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A STUDY OF FEMALE BUSINESS OWNERS IN OKLAHOMA AND THE ASSOCIATION BETWEEN SPECIFIED ENTREPRENEURIAL CHARACTERISTICS AND FINANCIAL PERFORMANCE BASED ON THE STRATEGIC PROFIT MODEL

The University of Oklahoma PH.D. 1985

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A STUDY OF FEMALE BUSINESS OWNERS IN OKLAHOMA AND THE ASSOCIATION BETWEEN SPECIFIED ENTREPRENEURIAL CHARACTERISTICS AND FINANCIAL PERFORMANCE BASED ON THE STRATEGIC PROFIT MODEL

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements of the

degree of

DOCTOR OF PHILOSOPHY

By

JACQUETTA PARKER MCCLUNG

1985

A STUDY OF FEMALE BUSINESS OWNERS IN OKLAHOMA

AND THE ASSOCIATION BETWEEN SPECIFIED

ENTREPRENEURIAL CHARACTERISTICS AND FINANCIAL PERFORMANCE

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A DISSERTATION

APPROVED FOR THE DEPARTMENT OF MARKETING

Approved by:

Dr. Marie Adele Hughes, Chairperson

Dr. Ramon C. Alonso, Member

Dr. James A. Constantin, Member

Dr. Philip D. Lujan, Member

Dr. Robert F. Lusch, Member

Dr. Shane R. Moriarity, Member

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By

Jacquetta Parker McClung

1985

For

Carlyon, Patrick, Andy, Bud

and

The People
(Nuumanu)

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I wish to thank the members of my dissertation committee for their input and suggestions. Two people were instrumental in assisting throughout the entire process. Adele Hughes and James Constantin supported the study, guided me along the way, and pushed me when necessary. For what I learned from them, I will always be grateful. Special thanks is also due Robert Lusch who, unknowingly, gave me the idea for the study during a graduate seminar.

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My immediate and extended family always had faith in me, even when did not. My children and husband took care of themselves, and took care of me at the same time. My parents, brothers and sisters, and my many aunts and uncles were always there when they were needed. All of these are entrepreneurial in spirit, have been a motivating influence, and have my deep appreciation and love.

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Dissertation Abstract

A STUDY OF FEMALE BUSINESS OWNERS IN OKLAHOMA AND THE ASSOCIATION BETWEEN SPECIFIED ENTREPRENEURIAL CHARACTERISTICS AND FINANCIAL PERFORMANCE BASED ON THE STRATEGIC PROFIT MODEL

By: Jacquetta Parker McClung

Major Professor: Marie Adele Hughes, Ph.D.

The purpose of the study was to identify associations between specified characteristics of female entrepreneurs and financial performance based on the ratios of the strategic profit model.

The population consisted of 111 female business owners in Okahoma. The primary data was collected by means of a self-explanatory mail questionnaire. The single independent variables were 5 groups of entrepreneurial characteritics (personal characteristics, firm characteristics, management factors, and obtacles), and the multiple dependent variables were the ratios of the strategic profit model (profit margin, asset turnover, rate of return on assets, leverage, and rate of return on net worth).

The hypotheses tested asked a general question: Is there an association between entrepreneurial characteristics and financial performance using the ratios of the strategic profit model? Specifically, the confirmatory hypotheses stated that the average financial performance of female entrepreneurs with certain characteristics would be greater than the average financial performance of female entrepreneurs without these characteristics. Contrary to expectations, 7 of 10 confirmatory hypotheses were rejected. However 3 of the confirmatory 5 exploratory hypotheses were significant. Within

the groups of exploratory hypotheses, 24 individual characteristics were significant.

The findings of the confirmatory and exploratory analyses indicated that there was some association between certain entrepreneurial characteristics and financial performance. In addition, margin management and asset management were the profit management strategies most frequently utilized by the female entrepreneurs.

A STUDY OF FEMALE BUSINESS OWNERS IN OKLAHOMA AND THE ASSOCIATION BETWEEN SPECIFIED ENTREPRENEURIAL CHARACTERISTICS AND FINANCIAL PERFORMANCE BASED ON THE STRATEGIC PROFIT MODEL

CHAPTER I

INTRODUCTION

Background

The role that female entrepreneurs play in the U. S. economy was not systematically recognized and examined on a large scale until 1976. At that time, President Carter spoke publicly of the special obstacles that females face in starting and developing their own businesses and committed his administration to assisting in the removal of those obstacles.[1]

Following that statement, in 1977 the House of Representatives held hearings on the status of women in business. At these hearings, witnesses testified regarding specific problems faced by female entrepreneurs. Four major concerns were delineated:

1. Economic independence and equality for women is seldom expressed in terms of entrepreneurship.

---

1. The Guide to the U.S. Department of Commerce for Women Business Owners (Washington, D.C.: Government Printing Office).

National Association of Women Business Owners: Economic independence is seldom expressed in terms of entrepreneurship. Until recently, economic gains for women would have been seen in terms of job equality, promotional opportunity, and entry into formerly segregated job classifications. However, more and more, it has been recognized that the virtual absence of women from American business is a measuring rod for just how little equality has been achieved for women.[2]

U. S. Commission on Civil Rights: Women of all races and ethnicities, as well as minority males are almost totally shut out of the entrepreneurial sector of the American economy. The belief that a person can start a small firm and by hard work see it grow into a large business is a fundamental part of the American dream-- but for women and minorities it is a hollow dream . . . the Nation can ill afford an economic system that is closed to the energies and participation of the majority of the population.[3]

2. In addition to the common problems faced by all small business-persons, women face additional obstacles and problems.

Conclusion excerpt: The female entrepreneur does share basic problems with all small businesses . . . we find, however, that these problems are exacerbated by both present sex discrimination and the present effects of past discrimination.[4]

3. There is a need for a data base to adequately define the dimensions of these problems.

Secretary of Commerce: Our first task is obviously to get the data and document the dimensions of the problems, not only for women but, of course, for minorities. That will tell us something about what it is we are to do and how fast we might be able to move ahead. It would be premature for us to establish a goal or to try to write legislation before we know a great deal more about actual numbers.[5]

---

2. Report No. 95-604, Women in Business, A Report of the Sub-Committee on Minority Enterprise and General Oversight of the Committee on Small Business (September 15, 1977) to the House of Representatives, 95th Congress, 1st Session, p. 2.

3. Ibid., p. 4.

4. Ibid., p. 24.

5. Ibid., p. 5.

Conclusion excerpt: The Federal Government has an inadequate data base on the composition and characteristics of the female business community.[6]

4. There is a need for a national directory of women owned businesses.

The Subcommittee was informed that there is no national directory of women owned businesses although a step has been taken in this direction by the National Association of Women Business Owners, which has compiled and published a directory of approximately 1,100 women owned businesses in the Washington-Baltimore area.[7]

Following those hearings, in August 1977, the President created the Interagency Task Force to analyze the obstacles faced by women business owners and to recommend ways by which the obstacles could be overcome. The President's mandate to the Task Force was as follows:

1. Identify existing data on women entrepreneurs, assess its adequacy, identify needs for additional data and propose methods of collecting them;

2. Identify the primary practices or conditions:
   (a) which discourage women from becoming entrepreneurs; or
   (b) which have the effect of discriminating against women entrepreneurs or placing them at a competitive disadvantage;

3. Assess current federal programs and practices which have the effect of discriminating against women entrepreneurs or placing them at a competitive disadvantage;

4. Based on these assessments, propose changes in the federal law, regulations and practices for carrying out the commitment of the Administration, and advise as to the impact, if any, on such changes on the federal budget.[8]

---

6. Ibid., p. 23.

7. Ibid., p. 21.

8. U. S. Department of Commerce, The Bottom Line: Unequal Enterprise in America, Report of the President's Interagency Task Force on Women Business Owners, 2nd printing (Washington, D. C.: Government Printing Office, 1978) p. 3.

The Task Force began its work by conducting its own inquiry of women business owners. A detailed questionnaire was distributed through the regional offices of the Department of Commerce, the Small Business Administration, business and professional associations, and through public service radio announcements requesting voluntary participation. In June 1978, the Task Force issued its report to the President. The report provided information about the legal form of business ownership, the principal business activity, the number of employees, gross receipts, how the business started, credit and loan information, prime contracting with the government, various types of agency assistance, and information about female entrepreneurs.

The study found that, in general, the female entrepreneur tended to be older, had in recent years started her business alone with her own savings or a loan, and was motivated by the same factors that motivate men. Also, the growth rate for self-employed women exceeded that of self-employed men.[9] Although at the time of the report only 7% of all businesses were owned by women,[10] the Task Force research indicated that self-employment had become more attractive as a viable career alternative for women.

The work of the Task Force was supplemented by a similar study by the American Management Association which provided additional insights with respect to successful business women. Their findings were that the

---

9. Ibid. p. 5.

10. U. S. Department of Commerce, Bureau of the Census, Selected Characteristics of Women-Owned Businesses 1977 (Washington, D.C.: Government Printing Office, 1980), p. 1.

successful woman entrepreneur comes from a close, supportive family and exhibits other entrepreneurial characteristics such as drive, persistence, and an ability to redirect negative situations to her advantage. Almost 50% had fathers who were either business owners or professionals.

On May 18, 1979, President Carter issued Executive Order 12138 directing all federal agencies and departments to examine their programs and identify those resources that could be targeted to women's business enterprises.[11] This was followed by a White House Conference on Small Business in 1980 which recommended that procurement and credit measures be employed to assist groups (such as women) who have found it difficult to get into business.[12]

One of the reasons why increasing attention is being focused on women entrepreneurs is that women are now much more likely than previously to assume the the role of entrepreneur. An examination of three general paths to business ownership provides insights into this phenomenon.

---

11. The Guide to the U. S. Department of Commerce, p. 2.

12. White House Commission on Small Business, America's Small Business Economy - Agenda for Action, Report to the President, April, 1980.

EXHIBIT 1

Avenues to Business Ownership

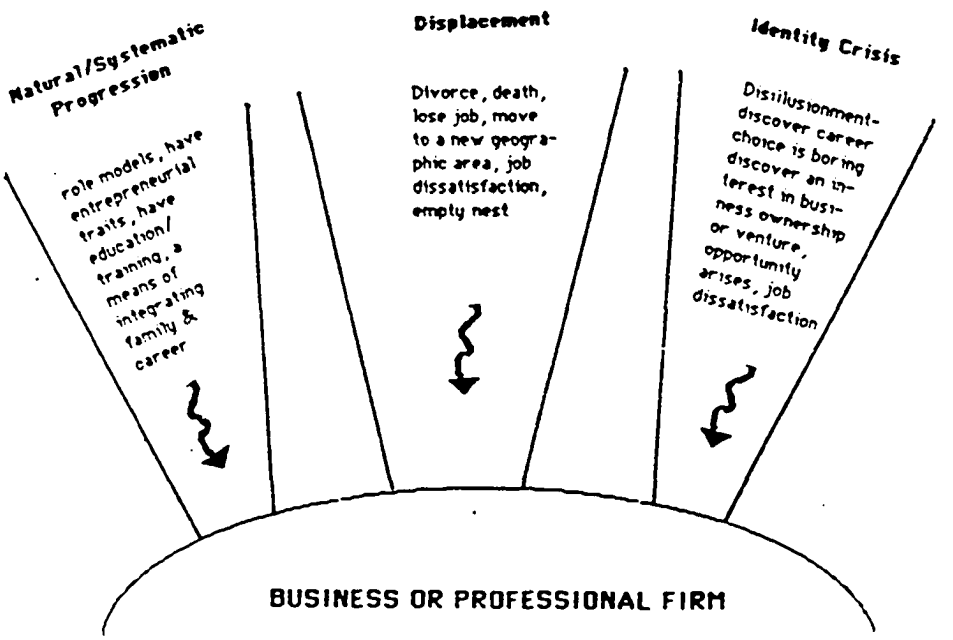


Exhibit 1 illustrates three general paths to business ownership. The first is a natural or systematic progression. Historically, this has been the path of early male entrepreneurs. Generally, these early entrepreneurs came from entrepreneurial families and had less education than today's entrepreneur. There were few female entrepreneurs in the early 1900s. Although widows frequently continued operating the husband's business, most women were limited to such businesses as dressmaking and running boarding houses (Newcomer, 1961). Today's female entrepreneur is generally more educated than her male counterpart and may systematically plan to start a business as a means of

integrating a family and career, or because she has the ability and is unable to use her talents effectively as another's employee.

While displacement may have been a factor in some male business start-ups, this has been a much more visible path for females. External events such as death, divorce, or an "empty nest," supplemented by new opportunities available to women, have pushed women toward business ownership. Other extreme situations such as race and sex discrimination, or moving to a new geographic area where employment opportunities were scarce, have motivated women to start their own businesses. Another example of displacement could be negative conditions in job experience which Brockhaus (1980) refers to as "environmental push." These negative conditions or experiences sometimes are major factors that influence a person to leave a position and start a business.

Another type of displacement is more related to an individual's internal self--feelings, attitude, perceptions, et cetera. At different stages in life, many people go through an identity crisis. This may result from disillusionment when it is discovered that the current career choice is now boring or unfulfilling. Self-inventory may produce new goals that result in changing one's direction and lead to non-traditional occupations such as owning and managing an independent business. Women constitute almost 50% of the work force and there is an accelerating move toward women assuming roles considered nontraditional, such as business ownership. Indications are that the future will continue to open new entrepreneurial doors for women; therefore, it is timely that more in-depth studies be made of female business owners.

Statement of the Problem and Framework for Analysis

Small business accounts for approximately 50% of the Gross Business Product,[13] and in recent years new and existing small companies have provided 86.7% of the nation's new jobs in the private sector.[14]

However, although approximately 250,000 new businesses have been started annually within the last ten years, 55% fail within the first five years of operation.[15] Factors relating to business management and business experience account for most of the business failures. In textbooks on small business management, Broom and Longenecker (1975) and Pickle and Abrahamson (1976) state that the primary causes of business failures are management incompetence (41%) and inexperience (52%). The report of the Interagency Task Force created by President Carter cited the Dun and Bradstreet estimate that inadequate managerial aptitude, experience, and skills account for approximately 90% of all business failures.[16]

Management aptitude, experience and skills are intangible and therefore difficult to directly measure. Agreement does not generally exist on what would be valid and reliable scales for these variables. However, these traits are reflected in the financial performance of a firm, and here a recognized framework, the DuPont Strategic Profit Model, exists.[17] As shown in Exhibit 2, this model identifies three

---

13. U. S. Small Business Administration, Facts About Small Business and the U. S. Small Business Administration, 1979.

14. White House Commission on Small Business, p. 10.

15. SBA, Facts About Small Business, pp. 3-4.

16. U. S. Department of Commerce, The Bottom Line, p. 49.

profit management strategies: margin management, asset management, and leverage management.[18]

EXHIBIT 2

Strategic Profit Model



The strategic profit model, which is discussed in detail in Chapter II, is utilized in this study to address the primary research question: Is there an association between specified characteristics of female entrepreneurs and financial performance based on the ratios of the strategic profit model. Specifically, two interrelated research questions are asked:

1. Are selected personal and firm characteristics associated with profit paths: margin management, asset management, and leverage management?

2. Are selected personal and firm characteristics associated with return on net worth?

Exhibit 3 graphically presents the framework of the study by identifying the selected entrepreneurial characteristics to be investigated and the ratios of the strategic profit model which will be utilized in testing the hypotheses.

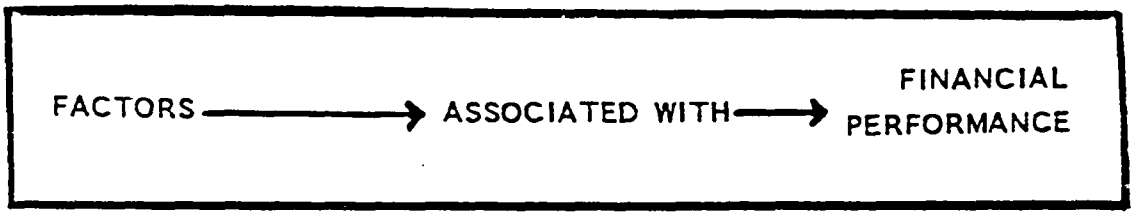
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17. C. A. Kline and Howard L. Hessler, "The Du Pont Chart System for Appraising Operating Performance," NACA Bulletin (August, 1952).

18. Bert C. McCammon, Jr. and Robert F. Lusch, "The New Economics of Hardware/Home Center Retailing: A Financial Profile of 17 Leading Hardware/Home Center Companies," Hardware Retailing (October, 1975): 72-79.

EXHIBIT 3

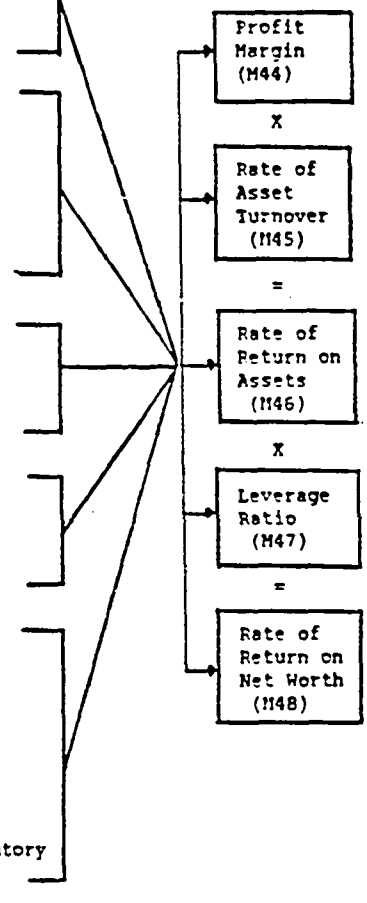
Framework of Study



ENTREPRENEURIAL CHARACTERISTICS

Variable	Personal Characteristics
M3	Age
M4	Birth order
M5	Marital Status
M7	Education
M10	Number of children
	Firm Characteristics
M20	Type of business
M21	Location
M22	% of business ownership
M24	Age of business
M25-26	Number of employees
M32-36	Type of business ownership
	Management Factors
M43	Hours worked per week
M51-57	Methods of seeking advice
M58-59	Years of managerial experience
M121-127	Handling of financial matters
	Attitudinal Factors
M60-78	Toward business ownership
M79-86	Toward self
M87-107	Satisfaction with personal life
	Obstacles
M108	Previous business experience
M109	Raising capital
M110	Self-confidence
M111	Childrearing responsibilities
M112	Seeking outside advice
M113	Lack of family support
M114	Discrimination
M115-116	Obtaining contracts, suppliers
M117	Obtaining credit
M118-119	Adequate working capital, inventory

STRATEGIC PROFIT MODEL



Secondary objectives of the study are: to increase the data base needed to adequately define the dimensions of certain problems faced by female business owners; to provide information that will be useful to female entrepreneurs and potential female entrepreneurs; to confirm the findings of previous research on female business owners; to expand on previous research by examining associations between various factors (identified in Exhibit 3); and to provide directions for further research.

The primary and secondary objectives were accomplished by means of an analysis of a survey of female owned businesses in Oklahoma. Since a current directory did not exist, a directory was developed from various available sources: lists of business development organizations, names furnished by other business owners, and telephone directories. A mail questionnaire was then designed based on a review of prior entrepreneurial research and the recommendations of the Task Force on Women Business Owners. The acquired data was analyzed to answer the research questions and to provide a basis for future research.

The population of the study was limited to female business owners in Oklahoma. The specific variables selected were limited to those that have been identified in prior research on entrepreneurs.

The definitions of entrepreneur and female business owner which were used in defining the population for this study are given below:

Entrepreneur. In the purest sense, entrepreneurs establish new businesses. However, the term has been broadened to include those who inherit or purchase an on-going business, and those who run a franchise

independently of the franchisor.[19] In addition, the entrepreneur undertakes to organize, manage, and assume the risk of the business.[20] For this study, a broad definition of entrepreneur is used:

> An entrepreneur is a person who starts a new business or acquires an on-going business or franchise, and organizes, manages, and assumes the risk of the business.
>
> A female business owner is a female who owns at least 10% of a business of which 50% or more is owned by females, and who participates in operating the business.

Justification for the Study

The analysis framework for the study is based on the premise that the strategic profit model is a useful tool for objectively examining the structure and characteristics of a business. The use of the strategic profit model is widely accepted by business analysts. In addition, previous researchers have found it to be a useful frame of reference for evaluating overall financial performance with a single profit planning equation utilizing the income statement and the balance sheet. However, no previous entrepreneurial studies (whether of males or females) have been found in the literature which evaluate overall financial performance in terms of entrepreneurial characteristics.

Previous studies of entrepreneurs have focused almost exclusively on males. Recent studies of female entrepreneurs (Schwartz, 1976; Sonfield, 1976; Humphreys and McClung, 1981) have raised questions

---

19. Nicholas C. Siropolis, Small Business Management: A Guide to Entrepreneurship. (Boston: Houghton Mifflin Company, 1977), p. 26.

20. William Copulsky and Herbert W. McNulty, Entrepreneurship and The Corporation (New York: American Management Association, 1974).

concerning the relevance of the previous findings to female entrepreneurs. Although female entrepreneurs may face problems common to all small business persons, women face additional obstacles and problems. In addition, there are indications that the education, experience, motivation, and the types of businesses engaged in by female entrepreneurs may be different from those of males.

This study aims to fill two gaps in the existing literature by: (1) evaluating financial performance of entrepreneurs using the strategic profit model, and (2) focusing on the female entrepreneur.

CHAPTER II

REVIEW OF THE LITERATURE

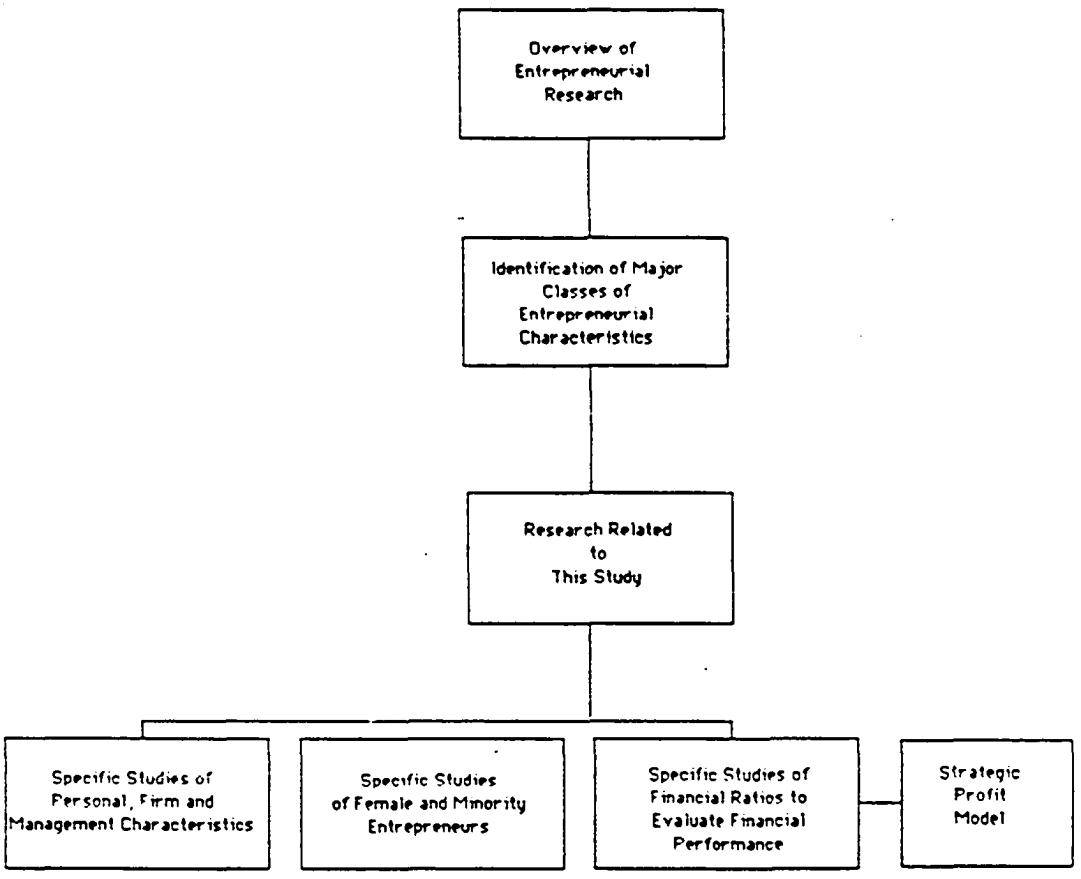
Introduction

This chapter develops a background for the study by reviewing the literature on entrepreneurship. A brief overview of the general areas and the progression of previous research provides the direction for the study. From the review of previous research, entrepreneurial characteristics are divided into major classes and the characteristics within each class are discussed. Research directly relevant to this study is comprised of: studies of entrepreneurial characteristics within the classes identified as personal, firm, and management characteristics; studies relating to special problems of female entrepreneurs; and studies of financial ratios used to evaluate financial performance.

In this study, the strategic profit model will be the basis for examining the association between selected entrepreneurial factors and strategic profit model ratios. The last section will review this model and discuss its major purposes and its potential usefulness to small business. Exhibit 4 illustrates the framework for review of the literature on entrepreneurship.

EXHIBIT 4

Literature Review



Overview of Entrepreneurial Research

Although the significance of the role of the entrepreneur in the process of economic growth has been emphasized in the past and present literature, the entrepreneur has historically received only minor theoretical attention. Baumol states:

> The entrepreneur is at the same time one of the most intriguing and one of the most elusive characters in the case that constitutes the subject of economic analysis. He has long been recognized as the apex of the hierarchy that determines the behavior of the firm and thereby bears a heavy responsibility for the vitality of the free enterprise society . . . and it is he who is virtually absent from the received theory of the firm.[1]

Economists, sociologists, and psychologists have been the primary groups concerned with the development of entrepreneurial theory and the historical role of the entrepreneur. The first combined academic effort to study the historical role of the entrepreneur began in the late 1920s at Harvard University. Initiated by Professor Gras, the idea was to "place the businessmen specifically in the context of the complex economic structure of the society".[2] What developed were studies of business policy-making and management within the individual firm which were published in the Harvard Studies in Business History. These studies consisted of biographies of such notables as John Jacob Astor and Jay Cooke, plus the histories of certain business firms. What emerged as "business history" was intended to simply be a branch of

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1. William J. Baumol, "Entrepreneurship in Economic Theory," American Economic Review 58 (May, 1968): 64-65.

2. James H. Soltow, "The Entrepreneur in Economic History," American Economic Review 58 (May, 1968): 84-94.

economics.[3]

The second combined effort came with the establishment of the Research Center in Entrepreneurial History at Harvard in 1948. Under the direction of Arthur H. Cole, the Center channeled the efforts of historians, economists, sociologists, and other scholars interested in entrepreneurs. Here the approach was "to practice no unity of subject or method . . . in essence, the field of entrepreneurial history would have almost unlimited boundaries."[4] The greatest impact on entrepreneurial research was made by Harvard economist, Joseph A. Schumpeter (1947, 1950) with his concept of the entrepreneur as the innovator. It is recognized that Schumpeter himself stood at the cradle of modern entrepreneurial exploration in the United States[5] --"he himself the innovator, the entrepreneur of entrepreneurial history."[6]

The studies of the Harvard Research Center progressed from an emphasis on economic aspects of entrepreneurship to investigation of individual entrepreneurs and their firms. Attention was drawn to "general theories of personality" through the volume Men in Business (1952) which explained the relations of business to a number of different societies, and also detailed social origins and careers of business leaders in 19th and 20th century America. Studies of personality formation continued, with David McClelland, Everett Hagen,

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3. Ibid.

4. Ibid.

5. Ibid. p. 96.

6. William Miller, Men in Business (Cambridge: Harvard University Press, 1952), p. 8.

Albert Shapero, and others making significant contributions to personality theory.

Information regarding entrepreneurs and entrepreneurship and many new points of view emerged from these efforts. However, although concepts were defined and some limited generalizations were made during this period, a satisfactory general hypothesis for the role of entrepreneurship was not developed.

Through the 60's and 70's, books on, and studies of, entrepreneurs concentrated in five general areas focusing on characteristics of success or failure of the firm and the entrepreneur. These general areas included: family and personal backgrounds, personal characteristics, social change and personality formation, personality change through motivation and/or business training, and environment and location. The studies concentrated primarily on white males in the manufacturing industry. Later studies included black males in business, and where possible comparisons were made between blacks and whites. As a result of the women's movement, studies of females in business received attention and there were calls for more studies in this area.

Exhibit 5 presents an overview of prior entrepreneurial research as it moved from the recording of entrepreneurial history to studies of specific groups of people. The process began with qualitative studies utilizing personal interviews and projective testing and moved to more quantitative studies utilizing questionnaires and objective tests.

EXHIBIT 5

Overview of Entrepreneurial Research

	(1)	(2)	(3)	(4)	(5)
TYPES OF STUDIES	History of economic role of entrepreneurship	History of well-known entrepreneurs	Personality theory, background, and other personal characteristics	Psychological testing, motivation/ business training	Personal, firm, and environment characteristics
SEX STUDIED	na	males	mostly males	mostly males	mostly males
INDUSTRY	na	Mfg.	all types	all types	Mfg. and retail
YEARS	Early 1900s		late 1940s - 1950s		1960s-1970s

	(6)	(7)	(8)	(9)	(10)
TYPES OF STUDIES	Financial performance	Combination of financial and non-financial data	Success/ failure criteria	Contrasts in black and white & other minority groups	Women in management and business
SEX STUDIED	Mostly males	Mostly males	Mostly males	Mostly males	females
INDUSTRY	all types	all types	all types	Mfg. and retail	retail
YEARS	1970s				1980s

At point #8 in Exhibit 5, the whole general area of entrepreneurship had been covered in varying degrees. The last areas (#9 and #10) concentrate on specific groups of people as related to one or more aspects of the other areas.

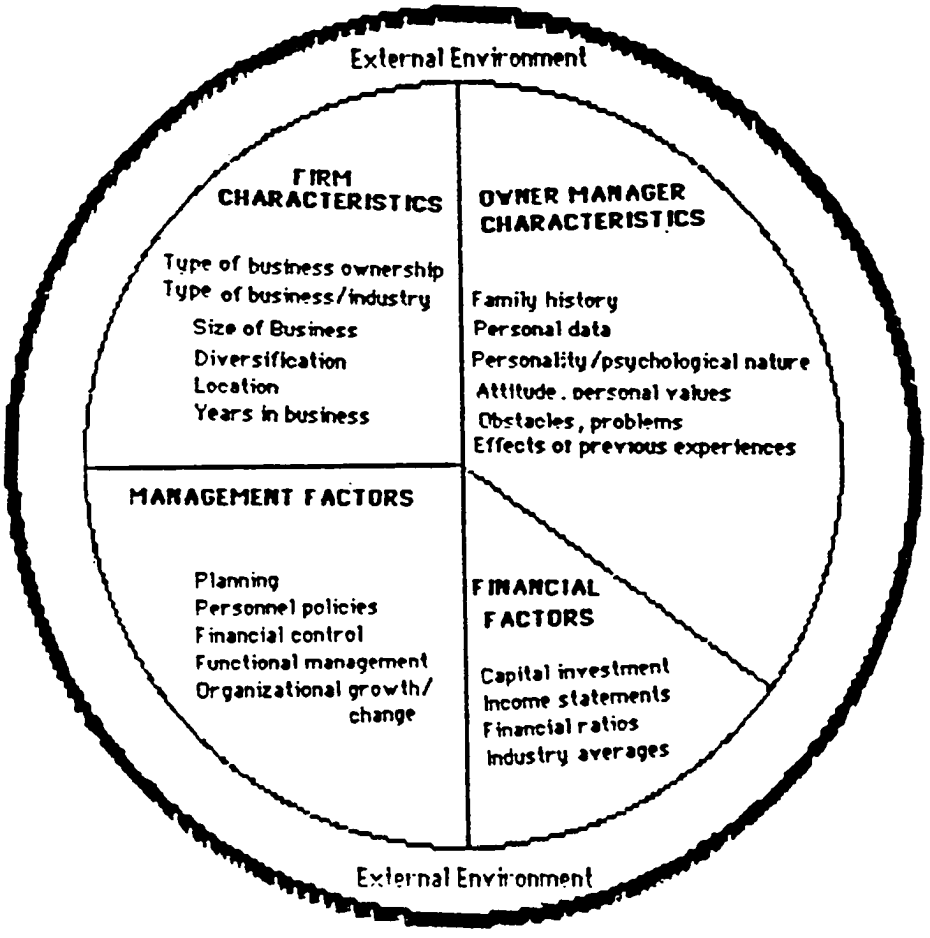
This overview brings the study of entrepreneurship to the current focus of simultaneously investigating both the entrepreneur and the business firm as an interrelated unit.

Identification of Major Classes of Entrepreneurial Characteristics

Exhibit 6 portrays the interrelated characteristics of the entrepreneur and the business firm. In this exhibit, the exogenous factors represented by the external environment circle include the external social-cultural, economic, technological, competitive, and legal-political environments. The endogenous factors of the 'entrepreneurial pie' include owner-manager characteristics, firm characteristics, management factors, and financial factors. This study deals with those endogenous factors. Below, a general discussion of these factors is given, explaining the types of characteristics within each group. This is followed by a discussion of specific studies dealing with each factor.

EXHIBIT 6

Classes of Entrepreneur and Firm Characteristics



The characteristics of the owner/manager include family background, such as occupation of parents and other relatives that served as role models, and birth order. Personal data include age, sex, marital status, education, and number of children. The personality of the entrepreneur received great attention beginning with the studies of McClelland. Using projective tests, personality traits commonly found

in entrepreneurs were identified. Included were such traits as independence, need for achievement, need for power, high locus of control, conformity, and leadership and aggression. Further attempts to understand the entrepreneur included studies of attitude, personal values, and problems encountered by entrepreneurs. These in-depth studies also noted the effects of previous experience, job satisfaction/dissatisfaction, and many types of displacement.[7]

Characteristics of the firm include: the type of business ownership (such as sole proprietorship, partnership, or corporation); the type of business and industry classification (such as service, wholesale, retail, or manufacturing); the size of the business (in terms of sales or number of employees); diversification; location; years in operation; and other relevant characteristics.

