Order Number 9236661

Factors motivating small companies to internationalize: The effect of firm age

Brush, Candida Greer, D.B.A.

Boston University, 1992

U·M·I
300 N. Zeeb Rd.
Ann Arbor, MI 48106

Boston University

Graduate School of Management

DISSERTATION

FACTORS MOTIVATING SMALL COMPANIES TO INTERNATIONALIZE: THE EFFECT OF FIRM AGE

By

Candida Greer Brush

B.A., University of Colorado 1970

M.B.A., Boston College 1982

Submitted in partial fulfillment of the requirements for the degree of Doctor of Business Administration

1992

APPROVED BY DISSERTATION COMMITTEE:

Chairperson- Edwin A. Murray, Jr.
Dr. Edwin A. Murray, Jr.
Professor of Management Policy

Committee Member- Pieter A. VanderWerf
Dr. Pieter A. VanderWerf
Assistant Professor of Management Policy

Committee Member- Sushil Vachani
Dr. Sushil Vachani
Assistant Professor of Management Policy

Committee Member- Robert D. Hisrich
Dr. Robert D. Hisrich
Bovaird Chair of Entrepreneurial Studies
University of Tulsa

DEDICATION

To David, Julie, Lucy and Emily who inspired
and supported me in this effort

ACKNOWLEDGEMENTS

When I began this dissertation two years ago, I never anticipated that so many people would contribute to its completion. In this section I have expressed gratitude and indebtedness to the colleagues, business associates, friends and family who have helped me in this effort.

First, I would like to thank my Dissertation Committee: Ted Murray, Pieter VanderWerf, Sushil Vachani and Bob Hisrich. I am most appreciative of their expertise, thoughtful suggestions, insightful questions and practical advice concering the content and process of this project. Ted Murray, chairperson of my committee, generously offered guidance, prepared me for presentations and moved me through this Dissertation process expeditiously. Ted's eloquence and professional editing encouraged me to polish my own writing style. Pieter VanderWerf kept me focused, provided detailed feedback, and helped me to resolve numerous methodological problems. Sushil Vachani's knowledge and insights in field of International Business greatly contributed to the conceptual and theoretical development of this work. Bob Hisrich greatly influenced me to enter the Boston University School of Management Doctoral Program and subsequently to do this Dissertation. Bob assisted methodology, data analysis and extensions of this work, as well as contributed his candid advice.

Although they must remain anonymous, I am deeply indebted to the small business owners that completed the research questionnaires. Their time and willingness to share information about their businesses is what made this investigation possible. I am also most grateful to the business owners that spoke to me on the telephone. I hope in some small way the results of my research will be useful to them.

Several colleagues offered suggestions and guidance during various phases of this project. In particular, I would like to thank Jim Post for

Acknowledgements (continued)

navigating me through the system and for seeing to it that part of my expenses were covered under the auspices of Boston University's Entrepreneurial Management Institute. And special thanks is due to Paul Berger who reviewed the statistical analysis sections of this Dissertation. Other Boston University faculty who assisted me include Liam Fahey, Doctoral Liaison, whose question "who cares?" was a continual challenge; John Mahon, whose enthusiasm and great ideas about methodology and design were appreciated; John Russell and Steve Davidson for their ideas on methodology; Melissa Stone for listening and making suggestions on data analysis; Jules Schwartz and Ken Hatten for ideas on extensions of this research; Tómas Kohn for his encouragement, inspiration and chocolate; and Fred Foulkes for helping reshape the research design and motivating me to finish the job. In addition, I would like to thank Clif Smith and Wendy Greenfield of Boston University.

Mike Peters, of Boston College, was major source for ideas on questionnaire development.

Barbara Bigelow of Clark University, and Don Sexton of Ohio State University offered me their continued interest and support.

Early in the project, Ben Oviatt of Georgia State University and Patricia McDougall of Georgia Tech University were particularly helpful in offering their ideas and in giving me the opportunity to present material related to this dissertation early in the project.

Similarly, Dennis Ray of Singapore Technical University, Bruce Philips of the Small Business Administration, Patricia Givens, Michael Campbel and Bill Williams were kind to offer their time and suggestions.

Several doctoral students commented on my work. In particular, Margarete Arndt and Victor Rosenberg were very supportive and were good examples for me during the completion of this project. Ed Desmarais, Dick James, Deborah Fain, Mohan Subramanian and Jerry Smith were helpful listeners.

My research involved many financial expenses and this burden was lessened by the generous assistance of two agencies. Boston University's Entrepreneurial Management Institute covered the costs of mailing, printing, and copying questionnaires, and long distance telephone calls. The Richard D. Irwin Foundation Doctoral Dissertation Fellowship provided assistance for keypunching results of the questionnaire and word processing.

As with any major research project, there are numerous administrative duties. Without the assistance of Bhupendra Gupta, this dissertation would not have been completed when it was. I appreciated Bhupendra's enthusiasm, hard work and time spent in keypunching, assisting with programming and SPSSX. Diane McHegen and HeaLi Park assisted with coding; Jerry Neef with telephone work; while Matthew Martin and Sarah Brown helped with editing this manuscript. Sandra Kelleher and Kathryn Lopes of Satellite Secretarial Services did the word processing, and Mary Jennings, Karen Barry and Kimberly Malec helped with an array of typing, copying and other tasks. Paul Lambrou of Sir Speedy Printers was responsible for a great job of copying and binding. Christine Moore was very helpful with copy editing.

I will mention a few friends; Pat Coogan offered continual encouragement, and her recipes and sense of humor were very important throughout this project. Wendy Handler was also a major source of moral support, understanding and advice. Linda Hutton was a friend who offered many practical suggestions; and Peter Hutton was patient enough to listen to my proposal presentation and offer objective comments.

Acknowledgements (continued)

One of the more important factors allowing me to complete this Dissertation were the many people who cared for my children while I worked. In particular, I appreciated the dedication of Michele McDonald, Debbie Ward O'Glishen, Jeanne McAteer, Caroline Archer Gaston, Tracey Stapel, Julia Hardy and Sarah Brown.

I owe the biggest debt for their support, unwavering confidence, tolerance and help, to my family. My mother, Julie Greer, instilled me with a love of learning and always has encouraged me to meet new challenges. Her moral support was a source of strength. My father, Barney Greer, inspired me with his entrepreneurial spirit. My brother Charlie, sisters Sally and Katie; brothers and sisters-in law, Marc, Ben, Charlie, George, Carol, Libby and Mary, and in-laws Charles and Jean Brush were also great supporters.

From start to finish my daughters, Julie, Lucy and Emily, lived this project with me. Not only did they stuff envelopes and sort them by state, but they knew when to "leave Mom alone". Julie, my companion for many trips in the car, was been a terrific listener and inspired me to work hard through her dedication, heart and hard work in gymnastics. Lucy's matter-of-fact approach to completing tasks, and her passion for riding was an admirable example for me to follow. Emily, during whose entire life I was in this Doctoral Program, showed understanding and patience.

My final and most important thank you is to my husband, David. He has encouraged me, expressed unwavering confidence in my ability, and offered moral support that exceeds expectations. Furthermore, he gave me the time to write by taking over the many household tasks and driving that are so much a part of our lives. Without his love and support none of this would ever have been possible.

FACTORS MOTIVATING SMALL COMPANIES TO INTERNATIONALIZE: THE EFFECT OF FIRM AGE

(Order No. __________)

Candida Greer Brush

Boston University, Graduate School of Management, 1992

Major Professor: Dr. Edwin A. Murray, Jr., Professor of: Management Policy

ABSTRACT

The phenomenon of small businesses selling products abroad early in their operations is not new. However, recent trends indicate many more small businesses are exporting, licensing or investing abroad before they reach six years of age. This pattern of internationalization at a young age is not fully explained by theories of international business which assume experience and market position are needed before a company enters foreign markets. This dissertation identifies factors that have caused small businesses (less than 500 employees) to seek revenues from abroad; considers the effect of firm age in this decision; and tests the applicability of theories of international business in this context.

A conceptual framework integrating theories from international business and entrepreneurship was developed as a basis for this exploratory study. A cross sectional design was employed to survey a national random sample of internationalized small manufacturers. Only independently-owned U.S.-based businesses that had less than 500 employees and received revenues from abroad were surveyed.

Data was gathered using secondary sources, pilot interviews, a mail survey, and telephone follow-up interviews. The mail survey was sent to 1076 businesses, of which 134 usable questionnaires were returned. Although the response rate was low, follow-up telephone calls and statistical tests for non-response bias indicated the results were indeed representative across key dimensions. Data analysis included descriptive statistics, correlation analyses, and discriminant function analysis to test hypotheses. Hypothesis testing yielded unexpected results. Differences in motives for internationalization based on age were fewer than expected, and as such, four hypotheses were supported, two received mixed support, and three were not supported. A discriminant analysis identified nine variables that distinguished between businesses that internationalized early and late with a function that was significant and accurately predicted group membership.

This research yielded important information about the reasons why small businesses decide to sell products abroad. Contrary to theories and expected results, internationalization was serendipitous. Findings show that a wide range of factors, such as product innovation and perceived

market opportunity, also are important motives for small businesses to internationalize. But the majority of these businesses both young, and old, entered foreign markets (exported) in response to customer inquiry. Instead of a logically planned approach to internationalization most of these businesses took advantage of opportunities to sell abroad that arose from customer inquiry.

Results also indicated that motives and strategies do vary by age. Young age was associated with personal contacts; planning systems, experience and high domestic sales were associated with older age businesses. Similarly, young companies more often sold a higher percent of products in more countries than old businesses. Age was not related to performance. Young companies performed as well or better than old companies in terms of growth in sales and employees, after internationalization.

This exploratory study shows that contrary to the assumptions of theories of international business, small firms don't have to be old to internationalize. A wide range of previously untested variables from theories of foreign direct investment, exporting and entrepreneurship were important in explaining the internationalization decision, but aspects of entrepreneurial theories also applied.

This research has implications for researchers and practitioners. For researchers, the developed framework herein integrates international business and entrepreneurship yields information about the importance of antecedents to international strategy which lays the foundation for future examination of the strategy-performance linkages. For public policy-makers, differences in motives and strategies by age suggests that blanket policies for small business internationalization may not be appropriate. For managers, finding in this study imply that managers of small businesses should be alert to international opportunities, and that different strategies are appropriate depending on the age of the business.

PREFACE

My interest in entrepreneurship extends back twelve years, to when Mr. Bob Hisrich asked me to work on a project researching women business owners. This opportunity stimulated my interest in venture creation. I have always been interested in the International area -- my undergraduate degrees, being Spanish and Latin American Studies. Most recently, at Boston University I have been involved in research in international economic development. These interests and studies were catalysts for me to combine these entrepreneurship and international business into a Dissertation topic.

When I set out to investigate an international business, I found little in the field of Entrepreneurship that specifically addressed internationalized new ventures. When I explored the literature of international business, I discovered no research addressing new ventures.

Coincidently, I was renting an office from a man who had created a bio-technology company and had taken it public. He was starting a second business. His second business manufactured medical equipment for testing cholesterol. One day, I asked him about his new venture and I learned that the business was less than one year old, had facilities in Boston and London, and was receiving revenues from product sales throughout Europe. In other words, I discovered one of the businesses I wanted to research right next door. Finally, my thanks to Mr. Bob Hisrich, the entrepreneur next door, my academic past and interests were the inspiration for this research project.

TABLE OF CONTENTS

TABLE OF CONTENTS (continued) Page

LIST OF TABLES AND EXHIBITS

LIST OF TABLES AND EXHIBITS (continued)

LIST OF APPENDICES

CHAPTER I

INTRODUCTION

A - Overview

New small businesses contribute jobs and innovations to the U.S. economy. Statistics reflect growth in the number of new firms being created each year. Despite their importance, young businesses are under-researched, and there are very few studies of their international activities. Theories in the field of International Business offer explanations for licensing, foreign direct investment, and exporting of large firms; and exporting behavior of small firms. Theories of direct investment and licensing assume businesses have established a market position before diversifying or investing abroad. Similarly, theories on the process of internationalization assume exporting will occur in stages as the business gains experience. As such, these theories imply that the decision to internationalize will not occur at an early age. On the other hand, there is evidence that small businesses are receiving revenues from abroad at an early age (six or less years of age). The literature of entrepreneurship provides an understanding of motives for venture creation, but does not inform us about international activities. This research links theories of international business and entrepreneurship, producing a conceptual framework as a basis for investigation of factors contributing to the decision to internationalize in small businesses. In particular, the effect of business age at internationalization is considered.

