ventures, etc., Must File Form 1065.

Department of the Treasury
Internal Revenue Service

▶ Attach to Form 1040.   ▶ See Instructions for Schedule C (Form 1040).

Name(s) as shown on Form 1040 **Peter + Katherine Norris**

Social security number **077 138 1207**

Principal business activity (see Schedule C Instructions) ▶ **Retail Sales** ; product ▶ **Mobile Campers Boats**

Business name ▶ **Norris Auto Sales Service** C Employer Identification number ▶ **077-38-1207**

Business address (number and street) ▶ **Route 6**

City, State and ZIP code ▶ **Princeton Connecticut 06516**

	Yes	No
Indicate method of accounting: (1) ☒ Cash (2) ☐ Accrual (3) ☐ Other ▶		X
Were you required to file Form W-3 or Form 1096 for 1975? (see Schedule C Instructions)		
If "Yes," where filed ▶ **Andover, Mass.**	✓	
Was an Employer's Quarterly Federal Tax Return, Form 941, filed for this business for any quarter in 1975?		X

Method of inventory valuation ▶ **Lower of cost or market** Was there any substantial change in the manner of determining quantities, costs, or valuations between the opening and closing inventories? (If "Yes," attach explanation)

Income

1 Gross receipts or sales $ **140490** Less: returns and allowances $ **707** Balance ▶	**139783**	—
2 Less: Cost of goods sold and/or operations (Schedule C-1, line 8)	**96479**	—
3 Gross profit	**43304**	—
4 Other income (attach schedule) **Rental Income**	**10900**	—
5 Total income (add lines 3 and 4)	**54204**	—

Deductions

6 Depreciation (explain in Schedule C-3)	**4263**	—
7 Taxes on business and business property (explain in Schedule C-2)	**10152**	—
8 Rent on business property		
9 Repairs (explain in Schedule C-2)	**505**	—
10 Salaries and wages not included on line 3, Schedule C-1 (exclude any paid to yourself)	**11943**	—
11 Insurance	**4521**	—
12 Legal and professional fees	**400**	—
13 Commissions		
14 Amortization (attach statement)		
15 (a) Pension and profit-sharing plans (see Schedule C Instructions)		
(b) Employee benefit programs (see Schedule C Instructions)	**3861**	—
16 Interest on business indebtedness		
17 Bad debts arising from sales or services		
18 Depletion		

19 Other business expenses (specify):

(a) **Station Auto Expense**	**1390**	—
(b) **Utilities + Telephone**	**4422**	—
(c) **Miscellaneous**	**82**	—
(d) **Supplies**	**291**	—
(e) **Advertising**	**2222**	—
(f) **Dues and Subscriptions**	**40**	—
(g) **Laundry + Cleaning**	**98**	—
(h) **Office Supplies & Exp**	**1547**	—
(i) **Bank Service Charges**	**589**	—
(j) **Licenses + Permits**	**448**	—
(k) Total other business expenses (add lines 19(a) through 19(j))	**11189**	—
20 Total deductions (add lines 6 through 19)	**46040**	—
21 Net profit or (loss) (subtract line 20 from line 5). Enter here and on Form 1040, line 28. ALSO enter on Schedule SE, line 5(a)	**8164**	—

SCHEDULE C-1.—Cost of Goods Sold and/or Operations (See Schedule C Instructions for Line 2)

1 Inventory at beginning of year (if different from last year's closing inventory, attach explanation)	**6338**	—
2 Purchases $ Less: cost of items withdrawn for personal use $ Balance ▶	**133773**	—
3 Cost of labor (do not include salary paid to yourself)	**698**	—
4 Materials and supplies		
5 Other costs (attach schedule) **Freight**	**248**	—
6 Total of lines 1 through 5	**198099**	—
7 Less: Inventory at end of year	**101620**	—
8 Cost of goods sold and/or operations. Enter here and on line 2 above	**96479**	—

DEPRECIATION SCHEDULE

Ferris' Auto Service

Social Security or Identification No. 06-0744654   Year Ended _Dec. 31, 1974_

1. Kind of Property	2. Date Acquired	3. Investment Credit Reference	4. Cost or Other Basis	5. BASIS ADJUSTMENTS a) Special First Year	b) Salvage Value	6. Adjusted Cost or Other Basis	7. Depreciation Allowed Prior Years	8. Method	9. Rate (%) or Life (yrs.)	10. Regular Depreciation	11. Deprec Reserve End of Y
REC...	1961		2350-		230-	2120-	2120-	SL	5 yrs	—	
N.D.	9-24-62		9300-			9300-	9300-	-1			
1116	4-1-63		283254.			283254-	7612-	SL	40.	708-	
...D (s)	3-1-63	27-	1150-		120.	1030-	1630-	"	10.	225-	
Fuel ...	1969		2246-			2246-	3625-	"	10	70-	
...	1969		992-		198-	700-	315-	"	10	144-	
... mach...	1969		1438-			1438-	360-	"	10	720-	
...06 improven...	1971				94.			"	5		
... New	2/73	168-	3600-			3600-	660-	"	5	790-	
...	5/73	138-	2950-			2950-	400-	"	10	362-	
...	1913	—	3678-			3678-	184-	"	10	356-	
...	6/73	83-	1728-			1728-	700-	—	5	80-	
...	11/73	56-	799-			799-	17-	"	10	90-	
...	1/74	35-	500-			500-	—	"	10	50-	
...	1974		1818-			1818-	—	"	10	4.4-	
Totals		509.	65923-		198-	65281-	16510-	444-			4263-

SCHEDULE C (Form 1040)

Department of the Treasury
Internal Revenue Service

(Sole Proprietorship)
Partnerships, Joint Ventures, etc., Must File Form 1065.
► Attach to Form 1040. ► See Instructions for Schedule C (Form 1040).