Management factors include those elements of small business management such as systematic planning, personnel policies, financial control, and management of other functional areas such as marketing (Schollhammer and Kuriloff, 1979).

Financial factors include all financial information useful in evaluating start-up and subsequent financial performance and growth. Amount and means of capital investment have been used in start-up and expansion analysis. Income statement, financial ratios, and industry averages have been used in evaluating growth and past financial performance, and for predicting success or failure.

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7. See Exhibit 6.

Those portions of the entrepreneurial pie discussed above consist of quantitative and qualitative characteristics that are basically internal elements that are assumed to be within the control of the entrepreneur and the firm. The preceding categories are not all-inclusive but only attempt to identify key variables within each group. External environmental factors such as the state of the economy, political and governmental policies, and the social situation are largely beyond the direct control of the entrepreneur and the firm. While it is not the intent to minimize the importance of these factors, the more controllable endogenous factors are the focus of this study.

Research Related to This Study

Specific studies of endogenous entrepreneurial factors related to this study will be reviewed below. These factors include personal characteristics of entrepreneurs, characteristics of the firms they owned, and their management styles and strategies. In addition, a separate section below is devoted to the studies of attitudes, obstacles, and problems encountered by female entrepreneurs. Finally, a review will be made of financial ratios used in evaluating the well-being of firms or in predicting success or failure.

Specific Studies of Personal and Firm Characteristics

The initial studies concentrated primarily on the entrepreneurs' family backgrounds and personal characteristics, including personality factors such as need for achievement. Collins and Moore carried out some of the most widely known studies at Michigan State University in

1962. One study was of male entrepreneurs who owned manufacturing firms in Michigan and began business between 1945 and 1958. Using personal interviews and psychological tests, Collins and Moore found these entrepreneurs to be men who "failed in the traditional and highly structured roles available to them in society ... who found an outlet for their creativity, a creation uniquely their own: a business firm."[8]

Another study by Collins and Moore of 80 Michigan manufacturing entrepreneurs indicated that independent families with manual labor backgrounds are a source of entrepreneurs and that the entrepreneur's family background differs from that of salaried executives:

> Of 80 Michigan manufacturer-entrepreneurs, 30 percent had fathers who were skilled or unskilled laborers. Only 3 percent were sons of executives or owners of large businesses. In contrast, only 15 percent of the big business leaders had fathers who were skilled or unskilled laborers, and 35 percent of these leaders had fathers who were business executives or owners of large businesses.[9]

A study by Hal Pickle (1976) of 97 small business managers found a correlation between success and five general characteristics: drive, mental ability, human relations ability, communications ability, and technical knowledge. Everett Hagen's research (1962) in Latin America involved personality formation and the social change affecting it. He termed these entrepreneurs "rebels"--businessmen who accepted traditional values of their culture but rebelled at the low value society placed on industrial activity in Latin America. Albert Shapero

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8. Patrick R. Liles, New Business Ventures and The Entrepreneur, (Homewood, Richard D. Irwin, Inc., 1974), pp. 2-3.

9. H. N. Broom and Justin G. Longenecker, Small Business Management, (Cincinnati: Southwestern Publishing Company, 1975), p. 55.

(1975) termed entrepreneurs "D.P.s" (displaced persons), persons who have been dislodged by society and have responded with action through entrepreneurship. These are people who voluntarily or involuntarily left the traditional organization.

The studies of David McClelland are probably the most cited and the most innovative in the study of entrepreneurship. These studies in the United States, Poland, and India were initially conducted for the Harvard Center for Entrepreneurial Studies in the early 1960s. McClelland (1961) reported relationships between need for achievement and entrepreneurial behavior in young men. His studies suggested that high need for achievement would influence a young male to select an entrepreneurial position. While these studies used a rather general definition of entrepreneur, they did lay the basis for further motivation research and led to studies of business leadership and motivational training. Miron and McClelland (1979) reported on achievement motivational training programs and concluded that this type of training increases the probability of establishing and improving small business. Other studies (Rotter, 1966; Lowell, 1953; Atkinson, 1958) found a correlation between high need for achievement and internal locus of control.[10] Other significant studies include Hornaday and Aboud (1971) who used objective tests to identify and measure certain personality characteristics of individuals who have successfully started a new business. They found that compared to men in general,

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10. Definition of R. H. Brockhaus (1980), p. 4: Locus of Control: "The belief that a person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics."

entrepreneurs scored significantly higher on scales reflecting need for achievement, independence, and effectiveness of leadership, but they scored lower on the need for support (of family, friends) scale. According to Mancuso, "all the independently conducted studies agree that entrepreneurs are high achievers."[11]

Personal and firm characteristics, such as age, education, marital status, birth order, type of business etc., have been studied widely (Brockhaus and Nord, 1979; Douglass, 1976; Liles, 1974; Mancuso, 1974; Cooper, 1973; Howell, 1972; Shapero, 1971; Mayer & Goldstein, 1961; and others). The stereotype picture in the 1950s and 1960s has been that entrepreneurs are relatively less educated than the general population. Since the 1970s, this picture has begun to change. Douglass' study (1976) of black and white males and white females found that the number of entrepreneurs with college degrees is increasing faster than the general population rates. Douglass states: "the myth of the relatively less educated entrepreneur simply cannot be supported."[12] Brockhaus and Nord (1979) found that entrepreneurs do appear to be better educated than the general population but less so than managers. Moreover there is a wide deviation in the education level between owners of different types of businesses.

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11. J. R. Mancuso, "What It Takes to Be an Entrepreneur: A Questionnaire Approach," Journal of Small Business Management 12 (October, 1974): 17.

12. Merrill E. Douglass, "Relating Education to Entrepreneurial Success," Business Horizons 19 (December, 1976): 41.

Some entrepreneurial research (McClelland, 1961; Mancuso, 1974; Schreier, 1975; Demarest, 1977, Humphreys and McClung, 1981) has also examined the birth order of entrepreneurs and found that entrepreneurs tend to be first-born or only children. Birth order research has found a relationship between education and various types of achievement and children who are first-born or only children. According to Berger and Ivancevich (1973):

> . . . first-borns and only children are more likely to advance through more levels of education, to perform better in school and attain social and intellectual eminence than do later borns.[13]

Except for studies using projective tests, most entrepreneurial studies emphasizing personal and firm characteristics tend to be descriptive in nature, using case history and personal interviews as primary methods of data collection.

The general picture of the entrepreneur which emerges from these studies is that of a strong, independent leader who desires to be in control of his own destiny, even under adverse circumstance. While older entrepreneurs tend to come from entrepreneurial families and have less education, the newer ones appear to be better educated than the general population and may have chosen business ownership as a career alternative. The entrepreneur's firm tends to be small, nondiversified, and personally managed by the owner.

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13. Philip K. Berger and John M. Ivancevich, "Birth Order and Managerial Achievement," Academy of Management Journal 16 (September, 1973): 515-516.

Specific Studies of Management Factors

Schollhammer and Kuriloff (1979) state: "The success of any business depends upon the capabilities and ingenuity of its management."[14] In the small business firm, the management style is basically determined by one person--the owner/manager. Proper management can be a key to small business survival. In a review of studies, Lockwood (1975) notes that inadequate management experience is one of the reasons most often mentioned with regard to failure of the firm. Other reasons mentioned are also related to management strategy. For example, overexpansion or a high debt level, poor pricing policies, and inadequate capitalization are management decisions that might be adversely affected by the lack of experience or expertise. Recognition by the Small Business Administration, Dun and Bradstreet and others that the major causes of business failures were related to management factors led to the development of management/training assistance programs and textbooks on the same topic. Most of the literature dealing with management factors consists of books written on how to successfully manage small businesses. The books of authors such as Broom and Longenecker (1975), Buskirk and Vaughn (1976), Liles (1974), Pickle and Abrahamson (1976), Steinhoff (1974), White (1977), Schollhammer and Kuriloff (1979), and others bring together "theory, general principles and practice required to initiate and manage a small business successfully."[15]

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14. Hans Schollhammer and Arthur H. Kuriloff, Entrepreneurship and Small Business Management (New York: John Wiley & Sons, 1979), p. 179.

15. Ibid., p. vii.

In addition, entrepreneurial studies utilizing personal interviews or questionnaires may include sections on management factors. For example, in a study of female business owners Demarest (1967) included in her questionnaire a section on "Operation of the Business/Practice," which asked questions on management style and philosophy, customer-clients-suppliers, advertising and promotion, recordkeeping, competitors, capital and credit, finance, and motivations and intentions of the managers. Although there were no controlled comparisons with comparable male entrepreneurs, the findings suggest that women manage their business much the same as men. Demarest states: "The interview data revealed no major approaches to business practices which could be attributed to the fact that the operators were women."[16]

In a study by Bowser (1978), the personal interviews of males (66%) and females (34%) included several questions on business management strategies. This research found that the attitude of minority entrepreneurs (87% blacks, 13% other minorities) was related to business/management strategies. Schwartz (1976) found that women entrepreneurs tend to closely watch and control their business operations, thus leaning toward an autocratic management style. This is consistent with studies of the managerial styles of male entrepreneurs. The small company environment is conducive to this managerial style in that the company "depends on the drive and resources of the entrepreneurs, so authority revolves around the entrepreneurs who . . .

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16. Janice L. Demarest, "Women Minding their Own Business: A Pilot Study of Independent Business and Professional Women and Their Enterprises" (Ph.D. dissertation, University of Colorado at Boulder, 1977), p. 129.

rarely delegate well anyway."[17] This is especially true during the growth years of the firm; in the mature years, a more balanced approach emerges.

Regardless of the management style, the business world generally agrees that the acquisition of managerial competence is a combination of science and art.

> Insofar as management is an art, the skills may come from personal qualities resulting from early condition or learned through personally controlled experience. Insofar as it is scientific, those skills may be deliberately acquired through learning.[18]

Although managerial skill and competence are widely recognized as paramount to the survival of the firm, the entrepreneur, who often operates the company as an extension of himself, will not generally consider his own management inexperience or incompetence as a factor for failure. In her review, Lockwood (1975) states:

> In the Deran [1963] study, when the owners were asked to evaluate the reasons for their failure, none of the failing group admitted to any personal reasons (aside from health) as a possible factor in their failure. In fact, when asked directly whether they felt they were about as well qualified in terms of training and experience as most retailers in their line, 80 percent of the failing owners asserted that they were. In contrast, when other retailers were asked to assess the reasons for failure of retailers they had known, "the most frequently mentioned fault was insufficient managerial skill."[19]

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17. Eleanor B. Schwartz, "Entrepreneurship: A New Female Frontier," Journal of Contemporary Business 5 (Winter, 1976): 59.

18. Schollhammer and Kuriloff, p. 24.

19. Elizabeth Y. Deran, The Successful Shopkeeper: A Study of Retailer Survival in Nine Communities (Springfield, Ill.: University of Illinois, 1963), cited in Sharon B. Lockwood dissertation, "Why Minority Entrepreneurs Fail: A Quantitative Analysis" (American University, 1975), p. 68.

Specific Studies Relating to Female and Minority Entrepreneurs

After studies had touched upon the endogenous factors shown in Exhibit 6, researchers began to focus on other groups of entrepreneurs, specifically females and blacks (see Exhibit 7). The studies basically involved comparing black and white entrepreneurs together or separately using the entrepreneurial characteristics previously identified. This research included studies in personal values and attitude toward business (Demarest, 1977; Lockwood, 1975; Sonfield, 1976; Watson & Simpson, 1978); the attitude of others toward businesswomen (Kuhlmann, 1973); and problems, barriers or obstacles encountered by women in entering or managing an independent business (Schwartz, 1976; Sonfield, 1976; Humphreys and McClung, 1981). Many of these studies of females and minorities included and compared some of the same variables that were previously selected for studies of white male entrepreneurs (Schreier, 1975; Schwartz, 1976; DeCarlo and Lyons, 1979; Sleeth and Humphreys, 1981).

A profile of the types of businesses owned by female entrepreneurs shows several firm characteristics. According to reports of the White House Commission on Small Business (1980) and the Small Business Administration (1979), female-owned businesses were concentrated in the selected services and retail trade industries. Other studies have also shown a concentration in the two industries identified (Schwartz, 1976; Demarest, 1977; Bowser, 1978; Humphreys and McClung, 1981). The legal form was primarily sole proprietorships, and the majority of these businesses had no employees and had average annual receipts of

$10,000.[20] In the Demarest study (1977), most of the women started their businesses with less than $5,000 in capital and almost 60% had earned under $10,000 per year. In the Humphreys and McClung study (1981), 72.5% of the female-owned businesses had gross receipts of less than $25,000.

In regard to personal characteristics, studies have shown entrepreneurial women to have the same characteristics as male entrepreneurs (Demarest, 1977; Schreier, 1975; Schwartz, 1976). An exploratory study of 51 female business owners by Demarest (1977) examined the background characteristics of the women and their firms, their business management practices, their personal and business philosophies--in general "their perceptions, attitudes and modes of accommodation as women achieving in a male-dominated world. . ."[21] The conclusions were that the women possessed predominately androgynous profiles and did not manifest sex-role or gender conflicts from achieving in the masculine entrepreneurial world, nor did they feel anxiety about loss of femininity through enterprise formation. Rather the women had as strong a sense of independence as found in entrepreneurial men.

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20. Facts About Small Business, pp. 6-7.

21. Demarest, "Women Minding Their Own Business," p. 130.

EXHIBIT 7

FEMALE AND MINORITY STUDIES

	Females	Males	Males/Females
Hornaday & Aboud (1971) "Characteristics of Successful Entrepreneurs"		White/Black n=56	
Lockwood (1975) "Why Minority Entrepreneurs Fail"			White/Black n=10,233
Schreier (1975) "The Female Entrepreneur"	White* n=14		
Scnfield (1976) "Entrepreneurship in Black and White..Attitudinal Comparison"		White/Black n=216	
Schwartz (1976) "Entrepreneurship: A New Female Frontier"	White* n=20		
Demarest (1977) "Women Minding Their..Business"	White (93%) n=51		
Watson & Simpson (1978) "Comparative Study of Owner Manager Values in Black and White..."		White/Black n=80	
Bowser (1978) "Minority Entrepreneur...Success			Minorities n=86
DeCarlo & Lyons (1979a) "Successful Female Entrepreneur: Psychological Attributes"	White n=32		
DeCarlo & Lyons (1979b "Comparison..Characteristics of Minority & Non-Minority...."	White/Black n=122		
Sleeth & Humphreys (1981) "Small Business Management: Contrast in Black & White"			White/Black* n=428
Humphreys & Mcclung (1983a) "Women Entrepreneurs in Oklahoma"	White/Black n-86		
Humphreys & McClung (1983b) "American Indian Entrepreneurs"			American Indian n=123

*Assumed

In comparing entrepreneurial females with profiles of females in general or male entrepreneurs, Schreier (1975) and Schwartz (1976) found that, in general, the female business owners studied were comparable to male business owners. The female business owners exhibited strong drive and self-confidence, had a desire to be independent and leaned toward an autocratic management style. Other similarities included positive role models, early entrepreneurial activity, seeing 'opportunity' as a reason for starting a business, and a willingness to take risks with a positive attitude toward the present and the future. DeCarlo and Lyons (1979) found that the characteristics of female entrepreneurs differed from females in general as represented by the Gordon Survey of Interpersonal Values and the Edwards Personal Preference Scales.

In regard to the level of education of female entrepreneurs, studies indicate that most female business owners have high levels of education--at least some college, and many have college degrees. In a study by Schwartz (1976), 60% of the female business owners were college graduates or had some college; 70% of the female business owners in a study by Demarest (1977) had college degrees; and in the study by Humphreys and McClung (1981), 55% had college degrees. These findings are consistent with studies of male entrepreneurs.

In other respects, female entrepreneurs encounter some problems and obstacles that differ from male entrepreneurs. The major problems identified by the Interagency Task Force in 1977 as unique to women entrepreneurs were: education in entrepreneurship, that is, inadequate preparation for business and attitudes that limit aspirations for

non-traditional careers; management training; and financing discrimination in terms of raising capital and establishing credit. The Task Force study found the American educational system to be inadequate in preparing women to run a business. In terms of raising capital the Task Force reported, "the problems faced by the woman entrepreneur seeking financing are over and above those normally faced by any new or small business person."[22] This problem is compounded by a poor perception by financial institutions of a woman's capability to run a business in a "man's world."[23]

A study by Schwartz (1976) of 20 female entrepreneurs supported the Task Force conclusions regarding financing and discrimination. Credit discrimination was found to be the initial and major barrier for women in starting a business. Other problems were related to inexperience--underestimating the cost of operating the business and marketing their product or service.

Specific Studies of Financial Factors

In the broad perspective, financial management is a part of total management of the firm. For purposes of this study, financial management is discussed separately because particular emphasis will be given to the usefulness of financial ratios.

Analysis of the balance sheet, income statement, and funds flow statements is the traditional means of evaluating the health of business firms. Financial ratios are derived from these statements and provide a

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22. U. S. Department of Commerce, The Bottom Line, p. 6.

23. Ibid.

very useful tool for evaluating financial performance. Schollhammer and Kuriloff (1979) state:

> Financial ratio analysis gives a manager checkpoints for judging the effective use of the company's resources. Further insights may be gained by comparing the company's ratios with the same ratios of other companies operating under similar conditions. For example, the ratios periodically published by Dun and Bradstreet . . . may be used as performance standards against which the company's achievement may be compared. How well the company is doing within the industry can be judged in this way.[24]

Financial ratios can be grouped into different performance categories: profitability ratios, liquidity ratios, activity ratios, leverage ratios, equity ratios, and expense ratios.[25] Profitability ratios indicate income position and operating results by profit margin, return on investment or income per share analysis. Liquidity ratios indicate a firm's ability to meet its current obligations. Leverage ratios signify the strength or weakness of trading on the equity. Accountants were one of the first financial groups to use ratio analysis for discriminating between failed and successful firms and for determining bond ratings and loan risks. The first studies were primarily descriptive in nature, however, accounting figures readily lend themselves to statistical techniques and many complex studies have emerged.

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24. Schollhammer and Kuriloff, p. 354.

25. Discussion of these ratios is adapted from Schollhammer and Kuriloff (1979) and Welsch, Zlatkovich and White's Intermediate Accounting (1976).

The user of financial ratios is cautioned to view key ratios as a system of interconnected internal and external conditions and events that affect the financial performance. It is also important to remember the structure and purpose of ratios. Welsch, Zlatkovich and White (1976) state:

> Ratio analysis is significant only when the relationship between the selected factors sheds additional light on the interpretation of the individual absolute amounts . . . In view of the large number of ratios that could be computed it is important that the accountant select for presentation only those ratios that appear to have the greatest significance. In determining "significance" consideration must be given to the purposes for which the ratios are used.[26]

Studies of financial ratios include so many different and overlapping ratios that they are sometimes confusing to interpret. It is easy to see the dilemma in determining the most useful financial ratios

Chen and Shimerda (1981) assist with ratio selection in their review and summary of 26 studies:

> We hope here to help resolve the problem of ratio selection by examining ratios found useful in recent empirical studies, reconciling the differences in the ones found useful in these studies, and categorizing them by seven factors suggested in the literature.[27]

Of more than 100 financial items (65 accounting ratios) 41 are considered useful and/or are used in the final analysis by one or more of the studies reviewed by Chen and Shimerda. After eliminating overlapping ratios, Chen and Shimerda classified the remaining 34 ratios

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26. Glenn A. Welsch, Charles T. Zlatkovich, and John A. White, Intermediate Accounting (Homewood, Ill.: Richard D. Irwin, Inc., 1976).

27. Kung H. Chen and Thomas A. Shimerda, "An Empirical Analysis of Useful Financial Ratios," Financial Management 10 (Spring, 1981): 51.

according to seven factors (see Exhibit 8): return on investment, capital turnover, financial leverage, short-term liquidity, cash position, inventory turnover, and receivables turnover. According to the authors:

> . . . the selection of one ratio to represent a factor can account for most of the information provided by all the ratios of that factor . . . . the selection of the best representative ratio for a factor is not independent of the ratios selected for other factors. Each ratio contains common as well as unique information. The common information contained in a ratio is represented by factors. The unique information is not shared by any other ratio in the factor. Consequently the set of financial ratios used for further analysis should be selected in such a way that the ratios capture most of the common information contained in their factors and, as a group, contain more unique information than any other set of ratios.[28]

While the Chen and Shimerda study did not resolve the question of which ratio should represent a factor, the result suggested that a useful set of ratios could be developed. This classification of important ratios is shown in Exhibit 8.[29]

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28. Ibid.

29. Ibid., p. 57.

EXHIBIT 8

FACTOR CLASSIFICATION OF IMPORTANT RATIOS
Chen and Shimerda (1981) Summary

Factor	Ratio	Balance Sheet	Income Statement	Both	Strategic Profit Model
Return on Investment	Net Income/Sales		X		X
	Funds Flow/NW	X			
	Funds Flow/TA	X			X
	Net Income/TA			X	
	Net Income/NW			X	X
	EBIT/Sales		X		
	NI/Common Equity			X	
Capital	QA/TA	X			
	Funds Flow/Sales			X	
	Current Assets/TA	X			
	Net Worth/Sales				
	Sales/TA			X	X
	WC/TA	X			
Financial Leverage	Total Liabilities/TA	X			
	Total Liabilities/NW	X			X*
	Long-Term Debt/CA	X			
	Funds Flow/TD	X			
	Funds Flow/CL	X			
	Retained Earnings/TA	X			
Short-Term Liquidity	Current Assets/CL	X			
	Quick Assets/CL	X			
	Current Liabilities/NW	X			
	Current Liabilities/TA	X			
Cash Position	Cash/Sales		X		
	Cash/Total Assets	X			
	Cash/Current Liabilities	X			
	No Credit Interval				
	Quick Flow				
Inventory Turnover	Current Assets/Sales			X	
	Inventory/Sales			X	
	Sales/Working Capital			X	
Receivables Turnover	Quick Assets/Inventory	X			
	Quick Assets/Sales			X	

*The form of this ratio in the Strategic Profit Model is TA/NW.

All of the ratios of the strategic profit model used in this study are included in the Chen and Shimerda study. The strategic profit model (Exhibit 9) is a combination of balance sheet and income statement ratios. This model is particularly useful in analyzing overall financial performance because it converts major components of the balance sheet and income statement into ratios forming a single equation, and it identifies major profit paths useful for decision-making. In the strategic profit model, high-yield management is the result of strategically combining margin management, asset management, and leverage management.

According to McCammon and Lusch (1976) the model serves three important purposes:

1. It specifies that a firm's principal financial objective is to earn an adequate or target rate of return on net worth;

2. It identifies the three profit paths in a business; that is, a firm can improve its rate of return-on-net-worth by increasing its profit margin, by raising its rate of asset turnover or by leveraging its operation more highly;

3. It dramatizes the principal areas of decision-making in the firm, namely margin management, asset management and financial policy or leverage management. Firms effectively interrelating their margin, asset and financial policy decisions may be described as high performance companies.[30]

The expanded model (Exhibit 10) identifies the controllable variables of the profit paths. The model is simple to calculate and easy to understand which enhances its usefulness and is widely used by executives and analysts in financial planning.[31]

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30. McCammon and Lusch, Hardware Retailing, p. 76.

31. Ibid., pp. 72-76.

EXHIBIT 9

Strategic Profit Model

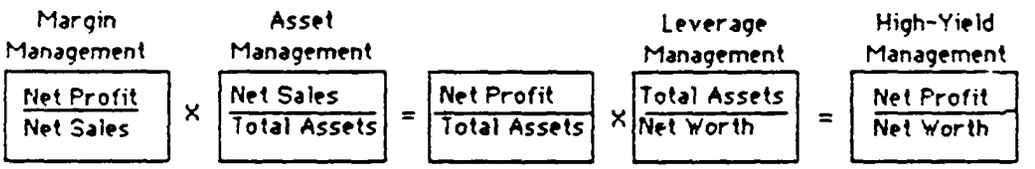
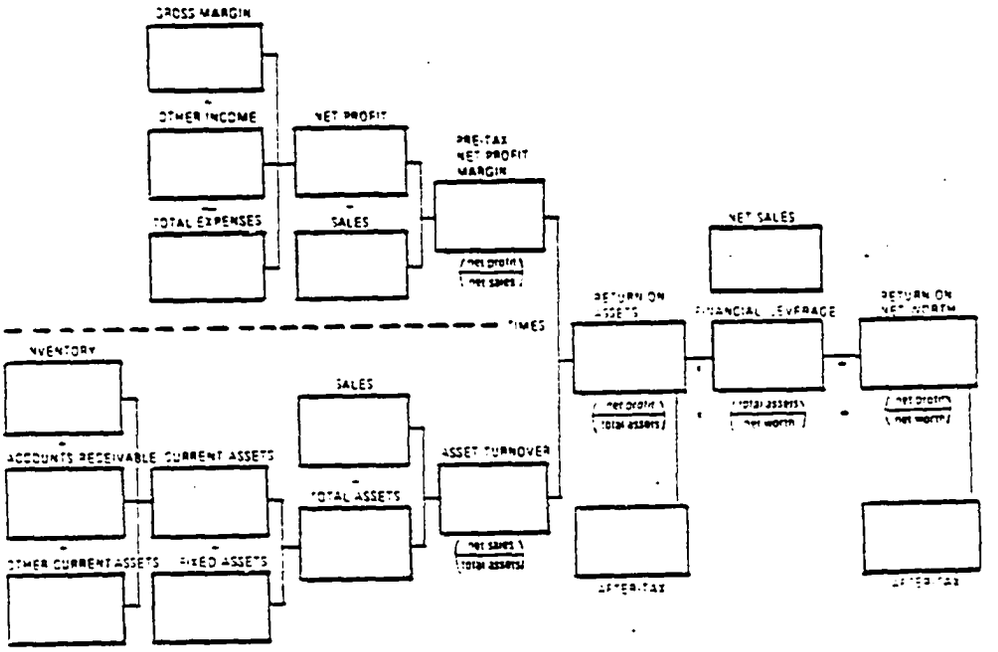


EXHIBIT 10

The Expanded Strategic Profit Model [32]



32. Hardware Retailing, (October, 1976), p. 68.

Prior research of business owners examined causes and relationships between various entrepreneurial characteristics and success characteristics. Some financial items (such as gross sales, net profits, amount of loans) and non-financial items (years in business, number of employees, size of business) have been used to determine success. Alves (1978) used 18 financial ratios to predict small business failure. Bowser (1978) used gross sales and net profit to determine success of male and female entrepreneurs.

It is not the intent of this study to determine what success should mean to all female business owners. Rather the purpose of the study is to determine if there is an association between characteristics of female entrepreneurs and financial performance. The strategic profit model fits the requirement of this purpose by identifying three profit paths leading to high yield management. In this model, four key financial relationships (operating performance, asset turnover, debt-equity management, and overall performance) serve as a basis for analyzing and planning financial strategies of the firm.

Summary

Entrepreneurial research has made a full circle from entrepreneur, to the business firm, the business/financial management of the firms, and back again to the entrepreneur with more in-depth studies of causes and relationships of various factors. The result is a general profile of the entrepreneur.

1. Early entrepreneurs often came from a background of fathers who were small entrepreneurs or laborers; whereas the fathers of managers were often business executives or owned large businesses.

2. Entrepreneurs exhibit traits of independence, leadership, aggressiveness, and have a need to be in control of their own destiny.

3. Entrepreneurs have often failed in traditional and highly structured roles.

4. Early entrepreneurs often had less education; while younger entrepreneurs tend to be better educated than the general population.

5. Younger entrepreneurs view business ownership as a career alternative.

Studies of female entrepreneurs in the United States resulted in several findings.

1. Female entrepreneurs own small firms concentrated primarily in the selected services and retail trade industries.

2. Female entrepreneurs often start their firms with a small amount of capital, and generate low gross revenues.

3. Female entrepreneurs often have the same entrepreneurial characteristics as men.

4. Female entrepreneurs tended to be college educated--at least some college or a college degree.

5. Female entrepreneurs face problems and obstacles that differ from male entrepreneurs.

The earlier studies were more descriptive in nature, focusing mainly on personal characteristics and personality. Most of the previous research dealt with males, and females have only in recent years been the focus of entrepreneurial research. Current research is more empirical and continues to expand on prior research. Entrepreneurial studies using limited financial data have emerged recently. This study expands on the financial studies and links to the earlier studies of entrepreneurial characteristics.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

Introduction

This chapter describes the population and sample studied, the variables, the research instrument, the hypotheses to be tested, and the statistical procedures used to analyze the data.

Population

The population consisted of female business owners in Oklahoma. Since there was no comprehensive directory of female business owners in Oklahoma, a directory was developed from previous Oklahoma surveys, a 1979 Oklahoma Women Business Owners Directory, contacts with business development organizations, and the telephone directories of several major cities in Oklahoma. The major telephone directories included the Oklahoma city area, Tulsa area, Lawton area, and Norman area. According to the 1980 census, these areas account for approximately 54% of the total population in Oklahoma. Several smaller directories were also included. The original directory contained 2,146 names and addresses of businesses either known or believed to be owned, wholly or in part, by women. The major categories by types of businesses were:

Type of Business	Number	Percent
Retail Stores	535	24.9
Professional Services	521	24.3
Personal Services	909	42.4
Miscellaneous Firms	181	8.4
Total	2,146	100.0

The businesses classified as "Personal Services" included 349 barber and beauty shops, and "Miscellaneous Firms" included 89 individual craftsmen. Previous surveys of Humphreys and McClung (1982) revealed that yearly sales in these categories were minimal. For this reason and to reduce the cost of mailing, 250 of the barber and beauty shops classified as "Personal Services" and 79 of the individual craftsmen classified as "Miscellaneous Firms" were randomly removed from the directory. This reduced the total directory to 1,817. The final distribution of major categories by types of businesses was:

Type of Business	Number	Percent
Retail Stores	535	29.4
Professional Services	521	28.7
Personal Services	659	32.0
Miscellaneous Firms	102	9.9
Total	1,817	100.0

The Survey Instrument

The data was collected by means of a self-explanatory mail questionnaire. This data collection method was selected over telephone or personal interviews due to the time and expense involved in a state-wide sample. The basic design of the questionnaire was based on previous questionnaires used by Humphreys and McClung in 1980 and 1981 involving women business owners in Oklahoma. The major categories of

information requested included: personal characteristics; firm characteristics; management factors (such as years of managerial experience, and handling of financial matters); perceptions of obstacles; and various attitudinal variables. This survey instrument expanded on the earlier ones by including a sixth section requesting total sales, net profit, total assets and total liabilities. This financial information enabled computation of financial ratios needed for the model.

Sample. Questionnaires were mailed to the entire sample of 1,817. The response rate from the initial mailing and subsequent followup was 18.2%, i.e., 331 questionnaires. Only 111 of these questionnaires met the two criteria necessary for inclusion in this study: (1) female ownership of at least 10% of a business of which 50% or more is owned by females, and (2) complete financial information. Two major reasons for the low response rate were: (1) Time and financial constraints did not allow confirmation of female ownership for all firms listed in the directory. It is possible that some firms in the sample may not have had female owners. (2) Some owners were undoubtedly reluctant to provide the detailed financial information requested in the study. Due to the constraints mentioned, nonresponse error was not checked. A summary description of demographics of the sample that was obtained is given in Chapter IV.

Hypotheses

Confirmatory Analyses

The main objective of this study was to determine whether specified characteristics are associated with financial performance. The financial ratios of the strategic profit model were used for this purpose.

A review of the literature on entrepreneurship identified characteristics previously discussed in the literature review. These characteristics were divided into groups previously mentioned. From these groups, several characteristics were selected that have been empirically examined in prior studies. These characteristics are birth order (personal characteristic); level of education (personal characteristic); type of business owned (firm characteristic); location (firm characteristic); hours worked per week (management characteristic); years of managerial experience (management characteristic); difficulty in establishing credit and raising capital (business obstacles); and various business and personal attitudinal variables. In this study, these variables were tested to examine their relationship to the dependent variables of the strategic profit model.

The general research question is: Is there an association between entrepreneurial characteristics and financial performance using the ratios of the strategic profit model. The hypotheses will state that the average financial performance of female entrepreneurs with certain characteristics will be greater than female entrepreneurs without these characteristics. Financial performance will be measured by the ratios

of the strategic profit model: profit margin (M44), asset turnover (M45), rate of return on assets (M46), leverage ratio (M47), and rate of return on net worth performance (M48). Profit margin measures net profit on sales. Asset turnover measures the use of total assets to produce sales, i.e., the revenue generated per dollar of investment. The rate of return on assets combines profit margin and asset turnover to measure earnings rate on assets. The leverage ratio measures the owner's investment in the firm compared to financing provided by creditors. Rate of return on net worth measures the return on the capital invested by the owner, indicates the growth potential of the firm, and is the single most important overall measure of financial performance.[1] As illustrated in Exhibit 11, firms can increase the return on net worth by increasing profit margin, asset turnover, or leverage. Thus an increase in these ratios would result in improved overall financial performance.

EXHIBIT 11

Strategic Profit Model

Margin Management		Asset Management			Leverage Management		High-Yield Management
Net Profit / Net Sales	×	Net Sales / Total Assets	=	Net Profit / Total Assets	×	Total Assets / Net Worth	= Net Profit / Net Worth

EXAMPLES:

1.	15%	×	1.3×	=	20%	×	1.0×	=	20%
2.	10%	×	2.0×	=	20%	×	1.0×	=	20%
3.	4%	×	2.0×	=	8%	×	2.5×	=	20%

1. McCammon and Lusch, Hardware Retailing, pp. 72-79.

The specific research hypotheses and the related studies are discussed below. A title precedes each hypothesis and is followed by the variable number of the characteristic. For example, variable M3 is the age of the business owners and is used throughout all tables to identify age of business owners. See Exhibit 3 for a complete list of variables and variable numbers.

Birth Order (M4)

H1: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs who are first-born or only children is greater than the average financial performance for female entrepreneurs without this characteristic.