B - Focus and Research Questions

Each year more than 600,000 new small businesses[1] are created (Small Business in The American Economy, 1988 [p. 65], The State of Small Business, 1990, [pp. 9-11]), providing proportionately more jobs (Kirchoff & Phillips, 1988; The State of Small Business, 1989, pp. 13-16) and innovations than established firms (Birch, 1987). Despite their importance, new small businesses and their early business activities are under-researched (Donckle, 1989). While records of international business activities by small businesses are not maintained by age of enterprise, there is evidence that a growing number of "new businesses"[2] are participating in international business activities (Wall Street Journal, Nov. 8, 1990).

Theories in the Field of International Business provide explanations for the foreign direct investment, diversification and licensing of large established firms, and exporting behaviors of small businesses. Theories with roots in organizational behavior suggest that firms will internationalize in incremental steps when they have established a track record of operations and thereby have gained sufficient market experience (Aharoni, 1966; Johanson & Vahlne, 1977). Similarly, theories rooted in

---

[1]- "small businesses" are defined as those small and medium-sized businesses with less than 500 employees. This is consistent with standard business employment asset and receipt size classes established May 18, 1982 by the Office of Management and Budget to be used by all Federal Agencies when publishing data (The State of Small Business, 1989, p. 18). The categories noted are the following:

very small	< 20 employees
small	20 - 99 employees
medium	100 - 499 employees
large	> 500 employees

The SBA typically refers to "small" businesses as those with less than 500 employees (indicating non-large) unless otherwise specified. This operationalization will be used in this research. Other researchers have used this operationalization; Roy & Simpson (1981), Witney (1980).

[2]- "new businesses" are defined as those that are six or less years old, consistent with the Small Business Administration (Small Business in the American Economy, 1988).

industrial economics propose that investment abroad occurs only after a domestic market position has been achieved (Buckley, 1983). Because these theories assume that businesses will have achieved some measure of market position and operating experience before considering exporting or foreign investment, they do not seem to explain the international activities of small businesses that decide to internationalize at an early age. However, these theories were intended to explain the foreign investment and international marketing activities of large established businesses and have not been tested in the context of small companies.

The literature of entrepreneurship provides an understanding of dimensions of new venture creation, and key differences between new and established small businesses. Theories in this area focus on four main aspects of entrepreneurship; risk-bearing, innovation, general management and venture creation (Sandberg, 1992). These theories are intended to explain individual, environmental, and company factors contributing to the creation of new ventures (Gartner, 1985), and entrepreneurial behavior (Bygrave & Hofer, 1991). As such these theories have not explicitly considered motives for internationalization of new small ventures, although internationalized new ventures are arguably entrepreneurial. Recent work by McDougall (1989), and McDougall, Ray & Oviatt (1991) discusses international entrepreneurship which is defined as "new ventures or start-ups that from inception engage in international business activities" (McDougall, 1989, p. 388). To date, no studies in the field of Entrepreneurship have investigated the motivations for foreign market entry of new ventures.

This research investigates factors motivating small businesses to seek revenues from abroad.[3] The sample was composed of internationalized small manufacturers with less than 500 employees. This exploratory study identifies factors that caused these companies to go international; compares similarities and differences by age in their motivations and approaches to implementing such a decision; and tests applicability of theoretical variables from international business and entrepreneurship explaining this phenomenon. Four questions are proposed:

1. What factors motivate young small businesses to engage in international business activities?
2. What factors motivate older small businesses to engage in international business activities?
3. Do reasons for internationalization vary significantly by age of small businesses?
4. Do international strategies vary by age of small business?

Because general theories of international business were not intended to specifically explain the motives of small businesses, nor were theories of entrepreneurship designed to explain why they internationalize, this research integrates theories from both fields. According to mid-range theory development (Merton, 1962), this approach is appropriate for guiding empirical inquiry intermediate to general theories, and specific classes of social behavior. Therefore, the intent of this project is to determine if the variables from general theories about international business and entrepreneurship can be integrated in a framework which will enlighten us as to the international activities of small businesses.

A conceptual framework was developed by examining the theories and empirical works of entrepreneurship and international business. There are five main constructs in this framework; Contextual Factors, International

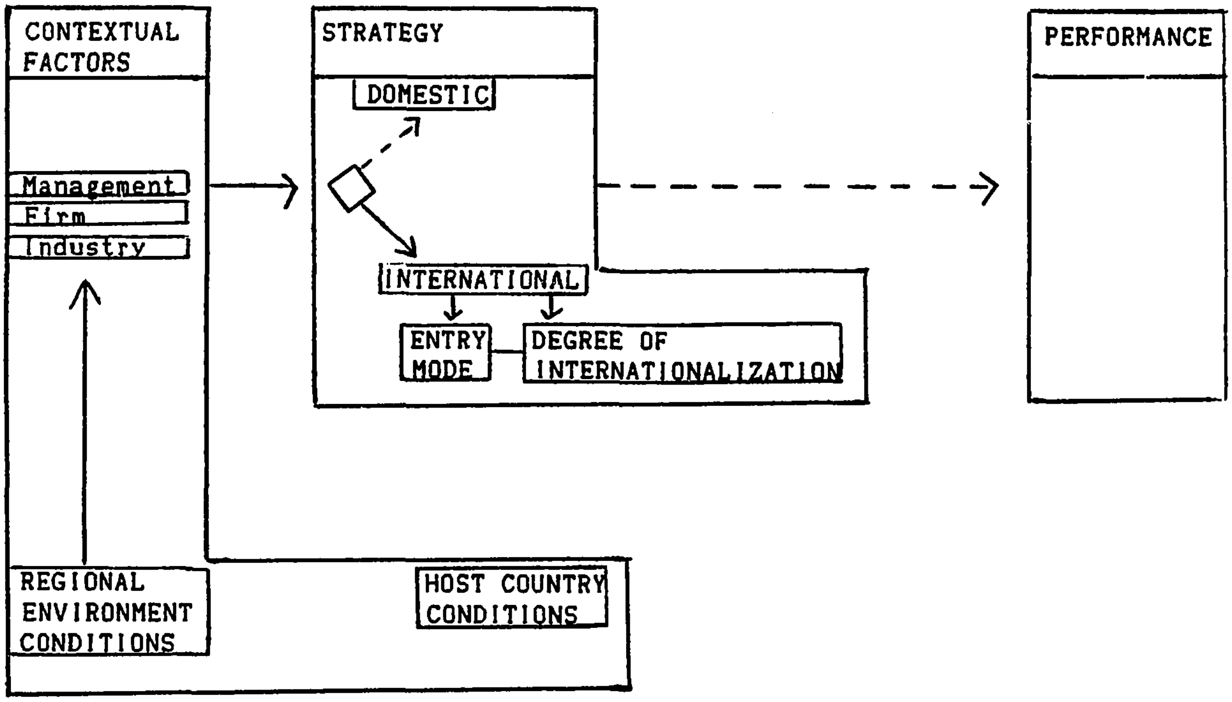
[3]- For this research, "internationalize" will be operationalized as "receiving revenues from international business activities" (Massachusetts International Export Service Guide, 1989; Dun's World Marketing Directory, 1991). Further explanations of definitions follows in the next section.

Strategy, Performance, Regional Environment Conditions, and Host Country Conditions (see Exhibit #1.1). Variables operationalizing these constructs were identified from empirical research and pilot studies in this project. Contextual Factors are composed of management, firm and industry variables that are theorized or empirically shown to be important to the decision to internationalize (Buckley & Casson, 1978; Morrison & Roth, 1989; Akhter & Friedman, 1989). International Strategy variables include modes of foreign market entry, export, licensing or contracting, or foreign direct investment (Morrison & Roth, 1989; Contractor, 1990); and degree of internationalization, geographic scope (Cavusgil, 1984; McDougall, 1989); and commitment of resources (Cavusgil, 1982; Vernon, 1983). The outcome result of contextual factors and strategy is performance which is defined as progress towards a goal of overall or international growth in sales or employees (Geringer, Beamish & daCosta, 1989; D'Souza & Eramilli, 1991).

Two sets of conditions influence these constructs; Regional Environment Conditions, which include local economic, political-regulatory, competitive, and demographic variables (Johanson & Vahlne, 1977; Buckley & Casson, 1978), and as Host Country Conditions, which are composed of economic, political-regulatory, cultural, and competitive variables (Goodnow & Hansz, 1972; Mascarenhas, 1986).

EXHIBIT #1.1

CONCEPTUAL FRAMEWORK



Using the conceptual framework developed as a basis for this research, (see Exhibit #1.1), the objective of this exploratory study is to develop a descriptive scheme and explore possible relationships between variables (Denzin, 1978). This research will identify which factors were important in the decision to sell products abroad. It will describe how small businesses implement these activities and compare companies will be compared by age at internationalization. Performance outcomes will be measured descriptively, but are not the main focus of this study. Similarly, even though it is recognized that importing activities are very important to small businesses and the balance of U.S. international trade, in order to narrow the scope of this project internationalization, "defined as receiving revenues from abroad" (see footnote number three), excludes discussion of importing activities.

The research design selected was a cross sectional survey, which is suitable for exploratory investigations of a phenomenon and allows for comparisons across two groups. Similarities and differences in motives and international strategies between young and old aged businesses at time of internationalization were hypothesized and tested statistically using descriptive statistics, correlation analyses, and discriminant function analysis.

C - Definitions

To facilitate the discussion of this research, it is important to clarify key terms that are used hereinafter. A theoretical and operational definition of each of the major terms is included in the following discussion.

There is a lack of consistency in the terminology used to discuss international business activities. The most frequently employed term are "international strategy" (Eglehoff, 1988; Daniels, Pitts & Tretter, 1984) and "international business strategy" (Daniels, 1983) both of which can encompass international expansion (Mascarenhas, 1986), international diversification (Geringer, et al, 1989), "exporting strategy" (Miesenbock, 1988) and other alternative modes of international business activities such as "licensing" or "joint venturing" (Contractor, 1990). In the Entrepreneurship area, studies of international activities of small businesses generally refer to exporting strategy (Namiki, 1988) or joint ventures (D'Souza & McDougall, 1989). The terms "exporting" and "investing abroad" are too limiting. Consequently, unless otherwise specified this research will use the word "internationalize" to mean "to receive revenues from abroad from international business activities" (Massachusetts International Export Service Guide, 1989; Dun's World Marketing Directory, 1991). Another expression that will be used is "to enter foreign markets" (D'Souza & Eramilli, 1991); The expression is consistent with the theoretical definition of international business activities, means "resource exchange across national boundaries" (Fayerweather, 1978).

"Internationalization process" is defined as the consequence of incremental adjustments to the changing conditions of the firm and its environment (Aharoni, 1966). The process is conceived of as stepwise where the firm incrementally increases its international involvement over time (Johanson & Vahlne, 1977). As integration and use of knowledge about foreign markets and operations grows, commitment to foreign markets increases (Welch & Wiedersheim-Paul, 1980). Referred to as a "stage model", the internationalization process expands outward from home markets to those contiguous markets most compatible cognitively and in terms of resources and as market knowledge increases, commitment increases (Johanson & Vahlne, 1977). This process is most frequently operationalized to describe exporting behavior. Typically there are between three and seven stages. The first stage is pre-involvement, middle stages are active involvement, and later stages are referred to as committed involvement (Cavusgil, 1984).

"International strategy" is defined as a pattern of objectives, policies, and plans for achieving goals (Aharoni, 1966, p. 294). International strategy is distinct from domestic strategy in that it includes international product/market dimensions (Daniels, 1983; Morrison & Roth, 1989). Operationalization of this term includes all options for foreign market entry (exporting, licensing and direct investment) (Caves, 1982; Contractor, 1990) and degree of internationalization. (Cavusgil, 1984; Rugman, 1986). Degree of internationalization includes geographic scope of operations and commitment of resources. Scope is operationalized as number and diversity of countries and markets (Cavusgil, 1984). Commitment, is defined as those dedicated assets that cannot be redeployed to alternative uses without loss of value (Vernon, 1983). Commitment can refer to social, financial, physical or human resources (Aharoni, 1966), and varies from low to high. This is operationalized as number of employees working abroad and percentage of total manufactured products sold abroad.

This research focuses on small businesses, which are defined as profit-oriented organizations in which there can rationally be only one profit center (McGuire, 1976). This is operationalized in accordance with U.S. Federal Government size breaks, and refers to businesses of less than 500 employees (The State of Small Business, 1990, p. 12; see footnote number one for further discussion).

New businesses are defined as organizations that are created by an individual or group of individuals for entry into a product/market (Gartner, 1985). In keeping with other research in the entrepreneurial area and government interpretation of new businesses, this will be operationalized as businesses of six or less years old (Kirchoff & Phillips, 1988; Olofsson, et al 1987; The State of Small Business, 1989).