1975

Name(s) as shown on Form 1040 _Peter + Katherine Norris_

Social security number 077 | 38 | 1207

A Principal business activity (see Schedule C Instructions) ► _Retail Sales_ ; product ► _Mobile Lacquers etc._

B Business name ► _Norris' Mfg. Sales Service_   C Employer identification number ► _072-38-1207_

D Business address (number and street) ► _Route 6_

City, State and ZIP code ► _Princeton, Connecticut 06516_

E Indicate method of accounting: (1) ☒ Cash (2) ☐ Accrual (3) ☐ Other ►

	Yes	No
F Were you required to file Form W-3 or Form 1096 for 1975? (see Schedule C Instructions)		X
If "Yes," where filed ► _Andover, Mass._		
G Was an Employer's Quarterly Federal Tax Return, Form 941, filed for this business for any quarter in 1975?	✓	
H Method of inventory valuation ► _Lower of cost or market_ Was there any substantial change in the manner of determining quantities, costs, or valuations between the opening and closing inventories? (If "Yes," attach explanation)		X

Income

1 Gross receipts or sales $ _140490_ Less: returns and allowances $ _707_ Balance ►	139783	—
2 Less: Cost of goods sold and/or operations (Schedule C-1, line 8)	96479	—
3 Gross profit	43304	—
4 Other income (attach schedule) _Rental Income_	10800	—
5 Total income (add lines 3 and 4)	54204	—

Deductions

6 Depreciation (explain in Schedule C-3)	4263	—
7 Taxes on business and business property (explain in Schedule C-2)	10158	—
8 Rent on business property		
9 Repairs (explain in Schedule C-2)	505	—
10 Salaries and wages not included on line 3, Schedule C-1 (exclude any paid to yourself)	11443	—
11 Insurance	4531	—
12 Legal and professional fees	400	—
13 Commissions		
14 Amortization (attach statement)		
15 (a) Pension and profit-sharing plans (see Schedule C Instructions)		
(b) Employee benefit programs (see Schedule C Instructions)		
16 Interest on business indebtedness	3851	—
17 Bad debts arising from sales or services		
18 Depletion		
19 Other business expenses (specify):		
(a) _Station Auto Expense_	1390	—
(b) _Utilities + Telephone_	4422	—
(c) _Miscellaneous_	82	—
(d) _Supplies_	291	—
(e) _Advertising_	2222	—
(f) _Dues and Subscriptions_	40	—
(g) _Laundry + Cleaning_	98	—
(h) _Office Supplies + Exp_	1547	—
(i) _Bank Service Charges_	589	—
(j) _Licenses + Permits_	448	—
(k) Total other business expenses (add lines 19(a) through 19(j))	11189	—
20 Total deductions (add lines 6 through 19)	46040	—
21 Net profit or (loss) (subtract line 20 from line 5). Enter here and on Form 1040, line 28. ALSO enter on Schedule SE, line 5(a)	8164	—

SCHEDULE C-1.—Cost of Goods Sold and/or Operations (See Schedule C Instructions for line 2)

1 Inventory at beginning of year (if different from last year's closing inventory, attach explanation)	6380	—
2 Purchases $ _____ Less: cost of items withdrawn for personal use $ _____ Balance ►	133323	—
3 Cost of labor (do not include salary paid to yourself)	698	—
4 Materials and supplies		
5 Other costs (attach schedule) _Freight_	248	—
6 Total of lines 1 through 5	198099	—
7 Less: Inventory at end of year	101620	—
8 Cost of goods sold and/or operations. Enter here and on line 2 above	96479	—

DEPRECIATION SCHEDULE

Morris' Auto Service

Social Security or Identification No. __06-0246267__ Year Ended __Dec 31 1974__

1. Kind of Property	2. Date Acquired	3. Investment Credit Reference	4. Cost or Other Basis	5. BASIS ADJUSTMENTS a) Special First Year	b) Salvage Value	6. Adjusted Cost or Other Basis	7. Depreciation Allowed Prior Years	8. Method	9. Rate (%) or Life (yrs.)	10. Regular Depreciation	11. Deprec Reserve End of Y
Recap'n	1961		2350-	230-		2120-	2120-	SL	5 yr	—	
ND	9-24-62		9300-			9300-	—		—	—	
Rise E. 1116	4-1-63		28324-			28324-	26/2-	SL	40	708-	
Lits 3(s)	3-1-63	27-	1150-		120-	1030-	1050-		8-		
Rep. Improvemt	1969		7246-			7246-	3625-		10	725-	
Reg. Improvemt	1869		992-		94-	700-	315-		10	70-	
Machine	1971		1438-		198-	1438-	360-		10	144-	
Improved	1971	168-	3600-			3600-	660-		5	720-	
New	3/23	138-	2950-			2950-	400-		5	290-	
Sales	5/73	—	3678-			3678-	184-		10	368-	
Improved	1973	83-	1728-			1728-	200-		5	356-	
Improved	6/23	56-	799-			799-	67-		10	80-	
	1/73	35-	500-			500-	—		10	50-	
	1/74		1818-			1818-	—		10	4.2-	
	1974										

| | | 507- | 65923- | 198- | 944- | 65281- | 16510- | | | 4263- | |

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