Previous research in several fields has emphasized the importance of ordinal position in a family and various types of achievement. Birth-order research has also indicated a positive relationship between "first-born and only children" and management attainment (Dunbo and Freedman, 1971; Hennig and Jardim, 1977) and earnings progression (Berger and Ivancevich, 1973). Demarest (1977) added another dimension--children who are raised as though they were first-born, such as in second families or where there is a large time gap between siblings. The theoretical reason given for the association between birth order and achievement is that first-born children receive special treatment and support which leads them to develop independence and self-confidence.[2]

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2. Demarest, "Women Minding Their Own Busines," pp. 56-61.

Because greater than average financial performance is a measure of achievement, it is expected that female entrepreneurs who are first-born or only children will have greater average financial performance than other entrepreneurial women.

Level of Education (M7)

H2: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs with a college degree is greater than the average financial performance for entrepreneurial women without a college degree.

Previous research has shown a positive relationship between years of formal schooling and income. Higher income for an entrepreneur is generally associated with a higher return on net worth. Therefore, it is expected that the average financial performance for female entrepreneurs with a college degree will be greater than the average financial performance for entrepreneurial women without a college degree.

Type of Business (M20)

H3: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs owning professional firms and retail stores is greater than the average financial performance for entrepreneurial women owning other types of firms.

Government reports of the U. S. Department of Commerce, the Small Business Administration, and the 1980 White House Conference on Small Business, and other studies (Schwartz, 1976; Demarest, 1977; Bowser, 1978; Humphreys and McClung, 1981) have shown that female-owned

businesses are concentrated primarily in selected services and retail trade industries. Excluding professional service firms, these firms began with a minimal amount of capital and had low yearly sales volume. It is, therefore, expected that women owners of professional firms and the more capital intensive retailing firms will have greater average financial performance than women who own personal service and other types of firms.

Location (M21)

H4: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs whose firms are located outside the home is greater than the average financial performance for women whose firms are located in the home.

Many female business owners operate from their homes. The study by Demarest (1977) noted several problems with home-based operations:

> All of these women who worked at home felt that they had worked out satisfactory arrangements, but there were problems. Most liked the flexibility, but this very advantage was often a disadvantage in that it required great discipline and organization to get work done on time. Some noted that it was difficult to convey a "professional" image from the home.[3]

In addition, in-home businesses are often not good locations which may limit sales. Demarest (1977) points out that location is particularly significant for businesses which depend on walk-in clients. Because of these problems related to "in-home" businesses, it is expected that the average financial performance of female-owned businesses located outside the home will be greater than those located in the home.

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3. Demarest, "Women Minding Their Own Business," p. 162.

Hours Worked Per Week (M49)

H5: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs will have a positive association with the number of hours worked per week.

Here a general assumption is made that the more a person works the more effective will be the financial performance. Therefore, it is expected that the average financial performance of female entrepreneurs will have a positive association with the number of hours worked per week.

Managerial Experience (M56-M59)

H6: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs will have a positive association with the years of managerial experience.

Lack of managerial experience is a key factor in business failures. Effective business strategies depend upon business knowledge and managerial experience. According to Demarest (1977), the latter is more important:

> Many reported that lack of business knowledge was the source of their major difficulties during the first year of operation, but doubted that formal business education would have made much difference.[4]

As cited in the "Report of the President's Interagency Task Force on Women Business Owners," Dun and Bradstreet estimates that 90% of all business failures analyzed can be attributed to inadequate managerial aptitude, experience, and skills. According to the Task Force survey:

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4. Ibid., p. 94.

"The lack of management and business skills appears to be one of the greatest problems faced by women going into business."[5]

In the book, Women and the Business Game (1980), Charlotte Taylor, Executive Director of the Task Force, gives nine items that have a major influence on small business failure; eight of these are managerial in nature.

While knowledge about business can be acquired through training and formal education, an accumulation of years of managerial experience requires time. Therefore, it is expected that women with more years of managerial experience will have greater average financial performance than women with less years of managerial experience.

Business Attitude (M60, M64, M65, M66)

H7: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs who strongly feel a need for independence, responsibility, and personal achievement is greater than the average financial performance of female entrepreneurs who do not consider these important.

Personal Attitude (M79, M80)

H8: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs who feel confident that they will succeed when they are in a position to control and direct is greater than that of female entrepreneurs who do not consider these important.

Strong drive, self confidence, and a desire for independence have been shown in prior studies to be associated with achievement. It is therefore expected that there will be a positive relationship between

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5. U. S. Department of Commerce, The Bottom Line, p. 49.

the importance given to these characteristics by female entrepreneurs and average financial performance (a measure of achievement).

Capital Obstacle (M109)

H9: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs who encounter raising capital as a major obstacle is less than the average financial performance of women who do not perceive this as a problem.

Credit Obstacle (M117)

H10: As measured by the ratios in the strategic profit model, the average financial performance of female entrepreneurs who encounter obtaining credit as a major obstacle is less than the average financial performance of women who do not perceive this as a problem.

Schwartz's (1976) study found credit discrimination to be the initial and major barrier in starting a business.[6] The lack of credit availability creates several obstacles for the small business owner: (1) those firms experiencing cash flow difficulties are unable to obtain credit to get them through the crisis; and (2) these business owners do not have the advantage of using non-equity capital to increase return on net worth.

It is assumed in this study that those female entrepreneurs who perceive establishing credit and raising capital to be an obstacle generally have encountered these problems. Therefore, it is expected that the average financial performance of females who perceive establishing credit and raising capital as major obstacles will be less than women who do not perceive these as problems.

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6. Eleanor B. Schwartz, "Entrepeneurship: A New Female Frontier," Journal of Contemporary Business 5 (Winter, 1976).

Exploratory Hypotheses.

A secondary objective of the study was to identify potential associations of other entrepreneurial characteristics and financial performance.

There are other entrepreneurial characteristics for which there has been no empirical examination in prior research. Exploratory research was conducted to examine the relationship of these variables to financial performance; however, no a priori hypotheses were stated for these variables.

Data Analysis and Statistical Procedures

To prepare the data, all nonmetric responses were assigned numeric codes and then all responses were entered into the computer. All statistical procedures were performed using the Statistical Analysis System (SAS).

The framework of the study divides all variables into independent and dependent classifications. The single independent variables are various entrepreneurial characteristics, and the multiple dependent variables are the ratios of the strategic profit model

In selecting appropriate techniques, the type and number of dependent and independent variables and the scale of measurement were considered. For both the confirmatory and exploratory hypotheses to be tested, the statistical techniques deemed most appropriate were one-way multivariate analysis of variance, simple regression analysis, and correlation analysis. Table 1 lists the independent variables and the statistical tests, and identifies the confirmatory and exploratory

hypotheses to be tested. Table 2 describes all variables, the measurement scales, and the statistical technique used. A discussion of the statistical procedures follows these tables.

Multivariate analysis of variance (MANOVA) examines the relationship between multiple dependent variables which are interval scaled and a set of nominal independent variables, and simultaneously tests for the effect on the combination of criterion variables. This is essentially an overall test of equality of group (cell) means, which are vectors in a multivariate context. Basically, MANOVA is an extension of univariate analysis of variance. MANOVA offers several advantages over univariate analysis of variance. According to Hair (1979):

> Beyond ANOVA, however, MANOVA accounts for possible correlation among all dependent variables while testing all variables simultaneously. Further it relieves the researcher from the job of selecting the most important dependent variables from several possible conflicting ones for decision-making purposes.[7]

The assumptions for MANOVA are (1) random sampling, (2) a multivariate normal distribution of each sub-population, (3) the same variance-covariance matrix for each sub-population of dependent variables, and (4) the observations within cells should be independent.[8]

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7. Joseph F. Hair, Jr., Ralph E. Anderson, Ronald L. Tatham, and Bernie J. Grablowsky, Multivariate Data Analysis (Tulsa, OK: Petroleum Publishing Company, 1979), p. 145.

8. Hair, et al, p. 158-159.

TABLE 1

SUMMARY OF STATISTICAL TESTS

H* X		Independent Variables	Statistical Tests Manova	Regr	Corr
X	M2	Race	*		
X	M3	Age	*		
H1	M4	Birth order	*		
X	M5	Marital status	*		
H2	M7	Education	*		
X	M10	Number of children		*	
H3	M20	Type of business	*		
H4	M21	Location	*		
X	M22	Percent business ownership		*	
X	M24	Age of business		*	
X	M25-26	Number of employees		*	
X	M32-36	Legal form of ownership	*		
H5	M49	Hours worked per week		*	
X	M51-57	Outside consultants	*		
H6	M58-59	Years of managerial experience		*	
H7 +X	M60-78	Attitude toward business ownership	*		
H8 +X	M79-86	Personal attitude	*		
X	M87-107	Satisfaction with personal life			*
H9-H10+X	M108-27	Business obstacles	*		

*H = Confirmatory hypotheses
X = Exploratory hypotheses

TABLE 2

DESCRIPTION OF VARIABLES

Variable Name		Measurement Scale	Statistical Technique
Dependent Variables			
M44	Profit margin	Interval	
M45	Asset turnover	Ratio	
M46	Return on assets	Interval	
M47	Leverage ratio	Ratio	
M48	Return/net worth	Interval	
Independent Variables			
M2	Race	Nominal	MANOVA
M3	Age	Nominal	MANOVA
M4	Birth order	Nominal	MANOVA
M5	Marital status	Nominal	MANOVA
M7	Education	Nominal	MANOVA
M10	Number of children	Ratio	Regression
M20	Type of business	Nominal	MANOVA
M21	Location	Nominal	MANOVA
M22	Percent business owned	Ratio	Regression
M24	Age of business	Ratio	Regression
M25-26	Number of employees	Ratio	Regression
M32,34,36	Legal form of business	Nominal	MANOVA
M49	Hours work/week	Ratio	
M51-57	Methods/advice	Nominal	Correlation
M58-59	Years mgr. experience	Ratio	Regression
M60-78	Business attitude	Nominal	MANOVA
M79-86	Personal attitude	Nominal	MANOVA
M87-107	Life satisfaction	Ordinal	Correlation
M108-127	Business obstacles	Nominal	MANOVA

One-way MANOVA designs involve a single independent variable and multiple dependent variables. The 5 ratios of the strategic profit model represent the multiple dependent variables, and various entrepreneurial characteristics represent the single independent variables. For those independent variables measured on nominal scales, (H1-H6, H9-H10), one-way MANOVA was the statistical technique used to test the hypotheses. Exploratory tests were also run for age (M2), race (M3), marital status (M5), legal form of business (M32-36), various business attitudes (M60-78), satisfaction with personal life (M87-107), and various business obstacles (M108-127).

The Wilks' lambda statistic is the general statistic used to test for overall significance with MANOVA. After examining overall effects significant at α = 10 percent, specific effects due to particular dependent variables were evaluated. For individual independent variables, analysis of variance provides F-tests for this determination. While the F test determines if the means are significantly different from each other, it does not determine which means differ from which other means. Multiple comparison methods (identified as "means test" in this analyses) give more detailed information about the differences among three or more means. For variables significant at 10 percent, the Ryan-Einot-Gabriel-Welsch (REGWF) multiple F test was selected as being most appropriate to determine the location of significant differences among means.[9]

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9. SAS User's Guide: Statistics, 1982 Edition (Cary, North Carolina: SAS Institute, Inc., 1982).

Regression analysis can be used to analyze the relationship between one or more independent (predictor) variables and a single dependent (criterion) variable both of which are interval scaled. "The objective of regression analysis is to help us to predict a single dependent variable from the knowledge of one or more independent variables."[10]

Simple regression involves a single dependent variable and a single independent variable. Each of the ratios of the strategic profit model individually represent the single dependent variable (Y), and selected entrepreneurial characteristics individually represent the single independent variable (X). For the selected independent variables measured on ratio scales, simple regression analysis was the statistical technique used. This included Hypotheses 7 and 8, and exploratory tests of percent of business ownership (M22), age of business (M24), and number of employees (M25-26).

The assumptions necessary for regression are: (1) for a fixed value of the variable X, Y is a random variable; (2) the Y values are statistically independent of one another; (3) the mean value of Y is a straight line function of X; (4) the variance of Y is the same for any X; and (5) for any fixed value of X, Y has a normal distribution.

Correlation analysis is concerned with determining the extent to which two variables are related or tend to vary together. The correlation coefficient expresses the magnitude of the relationship. Correlation analysis does not indicate cause and effect, it only indicates that two or more variables vary together either positively or

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10. Hair, et al, p. 36.

negatively. The strength of the relationship is an indication of how well the data fit a linear regression line. In the correlation analysis, variable (Y) is one of the individual ratios of the strategic profit model, and the second variable (X) is one of the entrepreneurial characteristics.

The Pearson product-moment correlation was selected for exploratory research concerning methods of seeking advice (M51-57) and satisfaction with life in general (M87-107) and their relationship to financial performance based on the strategic profit model.

Before the tests were performed, an edit was performed to determine whether extreme values for variables in the strategic profit model, which occurred in the sample, might be in error. Considering the firm characteristics of type of business, number of employees, size of business, and whether the firm rented or owned facilities, the extreme ratios appeared to not be in error but rather represented plausible outliers.

Summary

The purpose of Chapter III was to describe the population and sample studied, the variables, the research instrument, the hypotheses to be tested, and the statistical procedure used to analyze the data.

The population, how a sample was chosen, and a breakdown by type of business of the sought sample was discussed and presented. In addition, the criteria for inclusion of respondents in the analysis sample were stated and the response rate was reported.

The variables and the survey instrument used to gather the data were described. The general research questions and the specific hypotheses were discussed and justified using related prior research. Finally, data preparation procedures and statistical tests selected for the analysis were explained.

CHAPTER IV

ANALYSIS OF DATA

Introduction

This chapter provides a summary description of the survey results, the adjustments made to the financial data, and the results of the tests of the hypotheses. The summary description will follow the order of the questionnaire: personal characteristics, firm characteristics, management factors, attitudinal factors and obstacles. For a number of variables, classes were combined to ensure that cell sizes were adequate for statistical analysis. These regroupings will be discussed within each section of the summary description.

So that net incomes would be comparable across sole proprietorships, partnerships, and corporations, the net incomes for sole proprietorships and partnerships were adjusted for labor. This adjustment will be discussed in the section of the paper covering the financial variables.

Summary Description of Survey Results

As stated previously, of the questionnaires returned, 111 were usable in this study. The respondents used in the analysis were distributed in Oklahoma areas as follows:

TABLE 3

GEOGRAPHIC AREAS OF SAMPLE

	Frequency	Percent
Tulsa Area	34	30.63
Oklahoma City Area	38	34.23
Lawton, Norman, Other Areas	39	35.14

Profiles of the majority of the respondents and the firms are given in Table 4 and Table 5. Additional detail will follow these tables. In general, the respondents were educated women who owned professional service and retail firms.

TABLE 4

PROFILE OF RESPONDENTS

Characteristic	Percent	Respondent Characteristics
Age	67	30-49 years
Education	55	Completed college-graduate work
	23	Some college
Marital Status	65	Married
Number of Children	64	0-2 children
Birth Order	43	First or only child
	24	Youngest child
	32	Middle child
Type of Business	50	Professional services
	23	Retail stores
Legal Form	61	Non-corporate form
	39	Corporate form
Percent of ownership	80	95-100% ownership
Began Business	52	1970s
	30	1980s
Hours Worked Per Week	58	> 40 hours
Location	85	Outside the home

TABLE 5

FINANCIAL PROFILE

Characteristic	Percent	Firm Characteristics
Sales	55	< $100,000
	28	$100,000 - $300,000
Net Profit	35	Loss to < $9,000
	32	$10,000 - $29,000
Total Assets	58	< $50,000
	17	$50,000 - $99,000
	14	$100,000 - $199,000
Total Liabilities	56	None to < $10,000
	24	$10,000 - $49,000
Net Worth	37	Negative to < $10,000
	33	$10,000 - $49,000
	23	$50,000 - $199,000

Personal Characteristics

In describing the responses, the frequency and percentage will be presented for certain major responses; other percentages will be verbally discussed. In general, the description will follow the order of the questions on the survey unless several related questions are grouped together.

State Born, Race, Age. The number of female business owners born within Oklahoma and those born outside of Oklahoma were approximately equal: 49.6% were born in Oklahoma and 50.4% were born outside of Oklahoma. Ninety-six percent of the respondents were white, while 67% were in the 30-49 age category:

FIGURE 1

AGE GROUPS OF FEMALE BUSINESS OWNERS

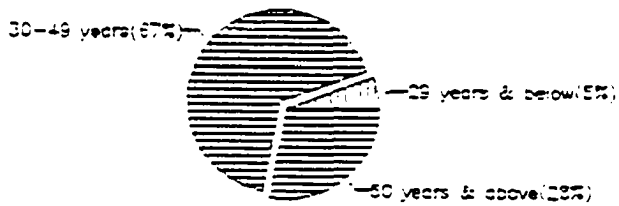


TABLE 6

AGE DISTRIBUTION

Age	Frequency	Percent
20-29	6	5.40
30-39	37	33.33
40-49	37	33.33
50-59	18	16.22
60-64	8	7.21
>64	5	4.51

Birth Order. Approximately 10% of the respondents were only children, 58% were either the oldest of youngest child in a family of more than one child, and 32% were middle children.

TABLE 7

BIRTH ORDER

	Frequency	Percent
Only Child	11	9.91
Oldest Child	37	33.33
Youngest Child	27	24.33
Middle Child	36	32.43

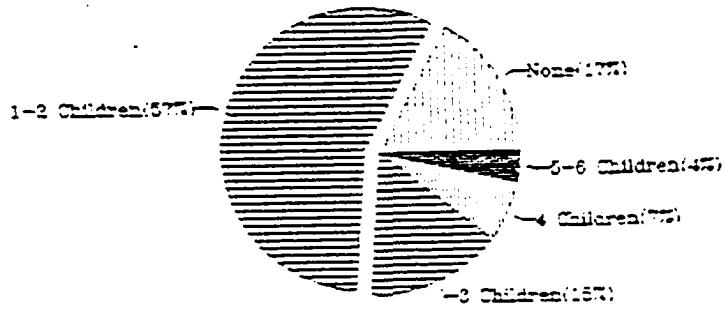
Marital Status and Household Decision-making. Sixty-five percent of the respondents were married or living with someone, 31% were widowed or divorced, and 4% had never married. Of those that were married or

had been married, 45% stated that both male and female had equal influence in household decision-making, 27% stated that the female had more than equal influence, and 16% stated that males had more than equal influence.

Number of Children. Seventeen percent of the respondents had no children, 57% had 1 to 2 children, 23% had 3 to 4 children and 3% had 5 to 6 children.

FIGURE 2

NUMBER OF CHILDREN OF FEMALE BUSINESS OWNERS



Education. Fifty-five percent had an undergraduate or graduate degree or had done some graduate work, 27% had some college work or an associate degree.

TABLE 8

LEVEL OF EDUCATION OF FEMALE BUSINESS OWNERS

	Frequency	Percent
8th grade	1	.91
12th grade	15	13.64
Technical school	3	2.73
Some college	25	22.73
Associate degree	5	4.54
Completed college	27	24.55
Graduate work/degree	34	30.91

Sixty of the respondents indicated their major field; 30% were professional fields such as law and medicine, 23% business or administrative fields, 12% social services, 12% health related fields, 10% home economics, and the remaining were liberal arts and education.

Thirty-six percent stated that they were completely satisfied with their education, and 11% were completely dissatisfied. In general, 58% of the business owners were satisfied with the amount of education received, while 28% were dissatisfied.

Parent's Education. Thirty-seven percent of the fathers had an undergraduate or graduate degree or had done some graduate work, 21% of the mothers were in this same category. Twenty-five of the male parents and 26 of the female parents had either no formal education or had an 8th grade education. This level of education comprised 24% of each parent group.

TABLE 9

LEVEL OF EDUCATION OF PARENTS

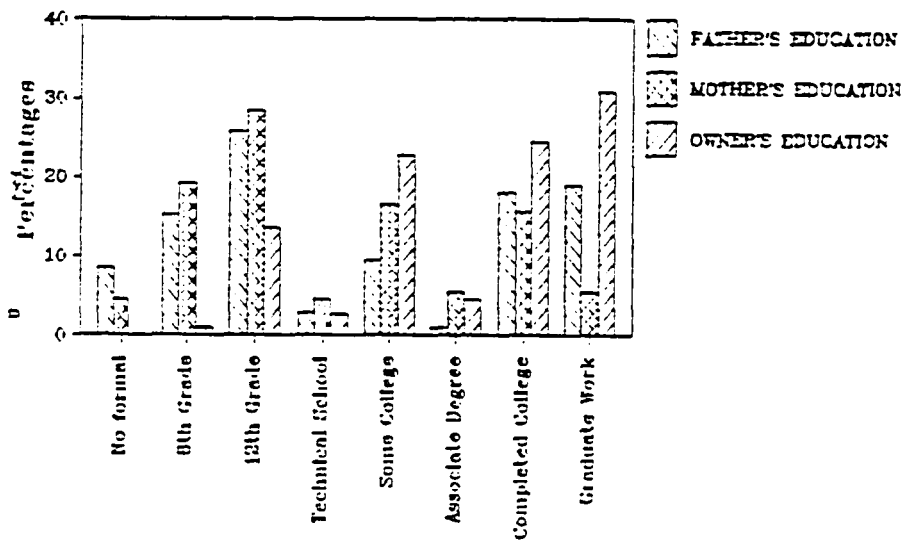
	Frequency	
	Males	Females
No formal education	9	5
8th grade	16	31
12th grade	27	21
Technical school	3	5
Some college	10	18
Associate degree	1	6
Completed college	19	17
Graduate work/degree	20	6

In comparing the education of the female business owners and the education of parents, Figure 3 shows that the female business owners as a class have more education than their parents. In the categories of

education above high school, the average level of education of female business owners was greater than the average level of education of parents, except for technical college and associate degrees.

FIGURE 3

COMPARISON OF PARENTS' EDUCATION AND OWNERS' EDUCATION



Parent's Occupation. Excluding the category of housewife, the category of professional occupation was the largest category for both parents. For fathers, 29% were in professional occupations, and 22% of the mothers were in professional occupations. In second place, business services and self-employed each had 22% for fathers, while business services with 19% ranked second for mothers, followed by 9% self-employed.

TABLE 10

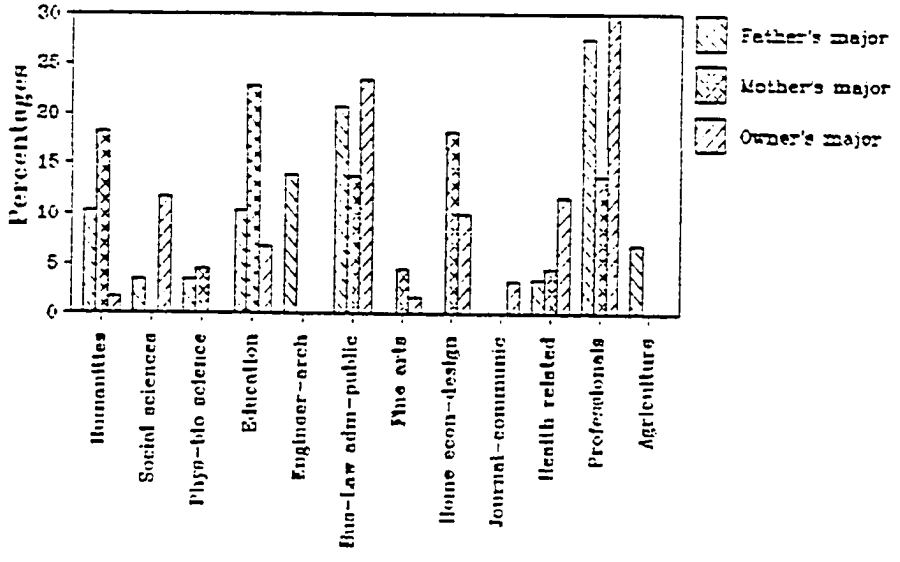
OCCUPATION OF PARENTS

	Father		Mother	
	#	%	#	%
Professionals	24	29.27	17	21.80
Business services	18	21.95	15	19.23
Self-employed	18	21.95	7	8.97
Govt. service/military	5	6.10	-	-
Construction-tradesman	6	7.32	-	-
Housewife	-		33	42.31
Other	11	13.41	6	7.69

Major Fields. In comparing major fields of the business owners and the parents, the female parent tended to major in traditional female areas such as humanities, education, home economics and design, while the female business owner tended to major in areas that more closely matched that of the male parent, such as business law, public administration, and professional fields. Figure 4 graphically illustrates these comparisons between parents and female business owners.

FIGURE 4

MAJOR FIELDS OF PARENTS AND FEMALE BUSINESS OWNERS



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Role Models. Seventy-one percent of the female business owners stated that a member of the family or a close relative was an independent farmer or owned another type of business. Forty-one percent had a family member or close relative that was an independent professional, and 52% personally admired someone who started their own business.

Firm Characteristics

Type of Business. Professional and personal service firms were the major types of businesses. Professional service firms included health and business professionals. The category of health professionals included medical doctors, dentists, psychotherapists, psychologists, nutritional counselors and other counselors. The category of business professionals included certified public accountants and lawyers. These two professional groups made up 50.45% of all businesses. Personal services (consisting of such services as bookkeeping & tax, marketing & advertising, real estate & insurance, interior-residential design, landscaping, travel agency, optometry, court reporting-document examining, monogramming, and cleaning-janitorial services) totaled 14.41%. The third major category was retail stores with 22.52%. Types of retail stores included gift & flower, household accessories, furniture, carpet, ladies apparel and bridal wear, wigs and beauty supplies, jewelry, antiques, jewelry, party decor, direct sales, and food-based retailers--restaurant, cafe, and grocery. The balance of 12.62% included arts/crafts related businesses, miscellaneous businesses, and firms which reported two types of businesses under one ownership.

TABLE 11

TYPE OF BUSINESS

	Frequency	Percent
Professional services	56	50.45
Personal services	16	14.41
Retail stores	25	22.52
Mixture & miscellaneous	14	12.62

Business Location. Seventy percent of the firms were located in some business area such as a shopping mall, central business district, or business complex. Fifteen percent of the businesses were located in the home, and 85% were located outside the home.

TABLE 12

BUSINESS LOCATION

	Frequency	Percent
Shopping mall	12	10.81
Central Business District	26	23.42
Business complex	40	36.04
Other outside home	16	14.41
Home	17	15.32

Year Began Business. Only 8 of the respondents began their business before 1960. The largest number of businesses began in the 1970s and 1980s.

TABLE 13

YEAR BEGAN BUSINESS

	Frequency	Percent
1930s	1	.91
1940s	2	1.82
1950s	4	3.64
1960s	13	11.81
1970s	57	51.82
1980s	33	30.00

Legal Form of Organization and Percent of Ownership. Over 50% of the firms were sole proprietorships, 39% were corporations and less than 10% were partnerships. Non-corporate forms of organization (sole proprietorships and partnerships) totaled 61%.

TABLE 14

LEGAL FORM OF ORGANIZATION

	Frequency	Percent
Sole proprietorship	52	53.61
Partnership	7	7.22
Corporation	38	39.17

Most of the respondents were single owners of their business. Eighty-nine of the 111 respondents (81%) owned 95-100% of their business, and 88 of these women owned 100% of the firm. Of the women who owned less than 95% of their business, only 9 women owned less than 50% of their business. Twenty-three firms had outside owners, and 14 of these outside owners were other females.

TABLE 15

PERCENT OF OWNERSHIP

% Owned	Frequency	Percent
<95%	22	19.82
>94%	89	80.18

Number of Employees. Generally, the owners tended to have few full-time employees and instead utilized part-time help. Thirty-one percent had no full-time employees, and 50% had 1 to 5 full-time employees.

TABLE 16

NUMBER OF EMPLOYEES

Full-time Employees	Frequency	Percent
None	34	30.63
1-5	55	49.55
6-10	14	12.61
11-46	8	7.21

Hours Worked. The number of hours worked per week by the female entrepreneurs ranged from 5 to 80 hours. Eighty percent worked 35 or more hours per week, and 16% worked more than 50 hours.

TABLE 17

HOURS WORKED PER WEEK

	Frequency	Percent
5-34 hours	22	19.82
35-40 hours	31	27.93
41-45 hours	14	12.61
46-54 hours	26	23.42
55-80 hours	18	16.22

Financial Information. In terms of sales, 55% of the firms had sales of less than $100,000, 28% had sales between $100,000 and $300,000, and 6% had sales of $1,000,000 or more.

TABLE 18

ANNUAL SALES

Sales	Frequency	Percent
$ 1,000 to 9,000	4	3.60
$ 10,000 to 48,000	30	27.03
$ 50,000 to 99,000	27	24.32
$100,000 to 149,000	15	13.52
$150,000 to 199,000	6	5.40
$200,000 to 299,000	10	9.01
$300,000 to 399,000	6	5.40
$400,000 to 499,000	3	2.70
$500,000 to 999,000	3	2.70
$1,000,000 to $3,000,000	7	6.32

Net profit. The firms in the study consisted of sole proprietorships, partnerships and corporations. In order to compare net profit among the three groups, sole proprietorships and partnerships were adjusted to deduct owner's salary. Since this information was not requested in the questionnaire, a surrogate measure had to be selected and this amount deducted from net profit. Median earnings for females in Oklahoma was taken from Detailed Population Characteristics - Oklahoma 1980, Table 222 "Total Female Experienced Civilian Labor Force." Occupations in the survey were matched with the occupation titles in Table 222. A summary of the matched occupations and median earnings is included in the Appendix (Table 57). For owners who worked 35 hours or more per week, full-time median earnings were deducted from net profit, for owners who worked less than 35 hours per week, part-time median earnings were deducted from net profit. This adjustment for labor was made to provide comparability between the net profits of sole proprietorships and partnerships and those of corporations.

Adjusted net profits ranged from a negative $40,000 to a positive $440,000. Over 42% of the firms had net profit margins between 1-20%, another 42% had net profit margins ranging from 21% to greater than 40%, and the remaining 15% had zero or a negative profit margins.

TABLE 19

ADJUSTED NET PROFIT MARGIN

Percent Groups	Frequency	Percent
Loss/zero	17	15.32
1-10%	24	21.61
11-20%	23	20.72
21-40%	25	22.53
>40%	22	19.82

Assets, Liabilities, and Net Worth. Fifty-nine percent of the firms had assets of less than $50,000, 96% had assets of less than $300,000. Of all the firms, 33% had asset turnover of less than 2 times, 34% had asset turnover of 2-4 times and 32% had asset turnover greater than 4 times. Most firms (80%) had less than $50,000 in liabilities, and 91% had a leverage ratio of less than 2 times. The net worth of the firms ranged from negative or none to $800,000, with a rate of return on net worth ranging from -1800% to +1250%.

TABLE 20

RATE OF RETURN ON NET WORTH

Percent Groups	Frequency	Percent
Loss/zero	29	26.12
1-14%	10	9.01
15-29%	9	8.11
>29%	63	56.76

Management Factors

Methods of Seeking Advice. In general, for law, taxes, and financial matters, the female business owners sought advice from experts and professionals. For the operational aspects such as management, salesmanship, and marketing the most common method of seeking advice was through conferences, workshops, and seminars. Frequencies are shown in the following table:

TABLE 21

METHODS OF SEEKING ADVICE

Business Area	W/Shop Seminar	Experts	Govt.	None	Combi-nation
	#	#	#	#	#
Business law, government regulations, taxes	10	37	1	24	24
Salesmanship	19	7	-	47	12
Accounting	8	39	-	28	15
Management	20	4	1	43	15
Finance	7	27	1	40	11
Marketing	19	3	1	51	13
Average	14	20	<1	39	15

About 88 of 111 women answered the question on seeking outside advice. Of these respondents, about 44% indicated that they did not seek any form of business assistance. The other 56% indicated that they did utilize experts/professionals, conferences, workshops, seminars, or some combination of these methods. Only one respondent indicated that she utilized government sponsored business assistance.

Years of Managerial Experience. Forty-three percent had no managerial experience prior to business ownership, 32% had 2 to 4 years of prior managerial experience, and 25% had 5 to 19 years of managerial experience. However, most years of managerial experience had been acquired while owning their own business.

Obstacles

In operational matters such as recordkeeping, managing employees, marketing to and dealing with customers, on average over 50% of female business owners did not consider these operational matters to be a problem. Forty-three percent did not consider financial, business law,

government regulations, or taxes to be a problem. The means of all ratings fell within 3 (slight obstacle) and 4 (not a problem).

TABLE 22

OBSTACLES IN STARTING OR OPERATING A BUSINESS

Rating: 1=major obstacle
2=moderate obstacle
3=slight obstacle
4=not a problem

	Mean	Std. Dev.
Keeping business records	3.1	0.94
Financial matters	3.2	0.90
Managing employees	3.2	0.93
Dealing with customers	3.7	0.60
Knowing who people are who will buy your product	3.4	0.77
Business law, govt. regs., taxes	3.1	0.89
Advertising	3.4	0.89

Other Obstacles. Again, on a 1 to 4 scale, the means indicated either no problem or only a slight problem for various difficulties encountered by female business owners. However, there are seven areas that 15 or more respondents indicated as moderate obstacles. These seven areas are marked with an asterisk*.

TABLE 23

OTHER OBSTACLES IN STARTING OR OPERATING A BUSINESS

	Mean	Std. Dev.
*Lack..business experience	3.0	0.93
Difficulty..raising capital	3.1	1.09
*Lack of self-confidence	3.3	0.85
*Childraising responsibilities	3.0	0.98
*Difficulty..obtaining..advice	3.3	0.90
Lack..encouragement...family	3.6	0.78
*Discrimination	3.2	0.96
*Difficulty..obtaining contracts	3.3	0.90
Difficulty..obtaining suppliers	3.7	0.65
Difficulty..establishing credit	3.4	0.91
*Lack..adequate working capital	3.2	0.96
Lack..adequate inventory	3.6	0.71

Attitude of Female Business Owner.

Respondents were asked to consider the importance of various items on a scale of 1 to 4. The mean of 2.7 indicated that 'recognition of family and friends' was of least importance. All others on average were considered moderately or very important.

TABLE 24

"AS A BUSINESS OWNER, HOW IMPORTANT ARE EACH OF THE FOLLOWING TO YOU?"