D - Summary of Chapter I

New small businesses are of great importance to the U.S. economy. Increasingly, small businesses are deciding to seek revenues from abroad at an early age. Theories suggest that experience and possession of market position are antecedents to the decision to internationalize. These theories provide explanations for the internationalization of established small businesses but do not adequately explain the motivations of young ventures. This research explores the reasons why small businesses decide to internationalize, and compares young and old businesses across these factors as well as their international strategies. A framework integrating the literature of international business and entrepreneurship serves as a basis for this investigation.

CHAPTER II

CONTEXT AND FOCUS OF RESEARCH

"Record numbers of small businesses are turning overseas to bolster their profits...'Its an awakening', says Howard Lewis, vice-president of the National Association of Manufacturers, 'small companies are finding there is life beyond the domestic market'."(Wall Street Journal, November 8, 1990, p. B-2)

A - Overview

The international business activities of small businesses are increasing. Based on the belief that there are opportunities abroad for smaller firms, the U.S. government is encouraging international trade in this segment. New small businesses continue to be important contributors to the U.S. economy and there is evidence many of them are receiving revenues from abroad before they reach six years of age. Younger businesses differ from older businesses across four main dimensions: role of the manager, resources, organizational structure and systems, and focus. These factors are expected to play a role in explaining differences in activities of small businesses that internationalize early in comparison to those that internationalize later.

B - Small Business International Activities

Small businesses are becoming more active participants in international business activity. While the U.S. government does not collect statistics on international trade by size or age of enterprise,[4] estimates by the Department of Commerce in 1980 showed approximately 15,000 businesses having less than 500 employees received revenues from exports; and these businesses accounted for about twenty to twenty-five percent of all exports (Rabino, 1980).

---

[4]- an "enterprise" is a business organization consisting of one or more establishments under the same ownership or control (The State of Small Business, 1989, p. 21, footnote no. 4, p. 188).

While there is no single number of exporting small businesses, more recently the SBA estimated that 90,000 small firms exported to foreign markets, and that those with less than 100 employees accounted for approximately twenty-five percent of the total or 22,500 enterprises (Small Business in the American Economy, 1988, p. 6). It also was noted in the Wall Street Journal (Nov. 8, 1990) that of 100,000 U.S. companies that export, 80 percent are very small (less than 100 employees). Similarly, David Birch of Cognetics Inc., announced that more than eighty-seven percent of the 51,000 exporters tracked by his company employed fewer than 500 employees (Business Week, April 13, 1992, p. 70).

A recent survey by Dun and Bradstreet found that of small and medium-sized firms (less than 500 employees), forty-one percent of respondents reported export sales growth rate above domestic sales growth rate, and these firms accounted for 25.7 percent of all exports by firms with less than 100 employees (Holziger, Dec. 1990a). An investigation of the U.S. Department of Commerce PIERS data base found that firms of less than 500 employees accounted for approximately twelve percent of the value of direct export by manufacturing firms (Faucett, 1985). Exports accounted for approximately nineteen percent of growth in GNP in 1989, with small businesses contributing about twenty percent of the total U.S. exports. For the year 1989, exports were up 11.1 percent from 1988, compared to imports which rose 6.1 percent, resulting in a decline in the foreign trade deficit (The State of Small Business, 1990, p. xi). Results of a recent survey by the National Association of Manufacturers of 2,105 of its 8,200 small manufacturers found a twelve percent increase in businesses receiving revenues from export. Increases measured up from fifty-four percent in 1988 to sixty-six percent in 1992 (Braunlich, 1992). Furthermore, government officials predicted that the number of small companies exporting will increase in the future.

In addition to this evidence of the international activity of small business, the U.S. government is encouraging greater participation in international trade by small businesses: "One important mission of the U.S. Small Business Administration is to encourage small and medium-sized firms to export their products to other nations" (Small Business in the American Economy, 1988, p. iii). Three reasons are given for this position. First, to improve the balance of trade-- U.S. small businesses import more than they export, especially in the retail and wholesale trade sectors (Small Business in the American Economy, 1988). Second, to survive -- if small businesses are to participate more fully in the development of the American economy between now and the year 2000, a major area of engagement must be the international economy (Small Business in the American Economy, 1988, p. 23). Third, there are opportunities -- from now to 1996 the world economy is expected to grow at an average rate of 3.3 percent per year, whereas the domestic economy is expected to grow only at an average rate of 2.4 percent (Small Business in the American Economy, 1988, p. 23). Furthermore, dollar exchange rates have declined, making it more cost-effective for small businesses to do business internationally (Small Business in the American Economy, 1988, p. 25).

Even though the Small Business Administration is quite clear about their position encouraging small businesses to internationalize, and there are at least fifteen to eighteen separate federal agencies involved in promotion of exporting, there agencies seldom coordinate activities with each other (Wall Street Journal, March 5, 1992, p. B-2; Business Week, April 13, 1992, p. 70). For example, The SBA and the Commerce Department both offer counseling and market information through a network of offices and also sponsor overseas trade missions.

Along these lines, Dun and Bradstreet has suggested that the political and economic changes in Eastern Europe will encourage even greater international trade among smaller businesses (Holziger, 1990b, Holziger, 1990c). Improvements in telecommunications, such as fax machines, 800 telephone numbers and overnight express mail, have also helped to make international markets more accessible to small firms (Business Week, April 13, 1992, p. 70).

C - Importance of New Small Businesses

New businesses are important because they are a source of job creation (Small Business in the American Economy, 1988, p. 64-67) and new innovations (Birch, 1987). A recent study by Kirchoff and Phillips (1988) found new businesses created a greater proportion of new jobs than established firms. Furthermore, new businesses have been attributed with implementing more innovations than larger established firms (Birch, 1987). There is no single listing of new start-ups or new businesses, but several proxies are used: incorporations -- compiled by Dun and Bradstreet[5]; Self-employed, compiled by the Department of Labor[6], and Small Businesses for which information is maintained by the Small Business Association. According to these proxy lists, best estimates are that approximately 600,000 new small businesses are created every year (Small Business in the American Economy, 1988, pp. 64-65; The State of Small Business, 1989, p. 23; The State of Small Business, 1990, p. xii). For the year 1991, the SBA estimated there were 734,304 start-ups, down 6.6 percent from the record 786,056 for 1990.

[5]- Lists of incorporations are compiled by Dun and Bradstreet as proxies for newly created businesses. These listings account for about 80 percent of all revenues and are obtained from Secretary of State's Offices. These incorporations may mean intent to start, actual starts, changes in geographic location, or conversion of partnerships or sole proprietorships to incorporated enterprises (Small Business in the American Economy, 1988, p. 22).

[6]- Self-employed enterprises are those businesses that have no employees (The State of Small Business, 1989, p. 18).

Despite the numbers of businesses created, many new small businesses are discontinued for one reason or another. While there is again no complete listing of business failures or discontinuances, the rate of business closings has been estimated by the SBA. Among growing firms (those that add new jobs), approximately eight percent close within the first two years compared to approximately thirty percent of those small businesses that do not grow (The State of Small Business, 1989, p. 22). In the first six years, the overall discontinuance rate is estimated at approximately 62.7 percent for small businesses. However, for growing firms the rate is again significantly lower, 33.7 percent versus 72.5 percent for businesses that do not grow (The State of Small Business, 1989, p. 22).

In other words, for new small businesses to survive, growth and expansion by adding jobs are of major importance. One means of growth is engaging in international business activity.

D - International Business Activities of New Small Businesses

The government does not keep track of international business activity by age of business.[7] Yet, there is some information to indicate that small businesses often export at an early age. For example, a recent article from the Wall Street Journal described the international activities of the Brooklyn Brewery, started in 1988, and its arrangements to export its beer to Japan. Foreign sales accounted for about ten percent of the Brewery's two million dollars in annual sales (Wall Street Journal, Oct. 13, 1990). Other popular publications have highlighted international success stories of businesses that begin by selling products

[7]- Foreign trade statistics are collected by product class, weight, and average value. No data is collected by size of firm, but the Office of Advocacy, a division of the Small Business Administration, is working to produce such information using PIERS data collected and published by the Journal of Commerce (Small Business in the American Economy, 1988, p. 25, footnote).

abroad at an early age. Examples include Garber Floor Testing, a six year old enterprise that sold its devices in England before entering U.S. markets (Nation's Business, September, 1991, p.8). The case of Quantum Epitaxial Designs, Inc. is similar. Quantum, started in 1988, worked with a Pennsylvania state program called Ben Franklin Technology Partnership to obtain venture funding and sell its crystallized wafers to Japan (Nation's Business, July, 1991, p. 9). Similarly, there is LIFE Corporation, a twelve employee firm founded in 1985, that started exporting in 1987. The company, which makes a portable oxygen pac, now receives more than forty percent of its revenues from foreign countries (Business America, June 3, 1991, p. 21).

In summary, there is data suggesting the importance of new small businesses to our economy, information showing that some are internationalizing at a young age, and statements by the U.S. government encouraging small business involvement in international activity. Despite this evidence of growth in young ventures internationalizing, there is neither a count of the number of new small businesses that are internationalized, nor information about their reasons for, or experiences in internationalization.

E - Differences Between New and Established Small Businesses

One of the main premises of this research states there are substantial differences between new and established (young and old) small businesses and that these affect their approaches to internationalization. The literature on entrepreneurship strongly supports this assumption. The most obvious difference between new and established small businesses is their life span (Grenier, 1972). Given this, there are four primary dimensions across which new and established small businesses will differ. These are (1) the role of the manager, (2) resources, (3) organizational structure and systems, and (4) focus (see Exhibit #2.1).

First, in most small firms the role of the manager is prominent due to the small number of employees. But for new firms, the role of the owner/founder is even more crucial and dominant. As noted by Churchill and Lewis, "The owner does everything and directly supervises subordinates ... the owner is the business, performs all important tasks, and is the major supplier of energy, direction, and, with relatives and friends, capital." (1983, p. 32). Other authors have noted that the identity of the firm is often that of the founder (Kao, 1989), and it is his/her skills and values that drive the firm (Cooper, 1981; Scott & Bruce, 1980). The owner/founder has a critical role in acquiring the resources, making decisions and motivating the employees, and the role is quite different than that found in older firms (Cooper, 1981; Marchesnay & Julien, 1990). Day to day activities and strategic direction are guided by the "vision" of the creator (Drucker, 1970) or his/her intuition rather than rational planning (Miller, 1983). Feeser and Willard (1990) recently investigated the effect of the background (knowledge, skills, and occupational experience) of the founder on start-up strategy and concluded there was indeed a strong relationship between his/her background and early strategy of a new venture.

Exhibit #2.1

DIFFERENCES BETWEEN NEW AND ESTABLISHED SMALL BUSINESSES

Dimension	Characteristics of New Small Businesses	Characteristics of Established Small Businesses
1- Role of the Manager	dominant, is often founder, skills and values drive firm (Cooper, 1981; Kao, 1989; Feeser & Willard, 1990)	manager is dis-engaged, (Churchill & Lewis, 1983) involved in general activities and planning (Deeks,1972)
	concern with seeking opport-unities (Stevenson & Gumpert, 1985, Timmons, 1985)	concern with solving problems (Churchill & Lewis, 1983)
	acquires resources (Stevenson & Gumpert, 1985)	manages and controls resources (Stevenson & Gumpert, 1985)
2- Resources	limited capital, personal rather than borrowed (Stevenson & Gumpert 1985; Cooper & Dunkelberg, 1986)	capital available, often borrowed (Cooper, 1982)
	few employees perform multiple tasks, knowledge and skills may be limited (Cooper & Dunkelberg, 1986)	experienced employees have defined tasks (Cooper, 1982)
3a- Structure	loose and flexible (Churchill & Lewis, 1983; Kazanjian & Drazin, 1990)	administrative structure in place (Churchill & Lewis, 1983)
3b- Systems	minimal and evolving, little or no planning takes place (Churchill & Lewis, 1983; Sexton & Van Auken, 1984)	established systems, planning frequently occurs (Churchill & Lewis, 1983)
	individualistic and intuitive decisionmaking (Miller, 1983)	established pattern of decision-making (Churchill & Lewis, 1983)
4- Focus	existence, survival and attaining legitimacy (Lippit & Schmidt, 1967; Churchill & Lewis, 1983)	how to change- expand or grow, adapting to environment, achieving uniqueness (Lippit & Schmidt, 1967; Churchill & Lewis, 1983)

In contrast to the dominant role of the owner/founder in new ventures, in established small businesses the founder may no longer be present, and his/her role is less dominant. Churchill and Lewis (1983) suggest that the manager becomes dis-engaged, while Grenier (1972) noted managers in established small businesses more often delegate responsibilities. As Cooper notes, "Typically, the role of the founder changes, with 'doing' activities largely delegated and with the job becoming more managerial in character" (1981, p. 43).