Rating: 1=not very important, 2=slightly important
3=moderately important, 4=very important

	Mean	Std. Dev.
Being my own boss	3.5	0.89
Large profits	3.0	0.74
Growth of business	3.2	0.84
Recognition of family & friends	2.7	1.04
Feeling of personal achievement	3.7	0.56
Feeling of independence	3.6	0.70
Feeling of responsibility	3.3	0.81

The business owners were also asked how true various statements were concerning their business. As shown in Table 25, except for the statements dealing with the home/family and time to get the job done, the average of all other statements fell between "very true" and "somewhat true."

TABLE 25

"HOW TRUE IS EACH STATEMENT ABOUT YOUR BUSINESS?"

Rating: 1=very true, 2=somewhat true,
3=not very true, 4=not true at all

	Mean	Std. Dev.
Work is very interesting	1.2	0.51
Monetary rewards are good	1.8	0.82
Gives chances to make friends	1.7	0.84
Pleasant physical surroundings	1.5	0.71
Difficult to do things at home	2.1	0.96
Job security is good	1.8	0.89
Can spend time with family..	2.2	0.88
Opportunity..develop abilities	1.5	0.65
Gives chance to do things..do best	1.5	0.62
Have time to get the job done	2.1	0.86
Feeling of self-fulfillment	1.3	0.57

Respondents were asked their opinion on other statements relating to entrepreneurs. The means shown in Table 26 indicate overall agreement on all statements.

TABLE 26

"HOW DO YOU PERSONALLY AGREE OR
DISAGREE WITH THESE STATEMENTS?"

Rating: 1=strongly agree, 2=agree, 3=no opinion
4=disagree, 5=strongly disagree

	Mean	Std. Dev.
I generally succeed...	1.6	0.66
Prefer working with experts...	2.1	0.97
Parents set high achievement standards	2.4	1.23
Feel I can do job better...	2.2	1.01
Self-confident when in control....	1.9	0.87
Enjoy planning tasks	2.4	1.05
Was successful when employed by others	1.9	0.88
Had encouragement to start business	2.5	1.30

The balance of the questions were related to satisfaction with life and experiences. Respondents were asked to rate various polar feelings

regarding their present life with 1=positive and 7=negative (see Table 27). The situation of 'easy or hard' had a mean of 4.2 and the situation of 'free or tied down' had a mean of 3.1. The means of all other polar adjectives were between 1 and 2 which indicated that on average the women felt good about their present life.

TABLE 27

"HOW DO YOU FEEL ABOUT YOUR PRESENT LIFE?"

Rating: 1=positive.....7=negative

	Mean	Std. Dev.
Interesting...boring	2.0	1.33
Enjoyable...miserable	2.1	1.21
Ease...hard	4.2	1.76
Worthwhile...useless	1.9	1.28
Friendly...lonely	2.2	1.50
Full...empty	2.1	1.48
Hopeful...discouraging	2.1	1.28
Free...tied down	3.1	1.98
Rewarding...disappointing	2.0	1.30
Brings out best in me... doesn't give me a chance	2.0	1.22

On a scale of 1 to 7, with 1 representing a terrible situation and 7 representing a perfect situation, the final ratings in Table 28 indicated general satisfaction with life and experiences. Again, the average responses for all situations listed in the questionnaire were positive. The lowest mean (4.5) indicated that the female business owners desired more savings and investments.

TABLE 28

"HOW SATISFIED ARE YOU WITH LIFE AND EXPERIENCES?"

Rating: 1=terrible situation, 7=perfect situation

	Mean	Std. Dev.
City or place you life	5.3	1.44
House or apartment	5.7	1.19
Your life in Oklahoma	5.5	1.35
Your education	5.3	1.41
Your business	5.7	1.07
Your health/physical condition	5.2	1.45
Standard of living	5.6	1.19
Savings and investments	4.5	1.66
Your friendships	5.4	1.42
Your family life	5.4	1.31
Your life as a whole	5.6	1.04

Results of Tests of Hypotheses

In the first part of this section, the results of tests of the hypotheses and the means for the significant hypotheses are discussed. Table 29 on the following pages gives a summary of the hypotheses, the statistical procedure, p-values, and whether each hypothesis was rejected or accepted. The second part discusses the exploratory findings of tests of other variables for which no a priori hypotheses were stated. One-way multivariate analyses of variance and regression analyses were used to test the a priori hypotheses. The statistical procedures were discussed in Chapter 3. For each hypothesis using MANOVA, the overall results and the significant ratios of the strategic profit model are reported. For the hypotheses using regression analyses only the significant ratios are reported. However, Tables 52-56 in the appendix report the p-values of all dependent variables M44-M48 (strategic profit model ratios).

Table 52, All Significant Variables

Table 53, MANOVA Table - Significant Variables

Table 54, MANOVA Table - All Variables

Table 55, Regression - All Variables

Table 56, Correlation - All Variables

Each hypothesis will be followed by a letter and a number which identifies the variable. This variable number is used in each hypothesis and on all tables to identify the specific characteristic. For example in Hypothesis 1 and in Table 29, the number M7 identifies the variable birth order.

TABLE 29

SUMMARY OF TESTS OF HYPOTHESES

Hypothesis	Statistical Procedure	P-Values: $\wedge$	P-Values: Significant Ratios	Research Hypotheses: Rejected	Research Hypotheses: Not Rejected	Relationship to Financial Performance
H1: Birth order (M4)						
Using the strategic profit model, the average financial performance of female entrepreneurs who are first-born or only children is greater than the average financial performance for other women without this characteristic.	Manova	.2222	None	X		Birth order does <u>not</u> result in significant differences in average financial performance.
H2: Level of Education (M7Group)						
Using the strategic profit model, the average financial performance of female entrepreneurs with a college degree is greater than the average financial performance for women without a college degree.	Manova	.6331	None	X		Education does <u>not</u> result in significant differences in average financial performance.
H3: Type of Business (M20Group)						
Using the strategic profit model, the average financial performance of female entrepreneurs owning professional firms and retail stores is greater than the average financial performance for women owning other types of firms.	Manova	.0648	M44/.0609		X	Average profit margin of professional and retail firms is greater than personal service and other firms.
H4: Location (M21Group)						
Using the strategic profit model, the average financial performance of female entrepreneurs whose firm is located outside the home is greater than the average financial performance for women whose firms are located in the home.	Manova	.5245	None	X		Location outside or inside the home does <u>not</u> result in significant differences in average financial performance.
H5: Hours Worked Per Week (M49)						
Using the strategic profit model, the average financial performance of female entrepreneurs increases as the number of hours worked per week increases.	Regression	None	None	X		Hours worked per week does <u>not</u> result in significant differences in average finncial performance.

	Statistical Procedure	P-Values: Significant Ratios	Research Hypotheses: Rejected	Research Hypotheses: Not Rejected	Relationship to Financial Performance
H6: Managerial Experience (M58-M59)					
Using the strategic profit model, the average financial performance of female entrepreneurs increases as the years of managerial experience increases					
H58 Managerial experience prior to ownership	Regression	None	None	X	No sig. difference
H59 Managerial experience during ownership	Regression	None	H48/.0980	X	Diff. - wrong direction
H5859 Total years of managerial experience	Regression	None	None		No sign. difference
H7: Business Attitude (M60, M64, M65, M66 Groups)					
Using the strategic profit model, the average financial performance of female entrepreneurs who feel that independence, responsibility and personal achievement is important is greater than the average financial performance of those who do not consider these important.					
H60 Being my own boss	Manova	.3774	H47/.0654	X	No sig. difference
H64 Feeling of personal achievement	Manova	.9739	None	X	No sig. difference
H65 Feeling of independence	Manova	.6914	None	X	No sig. difference
H66 Feeling of responsibility	Manova	.5772	H47/.0803	X	No sig. difference
H8: Personal Attitude (M79Group, M83Group)					
Using the strategic profit model, the average financial performance of female entrepreneurs who feel confident to succeed when in a poisition to control and direct is greater than women who do not consider these important.					
H79 Generally succeed at what I decide to do	Manova	.9928	None	X	No sig. difference
H83 Self-confident when in control	Manova	.2300	H46/.0766	X	No sig. difference
H9: Capital Obstacle (M109Group)					
Using the strategic profit model, the average financial peformance of female entrepreneurs who encounter raising capital as a major obstacle is less than women who do not consider this a problem.	Manova	.0761	H48/.0088	X	Rate of return on net worth is less for those who encounter raising capital as an obstacle.
H10: Credit Obstacle (M117Group)					
Using the strategic profit model, the average financial performance of female entrepreneurs who encounter establishing credit as a major obstacle is less than women who do not consider this as a problem.	Manova	.0047	H44/.0090 H45/.0047	X	Net profit and asset turnover is less for those who encounter credit as an obstacle.

As previously stated in the introduction to this chapter, some variables were regrouped and these are identified by the word 'Group' following the variable number, i.e., M7Group identifies regrouping of level of education.

The hypotheses tested with MANOVA were Hypotheses 1, 2, 3, 4, 7, 8, 9, and 10. The hypotheses tested using Regression were Hypotheses 5 and 6. The MANOVA results are discussed first and the regression results second.

Hypothesis 1: Birth Order (M4)

Ho: $\mu_1 = \mu_2 = \mu_3 = \mu_4 = 0$;

where; μ = vector of means of financial performance (M44-M48)
1 = only child
2 = oldest child
3 = youngest child
4 = neither oldest or youngest child

MANOVA	Significance Level	Calculated p-value
Overall effect	.10	.2222

Since the Wilks' lambda p-value of .2222 is greater than the level of significance chosen for the test , the research hypothesis (H1), that the average financial performance of female entrepreneurs who are first-born or only children is greater than the average financial performance of other female entrepreneurs, is rejected.

Hypothesis 2: Level of Education (M7Group)

Ho: $\mu_1 = \mu_2 = \mu_3 = 0$;

where; μ = vector of means of financial performance (M44-M48)
1 = None, secondary, & technical school
2 = Some college & associate degree
3 = College degree, graduate work/degree

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.6331

Since the Wilks' lambda p-value of .6331 is greater than the level of significance, the research hypothesis (H2), that the average financial performance of female entrepreneurs with college degrees is greater than the average financial performance of female entrepreneurs without a college degree, is rejected.

Hypothesis 3: Type of Business (M20Group)

Ho: $\mu_1 = \mu_2 = \mu_3 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Personal service firms
2 = Professional service firms
3 = Retail stores
4 = Other-miscellaneous firms

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0648
Profit margin (M44)	.10	.0690

Since the Wilks' lambda p-value of .0648 is less than the level of significance, the research hypothesis (H3), that the average financial performance of female entrepreneurs owning professional service firms or

retail stores is greater than the average financial performance of women owning other types of firms, is accepted. Table 30 shows where the differences lie for average profit margin (M44).

TABLE 30

MEANS TEST FOR TYPE OF BUSINESS (M20Group)

Differences*		Mean	Std. Dev.	N	Type of Business
Profit margin					
	A	22.581	28.85	56	Professional service firms
	A	17.548	21.24	25	Retail Stores
B	A	15.683	22.07	14	Other-miscellaneous firms
B		-12.085	103.10	16	Personal service firms

*Means with the same letter are not significantly different.
*Means with two letters are not significantly different from either group.

The results of the means test for type of business (M20) shows that the average profit margins of professional service firms and retail stores is greater than the average profit margin of personal service and other miscellaneous firms, however, they are not significantly different. The mean profit margin for personal service firms is significantly different from professional service and retail firms, however, it is not significantly different from other miscellaneous firms.

Hypothesis 4: Location (M21Group)

Ho: $\mu_1 = \mu_2 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Outside home
2 = In home

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.5245

The Wilks' lambda p-value of .5245 is greater than the level of significance, therefore, the research hypothesis (H4), that the average financial performance of female entrepreneurs whose firm is located outside the home is greater than those located in the home, is rejected.

Hypothesis 7: Business Attitude (M60, M64, M65, M66 Groups)

(M60Group) "Being my own boss"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Not very-slightly important
4 = Moderately-extremely important

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.3774

The Wilks'lambda p-value of .3774 is greater than the level of significance, thus the null hypothesis is accepted that there is no significant difference in the average financial performance between female entrepreneurs who believe that "being my own boss" is moderately to extremely important and those who do not consider this to be important.

(M64Group) "Feeling of personal achievement"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Not very-slightly important
4 = Moderately-extremely important

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.9739

The Wilks' lambda p-value of .9739 is greater than the level of significance, therefore, the null hypothesis is accepted that there is no significant difference in average financial performance between female entrepreneur who believe that "feeling of personal achievement is moderately to extremely important and those female entrepreneurs who do not consider this to be important.

(M65Group) "Feeling of independence"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Not very-slightly important
4 = Moderately-extremely important

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.6914

Since the Wilks' lambda p-value of .6914 is greater than the level of significance, the null hypothesis is accepted that there is no significant difference in average financial performance between female entrepreneurs who believe that a "feeling of independence" is moderately to extremely important and those who not consider this to be important.

(M66Group) "Feeling of responsibility"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Not very-slightly important
4 = Moderately-extremely important

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.5772

The Wilks' lambda p-value of .5772 is greater than the level of significance and the null hypothesis is accepted that there is no significant difference between female entrepreneurs who believe that a "feeling of responsibility" is moderately to extremely important and those female entrepreneurs who do not consider this to be important.

According to the MANOVA tests, the research hypothesis (H7), that the average financial performance of female entrepreneurs who strongly feel that independence, responsibility and personal achievement is important is greater than the average financial performance of female entrepreneurs who do not consider these important, is rejected.

Hypothesis 8: Personal Attitude (M79Group, M83Group)

(M79Group) "I generally succeed at what I decide to do"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Agree-strongly agree
4 = No opinion-disagree-strongly disagree

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.9928

The Wilks' lambda p-value of .9928 is greater than the level of significance, and the null hypothesis is accepted that there is no significance difference in average financial performance between female entrepreneurs who believe they generally succeed at whatever they decide to do and those female entrepreneurs who do not agree with this statement.

(M83Group) "I feel self-confident when in a position to control and direct"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Agree-strongly agree
4 = No opinion-disagree-strongly disagree

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.2300

The Wilks' lambda p-value of .2300 exceeds the level of significance and the null hypothesis is accepted that there is no significant difference in average financial performance between female entrepeneurs who agree that they "feel self-confident when in a position to control and direct" and those female entrepreneurs who do not agree with this statement.

According to the MANOVA analysis, the research hypothesis (H8), that the average financial performance of female entrepreneurs who have a strong personal attitude toward success and feel self-confident when in a position to control and direct is greater than the average financial performance of female entrepreneurs who do not agree with this personal attitude is, rejected.

Hypothesis 9: Capital Obstacle (M109Group)

"Difficulty in raising capital presented an obstacle in starting or operating my business"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = moderate-major obstacle
4 = slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0761
RR on net worth (M48)	.10	.0088

The Wilks' lambda p-value of .0761 is less than the level of significance. The null hypothesis that there is no significant difference in average financial performance between female entrepreneurs who encounter raising capital as a moderate-major obstacle and female entrepreneurs who do not consider this a problem is rejected. The significance difference lies in the means of rate of return on net worth (M48) as shown in Table 31.

TABLE 31

MEANS TEST FOR CAPITAL OBSTACLE (M109Group)

Differences* RR-Net Worth	Mean	Std. Dev.	Raising Capital
A	-91.126	512.96	1. Moderate-major obstacle
B	98.670	222.18	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

The research hypothesis (H9), that the average financial performance of female entrepreneurs who encounter raising capital as a moderate to major obstacle (Group 1) is less than female entrepreneurs who do not consider this an obstacle (Group 4), is accepted. The average return on net worth of the first group is a negative -91.1% and the average return on net worth for the second group is a positive 99.7%. These extreme percents are a result large negative ratios in the first group and large positive ratios in the second group. However, as discussed in Chapter III, these outliers appear to be plausible.

Hypothesis 10: Credit Obstacle (M117Group)

"Difficulty in establishing credit presented an obstacle in starting or operating my business"

Ho: $\mu_1 = \mu_4 = 0$;

where μ = vector of means of financial performance (M44-M48)
1 = Moderate-major obstacle
4 = Slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0047
Profit margin (M44)	.10	.0090
Asset turnover (M45)	.10	.0047

The Wilks' lambda p-value of .0047 is less than the level of significance. The null hypothesis that there is no significant difference in average financial performance of female entrepreneurs who encounter establishing credit as an obstacle and those female entrepreneurs who did not consider this a problem is rejected. The signficant differences lie in the profit margin (M44) and asset turnover (M45). Table 32 shows the means and standard deviations.

TABLE 32

MEANS TEST FOR CREDIT OBSTACLE (M117Group)

Differences*	Mean	Std. Dev.	Obtaining Credit
Profit Margin			
A	-12.701	100.47	1. Moderate-major obstacle
B	19.696	10.33	4. Slight obstacle-no problem
Asset Turnover			
C	8.441	24.82	1. Moderate-major obstacle
D	4.080	4.30	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

The research hypothesis (H10), that the average financial performance of female entrepreneurs who encounter establishing credit as a moderate-major obstacle (Group 1) is less than female entrepreneurs who do not consider this an obstacle (Group 4), is accepted for profit margin (M44). The mean profit margin of the first group is a negative -12.7% compared to a positive 19.7% for the second group.

This hypothesis is not accepted for asset turnover (M45). The female entrepreneurs who encountered establishing credit as an obstacle (Group 1) had an average asset turnover of 8.44 times compared to 4.08 times for those female entrepreneurs who did not consider establishing credit as a problem (Group 4).

Regression analysis was used to test Hypotheses 5 and 6. Reporting and discussion of results is presented for both hypotheses.

Hypothesis 5: Hours Worked Per Week (M49)

> "The average financial performance of female entrepreneurs increases as the number of hours worked per week increases."

The regression model is: Y = B0 + B1 X
where; Y = dependent variables (strategic profit model ratios)
X = hours worked per week.

The null hypothesis H : B1 = 0.

For hypothesis 5, none of the dependent variables were significant (see Table 55 in the Appendix). Therefore, the null hypothesis, that there is no significant difference in the average financial performance of female entrepreneurs who works more hours per week and those female entrepreneurs who work less hours per week, is accepted.

Hypothesis 6: Managerial Experience (M58-M59)

"The average financial performance of female entrepreneurs increases as the years of managerial experience increases"

The regression model is: Y = B0 + B1 X
where; Y = dependent variables (strategic profit model ratios)
X = years of managerial experience

H6.1: M58; Y = dependent variables (strategic profit model ratios)
X = prior years of managerial experience

H6.2: M59; Y = dependent variables (strategic profit model ratios)
X = years of managerial experience during ownership

H6.3: M5859; Y = dependent variables (strategic profit model ratios)
X = total years of managerial experience

The null hypothesis Ho: B1 = 0.

For Hypotheses 6.1 and 6.3 there were no significant results (see Table 55 in the Appendix). For Hypothesis 6.2, rate of return on net worth (M48) was significant but in the wrong direction. The P-value of .0980 was less than the 10 percent level of significance, indicating

that there is a significant difference in rate of return on net worth of female entrepreneurs with more years during ownership and those female entrepreneurs with less years. However, to accept research hypothesis 6.2, B1 must be both significant and positive. The estimated regression equation shown in Table 33 shows that the rate of return on net worth decreases with years of managerial experiences, therefore, Hypothesis 6.2 is rejected since B1 is negative.

TABLE 33

RESULTS OF REGRESSION TEST
Hypothesis 6.2

Estimated Regression Equation	R-square	P-value
Y = 104.99 - 6.062X	.0256	.0980

Exploratory Tests

Exploratory tests of other entrepreneurial characteristics which were statistically significant are discussed in this section. No *a priori* hypotheses were stated for these characteristics. The significant MANOVA tests are discussed first followed by separate discussions of regression and correlation analysis.

Multivariate Analysis of Variance

Age (M3Group)

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0027
Profit margin (M44)	.10	.0007

TABLE 34

MEANS TEST FOR AGE (M3Group)

Differences* Profit margin	Mean	Std. Dev.	n	Age Groups
A	23.041	23.831	74	1. Ages 30-49
A	10.169	26.073	31	2. Ages 50 & over
B	-48.997	170.646	6	3. Ages 29 & below

*Means with the same letter are not significantly different.

The Wilks' lambda p-value of .0027 indicates that age does result in significant overall difference in financial performance. The means test showed that the significant difference occurs in the average profit margin between female business owners 29 years of age or less and female business owners 30 years of age and above. The average profit margin of the former (Group 3) is a negative -49% and the average profit margins of the latter groups are 23% (Group 1) and 10% (Group 2). Since there were only 6 subjects in Group 3, inferences should be made with extreme caution.

Methods of Seeking Advice for Salesmanship (M52Group)

"In what areas and what methods have you sought outside advice regarding your business?"

1 = Seek outside advice
4 = Do not seek outside advice

MANOVA	Significance Level	Calculated p-value
Overall effect	.10	.0717
Leverage ratio (M47)	.10	.0472
RR on net worth (M48)	.10	.0074

TABLE 35

MEANS TEST FOR SEEKING SALESMANSHIP ADVICE (M52Group)
(From Conferences, Seminars, Government, Professionals)

Differences*	Mean	Std. Dev.	n	Seek Salesmanship Advice
Leverage ratio				
A	0.409	2.805	38	1. Seek outside advice
B	1.386	1.609	47	2. Do not seek outside advice
RR on net worth				
C	-85.293	442.033	38	1. Seek outside advice
D	124.753	254.264	47	2. Do not seek outside advice

*Means with the same letter are not significantly different.

The Wilks' lambda statistic p-value of .0717 indicated that whether or not a business owner seeks outside business advice does result in significant differences in financial performance. The means test showed that the significant differences were in the mean values of the leverage ratio and rate of return on net worth. Those female business owners who stated that they did not seek outside advice regarding their business had on average higher leverage ratios, and had higher average return on net worth.

Business Growth (M62Group)

"As a business owner, how important is growth of business?"

1 = Not very-slightly important
4 = Moderately-extremely important

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0010
RR on assets (M45)	.10	.0229

TABLE 36

MEANS TEST FOR BUSINESS GROWTH (M62GROUP)

Differences* RR on assets	Mean	Std. Dev.	n	Importance of Business Growth
A	185.217	363.851	21	1. Not very-slightly important
B	61.523	172.686	89	4. Moderately-extremely important

*Means with the same letter are not significantly different.

According to the Wilks' lambda statistic, attitude toward business growth does result in significant differences in financial performance. The means test showed that the significant difference is in the mean values of rate of return on assets. Those female business owners who personally feel that growth of business is not very or only slightly important have greater average rate of return on assets than those who feel that growth of business is moderately or extremely important.

Interesting Work (M68Group)

"The work (in my business) is very interesting."

1 = Somewhat-very true
4 = Not very-not at all true

TABLE 37

FREQUENCY DISTRIBUTION FOR INTERESTING WORK (M68Group)

N	"Work is Interesting"
105	1. Somewhat-very true
2	2. Not very-not all true

Ninety-eight percent of the respondents stated that their work was interesting, however, no inferences can be made since there were only two subjects in the second group. who do not believe this to be true.

Business Attitude Interferes With Work at Home (M72Group)

"My business makes it difficult to do the things I need to do at home."

1 = Somewhat-very true
4 = Not very-not at all true

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0393
Asset turnover (M45)	.10	.0306
RR on Assets (M46)	.10	.0346

TABLE 38

MEANS TEST FOR BUSINESS ATTITUDE (M72Group)

Differences*	Mean	Std. Dev.	n	"Business Inteferes With Home"
Asset turnover				
A	6.646	8.401	31	4. Not very-not at all true
B	3.988	4.178	77	1. Somewhat-very true
RR on Assets				
C	158.286	384.620	31	4. Not very-not at all true
D	56.464	106.608	77	1. Somewhat-very true

*Means with the same letter are not significantly different.

The Wilks' lambda statistic indicates there is a significant difference in financial performance between those female business who believe their business takes away from work at home and those who not believe this to be true. According to the means test, the differences lie in asset turnover and rate of return on assets. The average asset turnover and average rate of return on assets is higher for those female business owners who do not feel that their business makes it difficult to do the things at home that need to be done. Comparing these two groups with the number of hours worked per week, the female business owners who do not feel business takes away from home on average work

36.3 hours per week, whereas the female business owners who feel that business takes away from home work an average of 46.2 hours per week.

Obstacles in Business (M108, M112, M115, M122, M125-M127 Groups)

(M108Group)
"Lack of previous business experience presented an obstacle in starting or operating my business."

1 = moderate-major obstacle
4 = slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0728
Leverage ratio (M47)	.10	.0175
RR on Net Worth (M48)	.10	.0197

TABLE 39

MEANS TEST "LACK OF BUSINESS EXPERIENCE"

Differences*	Mean	Std. Dev.	n	"Lack of Business Experience"
Leverage ratio				
A	0.389	3.082	33	1. Moderate-major obstacle
B	1.491	1.634	74	4. Slight obstacle-no problem
RR on Net Worth				
C	-62.480	495.328	33	1. Moderate-major obstacle
D	98.720	211.169	74	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

The Wilks' lambda statistic indicates that there is a significant difference in average financial performance between those female entrepreneur who consider lack of business experience as an obstacle and those who do not consider this an obstacle. The significant difference lies in the average leverage and rate of return on net worth. Those female business owners who did not feel that lack of previous business experience presented an obstacle had greater average leverage and rate of return on net worth.

(M112Group)
"Difficulty in obtaining expert advice presented an obstacle in starting or operating my business."

1 = Moderate-major obstacle
4 = Slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0939
Profit margin (M44)	.10	.0280
Asset turnover (M45)	.10	.0830
RR on assets (M46)	.10	.0908

TABLE 40

MEANS TEST FOR OBTAINING ADVICE

Differences*	Mean	Std. Dev.	n	"Difficulty in Obtaining Advice"
Profit margin				
A	4.734	91.967	21	1. Moderate-major obstacle
B	20.663	25.863	84	4. Slight obstacle-no problem
Asset turnover				
C	2.763	1.900	21	1. Moderate-major obstacle
D	5.243	6.403	84	4. Slight obstacle-no problem
RR on assets				
E	10.397	121.444	21	1. Moderate-major obstacle
F	105.483	247.242	84	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

The Wilks' lambda p-value of .0939 indicated there is a significant difference in average financial performance between female business owners who consider difficulty in obtaining expert advice an obstacle and those who do not consider this an obstacle. The differences lie in profit margin, asset turnover, and rate of return on assets. In all cases the mean values of the second group is greater than the first group.

(M115Group)
"Difficulty in obtaining contracts presented an obstacle in starting or operating my business."

1 = Moderate-major obstacle
4 = Slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0610
Profit margin (M44)	.10	.0948
Asset turnover (M45)	.10	.0823

TABLE 41

MEANS TEST FOR OBTAINING CONTRACTS

Differences*	Mean	Std. Dev.	n	"Difficulty..Obtaining Contracts"
Profit margin				
A	-0.998	98.340	10	1. Moderate-major obstacle
B	18.578	22.122	85	4. Slight obstacle-no problem
Asset turnover				
C	6.776	8.770	20	1. Moderate-major obstacle
D	4.246	4.886	85	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

There is a significant difference in average financial performance between those female business owners who consider difficulty in obtaining contracts an obstacle and those female business owners who do not consider this a problem. The means test indicate that the differences lie in profit margin and asset turnover. The average profit margin (18.5%) for the latter is greater than the average profit margin (-1.0%) for the former group. This situation is reversed for the asset turnover. The average asset turnover for female business owners who consider contracts a problem is greater than those who do not consider this a problem.

(M122Group)
"Financial matters (loans, budgets, money, etc.) presented an obstacle in starting or operating my business.

1 = Moderate-major obstacle
4 = Slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0836
Profit margin (M44)	.10	.0670
Asset turnover (M45)	.10	.0618
RR on net worth (M48)	.10	.0601

TABLE 42

MEANS TEST FOR FINANCIAL MATTERS

Differences*	Mean	Std. Dev.	n	"Financial Matters Presented..."
Profit margin				
A	-1.052	89.912	23	1. Moderate-major obstacle
B	19.177	23.654	83	4. Slight obstacle-no problem
Asset turnover				
C	6.761	9.241	23	1. Moderate-major obstacle
D	4.196	4.389	83	4. Slight obstacle-no problem
RR on net worth				
E	-67.470	430.264	23	1. Moderate-major obstacle
F	80.184	296.847	83	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

The Wilks' lambda statistic indicated that there is a significant difference in average financial performance between female business owners who find financial matters to be an obstacle and those who do not consider this a problem. The means test shows that the significant differences lie in profit margin, asset turnover, and rate of return on net worth. The average profit margin and average rate of return on net worth was greater for those female business owners who did not consider financial matters a problem. This situation was reversed for asset turnover.

(M125Group)
"Dealing with customers presented an obstacle in starting or operating my business."

1 = Moderate-major obstacle
4 = Slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0003
Asset turnover (M45)	.10	.0001
RR on assets (M46)	.10	.0001

TABLE 43

MEANS TEST FOR DEALING WITH CUSTOMERS

Differences*	Mean	Std. Dev.	n	"Dealing With Customers"
Asset turnover				
A	13.214	14.226	7	1. Moderate-major obstacle
B	4.177	4.333	98	2. Slight obstacle-no problem
RR on assets				
C	428.960	677.615	7	1. Moderate-major obstacle
D	60.975	139.319	98	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

There is a significance difference in average financial performance between those female business owners who consider dealing with customers an obstacle and those who do not consider this a problem. The means test shows that significant differences lie in asset turnover and rate or return on assets. The asset turnover and rate of return on assets is greater for those female business owners who consider dealing with customers a moderate to major obstacle.

(M125Group)
"Knowing who the people are that may buy my product presented an obstacle in starting or operating my business."

1 = Moderate-major obstacle
4 = Slight obstacle-not a problem

MANOVA	Significance Level	Calculated-P-value
Overall effect	.10	.0204
Profit margin (M44)	.10	.0156

TABLE 44

MEANS TEST FOR KNOWING CUSTOMERS

Differences* Profit margin	Mean	Std. Dev.	n	"Knowing Who Customers Are"
A	-11.144	105.545	16	1. Moderate-major obstacle
B	19.751	24.140	88	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

There is a significant difference in average financial performance between female business owners who consider knowing their target market an obstacle and those who do not consider this a problem. The means showed that the difference is in average profit margin which is greater for those female business owners who do not consider knowing their target market a problem.

(M127Group)
"Advertising presented an obstacle in starting or operating my business."

1 = Moderate-major obstacle
4 = Slight obstacle-not a problem

MANOVA	Significance Level	Calculated P-value
Overall effect	.10	.0811
Profit margin (M44)	.10	.0118
Asset turnover (M45)	.10	.0805
RR on assets (M46)	.10	.0434

TABLE 45

MEANS TEST FOR ADVERTISING

Differences*	Mean	Std. Dev.	n	"Advertising Presented..."
Profit margin				
A	-8.420	91.921	21	1. Moderate-major obstacle
B	20.438	24.122	83	4. Slight obstacle-no problem
Asset turnover				
C	2.770	1.823	21	1. Moderate-major obstacle
D	5.282	6.434	83	4. Slight obstacle-no problem
RR on assets				
E	-5.523	128.191	21	1. Moderate-major obstacle
F	108.438	246.384	83	4. Slight obstacle-no problem

*Means with the same letter are not significantly different.

The Wilks' lambda statistic indicates that there is a significant difference in average financial performance between female business owners who consider advertising an obstacle and those who do not consider this a problem. The means test shows that the significant difference lie in profit margin, asset turnover, and rate of return on assets. In all cases, the average financial performance was greater for the female business owners who did not consider advertising a problem.

Regression Analysis

Table 55 in the Appendix shows the p-values for all variables tested using regression analysis. One characteristics was significant: percent of business owned (M22). For this characteristic, the profit margin (M44) and the leverage ratio (M47) were significant. The estimated regression equations are reported in Table 46 and the means and standard deviations are reported in Table 47.

TABLE 46

RESULTS OF REGRESSION TEST
Percent of Business Owned (M22)

	Estimated Regression Equation	R-Square	P-Value
Profit Margin (M44)	Y = -19.29 + 0.39	.0417	.0316
Leverage Ratio (M47)	Y = 2.72 + 0.017	.0373	.0422

TABLE 47

MEANS TEST FOR PERCENT OF BUSINESS OWNED

Differences*	Mean	Std. Dev.	n	% Business Owned
Profit margin				
A	-6.917	88.834	22	1. < 95%
B	21.142	25.641	89	2. > 94%
Leverage ratio				
C	1.889	2.092	22	1. < 95%
D	0.979	2.190	89	2. > 94%

*Means with the same letter are not significantly different.

Correlation Analysis

A series of bipolar adjectives were used to indicate the attitude of the female business owner toward her present life. The correlation coefficient r and the significant p-values are shown in Tables 48-49.

TABLE 48

"HOW DO YOU FEEL ABOUT YOUR PRESENT LIFE?"

Positive adjective 1 2 3 4 5 6 7 Negative Adjective

	Bipolar Adjectives	r and P-values: Profit Margin (M44)	Asset T/over (M45)	RR on Assets (M46)	Leverage (M47)	RR on Net Worth (M48)
M87	Interesting..boring	-.17 .084				
M88	Enjoyable..miserable	-.18 .058				
M89	Easy..hard			-.17 .091		
M90	Worthwhile..useless		+.17 .085			
M93	Hopeful..discouraging	-.19 .058				
M94	Free..tied down				+.17 .076	
M95	Rewarding..discouraging	-.20 .039				
M96	Brings out best.. doesn't give a chance		+.33 .001			

For the significant variables listed in Table 48, the tests indicated that there was a slight negative correlation between financial performance and the above ratings in attitude of the female business toward her present life. For average profit margin, the correlation coefficient r ranged from -.17 to -.20, and indicated that as the female business owners rated their present life as interesting, enjoyable, hopeful, and rewarding there was a slight positive association with profit margin. Conversely, when the ratings moved toward boring, miserable, discouraging, and disappointing, there was a negative association with profit margin. This was also true for average rate of return on assets and attitude toward life as easy or hard (M89).

There was a slight positive correlation between asset turnover and several bipolar adjectives. Female business owners who rated their attitude toward their present life as useless (r = +.17) and failing to give the owner a chance (r = +.33), had greater average asset turnover. The reverse was true when the owners felt that their present life was worthwhile and brought out the best in them. This same relationship occurred for the leverage ratio (r = +.17) and the attitude present life as being free or tied down (M94).

TABLE 49

"HOW SATISFIED ARE YOU WITH DIFFERENT AREAS OF YOUR PRESENT LIFE"

	Situation is Terrible 1	2	3	4	5	6	Situation is Perfect 7

r and P-values

	Profit Margin (M44)	Asset T/over (M45)	RR on Assets (M46)	Lever-age (M47)	RR on Net Worth (M48)
M98 Your home or apartment		-.17 .0838			
M101 Your business	+.19 .0506				
M106 Your family life		-.19 .0455			
M107 Your life as a whole		-.21 .0329			

As shown in Table 49, there was a slight positive correlation (r = +.19) between profit margin and the female business owners' attitude toward their business. The profit margin increased slightly as the rating of the business increased, and conversely, the profit margin decreased slightly as the rating of the business decreased. There was a

slight negative correction (r ranged from -.17 to -.21) between asset turnover and attitude toward housing, family life and life as a whole. Asset turnover decreased as the ratings of housing, family life and life as a whole increased. The reverse occurred when the ratings decreased.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

The study addressed the general research question: Is there an association between entrepreneurial characteristics and financial performance using the ratios of the strategic profit model. This chapter presents a summary of the study, and conclusions of the confirmatory and exploratory analyses.

Summary

A review of the literature on entrepreneurship summarized the progression of previous research which provided the direction for the study. Entrepreneurial research began as historical studies of the economic role of entrepreneurship, then case studies of well-known entrepreneurs were written. These were followed by investigations of personality and other personal characteristics of the entrepreneur, plus general characteristics of the firm. These personal and firm characteristics were mostly qualitative. Later, various financial data was used with other entrepreneurial characteristics to evaluate success or failure. Studies then began to focus on minority groups.

As a result of the women's movement and actions taken by President Carter, studies of females in business received attention, and calls were made for additional studies of female business owners. The few studies of female entrepreneurs in the United States found that they exhibited the same characteristics as male entrepreneurs.

From this review, several observations were made: (1) most of the studies included only males; (2) the entrepreneurial characteristics consistently identified in the studies could be categorized into several major classes; (3) the financial data generally included single items such as gross sales, net profit, or amount of loan; (4) studies of causes and relationships were still in exploratory stages; (5) women face some obstacles and problems that differ from those faced by men; and (6) studies of female business owners were few.

Objectives

The primary objective of the study was to evaluate the relationship between entrepreneurial characteristics and overall financial performance with a single profit planning equation utilizing the income statement and the balance sheet. The ratios of the strategic profit model provided this frame of reference.

Secondary objectives were to increase the data base needed to define the dimensions of certain problems of female business owners; to provide information that would be useful to current and potential female entrepreneurs; to confirm the findings of previous research of female business owners; to expand on previous research; and to provide direction for further research.

Procedures

The population consisted of female business owners in Oklahoma. For the purpose of the study, a female business owner was defined as a female who owned at least 10% of a business of which 50% or more was owned by females, and who participated in operating the business.

The data was collected by means of a self-explanatory mail questionnaire that included six major classes of entrepreneurial characteristics: personal characteristics, firm characteristics, management factors, obstacles, attitudinal factors, and financial information.

Since there was no comprehensive directory of female business owners in Oklahoma, a directory was developed from various sources. From the intial mailing and subsequent followup, 331 questionnaires were received for a response rate of 18.2%. Of these questionnaires, 111 met the criteria necessary for inclusion in the study: (1) female owner as previously defined, and (2) complete financial information.

All nonmetric responses were assigned numeric codes, and statistical procedures were performed using the Statistical Analysis System (SAS). The framework of the study divided all variables into independent and dependent classifications. Single independent variables consisted of various entrepreneurial characteristics, and the multiple dependent variables were the ratios of the strategic profit model.

The statistical techniques deemed most appropriate for the confirmatory and exploratory hypotheses were one-way multivariate analysis of variance, simple regression analysis, and correlation analysis. The major findings of the study were presented in Chapter IV.

Background of Respondents

The respondents were equally distributed between native born business owners and those born outside Oklahoma. Ninety-six percent of the female business owners were white and 67% were in the 30 to 49 age category. Forty-three percent were first-born or only children and 24% were the youngest child in the family. There was a low fertility rate (1.8) among these entrepreneurs: 17% had no children and 57% had 1 to 2 children. Fifty-five percent had a college or graduate degree or had done some graduate work; 27% had an associate degree or had done some college work. Fifty-three percent of the respondents were in business, administrative or professional fields. As a class, the female business owners had more formal education than their parents, and tended to major in areas that more closely matched that of the male parent. A majority of the female business owners had entrepreneurial role models in a family member, close relative, or other person who started his own business.

Consistent with prior studies of female business owners, the major types of businesses owned were retail and service firms. Eighty-seven percent of the firms were of these two groups: 50% were professional service firms, 14% were personal service firms, and 23% were retail stores. The majority of these businesses were started after the 1960s: 52% in the 1970s, and 30% in the 1980s. Over 50% of these firms were sole proprietorship. Including partnerships, total non-corporate form of organization totaled 61%.

In general, the firms represented in the sample were small in size. Eighty percent of the firms had few or no employees, 49% had 1 to 5 full-time employees and 31% had no full-time employees. Many firms used part-time help. A majority of the firms had sales of less than $100,000. Net profit ranged from a negative percent to greater than 40%. Fifty-eight percent had assets of less than $50,000. Eighty-five percent of the businesses were located outside the home.

A majority of years of managerial experience had been acquired while business owners operated their own business. Most of the female business owners worked 35 or more hours per week, felt comfortable in handling of business matters, and had positive attitudes toward themselves and their business.

Conclusions of Confirmatory and Exploratory Analyses

As described in the background of the respondents, the characteristics of the female business owners confirmed previous findings. However, in testing whether these characteristics resulted in increased average financial performance, seven of the ten hypotheses were rejected. One hypothesis (H6.2) was significant, but in the wrong direction, and thus was rejected. For the seven hypotheses rejected, in some instances individual ratios of the strategic profit model were significant, but there was no overall significant difference in average financial performance.

Several of the exploratory hypotheses were significant: age, percent of business owned, seeking salesmanship advice, 14 attitudinal factors, and 7 obstacles. Table 52 in the appendix lists the

significant confirmatory and exploratory hypotheses. For the characteristics tested using multivariate analysis of variance (MANOVA) that resulted in a significant Wilkes lambda p-value, the individual p-values are given for the significant ratios of the strategic profit model. For the characteristics tested with regression and correlation analysis, the individual p-values of the significant ratios of the strategic profit model are also included in Table 52. According to this table, profit margin (M44) and asset turnover (M45) were significant more frequently than the other ratios of the strategic profit model. For the female business owners in this study, margin management and asset management were the principal profit management strategies utilized. The frequency of significance for each ratio is given in the following table.

TABLE 51

FREQUENCY OF SIGNIFICANT RATIOS

Individual Ratios	Frequency
Profit Margin (M44)	16 times
Asset Turnover (M45)	12 times
Rate of Return on Assets (M46)	6 times
Leverage Ratio (M47)	4 times
Rate of Return on Net Worth (M48)	4 times

To analyze the results of the tests, various confirmatory and exploratory characteristics were crossed with other significant characteristics. Some of the cross-tabulations are shown in Tables 59-67. From this analysis, a general picture of the majority of the female business owners in this study can be drawn. The cross-tabulations and the data results in Chapter IV are the basis for

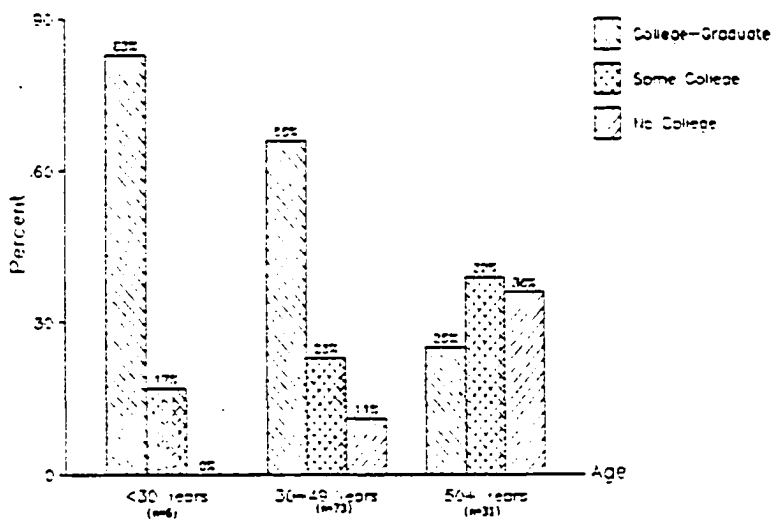
the discussion and charts that follow. Conclusions of the confirmatory analyses and the significant exploratory analyses will be discussed together by groups of characteristics: personal characteristics, firm characteristics, management factors, obstacles, and attitudinal factors.

Personal Characteristics

Personal characteristics identified the majority of the women as well-educated, in the 30 to 49 age group, either the oldest or youngest child, with 1 to 2 or no children. As shown in Figure 5, the under 30 age group and the 30 to 49 age group had more education than the 50 and over age group.

FIGURE 5

EDUCATION AND AGE

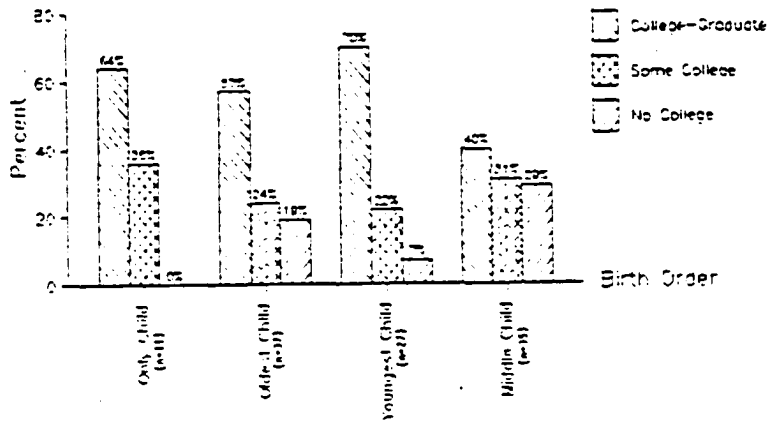


By order of birth, a greater percentage of the middle child group had no college education. Greater percentages of the only child, the

oldest child, and the youngest child groups had a college education. Figure 6 shows the level of education by birth order groups.

FIGURE 6

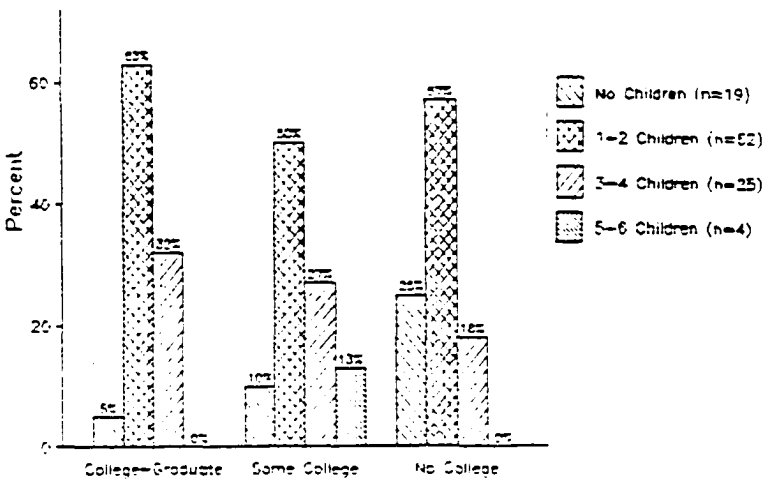
EDUCATION AND BIRTH ORDER



In all educational groups, a majority of the female business owners had 1 to 2 children: 63% for the 'college-graduate' group, 50% for the 'some college' group, and 57% for the 'no college' group. Figure 7 shows the number of children in the three educational groups.

FIGURE 7

EDUCATION AND NUMBER OF CHILDREN



Age, birth order, and level of education were examined using multivariate analysis of variance (MANOVA). The results were contrary to expectations. It was expected that birth order position and level of education would result in differences in average financial performance. However, there was no overall significance in either of these characteristics. In the exploratory analyses, age had overall significance and the profit margin ratio was significant. The 30 to 49 age group and the 50 and above age groups had greater average profit margins than the under 30 age group. There were only 6 respondents in the under 30 age group. Four of six of these business owners owned personal service firms, and personal service firms had the lowest profit margin of the four types of businesses owned. However, because of the small size of this group, little inferences can be made. In general, since a majority of the female business owners in this study share these same personal characteristics no differences in financial performance could be determined.

Firm Characteristics

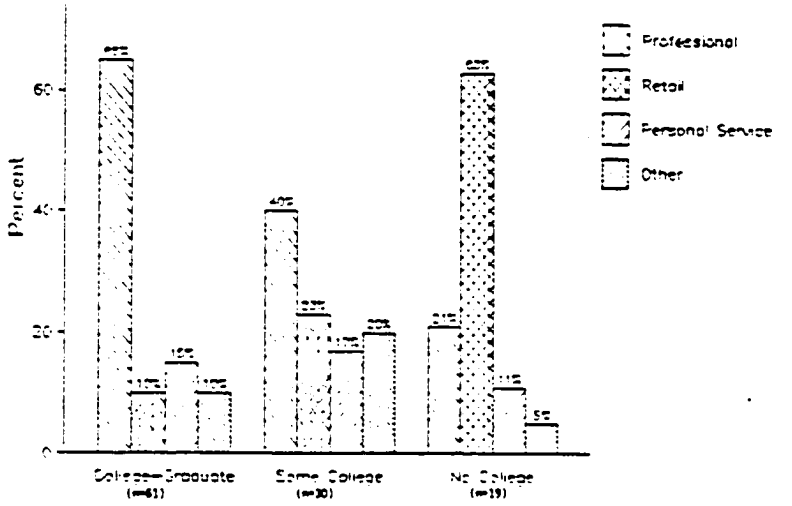
The majority of the college-educated female business owners owned professional service firms, and were organized primarily as sole proprietorships, owning 95% or more of their businesses. Over 80% of the firms were located outside the home. For all types of businesses, the size of the firm was very small. Over 60% had no employees or 1 to 2 employees.

Sixty-five percent of the women who had completed college or who had done graduate work owned a professional service firm; 40% of those

with some college education also owned a professional service firm. In contrast, 63% of the women with no college education owned retail stores.

FIGURE 8

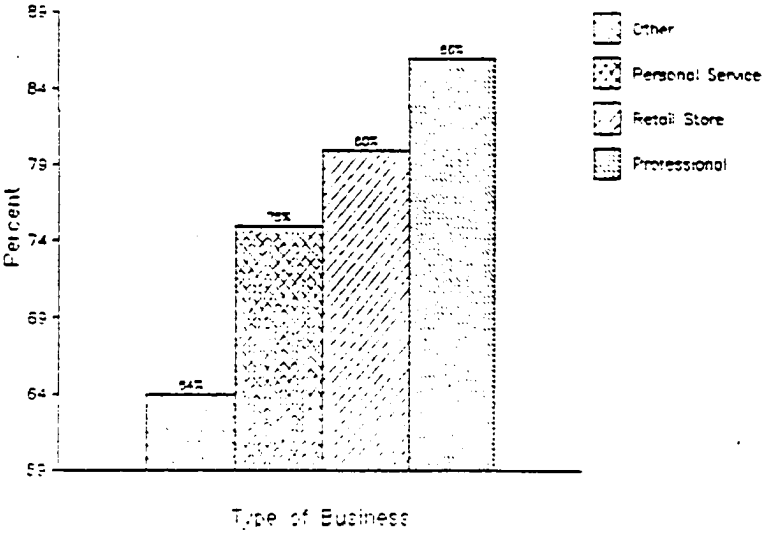
TYPE OF BUSINESS AND EDUCATION



While the majority of the business owners owned 95 to 100% of their business, Figure 9 shows that more of the professional firms had 95 to 100% ownership.

FIGURE 9

PERCENT OWNERSHIP = 95-100%



The type of business and location were tested using MANOVA, and the percent of business ownership was tested with regression analysis. The type of business and the percent of business ownership were significant, but business location in the home or outside the home did not result in significant differences in financial performance.

For the type of business, it was expected that the professional service and retail firms would have greater average financial performance than other types of firms. Results of the statistical tests indicated that there was an overall significant difference between these groups, and the source of the difference was in average profit margin. In Chapter IV, Table 30 showed that professional service firms and retail stores had greater average profit margins than personal service firms and other miscellaneous firms. However, the average profit margin of the other miscellaneous firms was not significantly different from the professional firms, retail stores, or the personal service firms. The conclusion is that there is some association between type of business and financial performance in terms of profit margin. Professional firms and retail stores have greater average profit margins than personal service firms and other miscellaneous firms.

For percent of business owned, the estimated regression equations in Table 46, Chapter IV, showed that the average profit margin increased as the percent of ownership increased, and the average leverage ratio decreased as the percent of ownership increased. According to Table 47, the average profit margin of the women owning 95% or more of the business had greater average profit margin than those women owning less

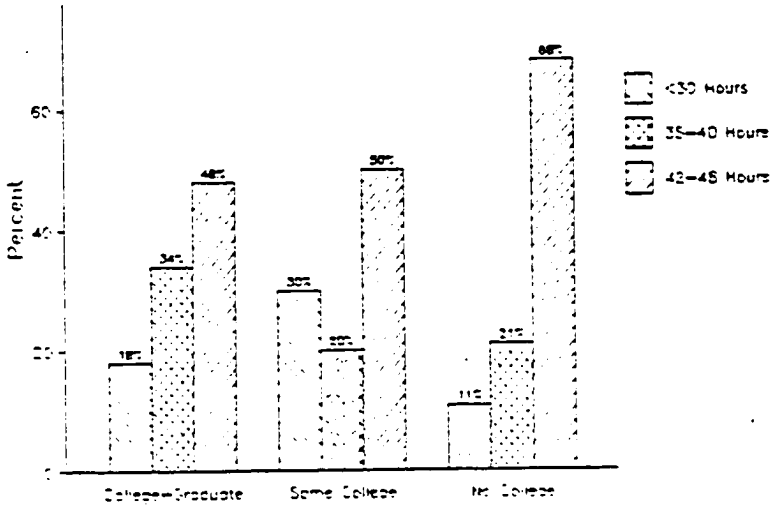
than 95% of the business. The reverse was true for the leverage ratio. The women who owned 95% or more of the business had a lower average leverage ratio than those women owning less of the firm. This means that the women owning more of the firm have less debt. The conclusion is that the percent of business ownership is associated with financial performance. Increased ownership results in increased profit margin and lower debt.

Management Factors

The management factors identified the business women as hard workers, who had acquired most of their managerial experience while operating their own business, and who sought outside advice regarding various aspects of business. Eighty percent of the female business owners worked 35 or more hours per week, and 52% worked more than 40 hours per week. The average for all business owners was 44 hours per week. Figure 10 shows that more of the women with no college education worked more than 40 hours per week.

FIGURE 10

EDUCATION AND HOURS WORKED



Forty-three percent had no managerial experience prior to business ownership, and 32% had acquired 1 to 4 years of managerial experience. Nine years was the average number of years of managerial experience acquired during business ownership. Combining total years of managerial experience, 12 years was the average. As shown in Figure 11, regardless of the number of years of managerial experience, most of the business owners worked over 40 hours per week.

The women who had acquired more years of managerial experience while operating their own business had less college education than those women who had acquired less years of managerial experience. Figure 12 shows that a greater percentage of the women who had acquired less than 10 years of managerial experience had completed college or done graduate work.

FIGURE 11

MANAGERIAL EXPERIENCE ACQUIRED DURING
BUSINESS OWNERSHIP AND HOURS WORKED

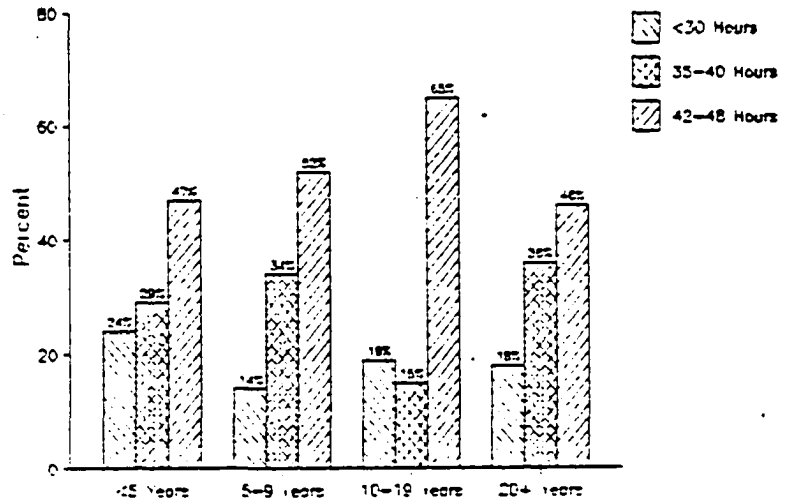
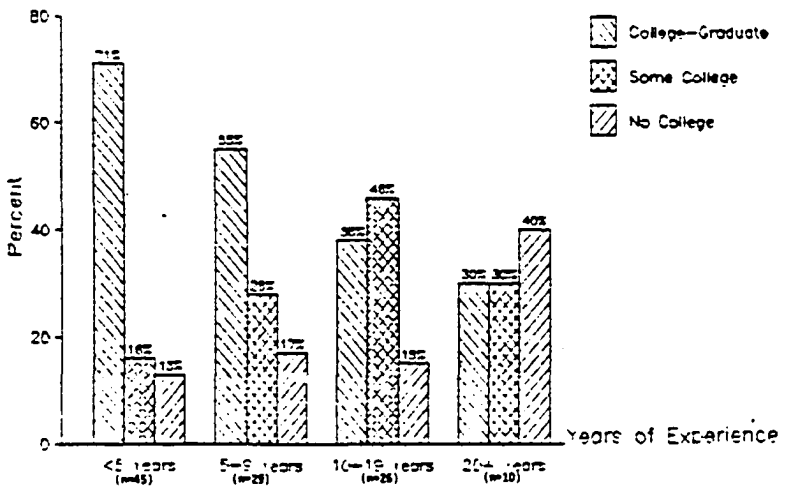


FIGURE 12

MANAGERIAL EXPERIENCE ACQUIRED DURING
BUSINESS OWNERSHIP AND EDUCATION



It was expected that the more hours the business owner spent in operating her business the greater would be the financial performance. However, the statistical tests did not produce any significant results among the ratios of the strategic profit model. For these respondents, the conclusion is that the number of hours worked per week does not result in significant differences in average financial performance.

It was expected that the more years of managerial experience that the female business owner had acquired, the greater would be the financial performance. For managerial experience acquired prior to business ownership and total years of managerial experience, none of the ratios of the strategic profit model were significant. For years of managerial experience acquired during business ownership, rate of return on net worth was significant but in the wrong direction. After the start-up year, rate of return on investment was highest for those female business owners with 2 to 4 years of managerial experience, and thereafter decreased as years of managerial experience increased.

TABLE 50
RATE OF RETURN ON NET WORTH BY YEARS
MANAGERIAL EXPERIENCE ACQUIRED DURING BUSINESS OWNERSHIP

Years mangerial experience	0-1	2-4	5-9	10-19	>19
Rate of return on net worth	-42%	114%	68%	49%	-120%

This decrease in rate of return on net worth could be related to the level of education and the year the business started. The women who had acquired more years of experience had been in business for a longer period of time. Eighty-six percent of the firms established prior to

the 1960s had acquired 20 or more years of managerial experience. Of the women who had been in business longer, fewer had completed college or done graduate work. Fifty-seven percent of the women who started business prior to 1960 had no college education. For the respondents, the conclusion is that average return on net worth is less for the female business owners who have acquired more years of managerial experience while owning their business, particularly if the business owner has less education.

In managing their businesses, 75% of the business owners sought advice or assistance from workshops, seminars, government programs, or professionals. Of those women who did not seek outside assistance, most worked part-time (30 hours or less). Only one of the business topics--salesmanship--resulted in an overall significant difference in financial performance. Fifty-five percent of this group stated that they did not seek any type of outside advice or assistance regarding salesmanship. The results of the MANOVA tests, Table 35 in Chapter IV, showed that the business owners who did not seek outside advice had a higher average leverage ratio (M47) and higher average rate of return on net worth (M48). Figures 13 and 14 identify this business owner by education, type of business owned, and lack of business experience. Of those who stated that they did not seek outside advice about salesmanship, 67% were college graduates, 62% owned professional service firms, and 50% stated that lack of business experience was an obstacle. Of the types of business owned, a greater percentage (71%) of the personal service firms stated that they did seek outside advice or

assistance about salesmanship. As shown in Figure 14, lesser percentages of the professional service and retail firms sought outside advice or assistance about salesmanship.

FIGURE 13

SALESMANSHIP ADVICE , EDUCATION,
TYPE OF BUSINESS, AND LACK OF BUSINESS EXPERIENCE

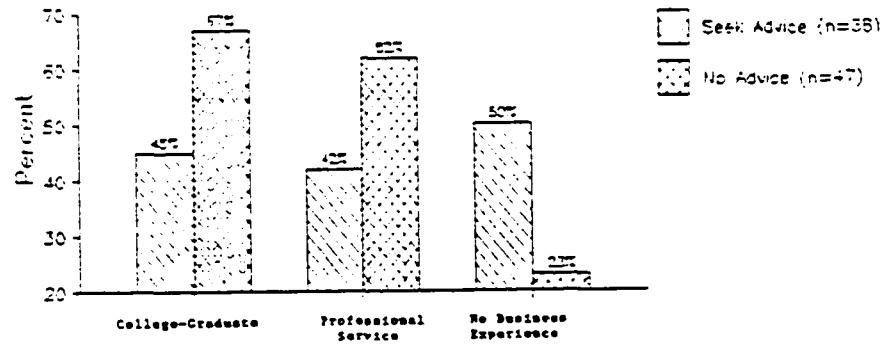
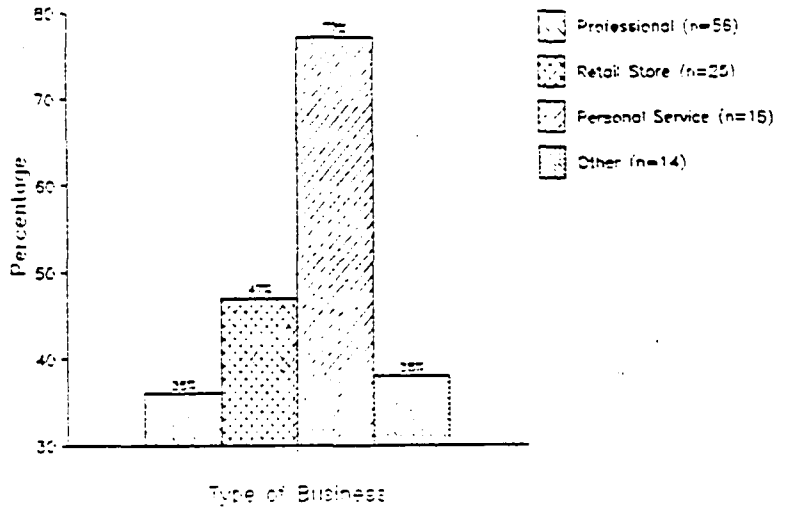


FIGURE 14

SALESMANSHIP ADVICE AND TYPE OF BUSINESS



The conclusion is that seeking outside advice or assistance about salesmanship is affected by level of education and type of business owned. Outside advice and assistance about this topic is not as critical to business women who own professional firms and have a college education.

Obstacles

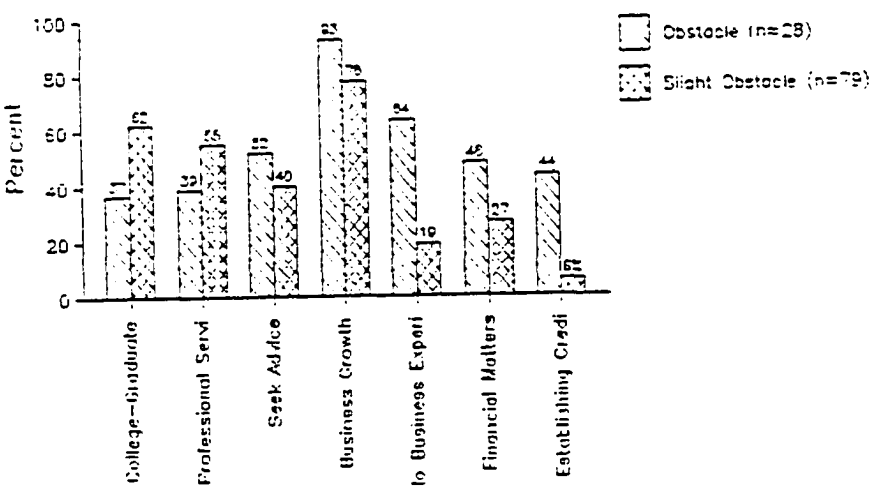
Possibly as a result of the high educational level of the respondents, most obstacles were rated as a slight obstacle or no problem. However, several obstacles tested with MANOVA had overall significance that resulted in differences in financial performance. These obstacles were: lack of business experience, raising capital, obtaining advice, obtaining contracts, establishing credit, financial matters, dealing with customers. knowing who customers are, and advertising.

Two confirmatory hypotheses, raising capital and establishing credit, were examined used MANOVA. It was expected that the average financial performance of female entrepreneurs who encountered raising capital and establishing credit as obstacles would be less than female entrepreneurs who did not consider these as problems. Both of these hypotheses did produce overall significance. Differences in individual ratios of the strategic profit model occurred in profit margin (M44), asset turnover (M45), and rate of return on net worth (M48). Those business owners who considered raising capital as a moderate to major obstacle had a negative rate of return on net worth (-91.12%) The business owners who considered raising capital as a slight obstacle or

no problem had a positive rate of return on net worth of 98.67%. Extreme negative values in the first group and extreme positive values in the second group produced these extreme averages. However, as discussed in Chapter III, these extreme values were carefully checked prior to testing. Figure 15 compares other characteristics of the female business owners that differentiated the two groups. The women with more college or graduate education (62%) and who owned professional firms (55%) had less problems raising capital. Those women who considered raising capital as a moderate to major obstacle had less college or graduate education, had less prior business experience, but considered business growth as importance. In addition, these women also considered financial matters and establishing credit to be obstacles.

FIGURE 15

RAISING CAPITAL AND OTHER CHARACTERISTICS



For those women who considered establishing credit as an obstacle, profit margin and asset turnover was significant. Table 32, in Chapter IV, showed that the average profit margin was lesser for those who considered establishing credit as a major to moderate obstacle, than for those who did not consider this to be a problem. The reverse was true for asset turnover. The former group had a higher average asset turnover than the latter group. Establishing credit was more of a problem for personal service firms and other miscellaneous firms (Figure 16). Other characteristics in Figure 17 show that the women without a college degree, and who had no prior business experience had more problems establishing credit. These women who considered establishing credit as an obstacle also considered raising capital, obtaining contracts, and financial matters as major to moderate obstacles.

FIGURE 16

ESTABLISHING CREDIT AND TYPE OF BUSINESS

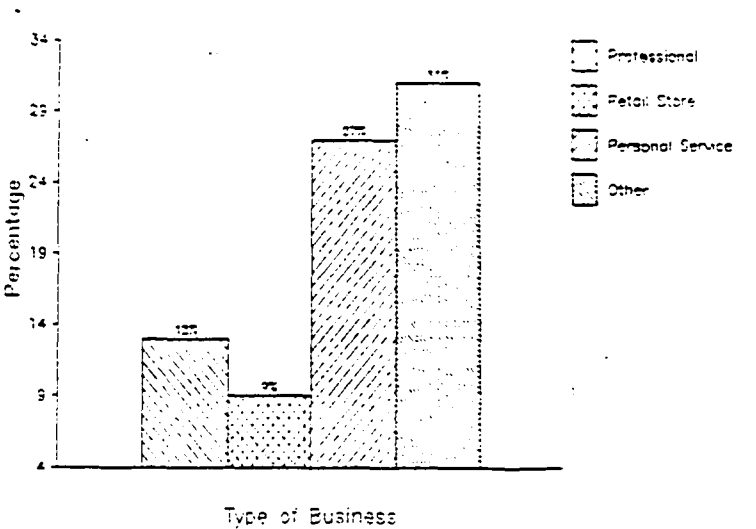
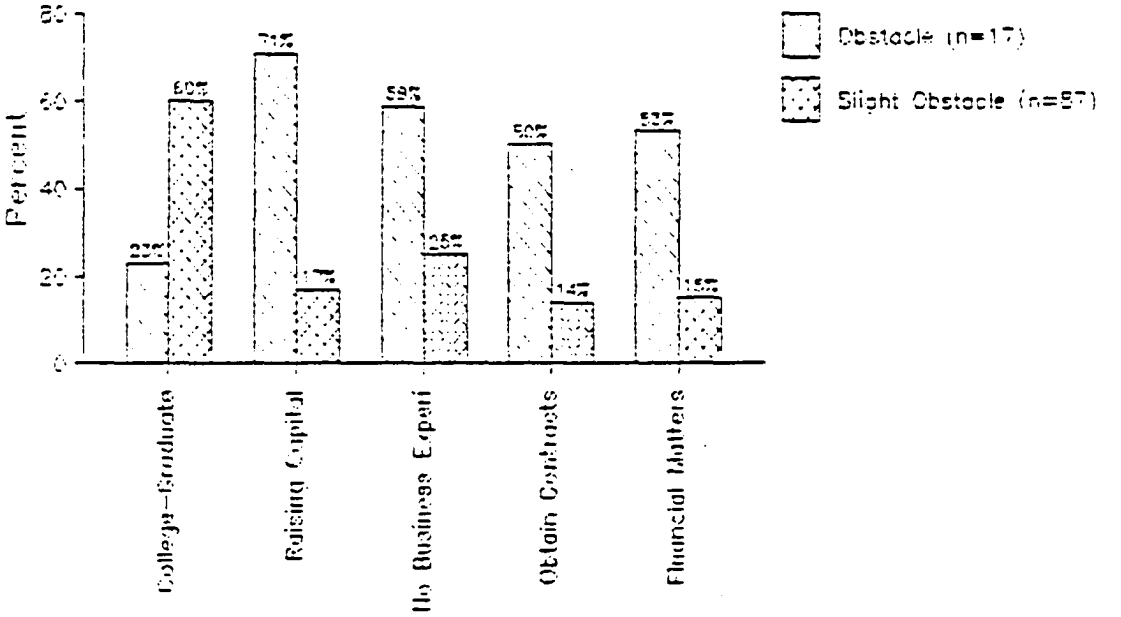


FIGURE 17

ESTABLISHING CREDIT AND OTHER CHARACTERISTICS



The conclusion of the confirmatory analyses of raising capital and establishing credit is that there is an association between those business owner who consider these factors as obstacles and financial performance. Except for asset turnover, profit margin and rate of return on net worth is lower for those business owners who encounter these factors as obstacles.