Another area of difference is that new venture owner/founders are typically concerned with seeking opportunities (Timmons, 1985; Bird, 1989), whereas in established small businesses the concern is for solving problems (Stevenson & Gumpert, 1985; Churchill & Lewis, 1983). Consistent with this, in new ventures the owner/founders seek to acquire resources rather than manage and control resources (Stevenson & Gumpert, 1985). In other words, the age of the business has an important effect on the role of the owner/founder (Grenier, 1972; Cooper, 1981; Churchill & Lewis, 1983).

The second dimension that varies between new and established companies is resources. While it has been noted that all small businesses are typically more resource constrained than large firms, among small businesses new ventures face greater difficulties than established small firms in acquiring capital, skilled labor, and facilities (Churchill & Lewis, 1983; Cooper & Dunkelberg, 1986). New ventures lack experience and reputation in the marketplace, which limits their ability to borrow funds. Hence, they are typically financed with personal capital or loans from family or friends (Churchill & Lewis, 1983). This is referred to as a liability of newness (Stinchcombe, 1965); young organizations are at a disadvantage due to lack of experience in their roles as social actors and lack of legitimacy.

In addition to being limited in capital resources, new ventures have fewer employees that often must perform multiple tasks (Churchill & Lewis, 1983). Because the new small business suffers from a lack of experience, employees may not have clearly defined tasks, whereas in an established small business, these will be better defined (Cooper, 1981; Churchill & Lewis, 1983).

The third area where new and established small businesses differ is in their organizational structures and systems. Newer businesses tend to have loose and flexible structures (Churchill & Lewis, 1983; Kazanjian & Drazin, 1990). On the other hand, in established businesses, there is a more clearly defined chain of command, or hierarchy (Grenier, 1972; Churchill & Lewis, 1983). Studies describe new ventures as extremely informal and unstructured (Van de Ven, et al, 1984; Flamholtz, 1986).

Besides differences in organizational structures, the internal systems in new small businesses are comparatively minimal and informal (Churchill & Lewis, 1983), and the decision-making systems in new ventures tend to be more centralized (Grenier, 1972). Characteristically, little planning is conducted by new small businesses (Frank, Plaschka & Roessl, 1989; Sexton & Van Auken, 1984), this at best being cash forecasting (Churchill & Lewis, 1983). Moreover strategy making in "...simple firms tends to be intuitive rather than analytical... there is generally little planning, time horizons are short and they focus on operating matters" (Miller & Friesen, 1984, p. 179). Flamholtz (1986) describes systems in new ventures as "free spirited" in nature.

In contrast, organizational systems in established small businesses are more clearly defined, functional areas have been developed, and decision-making is often more decentralized (Churchill & Lewis, 1983). Production, marketing, and financial systems are in place and this allows the business to focus on expansion or growth. While planning may not be formal, as in the case of large established organization, planning is used as a means to identify problems and to evaluate the implications of current strategy (Cooper, 1981).

Finally, the fourth area of difference is focus. New ventures are typically focused on existence or survival, whereas established ventures are concerned with how to change (Lippit & Schmidt, 1967). The new small business is concerned with attaining legitimacy, whereas established firms are working to develop a reputation, achieve uniqueness, adapt to the environment, or contribute to society (Lippit & Schmidt, 1967; Churchill & Lewis, 1983; Kazanjian & Drazin, 1990).

These differences between new and established businesses would appear to directly affect the decision to internationalize. This decision to sell a product abroad at a young age would be conditioned by the lack of operating experience and the characteristics associated with new firms. On the other hand, the decision of an established business to internationalize would be motivated by different factors steming from a track record of operating experience. It is expected that these distinct characteristics of new and established small businesses will affect their motives for internationalization and types of international strategies.

F - Summary of Chapter II

Record numbers of small businesses are becoming active participants in international business activities. One segment of companies receiving revenues from abroad are new small businesses. New small businesses are important to the U.S. economy because they are major contributors of new jobs and innovations. Presently, there is no accurate government accounting of internationalized new ventures, however there are many published cases of small businesses that have internationalized in their first six years of existence.

There are four significant differences between new and established small businesses: the role of the manager, resources, structure and systems, and focus. It is expected that these differences will play a major role in explaining any differences by age in the motivations for internationalizing, as well as in strategies of implementation.

CHAPTER III

THEORETICAL BACKGROUND

A - Overview

Theories explaining why firms will internationalize flow from two streams of international business literature. The first stream is based on organizational behavioral theories that suggest firms will internationalize when they have established a track record of operations and thereby gained sufficient experience (Aharoni, 1966; Johanson & Vahlne, 1977). The second stream is based on industrial economics, and these theories suggest firms will seek international exchanges after a domestic market position has been established (Kindleberger, 1969) or when a competitive advantage has been achieved (Buckley, 1983). While these general theories do not distinguish between businesses by size, they do explain why established large businesses will invest abroad. Similarly, theories of entrepreneurship explain dimensions of venture creation but have not addressed reasons for internationalization. Integration of theories from international business and entrepreneurship is proposed to further understanding of small business internationalization.

B - Behavioral Theories of Internationalization

Behavioral theories assume that internationalization is an outcome of a sequential process of incremental adjustments to the changing conditions of the firm and its environment (Aharoni, 1966) (see Exhibit #3.1). The internationalization process describing the decision-making behavior of the organization is rooted in work by Cyert and March (1963) and Simon (1957). According to Cyert and March (1963), the major problem of the organization is environmental uncertainty which can be resolved incrementally as the organization gains experience, thereby accumulating standard procedures for resolving conflicts with the environment (Cyert & March, 1963). In other words, risk is reduced through experience or organizational learning.

Exhibit #3.1

GENERAL ASPECTS OF THEORIES OF INTERNATIONAL BUSINESS

Behavioral Theories

Interpretation:	Internationalization is the outcome of a stepwise process designed to resolve uncertainty (Aharoni, 1966; Johanson & Vahlne, 1977) (associated with exporting)
Goal:	To reduce risk and avoid uncertainty
Factors Motivating:	Knowledge gained through experience Perceived threats or opportunities
Process:	Incremental and sequential; stepwise process where risk and commitment increase as organization gains more experience, or learns
Assumptions:	Business is going concern Sequential attention to goals Business has resources and capabilities to gather and evaluate information

Industrial Economics- Classical Theories

Interpretation:	The search for new exchange opportunities will motivate international expansion (foreign investment) (Hymer, 1960).
Goal:	Profit maximization through efficient resource allocation
Factors Motivating:	Limited exchange opportunities in home markets (domestic opportunities exploited) Intense competition in home markets Firm specific advantage; size or market position Industry maturity
Process:	Rational identification and assessment of exchange opportunities in home and domestic markets
Assumptions:	Business is going concern Market position is established Possession of resources and capabilities to gather information, evaluate and take advantage of international exchange opportunities Firms will have sufficient size

Exhibit #3.1 (continued)

Industrial Economics- Neoclassical Theories

Interpretation:	Internationalization is the internalization of markets by diversification or integration, or foreign direct investment (Buckley & Casson, 1983)
Goal:	To achieve efficiency by decreasing risk and uncertainty, or safeguarding assets
Factors Motivating:	Firm specific advantage -- information, skills, technology, product, or resources Environmental uncertainty
Process:	Rational evaluation of transaction costs, and matching of costs to appropriate governance structure in either internal or external markets
Assumptions:	Companies have similar goals, primarily efficiency Businesses have the resources and capabilities to diversify or integrate Limited role of management; management and ownership are separated

Johanson and Vahlne (1977) employed Cyert and March's theory to explain export behavior. For example, domestic problems and environmental changes resulting in a perceived threat, such as higher cost of raw materials, or even non-economic factors, including socio-political or trade policies, might motivate a company to seek new suppliers abroad. The decision to export hinges on experiential learning. In their conception, "The better the knowledge about the market, the stronger the commitment" (Johanson & Vahlne, 1977, p. 28). Hence to avoid risks, a firm will expand outward from home markets to markets that are cognitively and geographically close before entering markets that are physically and culturally distant. For example, a U.S. company based in Montana would be more likely to export to Canada where English is spoken and the geographic distance is close, rather than to sell products to Turkey which is culturally different and a great distance away. This process of internationalization is conceived of as a stage model where commitment increases incrementally. Johanson and Vahlne (1977) view internationalization as a process in which firms gradually increase their international involvement as they gain experience.

Similar to Johanson and Vahlne, Aharoni (1966) views internationalization as a stepwise decision process. In explaining the foreign investment decision process, he describes specific steps: a decision to look, a decision to invest, and commitment to invest as characteristic of the process (Aharoni, 1966). Aharoni argues that Cyert and March's (1963) theory is limiting because it assumes decisions are only problem driven, avoids explicit discussion of environmental effects, and does not recognize the more powerful role of executive management. In his work, Aharoni (1963) notes that leadership factors provide internal impetus for internationalization and suggests external initiatives may be opportunity driven rather than reactions to problems. According to Aharoni (1966), the choice to invest abroad depends on the strength of the initiating force which can be either internal to the firm (executive drive), or external threats or opportunities.

Theories from International Marketing follow Johanson and Vahlne's (1977) view that the decision to export is the consequence of a process of incremental adjustments to the environment where commitment and risk increase at each stage of international involvement from pre-export to direct investment (Cavusgil, 1984). Similar to Johanson and Vahlne (1977), experience becomes a precondition for internationalization.

In sum, behavioral theories assume experiential learning must precede the decision to invest abroad (Aharoni, 1966) or export (Johanson & Vahlne, 1977; Cavusgil, 1984). Furthermore, international activity is defined as a consequence of incremental adjustments to the environment as experience and organizational learning accumulate. Similarly, it is assumed that businesses have the resource capabilities and organizational structures to search for information and identify opportunities or threats. Implicit in this assumption, is a size dimension, which probably arises because theories were developed based on research and inductions about large firms (Aharoni, 1966).

While not intended to distinguish among businesses by size or age, these behavioral theories adequately explain why established businesses, large or small, will decide to invest abroad (Aharoni, 1966) or export (Johanson & Vahlne, 1977; Cavusgil, 1984). It is logical that an older small business will have the structures and systems to identify and evaluate domestic threats or opportunities, which then may stimulate the collection of information about opportunities abroad, in turn resulting in a decision to internationalize. However, the presumption of a track record of experience, and the capability to collect information, evaluate opportunities and threats and implement international business activities would seem to disqualify these theories from application to young small ventures that frequently have few employees, lack market experiences, resources and established decision-making systems. Moreover, as noted earlier, new small ventures differ from established small businesses in that they characteristically have few resources (Churchill & Lewis, 1983), are structured informally (Churchill & Lewis, 1983), and do not proceed in a planned fashion (Frank, Plaschka & Roessl, 1989). Furthermore, the notion of risk or uncertainty avoidance is contrary to the findings of entrepreneurial research where some level of risk-taking is generally agreed to be part of the venture creation process (See, for example; Brockhaus, 1980; Kent, Sexton & Vesper, 1982; Bird, 1989; Gartner, 1985; Vesper, 1980). Because new ventures do not typically plan or avoid risk, these aspects of behavioral theories do not seem to apply.

On the other hand, there are factors in these theories that may apply. For example, bias towards the importance of managerial attitudes, and experience and knowledge (Aharoni, 1966; Reid, 1980) about the decision to export is consistent with the dominant role of the owner/founder in strategy-making in new ventures (Feeser & Willard, 1990; Cooper, 1981). Likewise, McMullan and Long (1990) and Bird (1989) refer to the importance of the vision of the entrepreneur in directing the new venture. Hence, Aharoni's contention that internal initiation to invest abroad may arise from the executive's pursuit of goals may also explain the motives of new ventures. Similarly, it could be argued that new small businesses may have experience in the form of business skills or industry knowledge acquired by the management team in their previous occupational and educational experiences (Cooper & Dunkelberg, 1986) that might be transferred to the new venture.

Therefore, a lack of business operating experience may be compensated for by the experiential knowledge of the management, allowing a young venture to export or invest from start-up. McDougall (1989) proposes this in her discussion of "international entrepreneurship" which she defines as start-ups that are internationalized from the beginning.

Another aspect of behavioral theory that may apply is Aharoni's (1966) suggestion is that an external opportunity may present itself and motivate the business to invest abroad. A major premise of entrepreneurship theory is the pursuit of opportunity (Stevenson & Gumpert, 1985; Bygrave & Hofer, 1991). The entrepreneur identifies and takes advantage of an opportunity. As a motivation for exporting or investing abroad, perceptions of opportunities may well be a cause for young ventures to sell abroad.