In the exploratory analyses, the leverage ratio (M47) and the rate of return on net worth (M48) was less for the business owners who considered a lack of business experience as a moderate to major obstacle. Figures 18 and 19 identify differentiating characteristics between these two groups. More of the personal service firms (40%), retail stores (38%) and professional firms (33%) considered lack of

business experience as an obstacle (Figure 18). The majority of the business owners who considered lack of business experience to be a slight obstacle were college graduates, had two children or less, operated their business outside the home, and tended to seek outside assistance. The business women who considered lack of business experience to be an obstacle also considered the following as obstacles: raising capital, dealing with customers, knowing who customers are, and advertising (Figure 19).

FIGURE 18

LACK OF BUSINESS EXPERIENCE-OBSTACLE
AND TYPE OF BUSINESS

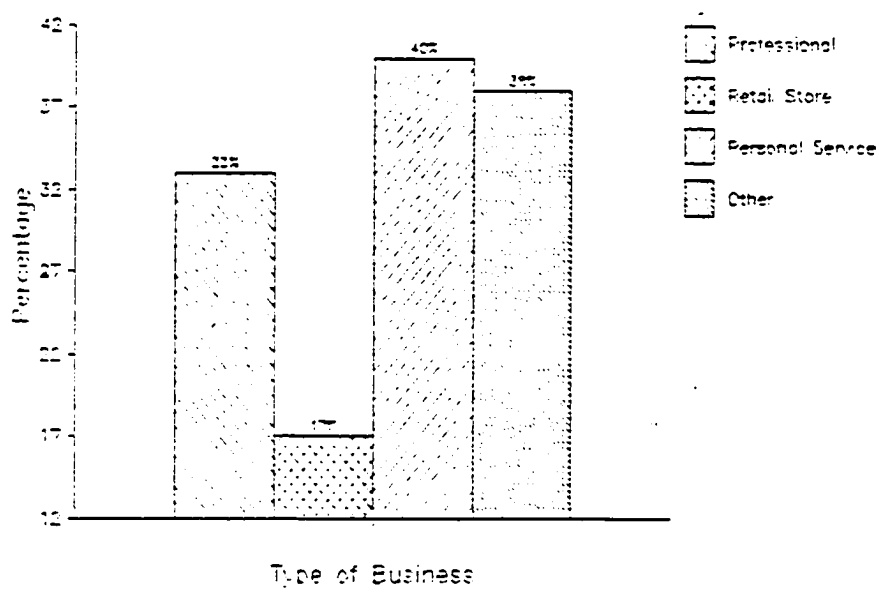
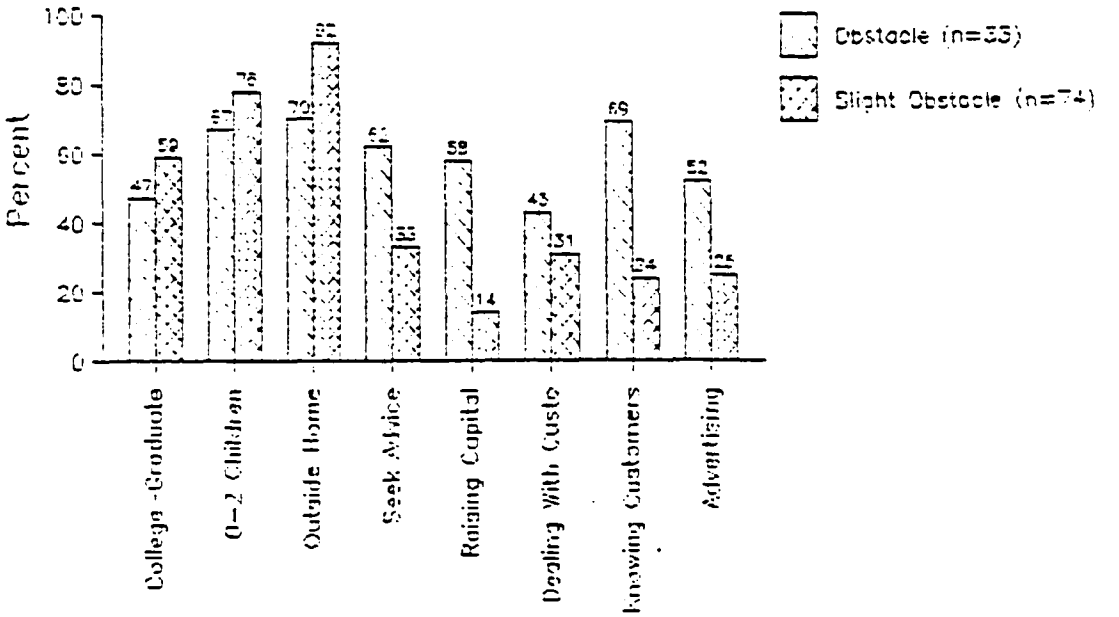


FIGURE 19

LACK OF BUSINESS EXPERIENCE
AND OTHER CHARACTERISTICS



Profit margin (M44), asset turnover (M45), and rate of return on assets (M46) was significant for the business owners who considered obtaining advice to be an obstacle. These three ratios were lower for those women who considered this factor to be a moderate to major obstacle (Table 40 in Chapter IV). Figures 20 and 21 identify other characteristics of this group of women. Difficulty in obtaining advice was more of an obstacle for personal service firms (40%) and miscellaneous firms (33%). Fewer of the professional firms and retail firms considered obtaining expert advice to be an obstacle (Figure 20). Those who considered this factor to be an obstacle, tended not to seek outside advice about salesmanship, and also considered lack of business experience, raising capital, and advertising to be moderate to major obstacles (Figure 21).

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FIGURE 20

OBTAINING ADVICE AND TYPE OF BUSINESS

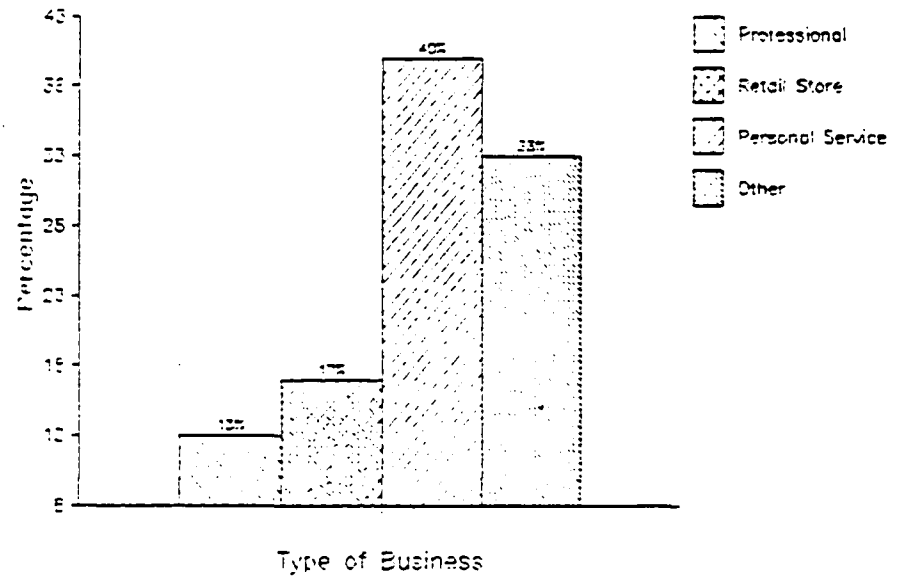
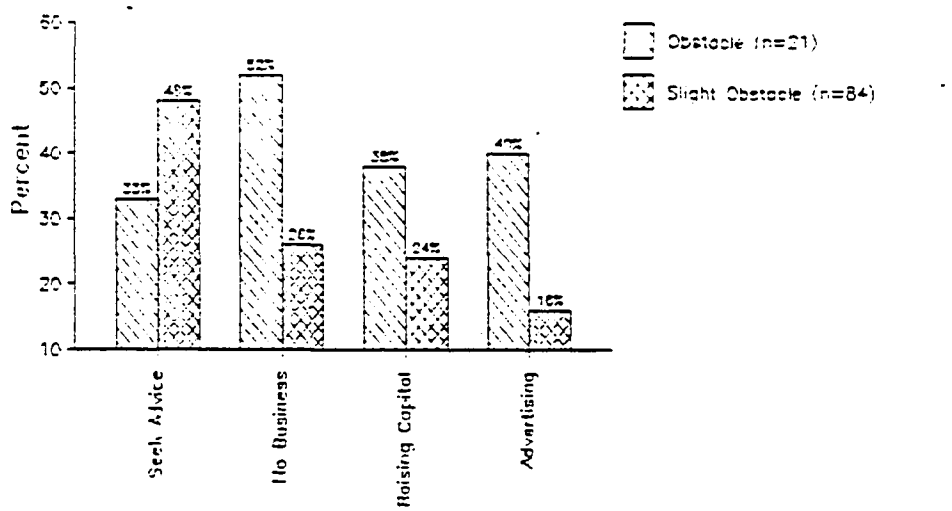


FIGURE 21

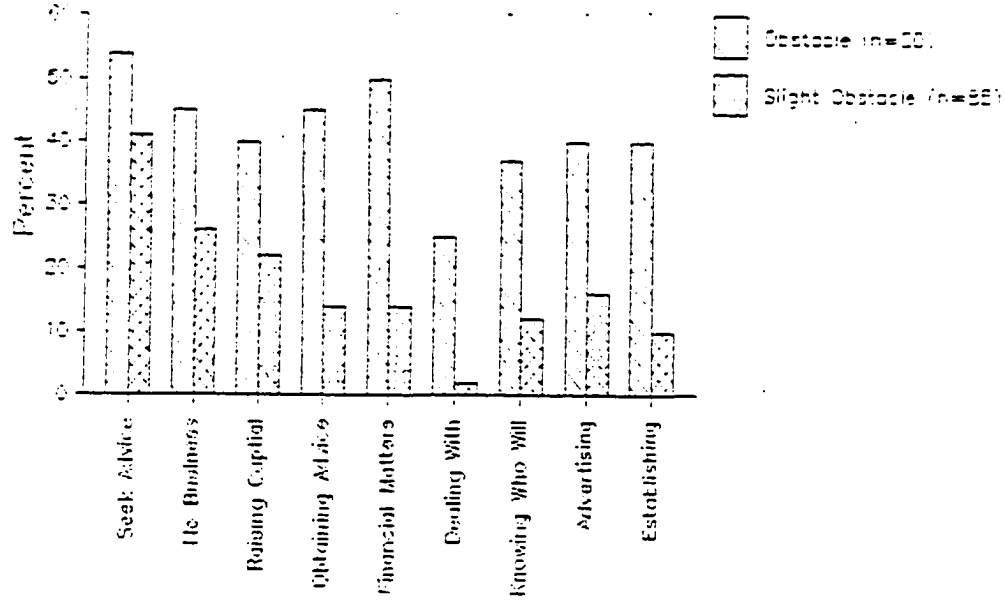
OBTAINING ADVICE AND
AND OTHER CHARACTERISTICS



For those women who considered obtaining contracts as an obstacle, the average profit margin (M44) was less than for those who did not consider this to be a problem. However, for the first group, asset turnover was higher than for the second group. Figure 22 shows that the women who considered obtaining contracts as a moderate to major obstacle sought outside advice about salesmanship and also considered the following as obstacles: lack of business experience, raising capital, obtaining advice, financial matters, dealing with customers, knowing who customers are, establishing credit, and advertising.

FIGURE 22

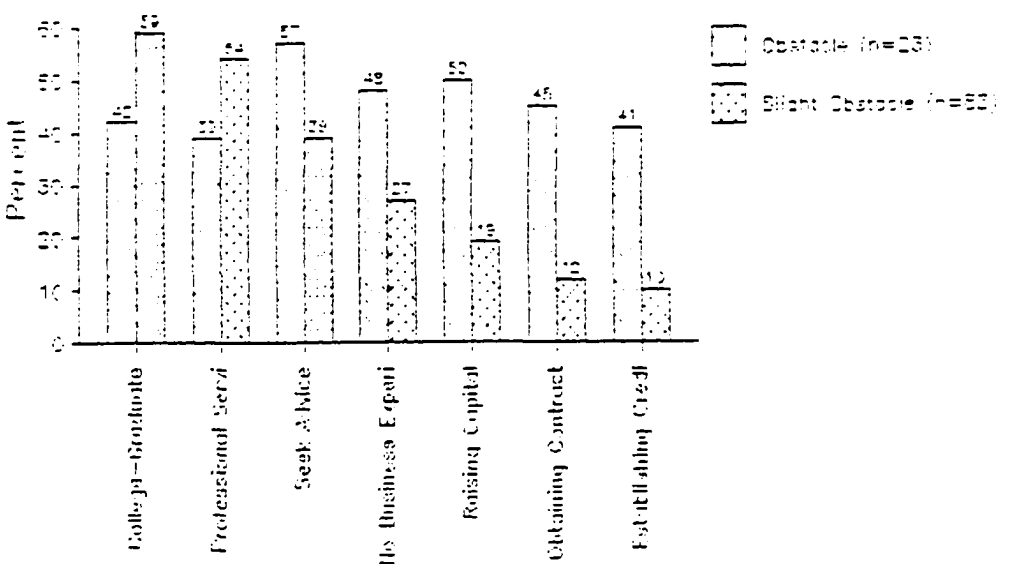
OBTAINING CONTRACTS AND OTHER CHARACTERISTICS



The business obstacle, handling of financial matters, profit margin (M44), asset turnover (M45), and rate of return on net worth (M48) were significant. The business owners who considered this to be an obstacle had less average profit margin and rate of return on net worth. However, asset turnover was greater for this group. Figure 23 gives a profile of these business owners. A majority of the women who considered the handling of financial matters to be a moderate to major obstacle were college graduates operating professional firms. These women did seek outside advice about another significant characteristic--salesmanship. In addition, they also considered the following to be obstacles: lack of business experience, raising capital, obtaining contracts, and establishing credit.

FIGURE 23

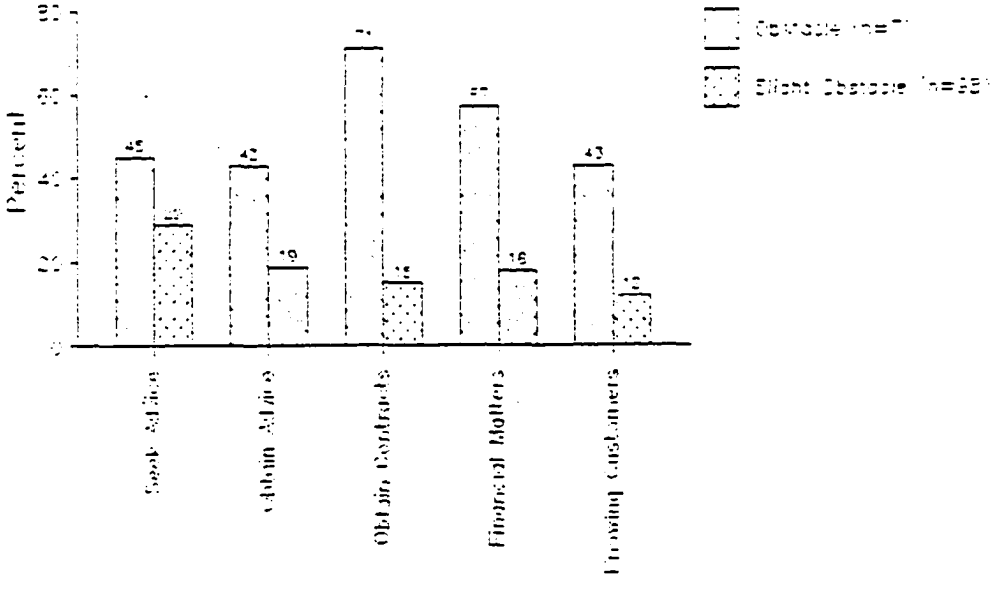
FINANCIAL MATTERS AND
OTHER CHARACTERISTICS



Only 7 respondents considered dealing with customers as an obstacle in starting their business. This group of business owners had higher asset turnover (M45) and higher rate of return on assets (M46) than the women who did not consider this factor to be an obstacle. These 7 women also felt that obtaining advice, obtaining contracts, financial matters, and knowing customers, were moderate to major obstacles.

FIGURE 24

DEALING WITH CUSTOMERS
AND OTHER CHARACTERISTICS

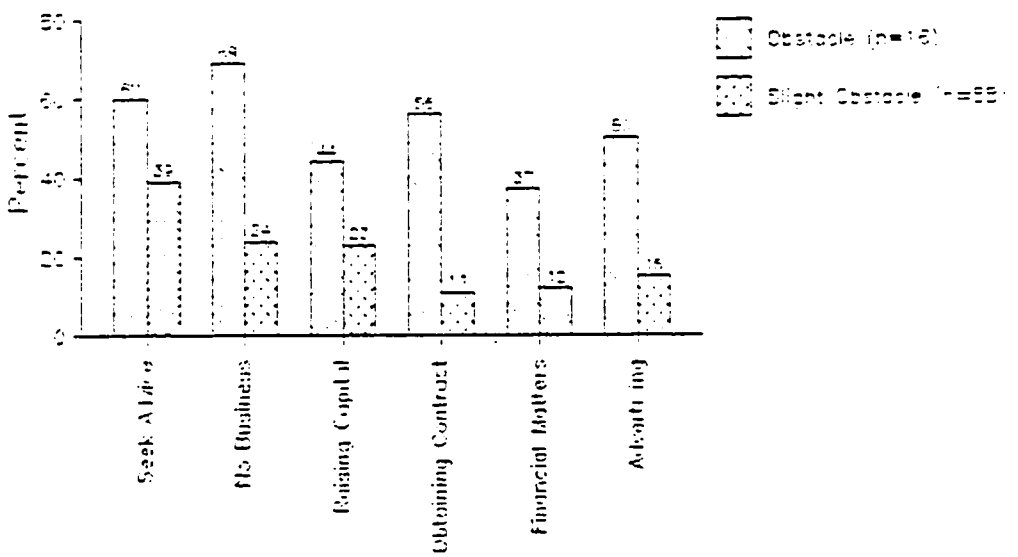


'Knowing who the customers are' resulted in differences in average profit margin (M44). The average profit margin was lower for the business owners who considered this factor to be a major to moderate obstacle. The majority of these women sought outside advice about salesmanship. They also considered several other factors to be

obstacles: lack of business experience, raising capital, obtaining contracts, financial matters, and advertising.

FIGURE 25

KNOWING WHO WILL BUY PRODUCTS
AND OTHER CHARACTERISTICS



Advertising presented an obstacle to approximately 20% of the respondents, and resulted in significant differences in profit margin (M44), asset turnover (M45), and rate of return on assets (M46). For the business owners who considered advertising to be a moderate to major obstacle, all of the three ratios were less than the business owners who did not consider advertising to be an obstacle. Greater percentages of the women owning personal service firms and miscellaneous firms considered advertising as an obstacle. In addition, these women did seek outside advice about salesmanship, and considered as obstacles:

lack of business experience, obtaining expert advice handling of financial matters, and knowing customers.

FIGURE 26

ADVERTISING AND TYPE OF BUSINESS

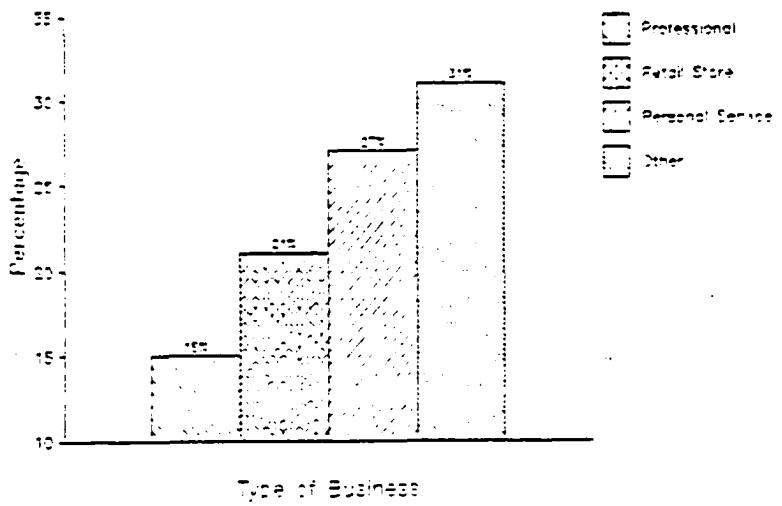
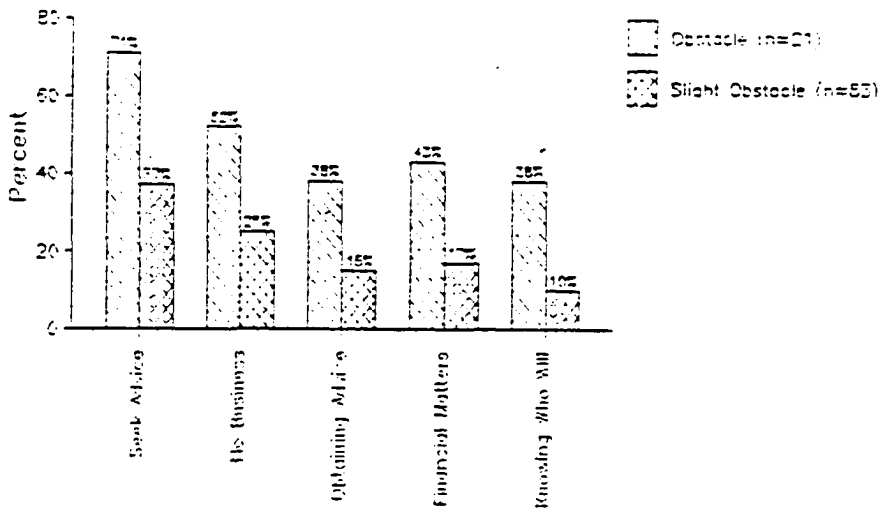


FIGURE 27

ADVERTISING AND OTHER CHARACTERISTICS



In general, for the exploratory analyses, female business owners who considered the characteristics described as obstacles had lower average financial performance in profit margin, rate of return on assets, and rate of return on net worth. Generally, the asset turnover was higher even when the other ratios of the strategic profit model were lower. The conclusion is that there is an association between obstacles encountered by women business owners and financial performance using the ratios of the strategic profit model.

Attitudinal Factors

With respect to business attitude, on average the respondents felt that being their own boss, having a feeling of personal achievement, independence, and responsibility were important to them. For all the respondents at least 85% rated these factors as moderately to very important. It was expected that as these attitudes increased in importance, average financial performance would also increase. For the factors, being their own boss and having a feeling of responsibility, the leverage ratio was less for those who considered these factors moderately to very important than for those who considered these factors to be not very to slightly important. However, for all the ratios of the strategic profit model, the MANOVA tests indicated that there was no overall significant difference in average financial performance. The conclusion for these confirmatory hypotheses is that there is no association between the importance of these business factors and overall financial performance.

With respect to personal attitude, the female business owners felt that they generally succeeded at whatever they decided to do, and felt self-confident when in a position to control and direct. Over 90% of the respondents rated these statements of confidence in their ability as a '1' (strongly agree) or '2' (agree). It was expected that the average financial performance of female entrepreneurs who had a confident personal attitude toward their ability would be greater than female entrepreneurs who did not consider this important. For the statement of self-confidence when in control, the rate of return on assets was significant; however the MANOVA tests showed no overall significant difference in financial performance for either of the two statements. Again, the conclusion for these confirmatory hypotheses is that for these respondents, there is no association between females who feel confident about their abilities and overall financial performance.

Several attitudinal characteristics of the exploratory analyses were significant (see Table 52 in the appendix). Attitude toward business growth (M62) was significant for rate of return on assets and rate of return on net worth. Both of these ratios were lower for those who considered business growth important. An explanation could be that expanding for growth could reduce these ratios. Whether or not the business interferes with work at home was also significant for asset turnover and rate of return on assets. Those business owners who felt that business intefered with home had lower asset turnover and rate of return on assets.

Summary

A majority of the business owners who responded to this questionnaire shared the same characteristics. Generally the majority of the respondents were highly educated and owned professional firms. While seven of the 10 hypotheses were rejected, three were confirmed and 24 exploratory characteristics were significant. For the significant characteristics discussed in this chapter, there was an association with several ratios of the strategic profit model, particularly profit margin, asset turnover, and rate of return on assets.

CHAPTER VI

LIMITATIONS AND RECOMMENDATIONS

Limitations of the Study

This study is limited to the source and scope of the data. The qualitative and quantitative data was obtained from female business owners in Oklahoma. The method of data collection was a mail survey.

Sampling Frame and Nonresponse Errors

The method of determining the sampling frame resulted in several limitations. Since a comprehensive list of female business owners in Oklahoma did not exist, several sources were used to develop a mailing list. The sources included previous surveys in Oklahoma, a small out-dated directory, contacts with business development organizations, and telephone directories of major cities in Oklahoma. This list was not verified and could have included businesses not owned by females. The discrepancy between the target population and the sampling frame is a potential source of error. In addition, due to time and cost constraints, nonresponses were not contacted. Therefore, the results of the study may not be representative of those female business owners who did not respond to the survey.

Validity

Validity refers to how well research measures what it claims to measure. These results must be internally and externally valid to make projections to the population.

Internal validity refers to whether the experimental treatment was solely responsible for changes in the dependent variable. This study used the survey method to gather primary data, and is not a true experiment. Thus, extraneous influences were not controlled and their impact cannot be determined. The purpose of the study was not to explain cause-and-effect relationships, but rather to study the nature of association between independent and dependent variables. The independent variables were entrepreneurial characteristics, and the dependent variables were the ratios of the strategic profit model.

External validity is the quality of being able to generalize the results of the experiment to the real world. The data results indicate that the respondents were a special group of female entrepreneurs. The majority shared similar demographic characteristics concerning college education, ownership of a small professional service or retail firm, and few children. They were self-confident, and exhibited positive attitudes toward themselves and their business. In responding to the survey, these female entrepreneurs apparently desired to express their opinion, and had no reservations about releasing requested financial information. The respondents in this study probably do not represent the majority of the target population of female business owners in Oklahoma, therefore, generalizations must be made with caution.

Experiment-Wise Error Rate

This study involved multiple mean comparisons with the same group of respondents. There is a possibility that the differences between two or more means were significant because of an experiment-wise error rate. Performing means tests only for those variables that had overall significance does not guarantee that the experiment-wise error will be held to the α level. The cell sizes were unequal and could have led to counter-intuitive results.

Significance of the Study

The framework of the study explored the usefulness of the strategic profit model as an overall measure of financial performance, and identified financial management strategies most frequently utilized by female entrepreneurs. The results of the study indicate that there is an association between various entrepreneurial characteristics of female business owners and financial performance.

This study can benefit other female business owners, lending agencies, government agencies, and groups interested in fostering female owned enterprises. Female business owners can benefit from understanding the nature and implications of financial management strategies. Lending and government agencies can benefit by monitoring and evaluating business performance based on the associations between various entrepreneurial characteristics and the ratios of the strategic profit model. Other interested groups involving women business owners can benefit in utilizing these findings to assist and train female business owners.

Recommendations for Future Research

The findings of this study confirmed previous studies identifying entrepreneurial characteristics. In addition, this study expanded on previous studies by exploring the association of these characteristics with a single profit planning equation as a measure of overall financial performance. Recommendations for future research include the following:

1. Replicate this study with female entrepreneurs in other areas to confirm the associations and non-associations found in this study.

2. Replicate this study with male entrepreneurs to compare with the findings of female entrepreneurs.

3. Use the framework of this study and small business data from government or lending agencies to explore the relationship of this framework to predicting success or failure. In addition, comparisons could be made between female business owners who obtain SBA loans and female business owners who do not.

4. Use the findings to enlighten and train female entrepreneurs regarding profit paths leading to a desire return on net worth.

Managerial Implications

Managerially, the findings of this study has several implications. The type of business owned is generally a reflection of the type of education. For example, those women who had professional degrees generally owned professional service firms. The level of education alone may not result in signficantly different levels of financial performance. However, the professional service firms did have the highest average profit margin.

Obstacles faced by female business owners are reflected in their financial performance. This is particularly true for those obstacles that relate to cash or working capital. For example difficulties in raising capital and establishing credit could result in lower average financial performance. Generally, most identified obstacles resulted in lower average financial performance. In addition, the obstacles seemed to be related. For example those women who stated that they did seek advice regarding salesmanship also encountered other marketing obstacles such as dealing with customers, advertising, and knowing the customers who would buy their product or service.

Other potential implications could be that certain characteristics, such as birth order, could have little significance for the female entrepreneur of today. Further research is needed to determine if the characteristics that were not associated with financial performance in this study remain consistent with future studies.

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APPENDECES

TABLE 52

ALL SIGNIFICANT CHARACTERISTICS (P-VALUES)

H* X	ENTREPRENEURIAL CHARACTERISTICS		STRATEGIC PROFIT MODEL				
			Profit Margin (M44)	Asset Turnover (M45)	Rate of Return on Assets (M46)	Leverage Ratio (M47)	Rate of Return on Net Worth (M48)
	Personal Characteristics						
X	M3	Age	.0007				
	Firm Characteristics						
H3	M20	Type of business	.0609				
X	M22	Percent business ownership	.0316			.0422	
	Management Factors						
X	M52	Outside advice-salesmanship				.0472	.0074
H6	M59	Managerial experience-acquired in business	.0980				
	Attitudinal Factors						
		Toward business ownership					
X	M62	Business growth			.0229		.0263
X	M68	Work is interesting	.0001				
X	M72	Interferes with home		.0306	.0346		
		Satisfaction with personal life					
X	M87	Interesting-boring	.0839				
X	M88	Enjoyable-miserable	.0576				
X	M89	Easy-bored			.0905		
X	M90	Worthwhile-useless		.0854			
X	M93	Hopeful-discouraging	.0577			.0763	
X	M95	Rewarding-disappointing	.0388				
X	M96	Brings out best--gives no choice		.0005			
		Terrible-perfect situation					
X	M98	House-apartment		.0838			
X	M101	Business	.0506				
X	M106	Family life		.0455			
X	M107	Life as a whole		.0329			
	Obstacles						
X	M108	Previous business experience				.0175	.0197
H9	M109	Raising capital					.0088
X	M112	Seeking outside advice	.0280	.0830	.0908		
X	M115	Obtaining contracts	.0948	.0823			
H10	M117	Obtaining credit	.0090	.0047			
		Handling of business matters					
X	M122	Financial matters	.0670	.0618			
X	M124	Dealing with customers		.0001	.0001		
X	M125	Knowing who customers are	.0156				
X	M127	Advertising	.0118	.0605	.0434		

TABLE 53

MANOVA TABLE: SIGNIFICANT VARIABLES
P-Values

Variable		∧	M44	M45	M46	M47	M48
M3GRP	Age	.0027	.0007	.6687	.1028	.4387	.1644
M20GRP	Type business	.0648	.0609	.6528	.3095	.5669	.4782
M52GRP	Advice sought for salesmanship	.0717	.1343	.4234	.4729	.0472	.0074
M62GRP	Business growth	.0010	.4068	.3040	.0229	.8336	.0263
M68GRP	Interesting work	.0001	.0001	.5805	.1736	.5111	.2056
M72GRP	Business makes it difficult to do things at home	.0393	.2844	.0306	.0346	.4081	.7282
M108GRP	Lake of previous business experience	.0728	.3676	.2118	.3322	.0175	.0197
M109GRP	Difficulty in raising capital	.0761	.1046	.2511	.8689	.4453	.0088
M112GRP	Difficulty in obtaining expert advice	.0939	.0280	.0830	.0908	.2024	.7687
M115GRP	Difficulty in obtaining contracts	.0610	.0948	.0823	.1021	.9029	.5824
M117GRP	Difficulty in establishing credit	.0047	.0090	.0047	.3945	.8931	.2367
M122GRP	Financial matters	.0836	.0670	.0618	.9113	.5943	.0601
M124GRP	Dealing with customers	.0003	.7557	.0001	.0001	.4626	.4474
M125GRP	Knowing people who will buy product	.0204	.0156	.4519	.4652	.9443	.1512
M127GRP	Advertising	.0811	.0118	.0805	.0434	.9930	.2285

TABLE 54

MANOVA TABLE: NON-SIGNIFICANT VARIABLES
P-Values

Variable		Λ	M44	M45	M46	M47	M48
M2GRP	Race	.9504	.8084	.4570	.8880	.6043	.7837
M4	Birth order	.2222	.9031	.5224	.0804	.3821	.8343
M5GRP	Marital status	.2587	.6683	.6167	.8752	.1594	.0188
M7GRP	Education	.6331	.2048	.8467	.6712	.7649	.6946
M21GRP	Location	.5245	.5831	.1185	.1421	.5755	.3279
M32-36GRP	Legal form	.5329	.4553	.2045	.2412	.8929	.5679
M51GRP	Advice..laws-regs-taxes	.8399	.1890	.2664	.3415	.7305	.4240
M53GRP	Advice..acctg.	.0906	.5279	.1510	.9733	.9247	.1527
M54GRP	Advice..mgt.	.7536	.9343	.8107	.5213	.9223	.9684
M55GRP	Advice..finance	.4912	.1421	.2720	.3205	.4085	.6428
M56GRP	Advice..marketing	.7585	.7671	.1070	.2492	.3313	.3085
M60GRP	Being own boss	.3774	.8713	.4170	.6155	.0654	.8164
M61GRP	Large profits	.5537	.3582	.1635	.0503	.9857	.4847
M63GRP	Recognition	.1703	.4626	.2767	.9537	.2827	.0591
M64GRP	Achievement	.9739	.6394	.6745	.9227	.6375	.9445
M65GRP	Independence	.6914	.9532	.4693	.5877	.1787	.9259
M66GRP	Responsibility	.5772	.5487	.4212	.6100	.0803	.4360
M69GRP	Monetary rewards	.4799	.1258	.8022	.0885	.8020	.4854
M70GRP	Make friends	.4088	.1084	.4591	.6552	.8772	.7096
M71GRP	Surroundings	.7611	.9310	.3590	.7323	.4534	.7520
M73GRP	Job security	.2517	.6394	.6279	.1827	.8090	.7433
M74GRP	Family time	.6030	.4398	.4198	.5666	.1595	.3471
M75GRP	Develop abilities	.9616	.5270	.6467	.7340	.8490	.6930
M76GRP	Chance to do best	.6494	.5193	.6460	.9828	.2049	.8827
M77GRP	Time to do job	.8006	.7782	.9604	.3823	.4747	.6338
M78GRP	Self-fulfillment	.8979	.9390	.5762	.7689	.3378	.9591
M79GRP	Generally succeed	.9928	.7260	.8135	.8577	.7114	.7959
M80GRP	Prefer experts	.3010	.3150	.8940	.2052	.1032	.1802
M81GRP	Set high standard	.3190	.5656	.0272	.0536	.6073	.4977
M82GRP	Can do job better	.8159	.4884	.5626	.1661	.7563	.9354
M83GRP	Self-confident	.2300	.2433	.8161	.0766	.7003	.6974
M84GRP	Enjoy planning	.7228	.1137	.7656	.3356	.6789	.5065
M85GRP	Success...employee	.8047	.6599	.6795	.7194	.7331	.9658
M86GRP	Had encouragement	.2639	.9493	.0436	.8121	.3884	.7919
M110GRP	Lack confidence	.9445	.6192	.9506	.4107	.8725	.9634
M111GRP	Childraising...	.4191	.0910	.9910	.6817	.4175	.2985
M113GRP	Lack encouragement	.1170	.7363	.0231	.0374	.6566	.4945
M114GRP	Discrimination	.6636	.9562	.1630	.2811	.6773	.6759
M116GRP	Suppliers...	.8858	.6629	.9429	.6253	.4913	.7919
M118GRP	Working capital...	.1590	.9251	.2244	.8462	.6126	.1369
M119GRP	Inventory...	.5991	.7955	.6072	.5373	.9619	.8895
M120GRP	Other	.3777	.0171	.3228	.3803	.0484	.1157
M121GRP	Keeping records	.1659	.0966	.4179	.7007	.6597	.0922
M123GRP	Manage employees	.2533	.8731	.7362	.4846	.0591	.4392
M126GRP	Law, regs., taxes	.4360	.0916	.3893	.8356	.6889	.1617

TABLE 55

REGRESSION - ALL VARIABLES
P-Values

	Variable	M44	M45	M46	M47	M48
M10	Number of children	.3488	.6419	.3116	.5935	.2216
M22	Percent of business owned	.0316	.4349	.1705	.0422	.8276
M24	Age of business	.7890	.4976	.8398	.5103	.7585
M25	#full-time employees	.9713	.3043	.5053	.1581	.7270
M2526	All employees	.9376	.6264	.8227	.5450	.8018
M49	Hours worked per week	.5278	.3386	.2080	.4837	.4943
M58	Prior mgr. experience	.7817	.5210	.9665	.5050	.3483
M59	Mgr. experience acquired in business	.4337	.4024	.3558	.1085	.0980
M5859	Total managerial experience	.5582	.2920	.3955	.2365	.2640

TABLE 56

CORRELATION - ALL VARIABLES
r and (P-Values)

Variable	M44	M45	M46	M47	M48
M87 Interesting-boring	-.17	.08	-.06	.06	.08
	(.0839)	(.4161)	(.5672)	(.5718)	(.3997)
M88 Enjoyable-miserable	-.18	.00	-.10	.06	.08
	(.0576)	(.9751)	(.3137)	(.5129)	(.4128)
M89 Easy-hard	-.08	-.09	-.17	.11	.09
	(.4170)	(.3454)	(.0905)	(.2829)	(.3377)
M90 Worthwhile-useless	-.07	.17	.01	-.05	.10
	(.4537)	(.0854)	(.9381)	(.6282)	(.3162)
M91 Friendly-lonely	-.09	.09	-.03	.00	.08
	(.3725)	(.3730)	(.7521)	(.9637)	(.4134)
M92 Full-empty	-.16	.07	-.04	.03	.03
	(.1059)	(.4919)	(.6791)	(.7539)	(.7466)
M93 Hopeful-discouraging	-.19	.13	-.05	.11	.04
	(.0577)	(.1809)	(.6347)	(.2582)	(.6743)
M94 Free-tied down	-.11	.00	-.01	.17	.03
	(.2611)	(.9857)	(.9250)	(.0763)	(.7714)
M95 Rewarding disappointing	-.20	.13	-.06	.15	.11
	(.0388)	(.1722)	(.5330)	(.1112)	(.2668)
M96 Brings..best in me-doesn't give chance	-.12	.33	.07	.03	.05
	(.2349)	(.0005)	(.4454)	(.7800)	(.5927)
Terrible-perfect situation					
M97 City/place you live	-.15	-.09	-.16	-.06	-.06
	(.1315)	(.3774)	(.1072)	(.5608)	(.5701)
M98 House or apartment	.07	-.17	-.09	-.01	.04
	(.4657)	(.0838)	(.3396)	(.9515)	(.7036)
M99 Life in Oklahoma	-.06	-.07	-.06	-.04	-.05
	(.5859)	(.4904)	(.5162)	(.6737)	(.5913)
M100 Your education	.08	-.13	-.01	.00	-.08
	(.4356)	(.1730)	(.9428)	(.9856)	(.4201)
M101 Your business	.19	-.15	.03	-.07	-.05
	(.0506)	(.1186)	(.7752)	(.4940)	(.6230)
M102 Health/physical..	.02	-.13	.00	.04	-.06
	(.8245)	(.1884)	(.9617)	(.7098)	(.5574)
M103 Standard of living	.12	-.10	.04	-.04	-.03
	(.2398)	(.3046)	(.6789)	(.7187)	(.7734)
M104 Savings-investments	.15	-.12	-.03	-.11	.00
	(.1215)	(.2343)	(.7675)	(.2465)	(.9640)
M105 Your friendships	.07	-.14	-.08	-.04	.00
	(.4931)	(.1527)	(.3976)	(.7099)	(.9717)
M106 Family life	.02	-.19	-.12	-.07	.04
	(.8150)	(.0455)	(.2052)	(.4706)	(.6763)
M107 Life as a whole	.10	-.21	.00	-.06	.03
	(.2964)	(.0329)	(.9892)	(.5476)	(.7938)

TABLE 57

LABOR ADJUSTMENT
FOR SOLE PROPRIETORSHIPS AND PARTNERSHIPS

Occupation title	Median Earnings		Occupation Per Survey
	Part-time	Full-time	
Accounting and Auditors	$11,018	$12,600	CPA
Accounting and Clerks	7,668	9,162	Accounting, Bookkeeper, Tax
Lawyers and Judges	11,278	15,925	Lawyers, Judges and J.D.
Architects	7,333	11,000	Redidential design
	7,333	11,000	Interior design
Therapists	9,381	11,214	Speech Pathology
Health Assessment	11,168	13,300	Psychotherapy/counseling
Health Diagnosing	10,654	11,000	Anesthetist, Nutrition counseling Optometry, Vetrinary
Dentistry	8,111	14,621	Dentist
Counseling	9,381	11,214	Unidentified counseling
Sales Occupations	7,181	8,670	Real Estate
Examinerers, Adjusters	8,859	9,777	Abstract, prof. document examiner
Retail Trade	5,227	6,200	Bridal retail, womens apparel, wigs, grocery, carpet, cake supplies, party decor., flowers
Non-durable Manufacturing	6,885	9,000	Jewelry design/sales
Miscellaneous Machine	8,138	10,000	Small engine sales
Other Administrative Support	13,741	15,000	Newspaper/print
Service Occupation	5,186	6,000	Doll restoration, ballet school
Food Service	3,351	6,298	
Building Maintenance	4,243	6,803	Janitorial/carpet cleaning
Sales-Business Services	8,019	10,448	Advertising-art
Printing Machine	6,713	7,000	Typesetting

Source: Detailed Population Characteristics - Oklahoma - 1980 U. S. Department of Commerce, Bureau of the Census, Table 222, Total Female Experienced Civilian Labor Force.

TABLE 58

SUMMARY OF SURVEY RESULTS

Female Business Owners in Oklahoma

VAR	Freq	Percent		
M1	In what state were your born?			
	55	49.55	1.	In Oklahoma
	56	50.45	2.	Outside Oklahoma
M2	Ethnic background			
	--	--	1.	Black
	2	1.82	2.	Native American
	106	96.36	3.	White
	2	1.82	4.	Other
M2Group				Ethnic Group
	4	3.64	1.	Other
	106	96.36	4.	White
M3	Age.			
	--	--	1.	Under 20 years
	6	5.40	2.	20-29
	37	33.33	3.	30-39
	37	33.33	4.	40-49
	18	16.22	5.	50-59
	8	7.21	6.	60-64
	5	4.51	7.	over 64
M3Group				Age Groups
	6	5.40	2.	29 years and below
	74	66.67	4.	30-49 years
	31	27.93	7.	50 years and above
M4	Birth order.			
	11	9.91	1.	Only child
	37	33.33	2.	Oldest in a family of more than 1 child
	27	24.33	3.	Youngest in family of more than 1 child
	36	32.43	4.	Neither oldest or youngest child
M5	Marital status.			
	68	61.26	1.	Married
	4	3.60	2.	Living together
	9	8.11	3.	Widowed
	25	22.52	4.	Divorced
	5	4.51	5.	Never married

VAR	Freq	Percent	
M5Group			Marital Groups
	72	64.87	1. Married
	39	35.13	2. Not married
M6	Household decision-making		
	21	19.27	1. Female has most influence
	9	8.26	2.
	49	44.95	3. Male/female have equal influence
	8	7.34	4.
	10	9.17	5. Male has most influence
	12	11.01	6. Never married
M7	Education		
	1	.91	2. 8th grade
	15	13.64	3. 12th grade
	3	2.72	4. Technical school
	25	22.73	5. Some college
	5	4.54	6. Associate degree
	27	24.55	7. Completed college
	34	30.91	8. Graduate work/degree
M7Group			Education Groups
	19	17.27	1. None-secondary-technical school
	30	27.27	2. Some college-associate degree
	61	55.46	3. Completed college-graduate work/degree
M8	Major field		
	1	1.67	1. Humanities
	7	11.67	2. Social Sciences
	4	6.67	4. Education
	14	23.32	6. Business, Law Enforcement, Public Affairs
	1	1.67	7. Fine Arts
	6	10.00	8. Home Economics
	2	3.33	9. Journalism, Communications
	7	11.67	11. Med Technology, Pharmacy, Other Health
	18	30.00	15. Professional, Law, MD, Vet
M9	Satisfaction with education.		
	40	36.04	1. Completely satisfied
	17	15.31	2.
	8	7.21	3.
	14	12.61	4. Neutral
	11	9.91	5.
	9	8.11	6.
	12	10.81	7. Completely dissatisfied

VAR	Freq	Percent		
M10	Number of children.			
	19	17.12	0.	None
	25	22.52	1.	One child
	38	34.23	2.	Two children
	17	15.32	3.	Three children
	8	7.21	4.	Four children
	3	2.70	5.	Five children
	1	.90	6.	Six children
M11	Father's education.		M12 Mother's education.	
	9	8.57	5	4.59	1.	No formal education
	16	15.24	21	19.27	2.	8th grade
	27	25.71	31	28.44	3.	12th grade
	3	2.86	5	4.59	4.	Technical school
	10	9.52	18	16.51	5.	Some college
	1	.95	6	5.50	6.	Associate degree
	19	18.10	17	15.60	7.	Completed college
	20	19.05	6	5.50	8.	Graduate work/degree
M13	Father's major.		M14 Mother's major.		
	3	10.34	4	18.18	1.	Humanities
	1	3.45			2.	Social Sciences:
	1	3.45	1	4.54	3.	Physical-Bio Science
	3	10.34	5	22.73	4.	Education
	4	13.79			5.	Engineer, Architect
	6	20.69	3	13.64	6.	Bus, Law Adm, Public
			1	4.54	7.	Fine Arts
			4	18.18	8.	Home Econ, Design
	1	3.45	1	4.55	11.	Med Tech, Nurse, Oth
	2	6.90			4.	Agriculture
	8	27.59	3	13.64	15.	Professionals
M15	Male Occupation.		M16 Female Occupation.		
	7	8.54	11	14.10	1.	Teacher
	3	3.66	4	5.13	2.	Accountant/bookkpr
	10	12.20	2	2.56	3.	Farmer/rancher
	1	1.22	1	1.28	4.	Fireman
	6	7.32	4	5.13	5.	Business owner
	6	7.32	3	3.85	6.	Sales/advertising
	1	1.22	6	7.69	7.	Clerical/secretary
	2	2.44	1	1.28	8.	Mfg/factory
	3	3.66	1	1.28	9.	Railroad
			33	42.32	10.	Housewife
			2	2.57	11.	Artists-craftsmen
	1	1.22			12.	Tradesman
	5	6.10			13.	Banker, finance, bus
	5	6.10			14.	Govt service/militar
	1	1.22	1	1.28	15.	Food services
	5	6.10			16.	Construction-equip.
	2	2.43	2	2.56	17.	Real Estate/insur.

VAR	Freq	Percent			
	1	1.22			18. Minister
	1	1.22	2	2.56	19. Lawyer/judge
	4	4.88			20. Laborer
			3	3.85	21. Nurse-Dietician
	4	4.88	1	1.28	22. MD
	2	2.43			23. Optician/audio
	2	2.43	1	1.28	25. Oil business
	5	6.10			26. Engineer
	2	2.43			30. Geologist
	1	1.22			34. College Professor
	1	1.22			35. Architect
	1	1.22			36. Mgt/business adm.

M17 A member of my family was independent farmer or business owner.

77	71.30	1. Yes
31	28.70	2. No

M18 A member of my family/close relative was independent professional.

43	40.95	1. Yes
62	59.05	2. No

M19 Before going into business, I admired someone who started business.

55	52.40	1. Yes
52	48.60	2. No

M20 Type of Business.

2	1.80	102	Ballet/art school
1	.90	104	Arts/crafts store
14	12.61	201	Professional - health/medical
18	16.22	202	Professional - business, CPA, law
7	6.31	203	Real estate, insurance, abstracts
15	13.51	204	Accounting, tax, marketing, communications
2	1.80	205	Personnel
10	9.01	206	Interior/residential design, landscape
1	.90	207	Court reporter, doc/handwriting examiner
1	.90	208	Monogramming
2	1.80	209	Travel agency
1	.90	210	Optometry
1	.90	217	Cleaning, janitoral
6	5.41	301	Clothing store
7	6.31	302	Gifts, flower store
2	1.80	303	Furniture, carpet, household accessories
2	1.80	304	Party decor
3	2.70	306	Restaurant, cafe
2	1.80	307	Cosmetics, wigs, nails
1	.90	310	Jewelry
1	.90	311	Antiques, used merchandise
1	.90	312	Direct sales
4	3.61	502	Printing, newspaper publishing
7	6.31	599	Mixture of several businesses

VAR Freq Percent

M20Group		Business Groups
16	14.41	1. Personal services
56	50.45	2. Professional services
25	22.52	3. Retail
14	12.62	4. Arts and crafts

M21 Business Location		
12	10.81	1. Shopping mall
26	23.42	2. Central business district
40	36.04	3. Business complex
16	14.41	4. Other location outside home
17	15.32	5. Home

M21Group		Location Groups
94	84.68	1. Outside the home
17	15.32	5. In the home

M22 Percent of business owned.		
1	.90	10 percent
1	.90	17 percent
1	.90	22 percent
1	.90	25 percent
1	.90	30 percent
3	2.71	33 percent
1	.90	45 percent
9	8.11	50 percent
3	2.70	51 percent
1	.90	75 percent
1	.90	95 percent
88	79.28	100 percent

M22Group		% Ownership
22	19.82	<95%
89	80.18	>94%

M23 Percent owned by other females.		
97	87.39	0 percent
1	.90	4 percent
1	.90	5 percent
3	2.71	10 percent
1	.90	24 percent
4	3.60	50 percent
4	3.60	67 percent

VAR Freq Percent

M24 Year began business.

1	.91	1930s
2	1.82	1940s
4	3.64	1950s
13	11.81	1960s
57	51.82	1970s
33	30.00	1980s

M24Group

20	18.18	1930s-1960s
57	51.82	1970s
33	30.00	1980s

M25 Number of full-time employees.

34	30.63	None
17	15.31	1 employee
13	11.71	2 employees
12	10.81	3 employees
6	5.41	4 employees
7	6.31	5 employees
5	4.51	6 employees
5	4.51	7 employees
1	.90	8 employees
1	.90	9 employees
2	1.80	10 employees
2	1.80	12 employees
2	1.80	15 employees
1	.90	20 employees
1	.90	30 employees
1	.90	40 employees
1	.90	46 employees

M25Group

		Employee Groups
34	30.63	1. None
55	49.55	2. 1-5 employees
14	12.61	3. 6-10 employees
8	7.21	4. 12-46 employees

M26 Number of part-time employees.

40	36.69	0 employees
28	25.69	1 employee
21	19.26	2 employees
5	4.58	3 employees
3	2.75	4 employees
1	.92	5 employees
1	.92	6 employees
4	3.67	7 employees
1	.92	8 employees
1	.92	10 employees

VAR Freq Percent

1	.92	20	employees
1	.92	33	employees
1	.92	115	employees
1	.92	150	employees

M27-28 My business was previously owned by one in my family/relative.

4	First business
4	Current business

M29-M30 My business is/was located in the home.

19	First business
18	Current business

M31-M32 My business is/was a sole proprietorship.

38	First business
52	Current business

M33-M34 My business is/was a partnership.

11	First business
7	Current business

M35-M36 My business is/was a corporation.

12	First business
38	Current business

M32-M36Group Current business.

38	39.18	1.	Corporation
59	60.82	2.	Non-corporation

M37 Financial information provided.

111

M38 Year of financial information.

1	1.15	1978
1	1.15	1981
77	88.51	1982
8	9.19	1983

M39 Sales in dollars.

$1,000 - $3,000,000

VAR Freq Percent

M39Group		Sales Groups
4	3.60	1. $ 1,000- 9,000
30	27.03	2. $ 10,000- 48,000
27	24.32	3. $ 50,000- 99,000
15	13.52	4. $100,000-149,000
6	5.40	5. $150,000-199,000
10	9.01	6. $200,000-299,000
6	5.40	7. $300,000-399,000
3	2.70	8. $400,000-499,000
3	2.70	9. $500,000-999,000
7	6.32	10. $1,000,000-3,000,000

M40 Net profit in dollars
$(40,000) to 440,000

M40Group		Profit groups
17	15.32	1. Loss/zero profit
23	20.72	2. $ 1,000- 9,000
21	18.92	3. $ 10,000- 19,000
15	13.51	4. $ 20,000- 29,000
11	9.91	5. $ 30,000- 39,000
4	3.60	6. $ 40,000- 49,000
6	5.41	7. $ 50,000- 59,000
6	5.41	8. $ 60,000- 69,000
3	2.70	9. $ 70,000- 79,000
5	4.50	10. $100,000-440,000

M41 Total Assets
$1,000 to $1,400,000

M41Group		Asset groups
23	20.72	1. $ 1,000- 9,000
42	37.84	2. $ 10,000- 49,000
19	17.12	3. $ 50,000- 99,000
15	13.51	4. $100,000-199,000
7	6.31	5. $200,000-299,000
3	2.70	6. $300,000-399,000
1	.90	7. $400,000-499,000
1	.90	8. $1,400,000

M42 Total liabilities.
$None to $850,000

VAR Freq Percent

M42Group			Liability groups
62	55.86	1.	SNone - 9,000
27	24.32	3.	$ 10,000- 49,000
11	9.91	4.	$ 50,000- 99,000
8	7.21	5.	$100,000-199,000
1	.90	6	$210,000
2	1.80	7.	$600,000-850,000

M43 Net worth.
$(40,000) to $800,0009

M43Group			Net worth groups
13	11.71	1.	Negative/None
28	25.23	2.	$ 1,000- 9,000
37	33.34	3.	$ 10,000- 49,000
13	11.71	4.	$ 50,000- 99,000
14	12.61	5.	$100,000-199,000
3	2.70	6.	$200,000-250,000
3	2.70	7.	$362,000-800,000

M44 Profit margin.
-394.7% to 83.33%

M44Group			Profit margin groups
17	15.32	1.	Loss/zero
24	21.61	2.	1-10 percent
23	20.72	3.	11-20 percent
25	22.53	4.	21-40 percent
22	19.82	5.	> 40 percent

M45 Asset turnover.
0.3 times to 40 times

M45Group			Asset turnover groups
37	33.33	1.	< 2 times
38	34.24	2.	2-4 times
36	32.43	3.	> 4 times

M46 Rate of return on assets.
-400% to 1416.66%

M46Group			RR on asset groups
17	15.32	1.	Loss/zero percent
15	13.51	2.	1-< 20 percent
20	18.02	3.	20-< 40 percent
59	53.15	4.	40 percent and above

M47 Leverage ratio.
-13.7 times to 10 times

VAR Freq Percent

M47Group Leverage ratio groups

13	11.71	1.	< 1 time
88	79.28	2.	1-2 times
10	9.01	3.	> 2 times

M48 Rate of return on net worth.
-1800% to 1250%

M48Group RR on net worth groups

29	26.12	1.	Loss/zero
10	9.01	2.	1-14 percent
9	8.11	3.	15-29 percent
63	56.76	4.	30+ percent

M49 Hours worked per week.
5-80 hours

M49Group Hour groups

22	19.82	1.	5-30 hours
31	27.93	2.	35-40 hours
14	12.61	3.	42-45 hours
26	23.42	4.	47-50 hours
18	16.22	5.	55-80 hours

M50 Rent or own building.

35	31.82	1.	rent
73	66.36	2.	own
2	1.82	3.	both

M51. Methods of seeking advice for business law, govt. regs., taxes.

10	10.42	1.	Conference, workshop, seminar
37	38.54	2.	Professionals
1	1.04	3.	Government management assistance
24	25.00	4.	None
24	25.00	5.	Combination of methods

M52 Methods of seeking advice for salesmanship.

19	22.35	1.	Conference, workshop, seminar
7	8.24	2.	Professionals
47	55.29	4.	None
12	14.12	5.	Combination of methods

M53 Methods of seeking advice for accounting.

8	8.89	1.	Conference, workshop, seminar
39	43.33	2.	Professionals
28	31.11	4.	None
15	16.67	5.	Combination of methods

VAR	Freq	Percent	
M54	Methods of seeking advice for management.		
	20	24.10	1. Conference, workshop, seminar
	4	4.82	2. Professionals
	1	1.20	3. Government management assistance
	43	51.81	4. None
	15	18.07	5. Combination of methods
M55	Methods of seeking advice for finance.		
	7	8.14	1. Conference, workshop, seminar
	27	31.40	2. Professionals
	1	1.16	3. Government management assistance
	40	46.51	4. None
	11	12.79	5. Combination of methods
M56	Methods of seeking advice for marketing.		
	19	21.84	1. Conference, workshop, seminar
	3	3.45	2. Professionals
	1	1.15	3. Government management assistance
	51	58.62	4. None
	13	14.94	5. Combination of methods
M57	Methods of seeking advice for miscellaneous.		
	1	9.09	1. Conference, workshop, seminar
	3	27.27	2. Professionals
	6	54.55	4. None
	1	9.09	5. Combination of methods
M58	Prior years of managerial experience.		
	no years to 18 years		
M58Group			Groups
	47	43.12	1. None
	35	32.11	2. 1-4 years
	15	13.76	3. 5-9 years
	12	11.01	4. 10-18 years
M59	Years of managerial experience during business ownership.		
	None to 50 years		
M59Group			Groups
	08	7.41	1. 0-1 years
	34	31.48	2. 2-4 years
	29	26.85	3. 5-9 years
	26	24.07	4. 10-19 years
	11	10.19	5. 20 or more years

M60-M67 As a business owner, how important are each of the following to you personally?

Rating: 1=not very important, 2=slightly important, 3=moderately important, 4=extemely important

	(1) #/%	(2) #/%	(3) #/%	(4) #/%
M60 Being my own boss	8/07.2	6/05.4	24/21.6	73/65.8
M61 Large profits	3/02.7	19/17.1	60/54.1	29/26.1
M62 Growth of business	5/04.5	16/14.5	45/40.9	44/40.1
M63 Recognition of family-friends	17/15.4	36/32.4	29/26.1	29/26.1
M64 Feeling-personal achievement	1/00.9	3/02.7	22/19.8	85/76.6
M65 Feeling of independence	4/03.6	2/01.8	24/21.6	81/73.0
M66 Feeling of responsibility	4/03.6	12/10.9	40/36.4	54/49.1
M67 Other	- --	- --	1/06.7	14/93.3

M68-M78 How true is each statement about your business?

Rating: 1=very true, 1=somewhat true, 3=not very true, 4=not true at all

	(1) #/%	(2) #/%	(3) #/%	(4) #/%
M68 Work is very interesting	85/79.5	20/18.7	1/00.9	1/00.9
M69 Monetary rewards are good	47/43.9	42/39.3	14/13.1	4/03.7
M70 Gives chances to make friends	51/47.7	37/34.6	15/14.0	4/03.7
M71 Pleasant physical surrouundings	62/58.0	36/33.6	7/06.5	2/01.9
M72 Difficult to do things at home	32/29.6	45/41.7	19/17.6	12/11.1
M73 Job security is good	50/48.1	34/32.6	14/13.5	6/05.8
M74 Can spend time with family...	23/21.3	47/43.5	29/26.9	9/08.3
M75 Opportunity...develop abilities	66/62.3	31/29.2	9/08.5	- --
M76 Given chance to things..do best	65/60.2	36/33.3	7/06.5	- --
M77 Have time to get job done	26/24.3	54/50.5	18/16.8	9/08.4
M78 Feeling of self-fulfillment...	76/70.4	27/25.0	5/04.6	- --

M79-M86 How do you personally agree or disagree with these statements.

Ratings: 1=strongly agree, 2=agree, 3=no opinion 4=disagree, 5=strongly disagree

	(1) #/%	(2) #/%	(3) #/%	(4) #/%	(5) #/%
M79 I generally succeed...	52/48.1	52/48.1	1/00.9	3/02.9	- --
M80 Prefer working w/experts	31/28.7	45/41.7	19/17.6	13/12.0	- --
M81 Parents set high achievement standards for me	26/24.3	48/44.9	6/05.6	20/18.7	7/06.5
M82 Feel I can do job better..	28/26.2	51/47.7	11/10.2	16/15.0	1/00.9
M83 Self-confident when in position to control...	34/31.5	57/52.8	7/06.5	10/09.2	- --
M84 Enjoy planning tasks...	18/16.7	54/50.0	8/07.4	28/25.9	- --
M85 Am successful when employed by others...	42/39.3	45/42.1	14/13.1	5/04.6	1/00.9
M86 Had encouragement from others to start business	34/31.4	23/21.3	14/13.0	34/31.5	3/02.8

M87-M96 How do you feel about your present life?

		Frequencies							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
M87	Interesting	53	30	9	10	4	-	2	Boring
M88	Enjoyable	44	30	18	11	4	1	-	Miserable
M89	Ease	10	11	13	24	23	12	12	Hard
M90	Worthwhile	56	23	16	7	2	2	1	Useless
M91	Friendly	49	27	14	9	5	-	4	Lonely
M92	Full	50	19	12	18	4	1	2	Empty
M93	Hopeful	42	31	17	9	2	2	1	Discouraging
M94	Free	32	12	19	12	14	8	8	Tied Down
M95	Rewarding	51	29	13	10	3	-	2	Disappointing
M96	Brings out best in me	47	31	13	11	3	-	1	Doesn't give me a chance

M97-M107 How satisfied are you with life and experiences?
1=terrible situation, 7=perfect situation

		Frequencies						
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
M97	City or place you live	3	-	8	17	22	30	26
M98	House or apartment	1	1	2	13	23	39	27
M99	Your life in Oklahoma	1	2	4	19	21	30	29
M100	Your education	2	4	4	17	16	43	19
M101	Your business	-	1	3	11	22	46	22
M102	Your health/physical	2	4	8	11	29	31	21
M103	Standard of living	-	3	2	12	24	39	26
M104	Savings and investments	6	9	12	23	19	27	10
M105	Your friendships	-	4	7	20	14	33	28
M106	Your family life	-	3	6	20	20	35	23
M107	Your life as a whole	1	1	-	11	28	48	18

M108-127 **Obstacles in starting or operating your business.**
Rating: 1=major obstacle, 2=moderate obstacle
3=slight obstacle, 4=not a problem

		(1) #/%	(2) #/%	(3) #/%	(4) #/%
M108	Lack...business experience	5/04.6	28/26.2	31/29.0	43/40.2
M109	Difficulty..raising capital	16/15.0	12/11.2	28/26.2	51/47.6
M110	Lack of self-confidence	3/02.8	18/16.8	28/26.2	58/54.2
M111	Childraising responsibilities	9/08.4	22/20.5	31/29.0	45/42.1
M112	Difficulty..obtaining..advice	5/04.8	16/15.2	25/23.8	59/56.2
M113	Lack..encouragement..family...	3/02.8	10/09.3	18/16.8	76/71.1
M114	Discrimination	7/06.6	19/17.9	26/24.6	54/50.9
M115	Difficulty..obtaining contracts	5/04.8	15/14.3	25/23.8	60/57.1
M116	Difficulty..obtaining suppliers	2/01.9	5/04.8	16/15.4	81/77.9
M117	Difficulty..establishing credit	7/06.7	10/09.6	25/24.1	62/59.6
M118	Lack..adequate working capital	8/07.5	17/16.1	29/27.4	52/49.0
M119	Lack..adequate inventory	2/02.0	7/07.1	18/18.2	72/72.7
M120	Other	1/14.3	2/28.6	- --	7/57.1
M121	Keeping business records	6/05.7	24/22.6	30/28.3	46/43.4
M122	Financial matters	6/05.7	17/16.0	37/34.9	46/43.4
M123	Managing employees	6/05.8	18/17.1	27/25.7	54/51.4
M124	Dealing with customers	- --	7/06.7	20/19.0	78/74.3
M125	Knowing..people..who will buy product	1/01.0	15/14.4	25/24.0	63/60.6
M126	Business law, govt. regs., taxes	4/03.8	23/21.9	33/31.4	45/42.9
M127	Advertising	4/03.8	17/16.3	21/20.2	62/59.6

TABLE 59

CROSSTAB - BIRTH ORDER

	n = 11 Only Child	n = 37 Oldest Child	n = 27 Youngest	n = 36 Middle
WORK IS INTERESTING (M68)	100% (11) True	100% (34) True	96% (25) True	97% (35) True
BUSINESS INTERFERES WITH HOME (M72)	73% (8) True 27% (3) Not Very True	69% (24) True 31% (11) Not Very True	*85% (22) True 15% (4) Not Very True	64% (73) True 36% (13) Not Very True
LACK OF BUSINESS EXPERIENCE (M108)	60% (6) Slight Obstacle 40% (4) Obstacle	75% (27) Slight Obstacle 25% (9) Obstacle	78% (21) Slight Obstacle 22% (6) Obstacle	59% (20) Slight Obstacle 41% (14) Obstacle
RAISING CAPITAL (M109)	70% (7) Slight Ob. 30% (3) Obstacle	72% (26) Slight Ob. 28% (10) Obstacle	85% (23) Slight Ob. 15% (4) Obstacle	68% (23) Slight Ob. 32% (11) Obstacle
OBTAINING ADVICE (M112)	70% (9) Slight Obstacle	85% (29) Slight Obstacle	78% (21) Slight Obstacle	73%(25) Slight Obstacle
OBTAINING CONTRACTS (M115)	78% (7) Slight Obstacle	83% (30) Slight Obstacle	88% (23) Slight Obstacle	73% (25) Slight Obstacle
ESTABLISHING CREDIT (M117)	78% (7) Slight Obstacle 22% (2) Obstacle	83% (29) Slight Obstacle 17% (6) Obstacle	85% (22) Slight Obstacle 15% (4) Obstacle	85% (29) Slight Obstacle 15% (5) Obstacle
FINANCIAL MATTERS (M122)	89% (8) Slight Obstacle	75% (27) Slight Obstacle	81% (22) Slight Obstacle	76%)(26) Slight Obstacle
DEALING WITH CUSTOMERS (M124)	88% (8) Slight Obstacle	100% (35) Slight Obstacle	96% (26) Slight Obstacle	85% Slight Obstacle
KNOWING WHO WILL BUY PRODUCT/SERVICE (M125)	67% (6) Slight Obstacle 33% (3) Obstacle	86% (31) Slight Obstacle	85% (23) Slight Obstacle	88% (28) Slight Obstacle
ADVERTISING (M127)	78% (7) Slight Obstacle 22% (2) Obstacle	69% (25) Slight Obstacle 31% (11) Obstacle	81% (22) Slight Obstacle 19% (5) Obstacle	91% (29) Slight Obstacle 9% (3) Obstacle