In summary, behavioral theories suggest that businesses will internationalize in response to perceived threats or opportunities, which are internal or external to the firm. The process is a logical stepwise approach where commitment and risk abroad increase as the organization gains experience and learns. Because these theories were intended for established companies, they presume businesses have experience and plan incrementally. Therefore, they adequately explain why established small businesses would invest abroad or export. However, these theories have not been tested in the context of young small businesses. Even though the premises of risk avoidance, sequential planning, and operational experience do not apply in this context, motives such as internal executive drive and pursuit of opportunities would seem to explain the decision to export or invest abroad in young firms.

C - Industrial Economics Theories of Internationalization

1 - Classical Theories of Internationalization

According to classical international economic theory, supply and demand drive international exchange activity. Firms, or groups of firms, seek to satisfy unfulfilled or imperfectly filled international exchange opportunities (Hymer, 1960) (see Exhibit #3.1). Internationalization, defined as foreign direct investment, occurs to fulfill an exchange opportunity. Classical theories were intended to explain the behavior of multinational enterprises (MNE's), defined as an enterprise which owns and controls assets in more than one country (Casson, 1979). These theories assume perfect competition and employ equilibrium concepts, equating multinational activity with capital arbitrage between countries (Caves, 1982). This stream of literature attempts to describe a fully integrated theory of investment, production, and distribution. The main motives for direct investment are to gain high returns (profits). The existence of factors of production (resources), low tariffs, large market size, and favorable exchange rates that can create scale economies or minimize costs may encourage a firm to locate production abroad or to export.

Rooted in the Bain (1968) paradigm that strategy follows structure, the structural conditions of the industry environment at home or in the host country, are posited as the main factors contributing to the internationalization of the firm. A business facing intense competition, or mature industry conditions, will be likely to seek exchanges outside of domestic markets (Kothari, 1978). In other words, foreign investment may occur if costs in the host country are lower than in the home country. Further, it is assumed that unique assets built in home markets, such as product differentiation, economies of scale, specific skills or market position are transferrable abroad (Kindleberger, 1969). Hence, in order to overcome the costs of doing business abroad, firms must possess some sort of advantage (Hymer, 1960; Robock & Simmonds, 1983). Dunning (1988) integrates key firm attributes or advantages, with country and industry factors to explain MNE activity in a holistic framework, referred to as the eclectic paradigm. This paradigm notes the importance of organizational activities and advantages in the internationalization decision.

Relatedly, theories of political economy propose a bargaining power model to explain the evolution of the MNE in developing countries (Kobrin, 1987; Vachani, 1991). The outcome of the bargaining relationship between the MNE and host country determines the level of ownership of the subsidiary. Political imperatives can motivate foreign direct investment in this view.

Classical theories assume that international exchange opportunities exist, and that the MNE is a going enterprise. By definition, a MNE is of large size, is established and possesses market power (Caves, 1982). These advantages will allow it to take advantage of international opportunities. On the other hand, a firm lacking in scale economies, absolute cost control, and production differentiation (Dunning, 1974) can only·adapt because it is dominated by its environment.

These classical theories provide explanations for direct investment of large oligopolistic firms with substantial size, market power, and resources. Companies with these advantages, when confronted with market saturation or intense domestic competition, have the ability to identify and exploit exchange opportunities abroad thereby maximizing their profits. In the case of smaller firms, they lack these size and power advantages, leading to a lack of market confidence typically manifested by a higher cost of capital. This in turn, results in fewer resources (Casson, 1983) restricting international expansion capability. More specifically, it has been noted that large firm size and foreign direct investment go hand-in-hand (Caves, 1982, p. 71).

New small businesses are not only constrained by size but also by a lack of market experience. Furthermore, their industry position has not been established because their market acceptance is still uncertain. Hence, motives for internationalization, such as limited domestic market opportunity or meeting the reaction of competitors are not powerful explanations for exporting on direct investment in small firms.

Conversely, small firms have some advantages over large firms in exporting to overseas markets. They can be more flexible in meeting market demands and react more quickly to prevailing market forces (Pezeshkpur, 1979). While foreign governments may offer incentives for companies to invest or import, large firms may forgo smaller market opportunities. Classical theories pre-dated FAX machines and widespread telecommunications. Doing business abroad is not as prohibitive for small firms with few resources as it was in the past. Therefore, host government incentives or market exchange opportunities may well motivate small firms, young or old, to export or invest abroad.

According to these theories, small businesses, either new or established, will be unable to succeed internationally because of their size disadvantage. Small businesses are restricted in their ability to expand internationally because they lack the resources to gather and evaluate information about international opportunities (Mascarenhas, 1986) and to implement strategies of direct investment (Kindleberger, 1973, in Dunning, 1970).

In summary, classical theories of internationalization assume that businesses will invest abroad in response to changes in supply and demand opportunities. Following the goal of profit maximization, only large firms that have achieved market power or some sort of compensating advantages will be able to consider exploiting international exchange opportunities. Because younger firms are lacking in resources, have informal structures, are concerned with survival, and are generally smaller than established firms, these classical economic theories would presume that new ventures would not have the ability to identify or successfully fulfill international exchange opportunities. Nevertheless, opportunities ignored by large firms may motivate younger small firms to export or invest abroad.

2 - Neoclassical Theories of Internationalization

More recent neo-classical economic theories in international business employ transaction cost economics (Williamson, 1978) to explain foreign direct investment. Referred to as internalization theories, they argue that given cost efficiency as the goal of the firm, the organization will internalize markets to decrease risk (uncertainty) or to safeguard assets (Casson, 1975, pp. 45-65). (See Exhibit #3.1.)

These theories explain the foreign direct investment of multinational enterprises which evolved from the internalization of markets for intangible assets or immediate products. In order for the MNE to compete with foreign companies in unfamiliar environments, firms need an intangible asset or "ownership advantage" to overcome the disadvantages of doing business abroad (Hymer, 1960; Kindleberger, 1969). It is posited that MNE's create and possess proprietary assets that they try to exploit internally by extending their organization and control across national boundaries by means of fully owned subsidiaries (Buckley & Casson, 1979; Rugman, 1980). These proprietary assets are referred to as competitive advantages, or firm specific advantages (Hymer, 1960) relative to the firm's competitors (Buckley, 1990) that are based on technology and marketing knowhow (Casson, 1983; Dunning, 1983). To economize on transaction costs, a company will internalize markets for goods and services through vertical integration, or internalize markets for intangible assets (trade name, know how) through horizontal integration (Caves, 1982). The objective is that firms will seek to choose the least cost location for each activity performed. For example, a company seeking to economize on costs of key supplies may acquire a foreign supplier to lower its transaction costs and achieve greater efficiency. The firm is conceived of as a governance structure and the exchange is the unit of analysis.

Internalization theories suggest that investment abroad is motivated by attempts to guard specific assets such as information (Casson, 1983), skills, technology or products, or to gain control over resources (Rugman, 1980; Dunning, 1980) thereby protecting the firm from uncertainty and reducing transaction costs. Implicit in these motives is the rational ability of the firm to assess the costs and benefits of internal or external transaction costs and to implement the decision (Dunning, 1987).

Another form of foreign market entry of the MNE is the joint venture. These include cooperative arrangements (such as licensing) where control of the MNE is incomplete (less than 100%) (Caves, 1982). The internalization model assumes firms must possess a rent-yielding asset which will allow the company to receive profits and reduce costs in foreign markets. This form of internationalization is frequently used in developing countries and transaction costs logic is applied in explaining motives.

Technology licensing is another form of foreign market entry. This offers a means to overcome foreign market entry barriers (Telesio, 1979) and a different way to gain access to exchange opportunities, or to diversify product/markets (Telesio, 1979). Conditions motivating firms to consider licensing include entry barriers and uncertainty avoidance (Contractor, 1985). In addition, size of the firm, competition, degree of product diversification, and accumulated experience in foreign environments will encourage licensing (Telesio, 1979).

Another explanation for foreign investment arises from theories of international diversification of the MNE. These suggest that a company will multinationalize to spread risk by diversifying into new products/markets (Caves, 1982). Motives for diversification range from industry structure variables (Caves, 1982), to organizational activity within the firm (strategy) (Chandler, 1966). Diversification theories argue that efficiency or risk reduction and profits are goals, and that motives to diversify are based on excess production capacity and possession of a competitive advantage.

Taken together, neoclassical theories of internationalization are very useful in explaining foreign direct investment of multinational enterprises. Although these general theories were not intended to discriminate among types of business by size, the assumptions that the goal is cost efficiency and the process of matching transaction costs to governance structures is rational in the choice between internal and external markets, suggests that large established firms will fit this model. These assumptions are not consistent with the evidence of the behavior of new ventures. Research has shown that goals such as survival (Cooper, Woo & Dunkelberg, 1989), or high or low growth (Ginn & Sexton, 1990), may dominate, and that the internal decision processes have been found to be intuitive (Miller, 1983) rather than rational and planned (Rice & Hamilton, 1972).

Neoclassical theories also discount the role of management (Casson, 1983, p. 23) by suggesting managers have a simply reactive and evaluative role, often assuming the owner/founder is no longer present (Buckley, 1983, p. 29). In contrast, research in the entrepreneurship field has found the owner/founder to have a dominant and important role in the creation of the strategy of the firm (Cooper, 1981; Stuart & Abetti, 1987; Feeser & Willard, 1990).

For young firms with limited resources and uncertain market acceptance, the choice between internal and external markets as a basis for vertical integration or diversification is not a particularly relevant explanation. Furthermore, newly-formed firms cannot borrow as cheaply as established businesses which further limits their ability to internalize markets (Casson, 1983, [in Buckley & Casson, 1983]).

On the other hand, even though these theories discount the role of management as an impetus for the decision to invest abroad, and presume the choice will only be made for cost efficiency reasons, it is possible that possession of a proprietary asset and a desire to spread risk might motivate small firms, young and old. For example, high technology start-ups with patented technology may decide to joint venture or vertically integrate to achieve cost efficiencies in supplies or raw materials.

In sum, neoclassical theories suggest that firms will invest abroad (conceived of as diversification or integration) in order to lower transaction costs. Protection of firm specific advantages or avoidance of market uncertainties are primary motivations in this decision. These theories assume the firm has the resources and internal systems to compare and contrast internal versus external transaction costs, and only seem to explain the international business activities of large established businesses. However, motives such as possession of a competitive advantage or desire to achieve cost efficiencies may motivate small firms to joint venture or invest abroad. Neoclassical theories do not seem to apply to new firms that possess limited resources, are under dominant owner/manager control, and face a higher cost of capital.

D - Theories of Entrepreneurship

Theories of entrepreneurship do not specifically address reasons why new ventures will internationalize, but they do provide relevant information about dimension of venture creation, start-up strategies and how new ventures will approach market opportunities. Theories of entrepreneurship have their roots in four disciplines; economics, business history/anthropology, psychology, and sociology. Major dimensions of entrepreneurship identified from these streams are risk-bearing, creation, innovation and general management activities (Sandberg, 1992).

Theories rooted in economics conceive of new venture creation as a new innovation or carrying out of "new combinations" and where growth occurs by creating new demand (or new markets) (Schumpeter, 1942). This is characterized as reforming or revolutionizing production patterns, developing new technologies, new sources or new commodities (Schumpeter, 1952, p. 72). The key focus is the "innovation" and its role in destabilization of pre-existing economic systems. These theories propose that new business firms will be created when an individual envisions an invention, acquires the resources to develop it, creates the enterprise and grows it successfully (Kirchoff (1991) on Schumpeter [1942]). The invention, a new combination of ideas, is implemented when entrepreneurs enter existing markets by creating new firms, resulting in disequilibrium. If successful, new firms "destroy" the structure of oligopolistic markets, thereby creating new wealth (Kirchoff, 1991).

The business history/anthropology tradition offers theories conceiving of new venture creation as a purposeful activity to create a profitable enterprise (Cole, 1965). The process is socio-cultural and it is the role of the venture creator, his/her life, career, and decision process, that provides the basis for theories (Stewart, 1991). These theories focus on actions and activities involved in seizing opportunities, which are a function of accumulation of knowledge, skills and resources (Stewart, 1991). It is the social and cultural factors that determine the skills and resources available to the creator pursuing the opportunity.

Alternatively, work by David McClelland (1961) in the psychology area proposes that new venture creation is a function of the qualities of individuals, in particular those who possess a high need for achievement. These theories argue that it is the individual's psychological characteristics, such as risk-taking propensity and locus of control, that explain why and how new ventures will be born. In this field, cognitive theories recently have gained more credibility than trait theories (Shaver & Scott, 1991). These theories suggest that while economic circumstances, social networks, teams, marketing, finance, and public agency support are important and must often be present, the most critical and necessary element is "...a person, in whose mind all of the possibilities come together, who believes that the innovation is possible, and who has the motivation to persist until the job is done" (Shaver & Scott, 1991, p.39).

Finally, sociology proposes that social systems and their actors will influence creation of productive organizations (Reynolds, 1991). Two alternative models are proposed. One is an equilibrium model evolving from Parsons and Smelser (1956), and the other is rooted in Karl Marx's ideas of class conflict (Reynolds, 1991). These theories note that societies provide the opportunities that new venture creators may take advantage of. Further, it is the features of a person's social context that affect their perception of these opportunities and decision to seize them. These features are life course stage, context in social networks, ethnic identification, and organizational/population industry life course stage (Reynolds, 1991). In other words, society determines the "windows of opportunity" for groups of individuals.

While each of these theories of entrepreneurship offer credible explanations for the creation of new enterprises, none of these theories alone adequately explains why new ventures internationalize. These theories explain motivations for new venture creation but do not explicitly address the choice of internationalization as at start-up. Furthermore, from this discussion it is apparent there is no single unified theory of entrepreneurship and the phenomenon is complex and multi-dimensional (Gartner, 1985). Each of these four disciplines provide dimensions important to the characteristics of new venture creation. Entrepreneurship is a business activity composed of some combination of the following:

a. <u>innovation</u> -- the commercial exploitation of some new products, process, market, materials or organization (Schumpeter, 1942)

b. <u>general management</u> -- the managerial direction of, or resource allocation for business units as a whole (Cole, 1965; Stevenson & Gumpert, 1984; McClelland, 1961; Sandberg, 1992)

c. <u>risk-bearing</u> -- acceptance of risk from the potential losses or failure of a business unit (Palmer, 1971; McClelland, 1961)

d. <u>creation</u> -- creation of a new organization to pursue opportunity (Katz & Gartner, 1988; Gartner, 1985; Timmons 1985; Vesper, 1980); Bygrave & Hofer, 1991)

While not intended to explain internationalization, these entrepreneurial dimensions are present in the creation of new ventures and because internationalized small companies are arguably entrepreneurial, consideration of dimensions from entrepreneurship may explain the motivation of young businesses to sell products abroad. (Sandberg, 1992). For example; the <u>innovation</u> (product, its characteristics and distinct advantages), and market characteristics (growth, size and competition) might be a reason for selecting an international market. On the other hand, <u>general management</u> factors such as cultural background (language, country/community of origin) and experiences (course of study, type of occupational experiences) might be important in the creator's perception and implementation of international opportunities. Likewise, the willingness of the management team to seek or accept <u>risk</u> with regards to international opportunities or domestic threats may motivate international expansion. Finally, factors important to <u>creation</u>, such as the background of founders (level of education, years of occupational experience, age, social status, ethnicity), resources (supply of labor, information, capital or physical facilities) or environmental conditions (economic trends, competition) might influence a new venture creator's propensity to seek opportunities in international markets as part of a venture's start-up strategy.

In sum, even though theories of entrepreneurship were not intended to explain international expansion, the dimensions of these theories; innovation, general management, risk-bearing, and creation may shed light on the causes of internationalization by young businesses.

E - Toward a New Theoretical Model

Both the classical and neoclassical theories from the industrial economics stream of international business literature presume that a business has a substantive history and size. Therefore, explanations for foreign direct investment and exporting are based on assumptions that the firm's goal is profit maximization or cost efficiency, the organizational structure is hierarchical in nature, and a market position has been established, and the owner/founder has a minor role. Firm and industry factors are the major motivators in the decision to internationalize.

Behavioral theories suggest that companies will export or invest abroad when they face some type of environmental threat or opportunity. The internationalization process is an alternative for responding to these threats or opportunities, and it is achieved in an incremental stepwise fashion. Perceptions of environmental conditions are major factors in the decision to internationalize. It is assumed that the business has experience and the capability to implement such a decision.

Theories from entrepreneurship rooted in economics, business history/anthropology, psychology and sociology are useful for explaining factors important in new venture creation process. These theories suggest that individual characteristics (background and experiences), organizational aspects (product characteristics), and socio-cultural and market factors are important in the start-up of new ventures. None of these entrepreneurial theories alone will explain why a young venture will internationalize, nor do they specifically address why a small business would sell its products abroad, but together they suggest factors that might explain the international dimensions of a new venture start-up strategy.

There have been recent efforts to create a theory of "global start-ups", (McDougall, Ray & Oviatt, 1991; Ray, 1991), defined as "international new ventures that from inception engage in international business" (McDougall, 1989, p. 388). This work is based on a grounded theory approach to examining the phenomenon of global start-ups. Global start-ups are conceived of as new businesses that are born international. Their location, sources of suppliers and resources, buyers, and distribution channels are in multiple countries. McDougall, Ray & Oviatt (1991) have proposed that resource availability, global vision of the creator, and some sort of competitive advantage are important to success.

In order to better explain the motivations for small businesses, both young and old to internationalize, a synthesis of theories is needed. Exhibit #3.2 reflects an integration of the theories. Taken together, these theories from international business and entrepreneurship may explain reasons why small businesses, either young or old, decide to internationalize. This linking of theories addresses four distinct levels of analysis: managerial, firm, industry, and environment. By considering all four of these dimensions, a more complete explanation of motivations is possible. To take this one step further, possible motives for internationalization from all the theories discussed herein is presented in Exhibit #3.3.

Exhibit #3.2

INTEGRATED SUMMARY OF THEORETICAL FACTORS CONTRIBUTING TO THE DECISION TO INTERNATIONALIZE

	INTERNATIONAL BUSINESS			ENTREPRENEURSHIP
	Behavioral Exporting, Foreign Investment	Classical Direct Investment	Neoclassical Horizontal and Vertical Integration	New Venture Creation
Management Factors	Management perceptions of threats and opportunities Management expectations Management skills	——	——	Cultural/ethnic background Education and occupational experiences Demographics Vision
Firm Factors	Experience Resources Organizational learning	Firm advantage Size Market position	Firm advantage Specific assets information, skills technology, product, resources	Product characteristics Resources Innovation
Industry Factors	——	Industry structure-concentration, maturity, size	Competition	Characteristics-growth, size Market conditions
Environmental Factors	Market, socio-cultural, political and demographic threats and opportunities	Exchange opportunities domestically and abroad	Uncertain market conditions	Opportunity to innovate

Exhibit #3.3

SUMMARY OF MOTIVATIONS TO INTERNATIONALIZE FROM THEORIES OF INTERNATIONAL BUSINESS AND ENTREPRENEURSHIP

	Behavioral		Classical		Neoclassical	Entrepreneurship
	Export;	FDI	FDI;	International Diversification	Horizontal/Vertical Integration	New Venture Creation
Motives						
Resolve problem, avoid risk	+	+			+	*
Pursue opportunity		+				*
Executive push		+				*
Profit		+	+			*
Political imperative				+		*
Industry structure			+			*
Economize on costs			+		+	*
Competitive advantage			+	+	+	*
Spread risk			+	+		*
Innovation						#
Creation						#
Risk-bearing						#
General management						#

+- Motives for direct investment or exporting as noted from theories of international business
*- Motives stated from theories of international business that may be associated
with the decision of small young and old businesses.
#- Factors in the decision to create new ventures

F - Summary of Chapter III

In summary, theories of international business identify factors that explain why businesses (big or small) will internationalize. Together these theories assume businesses have experience -- they are established in the marketplace, possess sufficient resources and capabilities, are frequently large in size, will follow a logical stepwise progression in increasing commitment and risk, and are attempting to avoid uncertainty. Because young ventures lack experience, are resource constrained, have not achieved market position, frequently do not avoid risk, do not plan formally and the owner/founder plays a dominant role, these theories do not seem to apply in this context. However, many of the variables from these theories have not been tested in the context of small business, and it is quite possible that some of these variables from international business theories may motivate both young and old small businesses to export or invest abroad.

On the other hand, theories from entrepreneurship are useful for explaining motivations for the start-up of a new venture. These theories, with roots in economics, business history/anthropology, psychology and sociology, suggest various factors that are important to the start-up strategy of a new venture. But they do not explicitly address reasons for internationalization or suggest how internationalization might occur in established small businesses. However, four major dimensions identified from entrepreneurship theories -- risk bearing, innovation, creation, and general management, -- may affect the decision to internationalize because small businesses, and in particular new businesses are arguably entrepreneurial.

Taken together, theories from the disciplines of international business and entrepreneurship offer reasons for the internationalization of small businesses of any age. While these theories are helpful, it is important to consider the empirical tests of these variables. The following chapter reviews the literature of international business as it relates to motivations for small business to internationalize.

CHAPTER IV

REVIEW OF EMPIRICAL LITERATURE RELATED TO SMALL BUSINESS INTERNATIONALIZATON

A - Overview

Empirical research in the field of International Business investigating motives to internationalize is based on such theories as behavioral internationalization, internal diversification, political economy and business strategy. The majority of studies on small businesses are from the field of international marketing. These studies investigate management attitudes and perceptions as they relate to the decision to export. Research on factors associated with foreign direct investment and licensing is for the most part focused on large multinational enterprises where major motives are firm advantages, industry structure, and environmental conditions.

B - Empirical Research from International Business

Empirical research investigating factors that motivate businesses to invest abroad or export is evident in several fields employing a range of theories. Because the purpose of this investigation is not to establish the validity of any single theory from any single field, but to identify which variables from different theories will shed light on the motives for internationalization by small businesses, this review of empirical literature includes studies from international marketing, international economics, international diversification, internalization, entrepreneurship, political economy, international business and business strategy. It is important to note that each of these areas define international business activities differently. For example, studies from international marketing consider internationalization to be operationalized as exporting, whereas international diversification and international economics are mainly concerned with foreign direct investment. However, this review broadly defines "internationalization" to include these different types of international business activities and reviews direct investment, licensing, and exporting. This review of 65 studies is not comprehensive, but is representative of the empirical studies that have investigated factors motivating small businesses to internationalize. (For a complete listing of studies covered in this review by author, date, purpose, sample and findings, please refer to Appendix A.)

As noted above, the international business activities of small companies have been researched most often in the field of international marketing. Most of this research concentrates on the propensity of small firms to export (Ursic & Czinkota, 1984; Cavusgil, 1984; O'Rourke, 1985; Pak & Weaver, 1990; Holzmuller & Kasper, 1990); differences between exporters and non-exporters (Tookey, 1964; Langston & Teas, 1976; Bilkey, 1978; Weidersheim-Paul, et al, 1978; Whithey, 1980; Kedia & Chokar, 1985; Johnston & Czinkota, 1982); and factors leading to export success (Tookey, 1964; Sweeney, 1970; Johnston & Czinkota, 1982; Cooper & Kleinschmidt, 1985; Christensen, et al, 1987).

The majority of these studies on propensity to export, differences between exporters and non-exporters, and factors leading to export success have concentrated on managers' characteristics as motives. For example, topics of major investigation include the manager's background (skills, travel experience, education), his/her attitude toward international business, and his/her perceptions of risks, and costs or opportunities in international expansion. This focus is explainable because in the research that is theory based, Aharoni's (1966) and Johanson and Vahlne's (1977) behavioral explanations of the management decision process serve as a foundation for the empirical research (Reid, 1980; Ursic & Czinkota, 1984; Welch & Weidersheim-Paul, 1980).

Collectively, these studies suggest that in small companies a positive attitude of the owner/founder will distinguish between exporters and non-exporters and influence success. Similarly, perceptions of costs, risks, and opportunities also will differentiate between exporters and non-exporters.

Many of these studies have investigated the effect of firm size in the decision to export and in exporting success. The results are inconclusive (Miesenbock, 1988) largely because size has been operationalized many different ways making it difficult for researchers to compare results across studies (Reid,1980). Operationalizations vary from sales breakdowns (Cavusgil, 1984), to employee categories (Bilkey & Tesar, 1977) the term small can mean anywhere from less than $1,000,000 (Johnston & Czinkota, 1982) to less than $20,000,000 in sales (Abdel Malek, 1978; Cavusgil, 1984), or from less than 100 employees (Bilkey & Tesar, 1977) to less than 1000 employees (Kohn, 1988).[8] Despite difficulties in generalizing across studies, some trends are evident. Some studies have found that size doesn't matter in the decision to export (Abdel Malek, 1978; Walters & Saimee, 1990), and several more studies have found that large size is important (Christensen, et al, 1987; O'Rourke, 1985; Gripsrud, 1989; Tyebjee, 1990). There is less evidence that size is related to export success (Cooper & Kleinschmidt, 1985), but results show size does affect international strategy in terms of geographic scope of operations (Gripsrud, 1989; Cavusgil & Naor, 1987) and quality control (Christensen, et al, 1987).

Exploration of international strategy in small businesses has been investigated in recent studies where product characteristics (McDougall,

---

[8]- The most common operationalizational size is number of employees, and consistent with the SBA and Department of Commerce, a small business is one with less than 500 employees (Roy & Simpson, 1981; Withey, 1980).