TABLE 60

CROSSTAB - EDUCATION

	n = 19 No College	n = 30 Some College	n = 61 College To Graduate
AGE (M3) Were only 5 in The Less Than 30 Group	58% (11) 50 Plus Years 42% (8) 30 to 49 Years	57% (17) 30 to 49 Years 40% (12) 50 Plus Years	79% (48) 30 to 49 Years 13% (8) 50 Plus Years
BIRTH ORDER (M4) (Only 11 In Only Child Gr.)	52% (10) Middle 37% (7) Oldest	37% (11) Middle 30% (9) Oldest 20% (6) Youngest	34% (21) Oldest 31% (19) Youngest 22% (14) Middle
NUMBER OF CHILDREN (M10)	63% (12) 1 to 2 Children 32% (6) 3 to 4 children	50% (15) 1-2 Children 27% (8) 3-4 Children 13% (4) 5-6 Children	57% (35) 1-2 Children 25% (15) None 18% (11) 3-4 Children
TYPE OF BUSINESS (M20)	63% (12) Retail 21% (4) Prof. Ser 10% (2) Personal Ser.	40% (12) Prof. Ser. 23% (7) Retail 20% (6) Other	65% (40) Prof. Ser. 85% own 95% 15% (9) Personal Ser. (73% own 95+ 90 of business) 10% (6) Retail
LOCATION (M21)	84% Outside Home	83% Outside Home	85% Outside Home
PERCENT OWNED (M22)	74% (14) > 94% 26% (5) < 95%	73% (22) > 94% 27% (8) < 95%	85% (52) > 94% 15% (9) < 95%
FULL-TIME EMPLOYEES (M25)	42% (8) 1-5 Employees 42% (8) No Employees 10% (3) 6-11 Employees	47% (14) 1-5 Employees 33% (10) No Employees 13% (4) 12-46 Empl.	54% (33) 1-5 Employees 26% (16) No Employees 15% (9) 6 - 11 Employees
HOURS WORKED (M49)	42% (8) 35-45 Hours 47% (9) 45 Plus Hrs.	36% (11) 45 Plus Hrs. 33% (10) 35-45 Hours 30% (6) 5-30 Hours	44% (27) 35-45 Hours 38% (23) 45 Plus Hours 18% (11) 5-30 Hours
PRIOR MANAGERIAL EXPERIENCE (M58)	31% (6) 1-4 Years 26% (5) None 21% (4) 5-9 Years 21% (4) 10-18 Years	53% (16) None 26% (8) 1-4 Years 10% (3) 5-9 Years 10% (3) 10-18Years	44% (27) None 34% (21) 1-4 Years 13% (8) 5-9 Years 8% (5) 10 to 18 Years
MANAGERIAL EXPERIENCE IN BUSINESS (M59)	32% (6) 1 to 4 Years 26% (5) 5 to 9 Years 21% (4) 10-19 Years 21% (4) 20 Plus Years	40% (12) 10-19 Years 27% (8) 5-9 Years 20% (6) 1 to 4 Years 10% (3) 20 Plus Years	43% (26) 1-4 Years 26% (16) 5-9 Years 16% (10) 10 to 19 Years 10% (6) None
OUTSIDE ADVISE RE SALESMANSHIP (M52)	57% (8) Seek 43% (6) Do Not Seek	59% (13) Seek 41% (9) do Not Seek	65% (31) Do Not Seek 35% (17) Seek
GROWTH OF BUSINESS (M62)	95% (18) Very Important 5% (1) Slightly Impor.	87% (26) Very Impor. 13% (4) Slightly Impor.	73% (44) Very Important 27% (16) Slightly Important

TABLE 61

CROSSTAB - TYPE OF BUSINESS

	n = 56 Professional	n = 25 Retail Store	n = 16 Personal Service	n = 14 Other
AGE (M3)	73% (41) 40 to 49 23% (13) 50 Plus	52% (13) 30 to 49 48% (12) 50 Plus	56% 9() 30 to 49 25% (4) < 30 19% (3) 50 Plus	79% (11) 30 to 49 21% (3) 50 Plus
BIRTH ORDER (M4)	36% (20) Middle 29% (16) Oldest 23% (13) Youngest	40% (10) Middle 28% (7) Youngest 24% (6) Oldest	63% (10) Oldest 19% (3) Middle 13% (2) Youngest	36% (5) Oldest 36% (5) Youngest 21% (3) Middle
EDUCATION (M7)	71% (40) College 21% (12) Some College	48% (12) No Col. 28% (7) Some Col. 24% (6) College	56% (9) College 31% (5) Some Col.	46% (6) College 46% (6) College
NUMBER OF CHILDREN (M10)	52% (29) 1 to 2 23% (13) None 21% (12) 3 to 4 4% (2) 5 to 6	64% (16) 1 to 2 28% (7) 3 to 4	56% (9) 1 to 2 25% (4) None 19% (4) 3 to 4	64% (9) 1 to 2 21% (3) 3 to 4 14% (2) 5 to 6
LOCATION (M21)	86% (48) Outside Home	88% (22) Outside Home	81% (13) Outside Home	79% (11) Outside Home
PERCENT OWNED (M22)	86% (48) 95 Plus Per.	80% (20) 95 Plus Percent	75% (12) 95 Plus Percent	64% (9) 95 Plus Percent
FULL-TIME EMPLOYEES (M25)	46% (26) 1 to 5 36% (20) None 11% (6) 12 to 46	56% (14) 1 to 5 28% (7) None 16% (4) 6 to 11	44% (7) 1 to 5 31% (5) 6 to 11 25% (4) None	57% (8) 1 to 5 21% (3) None 14% (2) 12 to 46
HOURS WORKED (M49)	34% (19) 35 to 40 34% (19) 42 to 50 16% (9) 55 Plus 16% (9) 5 to 30	52% (13) 42 to 50 20% (5) 50 Plus 16% (4) 5 to 30 12% (3) 35 to 40	38% (6) 35 to 40 31% (5) 5 to 30 25% (14) 42 to 50	29% (4) 3 to 30 28% (2) 42 to 50 21% (3) 35 to 40 21% (3) 55 to 80
PRIOR MANAGERIAL EXPERIENCE (M58)	43% (24) None 30% (17) 1 to 4 14% (8) 5 to 9 13% (7) 10 to 18	48% (12) None 24% (6) 1 to 4 16% (4) 10 to 18 12% (3) 5 to 9	56% (9) 1 to 4 38% (6) None 6% (1) 4 to 9	50% (7) None 21% (3) 1 to 4 21% (3) 1 to 4
EXPERIENCE IN BUSINESS (M59)	36% (20) 1-4 Years 23% (13) 5-9 Years 20% (11) 10-19 Yrs. 11% (6) None 11% (6) 20 Plus	44% (11) 10-19 Yr. 24% (6) 5-9 Years 24% (6) 1-4 Years 8% (2) 20 Plus	44% (7) 1-4 Years 38% (6) 5-9 Years 13% (2) 10-19 Yrs. 6% (1) 20 Plus	36% (5) 1-4 Yrs. 29% (4) 5-9 Yrs. 14% (2) 10-19 14% (20) 50 Plus 7% (1) None
OUTSIDE ADVICE RE SALESMANSHIP (M52)	64% (29) Do Not 36% (16) Seek	53% (10) Do Not 47% (9) Seek	77% (10) Seek 23% (3) Do Not	62% (5) Do Not 38% (3) Seek
GROWTH OF BUSINESS (M62)	77% (43) Important 23% (13) Slightly Important	88% (21) Import. 12% (3) Slightly Important	75% (12) Important 25% (4) Slightly Important	93% (13) Important 7% (1) Slightly Important

TABLE 62

CROSSTAB - LACK OF BUSINESS EXPERIENCE

	n = 33 (1) Moderate To Major Obstacle	n = 74 (4) Slight To No Obstacle
AGE (M3)	65% (21) 30 to 49 27% (9) 50 Plus	68% (50) 30 to 49 30% (22) 50 Plus
BIRTH ORDER (M4)	42% (14) Middle 27% (9) Oldest 18% (6) Youngest	36% (27) Oldest 28% (21) Youngest 27% (20) Middle
EDUCATION (M7)	47% (15) College to Graduate 31% (10) Some College 22% (7) No College	59% (44) College to Graduate 24% (18) Some College 16% (12) No College
NUMBER OF CHILDREN (M10)	55% (18) 1 to 2 Children 27% (9) 3 to 4 Children 12% (4) None	58% (43) 1 to 2 Children 20% (15) None 19% (14) 3 to 4 Children
TYPE OF BUSINESS (M20)	55% (18) Professional Service 18% (6) Personal Service 15% (5) Other 12% (4) Retail	50% (37) Professional Service 27% (20) Retail 12% (9) Personal Service 11% (8) Other
LOCATION (M21)	70% Outside Home 31% In Home	92% (68) Outside Home
PERCENT OWNED (M22)	91% (30) Greater Than 94 Percent	74% (55) Greater Than 94 Per.
FULL-TIME EMPLOYEES (M25)	55% (19) 1 to 5 36% (12) None	49% (36) 1 to 5 26% (19) None 18% (13) 6 to 10
HOURS WORKED (M49)	36% (12) 42 to 50 30% (10) 35 to 40 18% (6) 5 to 30 15% (5) 55 Plus	35% (26) 42 to 50 28% (21) 35 to 40 19% (14) 5 to 30 18% (13) 55 Plus
PRIOR MANAGERIAL EXPERIENCE (M58)	2% (17) None 27% (9) 1 to 4 15% (5) 5 to 9	42% (31) None 34% (25) 1 to 4 12% (9) 5 to 9 12% (9) 10 Plus
EXPERIENCE IN BUSINESS (59)	33% (11) 1 to 4 30% (10) 5 to 9 18% (6) 10 to 18	34% (25) 1 to 4 26% (19) 10 to 18 24% (18) 5 to 9
OUTSIDE ADVICE RE SALESMANSHIP (M52)	62% (18) Seek Advice 38% (11) Do Not Seek Advice	67% (36) Do Not Seek Advice 33% (18) Seek Advice

TABLE 63

CROSSTAB - RAISING CAPITAL

	n = 28 (1) Moderate To Major Obstacle	n = 19 (4) Slight To No Obstacle
AGE (M3)	71% (20) 40 to 49 Years 25% (7) 50 Plus Years	65% (51) 40 to 49 30% (24) 50 Plus
BIRTH ORDER (M4)	39% (11) Middle 36% (10) Oldest 14% (4) Youngest	33% (26) Oldest 29% (23) Oldest 29% (23) Youngest
EDUCATION (M7)	37% (10) College to Graduate 33% (9) Some College 30% (8) No College	62% (49) College to Graduate 24% (19) Some College 14% (11) No College
NUMBER OF CHILDREN (M10)	57% (16) 1 to 2 Children 28% (8) 3 to 4 Children 11% (3) 5 to 6 Children	57% (45) 1 to 2 Children 22% (18) None 19% (15) 3 to 4 Years
TYPE OF BUSINESS (M20)	39% (11) Professional Service 25% (7) Retail 21% (6) Other 14% (4) Personal Service	55% (44) Professional Service 21% (17) Retail 14% (11) Personal Service 9% (7) Other
LOCATION (M21)	86% (24) Outside Home	85% (67) Outside Home
PERCENT OWNED (M22)	79% (22) Greater Than 94 Percent	80% (63) Greater Than 94 Percent
FULL-TIME EMPLOYEES (M25)	57% (16) 1 to 5 Employees 21% (6) None	48% (38) 1 to 5 Employees 32% (25) None
HOURS WORKED (M49)	36% (10) 42 to 50 Hours 21% (6) 55 Plus Hours 21% (6) 35 to 40 Hours 21% (6) 5 to 30 Hours	35% (28) 42 to 50 Hours 23% (25) 35 to 40 Hours 17% (14) 5 to 30 Hours 15% (12) 55 Plus Hours
PRIOR MANAGERIAL EXPERIENCE (M58)	43% (12) None 32% (9) 1 to 4 Years 14% (4) 5 to 9 Years	46% (36) None 32% (25) 1 to 4 Years 13% (10) 5 to 9 Years
EXPERIENCE ACQUIRED IN BUSINESS (M59)	39% (11) 5 to 9 Years 25% (7) 1 to 4 Years 25% (7) 10 to 18 Years	37% (29) 1 to 4 Years 17% (18) 10 to 18 Years 16% (17) 5 to 9 Years
OUTSIDE ADVICE RE SALESMANSHIP (M52)	52% (12) Seeks Advice 48% (11) Do Not Seek Advice	60% (36) Do Not Seek Advice 40% (24) Seeks Advice

TABLE 64

CROSSTAB - ESTABLISHING CREDIT

	n = 17 (1) Moderate To Major Obstacle	n = 87 (4) Slight To No Obstacle
AGE (M3)	59% (10) 30 to 49 35% (6) 50 Plus	68% (59) 30 to 49 28% (24) 50 Plus
BIRTH ORDER (M4)	35% (6) Oldest 29% (5) Middle 23% (4) Youngest	33% (29) Oldest 33% (29) Middle 25% (22) Youngest
EDUCATION (M7)	47% (8) Some College 29% (5) No College 23% (4) College to Graduate	60% (52) College to Graduate 23% (20) Some College 16% (14) No College
NUMBER OF CHILDREN (M10)	70% (12) 1 to 2 18% (3) 3 to 4 12% (2) 5 to 6	54% (47) 1 to 2 23% (20) 3 to 4 20% (18) None
TYPE OF BUSINESS (M20)	41% (7) Professional Service 24% (4) Personal Service 24% (4) Other 12% (2) Retail	53% (46) Professional Service 24% (21) Retail 13% (11) Personal Service 9% (10) Other
LOCATION (M21)	76% (13) Outside Home	86% (75) Outside Home
PERCENT OWNED (M22)	76% (13) > 94Percent	79% (69) > 94 Percent
FULL-TIME EMPLOYEES (M25)	47% (8) 1 to 5 35% (6) None	51% (44) 1 to 5 28% (24) None 13% (11) 6 to 10
HOURS WORKED (M49)	53 (9) 42 to 50 29% (5) 5 to 30 12% (2) 35 to 40	33% (29) 35 to 40 31% (27) 42 to 50 20% (17) 55 Plus 16% (14) 5 to 30
PRIOR MANAGERIAL EXPERIENCE (M58)	35% (6) 1 to 4 29% (5) None 24% (4) 5 to 9	47% (41) None 32% (28) 1 to 4 10% (9) 5 to 9 10% (9) 10 Plus
MGR. EXPERIENCE IN BUSINESS (M59)	41% (7) 1 to 4 35% (6) 10 Plus 24% (4) 5 to 9	32% (28) 1 to 4 28% (24) 5 to 9 19% (17) 10 Plus
OUTSIDE ADVICE RE SALESMANSHIP (M52)	54% (7) Seek Advice 46% (6) Do Not Seek Advice	59% (40) Do Not Seek Advice 41% (28) Seek Advice

TABLE 65

CROSSTAB - FINANCIAL MATTERS

	(1) Moderate To Major Obstacle n = 23	(4) Slight To No Obstacle n = 83
AGE (M3)	65% (15) 30 to 49 Years 30% (7) 50 Plus Years 4% (1) Less Than 30 Years	66% (55) 30 to 49 Years 29% (24) 50 Plus Years 5% (4) Less Than 30 Years
BIRTH ORDER (M4)	39% (9) Oldest Child 35% (8) Middle Child 22% (5) Youngest Child 4% (1) Only Child	33% (27) Oldest Child 31% (26) Middle Child 26% (22) Youngest Child 10% (8) Only Child
EDUCATION (M7)	42% (9) College - Graduate Work 42% (9) Some College 18% (4) No College	59% (49) College-Graduate Work 23% (19) Some College 18% (15) No College
NUMBER OF CHILDREN (M10)	57% (13) 1 to 2 Children 17% (4) No Children 17% (4) 3 to 4 Children 9% (7) 5 to 6 Children	58% (48) 1 to 2 Children 23% (19) 3 to 4 Children 17% (14) No Children 2% (2) 5 to 6 Children
TYPE OF BUSINESS (M20)	39% (9) Professional Service 17% (4) Personal Service 30% (7) Retail Store 13% (3) Other	54% (45) Professional Service 20% (17) Retail Store 18% (11) Personal Service 12% (10) Other
LOCATION (M21)	87% (20) Outside Home	84% (70) Outside Home
PERCENT OWNED (M22)	78% (18) Greater Than 94% Ownership 22% (5) Less Than 95% Ownership	80% (66) Greater Than 95% Ownersh. 20% (17) Less Than 94% Ownership
FULL-TIME EMPLOYEES (M25)	61% (14) 1 to 5 Employees 22% (5) No Employees 9% (2) 6 to 11 Employees 9% (2) 12 to 46 Employees	48% (40) 1 to 5 Employees 30% (25) No Employees 14% (12) 6 to 11 Employees 7% (6) 12 to 46 Employees
HOURS WORKED (M49)	39% (9) 42 to 50 Hours 22% (5) 35 to 40 Hours 22% (5) 5 to 30 Hours 17% (4) 55 Plus Hours	38% (28) 42 to 50 Hours 31% (26) 35 to 40 Hours 18% (15) 5 to 30 Hours 17% (14) 55 Plus Hours
PRIOR MANAGERIAL EXPERIENCE (M58)	52% (12) None 26% (6) 1 to 4 Years 13% (3) 5 to 9 Years 9% (2) 10 Plus Years	42% (35) None 34% (28) 1 to 4 Years 13% (11) 5 to 9 Years 11% (9) 10 Plus Years
EXPERIENCE IN BUSINESS (M59)	30% (7) 1 to 4 Years 30% (7) 10 to 19 Years 26% (6) 5 to 9 Years 8% (2) 20 Plus Years	35% (29) 1 to 4 Years 27% (22) 5 to 9 Years 20% (17) 10 to 19 Years 11% (9) 20 Plus Years
OUTSIDE ADVICE RE SALESMANSHIP (M52)	57% (12) Seek Outside Advice 43% (9) Do Not Seek Outside Advice	61% (37) Do No Seek Outside Advice 39% (24) Seek Outside Advice

TABLE 66

CROSSTAB - DEALING WITH CUSTOMERS

	(1) Moderate To Major Obstacle n = 7	(4) Slight To No Obstacle n = 98
AGE (M3)	71% (5) 30-49 Years 29% (2) 50+ Years	65% (64) 30-49 Years 30% (29) 50+ Years 5% (5) Less Than 30 Years
BIRTH ORDER (M4)	71% (5) Middle Child 14% (1) Youngest Child 14% (1) Only Child	36% (35) Oldest Child 30% (29) Middle Child 26% (26) Youngest Child 8% (8) Only Child
EDUCATION (M7)	50% (3) Some College 50% (3) College to Graduate	56% (55) College to Graduate 24% (24) Some College 19% (19) No College
NUMBER OF CHILDREN (M10)	71% (5) 1 to 2 Children 14% (1) No Children 14% (1) No Children	56% (55) 1 to 2 Children 22% (22) 3 to 4 Children 17% (17) No Children
TYPE OF BUSINESS (M20)	43% (3) Professional Service 28% (2) Retail Store 28% (2) Other	52% (51) Professional Service 22% (22) Retail Store 14% (14) Personal Service 11% (11) Other
LOCATION (M21)	71% (5) Outside Home 29% (2) In Home	86% (84) Outside Home 14% (14) In Home
PERCENT OWNED (M22)	100% (7) Greater Than 94% Owned	78% (76) Greater Than 94% Owned
FULL-TIME EMPLOYEES (M25)	71% (5) 1 to 5 Employees 29% (2) 12 to 46 Employees	49% (48) 1 to 5 Employees 31% (30) No Employees 14% (14) 6 to 11 Employees
HOURS WORKED (M49)	29% (2) 42 to 50 Hours/Week 29% (2) 35 to 40 Hours/Week 29% (2) 55 Plus Hours/Week 14% (1) 5 to 30 Hours/Week	36% (35) 42 to 50 Hours/Week 29% (28) 35 to 40 Hours/Week 18% (18) 5 to 30 Hours/Week 16% (16) 55 Plus Hours/Week
PRIOR MANAGERIAL EXPERIENCE (M58)	43% (3) 1 to 4 Years 43% (3) No Years 14% (1) 10 Plus Years	44% (43) No Years 32% (31) 1 to 4 Years 14% (14) 5 to 9 Years 10% (10) 10 Plus Years
MGR. EXPERIENCE IN BUSINESS (M59)	43% (3) 10 to 19 Years 29% (2) 1 to 4 Years 14% (1) 5 to 9 Years	32% (34) 1 to 4 Years 27% (25) 5 to 9 Years 21% (21) 10 to 19 Years
OUTSIDE ADVICE RE SALESMANSHIP (M52)	71% (5) Do Not Seek Advice 29% (2) Seek Advice	55% (41) Do Not Seek Advice 45% (33) Seek Advice

TABLE 67

CROSSTAB - KNOWING WHO WILL BUY PRODUCT/SERVICE

	n = 16 (1) Moderate To Major Obstacle	n = 88 (4) Slight To No Obstacle
AGE (M3)	69% (11) 30 to 49 Years 25% (4) 50 Plus Years 6% (1) Less Than 30 Years	66% (58) 30 to 49 Years 30% (26) 50 Plus Years 4% (4) Less Than 30 Years
BIRTH ORDER (M4)	31% (5) Oldest Child 25% (4) Middle Child 25% (4) Youngest Child 19% (3) Only Child	35% (31) Oldest Child 31% (28) Middle Child 26% (23) Youngest Child 7% (6) Only Child
EDUCATION (M7)	47% (7) College to Graduate 47% (7) Some College 6% (1) No College	57% (50) College to Graduate 24% (21) Some College 19% (17) No College
NUMBER OF CHILDREN (M10)	81% (13) 1 to 2 Children 19% (3) 3 to 4 Children	53% (47) 1 to 2 Children 22% (19) 3 to 4 Children 20% (18) No Children 5% (4) 5 to 6 Children
TYPE OF BUSINESS (M20)	56% (9) Professional Service 25% (4) Other 13% (2) Personal Service 6% (1) Retail Store	50% (44) Professional Service 26% (23) Retail Store 14% (12) Personal Service 10% (9) Other
LOCATION (M21)	81% (13) Outside Home	86% (76) Outside Home
PERCENT OWNED (M22)	94% (15) Greater Than 94 Percent	76% (67) Greater Than 94% Percent 24% (21) Less Than 95% Percent
FULL-TIME EMPLOYEES (M25)	56% (9) 1 to 5 Employees 31% (5) No Employees 13% (2) 12 to 46 Employees	51% (45) 1 to 5 Employees 26% (23) No Employees 16% (14) 6 to 11 Employees
HOURS WORKED (M49)	38% (6) 5 to 30 Hours Per Week 25% (4) 35 to 40 Hours Per Week 25% (4) 42 to 50 Hours Per Week 12% (2) 55 Plus Hours Per Week	38% (33) 42 to 50 Hours Per Week 30% (26) 35 to 40 Hours Per Week 18% (16) 55 Plus Hours Per Week 15% (13) 5 to 30 Hours Per Week
PRIOR MANAGERIAL EXPERIENCE (M58)	56% (9) None 31% (5) 1 to 4 Years 13% (2) 5 to 9 Years	43% (38) None 31% (27) 1 to 4 Years 14% (12) 5 to 9 Years 12% (11) 10 Plus Years
MGR. EXPERIENCE IN BUSINESS (M59)	38% (6) 5 to 9 Years 31% (5) 1 to 4 Years 12% (2) 10 to 19 Years 12% (2) 20 Plus Years	33% (29) 1 to 4 Years 25% (22) 5 to 9 Years 25% (22) 10 to 19 Years 10% (9) 20 Plus Years
OUTSIDE ADVICE RE SALESMANSHIP (M52)	60% (9) Seek Advice 40% (6) Do Not Seek Advice	61% (40) Do Not Seek Advice 39% (26) Seek Advice

SURVEY OF FEMALE BUSINESS OWNERS IN OKLAHOMA

A. PERSONAL CHARACTERISTICS

A-1 In what state were you born?_____.

A-2 Which of the following best describes you?
1. Black/Negro
2. Native American/American Indian
3. Spanish/Hispanic origin
4. White/Caucasian
5. Other-Please specify_____

A-3 What is your age? (circle answer)
1. Under 20 years
2. 20-29
3. 30-39
4. 40-49
5. 50-59
6. 60-64
7. Over 65 years

A-4 Which of the following best describes you? (circle answer)
1. I am an only child.
2. I am the oldest child in a family of more than 1 child.
3. I am the youngest child in a family of more than 1 child.
4. I am neither the oldest child nor the youngest child.

A-5 What is your present marital status? (circle answer)
1. Married → Answer Question A-6
2. Living together → Answer Question A-6
3. Widowed → Answer Question A-7
4. Divorced → Answer Question A-7
5. Separated → Answer Question A-7
6. Never married → Skip A6 and A7

A-6 Circle the number which best characterizes major decision-making in your household.

Female has most influence		Male/female have equal influence		Male has most influence
1	2	3	4	5

A-7 Circle the number which best characterized major decision-making in your household

Female had most influence		Male/female had equal influence		Male had most influence
1	2	3	4	5

A-8 What is the highest level of education that you have completed? (circle answer)
1. No formal education or some grade school
2. Completed grade school (8th grade)
3. Completed high school (12th grade or GED equivalent)
4. Technical school (not associated with a College or University)
5. Some college
6. Associate degree (from a Junior College or University)
7. Completed college (4 years) Major field_____
8. Graduate work/degree Major field_____

A- 9 How satisfied are you with the amount of education you received? Circle the number which comes closest to how satisfied or dissatisfied you feel.

1. Completely satisfied
2
3
4. Neutral
5
6
7. Completely dissatisfied

A-10 How many children do you have?_____

A-11 What is the highest level of education completed by the persons who raised you?

Father or Male Guardian	Mother or Female Guardian		Father's major	Mother's major
1	1	No formal education or some grade school		
2	2	Completed grade school (8th grade)		
3	3	Completed high school (12th grade or GED equivalent)		
4	4	Technical school (not associated with a College or University)		
5	5	Some college		
6	6	Associate degree (from a Junior College or University)		
7	7	Completed college (4 yrs)		
8	8	Graduate work/degree		

			Male	Female
A-12	-	-	Occupation while active	

A-13 Please circle YES or NO for each question.

1. YES 2. NO a. A member of my family or a close relative was an independent farmer or owned another type of business.

1. YES 2. NO b. A member of my family or a close relative is/was an independent professional, that is doctor, lawyer, veterinarian, dentist, etc.

1. Yes 2. NO c. Before I went into business, I admired someone personally (other than myself or a relative) who started their own business.

B. FIRM CHARACTERISTICS

B- 1 What type of business do you currently own? (circle answer and specify type)

1. Arts and/or Crafts - What type?_____
2. Services - What type?_____
3. Retail Store - What type?_____
4. Manufacturing/Wholesale - What type?_____
5. Other - Specify type_____

B- 2 My business is located in: (circle answer)

1. Shopping mall
2. Central business district
3. Business complex
4. Other - please specify_____

B -3 What percent of your current business do you own? _____%

B -4 What percent of your current business is owned by other females? _____%

B -5 What was the date you began operating your current business? Month_____; Year_____

B-6 How many employees (including yourself and co-owners, if any) does your firm currently employ?

_____number of full-time employees (30 hours per week or more)
_____number of part-time employees (less than 30 hours per week)

B- 6 Circle 1 if the statement applies to your first business and/or 2 if it applies to your current business.

First	Current		
1	2	a.	My business was previously owned by someone in my family or relative.
1	2	b.	My business is/was located in my home.
1	2	c.	My business is/was a sole proprietorship.
1	2	d.	My business is/was a partnership.
1	2	e.	My business is/was a corporation.

B- 7. For your last business year, please indicate the following. Round the numbers to the nearest thousand (000) State year - 19___.

1. Total Sales $_____ (of your business)
2. Net profit $_____ (of your business)
3. Total Assets $_____ (used in your business)
4. Total Liabilities $_____ (of your business)

B- 8 Approximately how many hours per week do you work in your business? _____ hrs. per week

B- 9 Do you own_____ or rent____ your building?

C. MANAGEMENT FACTORS

C- 1 In what areas and by what methods have you sought outside advice from experts and/or professionals regarding your business? If you used more than one method, circle each one.

	Methods of Seeking Advice			
	Conference Workshop or Seminar	Contacts With Experts Professionals	Govt/Management Assistance	None
a. Business law, govt. regulations, taxes	1a	2a	3a	4a
b. Salesmanship	1b	2b	3b	4b
c. Accounting (other than taxes)	1c	2c	3c	4c
d. Management	1d	2d	3d	4d
e. Finance	1e	2e	3e	4e
f. Marketing	1f	2f	3f	4f
g. Other-please specify_____	1g	2g	3g	4g

C- 2 How many years of managerial experience did you have prior to owning your own business? _____years

C -3 How many years of managerial experience have you acquired during business ownership? _____years

D. ATTITUDINAL FACTORS

D- 1 As a business owner, how important are each of the following to you personally? (Circle answer)

	Not Very Important	Slightly Important	Moderately Important	Extremely Important
a. Being my own boss	1a	2a	3a	4a
b. Large profits	1b	2b	3b	4b
c. Growth of business	1c	2c	3c	4c
d. Recognition of family, friends	1d	2d	3d	4d
e. Feeling of personal achievement	1e	2e	3e	4e
f. Feeling of independence	1f	2f	3f	4f
g. Feeling of responsibility	1g	2g	3g	4g
h. Other-please specify_____	1h	2h	3h	4h

D- 2 Please indicate how true each statement is about your business. (Circle the best answer)

	Very True	Somewhat True	Not Very True	Not At All True
a. The work is very interesting	1a	2a	3a	4a
b. The monetary rewards are good	1b	2b	3b	4b
c. I am given a lot of chances to make friends	1c	2c	3c	4c
d. The physical surroundings are pleasant	1d	2d	3d	4d
e. My business makes it difficult to do the things I need to do at home	1e	2e	3e	4e
f. My business job security is good	1f	2f	3f	4f
g. My business allows me to spend the time I want with my family and/or friends	1g	2g	3g	4g
h. I have an opportunity to develop my own special abilities	1h	2h	3h	4h
i. I am given a chance to do the things I do the best	1i	2i	3i	4i
j. I have enough time to get the job done	1j	2j	3j	4j
k. I have a feeling of self-fulfillment in my business	1k	2k	3k	4k

D- 3 Please indicate how you personally AGREE or DISAGREE with each of the following statements. (Circle answer)

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
a. I generally succeed at whatever I decide to do	1a	2a	3a	4a	5a
b. I prefer to work with experts rather than friends	1b	2b	3b	4b	5b
c. My parents set high achievement standards for me	1c	2c	3c	4c	5c
d. I often feel that I can do a job better than anyone else	1d	2d	3d	4d	5d
e. I feel very self-confident when I am in a position to control and direct	1e	2e	3e	4e	5e
f. I enjoy working at tasks which require a lot of planning	1f	2f	3f	4f	5f
g. I have been very successful when employed by others	1g	2g	3g	4g	5g
h. I had a lot of encouragement from others to start my own business	1h	2h	3h	4h	5h

D- 4 How do you feel about your present life? Here are some words and phrases we would like you to use to describe how you feel about your present life. Circle the most appropriate number that comes closest to how you feel.

a.	Interesting.....	1	2	3	4	5	6	7 ..... Boring
b.	Enjoyable.....	1	2	3	4	5	6	7 ..... Miserable
c.	Easy.....	1	2	3	4	5	6	7 ..... Hard
d.	Worthwhile.....	1	2	3	4	5	6	7 ..... Useless
e.	Friendly.....	1	2	3	4	5	6	7 ..... Lonely
f.	Full.....	1	2	3	4	5	6	7 ..... Empty
g.	Hopeful.....	1	2	3	4	5	6	7 ..... Discouraging
h.	Free.....	1	2	3	4	5	6	7 ..... Tied Down
i.	Rewarding.....	1	2	3	4	5	6	7 ..... Disappointing
j.	Brings out the best in me.....	1	2	3	4	5	6	7 ..... Doesn't give me much chance

D- 5 How satisfied are you with different parts of your life and experience? Please circle the most appropriate number.

	Situation is Terrible						Situation is Perfect
a. The city or place you live.....	1	2	3	4	5	6	7
b. Your house or apartment.....	1	2	3	4	5	6	7
c. Life in Oklahoma.....	1	2	3	4	5	6	7
d. Your education.....	1	2	3	4	5	6	7
e. Your business.....	1	2	3	4	5	6	7
f. Your health and physical condition.....	1	2	3	4	5	6	7
g. Standard of living.....	1	2	3	4	5	6	7
h. Savings and investments.....	1	2	3	4	5	6	7
i. Your friendships.....	1	2	3	4	5	6	7
j. Your family life.....	1	2	3	4	5	6	7
k. Your life as a whole.....	1	2	3	4	5	6	7

E. OBSTACLES

E- 1 Please indicate whether, at one time, the following factors presented obstacles to you in starting or operating your business.

	Major Obstacle	Moderate Obstacle	Slight Obstacle	Not a Problem
a. Lack of previous business experience.....	1a	2a	3a	4a
b. Difficulty in raising capital.....	1b	2b	3b	4b
c. Lack of self-confidence.....	1c	2c	3c	4c
d. Childraising responsibilities.....	1d	2d	3d	4d
e. Difficulty in obtaining expert advice.....	1e	2e	3e	4e
f. Lack of encouragement from family and/or close relatives.....	1f	2f	3f	4f
g. Discrimination.....	1g	2g	3g	4g
h. Difficulty in obtaining contracts.....	1h	2h	3h	4h
i. Difficulty in obtaining suppliers.....	1i	2i	3i	4i
j. Difficulty in establishing credit.....	1j	2j	3j	4j
k. Lack of adequate working capital.....	1k	2k	3k	4k
l. Lack of adequate inventory.....	1l	2l	3l	4l
m. Other-please specify_____	1m	2m	3m	4m
n. Keeping business records.....	1n	2n	3n	4n
o. Financial matters (loans, budgets, money, etc)	1o	2o	3o	4o
p. Managing employees.....	1p	2p	3p	4p
q. Dealing with customers.....	1q	2q	3q	4q
r. Knowing who the people are that may buy your product.....	1r	2r	3r	4r
s. Business law, government regulations, taxes...	1s	2s	3s	4s
t. Advertising.....	1t	2t	3t	4t