1989; Gripsrud, 1989) and market research (Sriram & Sapienza, 1990) have made a difference in the type of strategy pursued. However, research on international strategies of small businesses is a very new area of investigation.

Another area where results are inconclusive is the effect of firm age in the decision to internationalize. Company age has been researched in a few studies as it relates to differences between exporters and non-exporters in the decision to sell products abroad. Kirplani and McIntosh (1981), Ursic and Czinkota (1984), and Pinney (1970) found that younger firms were more likely to export, whereas Welch and Weidersheim-Paul (1980) concluded that older firms were more likely to export. Pak and Weaver (1990) concluded age didn't matter. However, none of these studies investigated the effect of age on the decision. Moreover, none of these studies have considered the entrepreneurial characteristics of young firms and the role these might play in such a decision.

In general, studies from international marketing are in many cases applied rather than theory driven. As a result, many of these are descriptive in nature, cross sectional by design and frequently consider only individual characteristics and perceptions as the independent variable related to the decision to export (see Appendix A for further description of studies).

Studies from international business investigating motives for other forms of internationalization (foreign direct investment, licensing, and joint venturing) have employed theories from industrial economics, political economy and internalization. The majority of these studies investigate activities of the multinational enterprise, and many are applications of economic models to existing data bases (see, for example, Kobrin, 1991; Telesio, 1979; Chatterjee, 1990). Few researchers have investigated the decision to license or invest abroad in small firms, although more recent work includes Kohn's (1988) investigation of small firms foreign direct investment activities; LeCraw's (1989) research on small firm counter-trade; Galbraith, et al's (1990) research on U.S. firms locating to Mexico; and Tyebjee's (1990) work on high technology licensing activities of new ventures.

This work on foreign direct investment and licensing of small firms suggests that firm factors, such as competitive advantage (LeCraw, 1989), technological advantage (Gomes-Casseres & Kohn, 1990), and environmental conditions (Galbraith, et al, 1990) are important in the decision to internationalize. Of the studies on larger companies, many firm, industry and environmental variables have been found to be important in the decision to invest abroad. These include the existence of a competitive advantage, scale economies, low entry barriers, and low political risk. (See Caves, 1982 for further discussion of these factors.)

In considering these research studies, it becomes apparent that variables motivating internationalization can be grouped across levels. (See Exhibit #4.1.) Factors influencing the decision to internationalize include management, the firm, and industry variables. Research has shown that the characteristics of the owner/founder contribute to the decision to internationalize (Bilkey, 1978; Reid, 1980). Variables of importance are work and travel experiences abroad (Bilkey, 1978; Johanson & Vahlne, 1978), higher level of education (Simpson & Kujawa, 1974), skills in finance and planning (Cavusgil & Naor, 1987), and personal contacts for information sources (Cavusgil & Naor, 1987). In addition to these characteristics, a favorable attitude of management towards internationalization also has been found to be significant in any decision to go international (Reid, 1980; Kedia & Chokar, 1985; Lindquist, 1990).

Exhibit #4.1

VARIABLES CONTRIBUTING TO DECISION TO INTERNATIONALIZE

Management Variables		
experience	Bilkey, 1978 Cavusgil, 1982 Cavusgil & Naor, 1987	Ali & Swiercz, 1991 Gripsrud, 1989 Pak & Weaver, 1990
education level (high)	Simpson & Kujawa, 1974 Cavusgil & Naor, 1987	
lived/worked abroad	Bilkey, 1978 Langston & Teas, 1976	
speaks foreign language	Bilkey, 1978	
favorable attitude towards internationalization	Reid, 1980 Kedia & Chokar, 1985 Lindquist, 1990 Ursic & Czinkota, 1984 Pinney, 1970 Cavusgil, 1979	Cooper & Kleinschmidt, 1981 Sriram & Sapienza, 1991 Weidersheim-Paul,et al 1978 Gripsrud, 1989 Holzmuller & Kasper, 1990 Withey, 1980
business skills	Cavusgil & Naor, 1987	
personal contacts for information	O'Rourke, 1985 Cavusgil & Naor, 1987	
perceptions of risk/ opportunities	Aharoni, 1966 Simpson & Kujawa, 1974 Bilkey, 1978 Rabino, 1980 Cavusgil & Nevin, 1984	Roy & Simpson, 1981 Kwei Chong & Wai Chong, 1988 Kedia & Chokar, 1985 Sullivan & Bauerschmidt, 1990 Galbraith, et al, 1990
commitment to expansion and growth	Cavusgil, 1982; 1984 Sweeney, 1970	Cavusgil & Nevin, 1981 Lindquist, 1990
Firm Variables		
old age	Snavely, et al, 1964 Welch & Weidersheim-Paul, 1980	
young age	Ursic & Czinkota, 1984 Pinney, 1970 Kirplani & McIntosh, 1980	
life cycle stage	Cavusgil, 1984	
resources- management time	Simpson & Kujawa, 1974	
capital	Bilkey, 1978 Tyebjee, 1990 Lindquist, 1990	Chatterjee, 1990 Reid, 1980 Simpson & Kujawa, 1974

Exhibit #4.1 (continued)

Firm Variables (continued)

skilled personnel	Rourke, 1985 Tesar, 1977	
information	Reid, 1984 Cavusgil & Naor, 1987 Bilkey, 1978	
large size	Tookey, 1964 Horst, 1972 Telesio, 1979 O'Rourke, 1985 Hirsch & Adar, 1974	LeCraw, 1983 Withey, 1980 Gripsrud,1989 Christensen, et al, 1987 Roy & Simpson, 1981
experience internationally	Telesio, 1979 LeCraw, 1989	
specific advantage - technology	Hymer, 1960 LeCraw, 1983 Gomes-Casseres & Kohn 1990 Robock & Simmonds, 1983 Kohn, 1988	Kothari, 1978 Welch & Weidersheim -Paul, 1980 Tesar, 1977 Johnston & Czinkota, 1982 McDougall, 1989
product characteristics	Namiki, 1988 Cavusgil, 1982 Robock & Simmonds, 1983 Ursic & Czinkota, 1984	Gripsrud, 1989 McDougall, 1989 LeCraw, 1989 Cavusgil & Naor, 1987
economies of scale	Caves, 1982 Buckley, 1983 Kobrin, 1991	
cost advantage	Kohn, 1988 Vernon, 1971	
control of resources	Rugman, 1979 Dunning, 1980	
access to distribution channels	Tesar, 1977 Cavusgil & Naor, 1987 Malezadeh & Nahavandi, 1985	

Industry Variables

type	Buckley & Casson, 1979
competition	Telesio, 1979 Kothari, 1978
structure	Dunning, 1979 Contractor, 1985

Exhibit #4.1 (continued)

Environmental Variables

opportunities	Aharoni, 1966	
market opportunities demand/potential	Hymer, 1960 Clegg, 1990 Kohn, 1988	Cooper & Kleinschmidt, 1985 Green & Cunningham, 1975 D'Souza & Eramilli, 1990
resources information	Galbraith, et al 1990 Goodnow & Hansz, 1972 Bilkey, 1978 Cavusgil & Nevin, 1981	
positive government, geo-cultural political, legal, physiographic environment	Goodnow & Hansz, 1972 Clegg, 1990 Hisrich & Peters, 1983	Galbraith, et al, 1990 Malezadeh & Nahavandi, 1985
unsolicited orders	Bilkey & Tesar, 1977 Simpson & Kujawa, 1974 D'Souza & Eramilli, 1990	O'Rourke, 1985 Welch & Weidersheim-Paul, 1980
geographic closeness	Galbraith, et al, 1990 Tesar, 1977 Malezadeh & Nahavandi, 1985	
cultural closeness	Welch & Weidersheim-Paul, 1980 Sullivan & Bauerschmidt, 1990	

Firm factors relevant to small business decision to invest abroad or export include the age of the company, although Ursic & Czinkota (1984) found younger firms more likely to export while Welch & Wiedersheim-Paul(1980) found older firms more likely to export. Similarly, there is no clear evidence on the question of size in small business exporting success (Cavusgil & Naor, 1987). Resources are another factor of importance, Tyebjee (1990) observing that capital is a factor, O'Rourke (1985) noting the importance of skilled personnel, and Reid (1980) stating the importance of information. Finally the life cycle stage of the business has been found to motivate the decision of small businesses to internationalize (Cavusgil, 1984), where firms in later stages are more likely to export than businesses in early stages.

Firm-specific advantage has been investigated in several studies where different aspects have been found to be important. These include marketing skills, technologies and products (Robock & Simmonds, 1983), and unique relations with customers (Marchesnay & Julien, 1990). Various aspects of product characteristics such as patents, development capability and uniqueness (Cavusgil, 1982) and technology (Kohn, 1988) have been found to influence the decision to internationalize.

Industry factors important to the decision to invest abroad are type of industry (Buckley and Casson, 1979), industry structure (Dunning, 1979), and competitive conditions (Welch & Weidersheim-Paul, 1980) where intense competition that limits domestic opportunity (Kothari, 1978) has encouraged internationalization.

Environmental conditions (resources, economic, technological, and legal aspects) both in the U.S. (Galbraith, et al, 1990) and in the host country (Kohn, 1988; Malezadeh & Nahavandi, 1985; Hisrich & Peters, 1983), have been noted as motivators to export or invest abroad. Aspects such as cultural closeness of the foreign market (Welch & Weidersheim-Paul, 1980) and geographic distance have also been noted (Malezadeh & Nahavandi, 1985). Relatedly, several studies have noted that one of the prime motives for exporting is the receipt of unsolicited orders from abroad (Bilkey & Tesar, 1977; Simpson & Kujawa, 1974; D'Souza & Eramilli, 1990).

C - Summary of Chapter IV

Most of the research on small businesses has been done in the field of international marketing where the emphasis has been on managerial perceptions and characteristics as determinants in the decision to export. These studies focus on differences between exporting and non-exporting businesses (the most popular form of international activity for small business [Miesenbock, 1988]), ignoring other forms of international activity such as licensing or joint venturing. Research in other areas of international business concentrate on large businesses, but of those studies on small firms, industry factors, competitive advantage, and environmental factors have been found to be important. The majority of these studies focus on factors contributing to decisions about mode of entry and have not investigated the international strategies and characteristics associated with international business. There have been no studies examining age as a factor distinguishing between different motivations and international strategies.

CHAPTER V

METHODOLOGY AND RESEARCH DESIGN

A - Overview

The purpose of this research is to investigate reasons why small businesses decide to internationalize and to compare motivations based on age at internationalization. General theories of international business suggest that companies will not be able to, or desire to, invest abroad, license, or export until they have gained market experience. For exporting, management factors most often motivate businesses to sell abroad, whereas for foreign direct investment, company, industry and environmental factors affect the decision. None of these theories alone appears to explain small business investment abroad or export based on age; but together they may shed light on this behavior. These theories have not been tested to determine if they explain differences between businesses based on age of internationalization.

On the other hand, theories of entrepreneurship emphasize the role and vision of the owner/founder in new venture start-up strategies. These theories have not been used to investigate the international strategy decisions of new ventures. Because no single theory from international business or entrepreneurship fully explains why young and old small businesses will internationalize, it makes sense to combine key elements of these theories to test the research questions proposed by this study. This is similar to Merton's (1962) mid-range theory which is designed to guide empirical inquiry intermediate to general theory and appropriate for specific classes of social behavior. As such, the framework developed for this investigation combines four levels of variables (management, firm, industry, and environment) which were derived from neoclassical, classical and behavioral theories of international business, and theories of entrepreneurship. Other researchers in international business have used this approach (Chatterjee, 1990; Geringer, et al, 1989).

As noted earlier, empirical research on multinational enterprises has concentrated on identification of company and industry structural variables that motivate foreign direct investment of large businesses, many of which are old. Research in international marketing has focused on management variables and perceptions of the environment to explain differences between exporting and non-exporting small businesses. The limited research in entrepreneurship related to international activities has concentrated on characteristics of international entrepreneurs, differences motivations to internationalize between exporters and non-exporters, and international strategies (Namiki, 1988; McDougall, 1989). In short, there is a gap in empirical research on international activities of small companies that considers different levels of factors motivating foreign market entry and takes into account the age of the business at the time of the decision. To guide this research, four questions are proposed:

1. What factors motivate young small businesses to engage in international business activities?

2. What factors motivate small businesses to engage in international business activities?

3. Do reasons for internationalization vary significantly by age of small business?

4. Do international strategies vary by age of small business?

The next section proposes a conceptual framework and develops hypotheses for exploring these questions.

B - Conceptual Framework and Variables

The concepts composing this framework arise from a synthesis of empirical and theoretical literature from international business and entrepreneurship. There are five main constructs; Contextual Factors, Strategy, Performance, Regional Environment Conditions and Host Country Conditions (See Exhibit #5.1). Contextual factors are composed of management, firm and industry elements, and they are critically important to determining patterns of strategy variables for a business (Morrison & Roth, 1989, p. 42; Buckley & Casson, 1978, p. 7). International Strategy is composed of exchange activities whereby the business uses resources and skills to differentiate products/services to serve both U.S. and international customers (Morrison & Roth, 1989, p. 30). These activities include the decision to internationalize, a mode of foreign market entry (export, licensing or contracting, or foreign direct investment) (Buckley, 1989; Akther & Friedman, 1989), and degree of internationalization (geographic scope [Thorelli, 1987; McDougall, 1989] and commitment [Cavusgil, 1984] to international activities).

The result of these behaviors is some type of business performance. Performance is an outcome variable descriptive of an organization's progress toward its goals or activities relative to competitors. Performance of an internationalized firm is frequently measured in financial terms (D'Souza & Eramilli, 1991; Geringer, Beamish, daCosta, 1989) where sales growth and profits from domestic, foreign, and overall operations are considered.

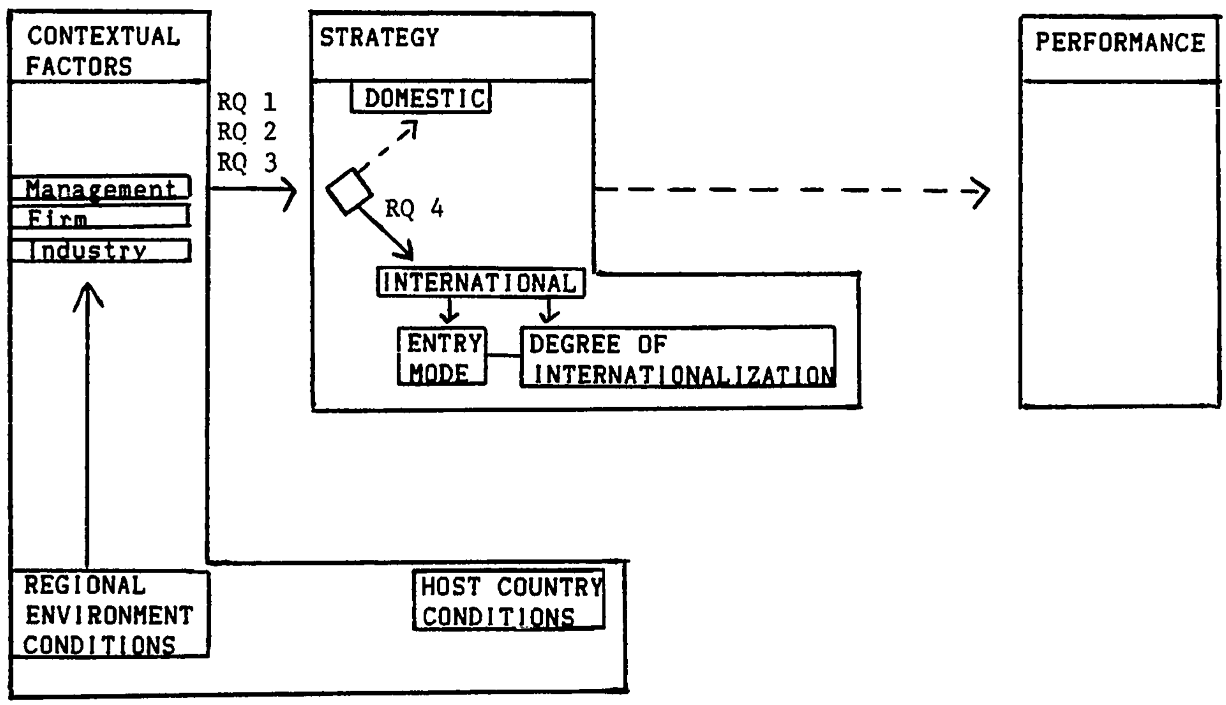
Influencing these three constructs are two sets of environmental conditions: regional environment conditions and host country conditions. Regional environment conditions include local economic, political-regulatory and demographic factors (Buckely & Casson, 1978, p. 7). These are perceptions of the immediate environment domestically (in this research, U.S.) as it affects the business. Host country conditions are composed of economic, political-legal and cultural (Goodnow & Hansz, 1972; Mascarenhas, 1982) opportunities and risks.

For this research, the constructs of interest are contextual factors, regional environment conditions, host country factors, and international aspects of strategy (these are indicated by solid lines on Exhibit #5.1). Contextual factors will be the independent variables, and international strategy (foreign market entry mode and degree of internationalization -- geographic scope and committee) will be the dependent variables. The deliberate narrowing of this project to these aspects does not suggest performance is not an important element. To the contrary, performance is important when predicting the successful entry and effectiveness of international strategy over time, and it is highly related to the other two constructs. Furthermore, it is important to understand the antecedents to internationalization before examining performance outcomes. In addition, inclusion of this dimension would significantly increase the scope of this project and require longitudinal measures. Instead, descriptive performance information will be collected at this time, and questions relating to the impact of international strategy on performance will be investigated at a future time.

Furthermore, it is not the intention to investigate the cognitive processes involved in the decision to internationalize. While an understanding of how owner/managers gain information, evaluate, interpret and act on international opportunities is important to our knowledge of the behavior of young and old small businesses at the time of internationalization, an exploratory investigation to identify the general categories of factors related to the decision is a necessary preliminary step.

EXHIBIT # 5.1

CONCEPTUAL FRAMEWORK



Similarly, extensive understanding of the regional environment and host country conditions as they affect international strategy are very important. However, to collect comprehensive measures of economic, political-legal and cultural conditions in several host countries, in addition to acquiring measures of economic, political-regulatory and demographic conditions across the U.S., is beyond the scope of this research. Therefore, perceptual measures and secondary data will be collected for these two constructs to provide some perspective on external aspects affecting the decision to engage in international business.

Finally, the domestic and overall strategy of a small business is integrally related to its international strategy. The similarities, differences, and relationships between these strategies are questions worthy of investigation and will be pursued in a future research project.

C - Hypotheses

The purpose of this study is to investigate which factors motivate internationalization of small businesses. Theories of international business offer reasons why established small businesses will export or invest abroad, and theories of entrepreneurship explain how new ventures are created and develop start-up strategies. Research questions have been developed to investigate the reasons for internationalization in small businesses considering the effect of business age at the time of the decision. It has been argued that no single theory fully explains motivations of small businesses to internationalize, therefore consistent with these research questions, hypotheses have been developed that test application of theoretical constructs from the fields of entrepreneurship and international business.

Hypotheses provide a link between empirical findings and theory predictions about values of units of a theory in which empirical indicators are employed for the named units in each proposition (Dubin, 1978). Given the purpose of this study is to describe factors and analyze their association with each other rather than to predict, the hypotheses are analytical rather than predictive (Sekaran, 1984), requiring that these hypotheses focus on differences between groups and relationships and associations of factors to these groups. Because the major questions to be addressed in this research deal with differences in motivations of small businesses at the time of internationalization and any possible differences, hypotheses address aspects of young small business behavior that might be expected to differ by age. Four sets of hypotheses are proposed relative to the research questions stated earlier in this discussion and are summarized in Exhibit #5.2.

Research Question #1. What factors motivate young small businesses to engage in international business activities?

Theoretical and empirical research from entrepreneurship notes that the role of the manager is prominent in young small businesses (Cooper, 1981; Churchill & Lewis, 1983). For example, the start-up strategy of a young company is highly related to the personal background and experiences of the owner-founder. Typically, young ventures lack resources (Cooper & Dunkelberg, 1986) and are characterized by an undefined organizational structure, informal procedures, and flexible policies (Churchill & Lewis, 1983). Due to their age, these businesses lack market experience and are often in the process of refining product characteristics and strategies, relying strongly on the vision of the owner/founder (Cooper, 1981). Given the dominant role of the manager in young ventures and consistent with theories from entrepreneurship, it is expected that management level variables will be the most frequently mentioned by young businesses as reasons for internationalizing.

Hyp. #1 -- In young small businesses, management factors will provide greater explanation for their reasons to internationalize than will firm, industry, regional environment, or host country factors.

Research Question #2. What factors motivate old small businesses to engage in international business activities?

Old small businesses are characterized by established patterns of decision-making (Churchill & Lewis, 1983), experienced employees (Cooper, 1981) and identifiable administrative structures (Churchill & Lewis, 1983). By virtue of their age, these businesses have a track record of experience and product performance on which to base strategic decisions. Systems and planning more frequently occur and growth or expansion are typical goals (Churchill & Lewis, 1983; Lippit & Schmidt, 1967). The benefit of experience and organized procedures provides knowledge and information about industry conditions, and their track record of operations establishes their position in an industry. Given the importance of the characteristics of older small businesses, and consistent with theories from international business that assume experience, resources and capabilities will drive internationalization, it is expected that firm level variables will be the most often mentioned by these businesses as reasons for selling abroad.

Hyp.# 2 -- In old small businesses, firm factors will provide greater explanation for their reasons to internationalize than will management, industry, regional environment, or host country factors.

Research Question #3. Do reasons for internationalization vary significantly by age of small business?

Young small businesses are characterized by a dominant role of the owner/founder in determining the direction of the business (Cooper, 1981; Churchill & Lewis, 1983). Research has shown that owner/founders are opportunity-driven and optimistic in the face of obstacles encountered in creation of their enterprises (Timmons, 1985). Managers in younger ventures will frequently be the founders, which in itself results in a different type of emotional investment (Bird, 1989). Strategies of young businesses are highly related to the background and experiences of the founder (Feeser & Willard, 1990), and particular product/market choices are often individualistic (Miller, 1983) and guided by the vision of the owner/founder (Cooper, 1981; Kao, 1989).

In established small businesses the role of the manager is less dominant and more detached (Churchill & Lewis, 1983). While the characteristics, values and skills of the manager of an established small business cannot be separated from the company's strategy (Hambrick & Mason, 1984), non-founders are better able to delegate responsibility and listen to subordinates than founders (Dean & Meyer, 1989). Hence strategies in an older small business are more likely to be the result of planning, market analysis, and outsider input (Robinson & Pearce, 1984) than purely personal preference. Following this logic, the younger the business at internationalization, the more significant management factors will be as motivators for internationalization. It is therefore hypothesized that:

> <u>Hyp. 3a</u> -- Age when internationalized will be negatively associated with management factors.

Young small businesses are resource constrained and experienced employees, and capital (Churchill & Lewis, 1983; Cooper & Dunkelberg, 1986). As such, their goals will be to acquire resources rather than manage and control resources (Stevenson & Gumpert, 1985) and to establish market legitimacy rather than to expand and grow (Lippit & Schmidt, 1967). Similarly, younger small businesses lack a track record of experience and therefore will be less likely to have achieved a specific competitive advantage or clearly defined market position (Casson, 1983).

On the other hand, old small businesses will be more likely to have administrative procedures in place (Churchill & Lewis, 1983), experienced employees, and resources (Cooper & Dunkelberg, 1986). These businesses will be more likely to have established some type of competitive advantage -- brand name recognition, market position (niche), or proprietary technology. As such, availability of resources or possession of competitive advantage would be logical reasons for internationalization of old small businesses (Dunning, 1980; Robock & Simmonds, 1983, Casson, 1983) and would be less likely for young small businesses. Given differences in the characteristics of these businesses based on age, it is expected that firm factors as reasons for internationalizing will be more prominent for old than young small businesses. In other words, the older the business at internationalization, the more significant firm factors will be as reasons for internationalizing. It is therefore hypothesized that:

> Hyp. #3b -- Age when internationalized will be positively and associated with firm factors.

While young and old small businesses will be unlikely to have a dominant industry position due to their size disadvantage (Casson, 1983) or to succeed internationally, performance aside, industry conditions such as intense competition, mature markets or slow growth may indeed motivate a small business to sell its products abroad. For young companies, owner/founders are less likely to be constrained by the perceived risks or barriers of an industry (Timmons, 1985,). In fact, new firms are creating disequilibrium by their innovation and entry (Schumpeter, 1942). Nevertheless, no business has unlimited strategic flexibility in an industry environment (Harrigan, 1985). Still young firms are less constrained by these industry conditions and behave more aggressively than old firms that may be more set in their ways (Covin & Covin, 1990). In addition, due to experience in the marketplace, old small businesses will be more likely to have established a niche or industry position. This experience will provide them with the benefit of information (organizational learning) and resources which will allow them to identify and respond to industry structure changes, competition, or growth. As reasons for internationalization, industry factors would therefore be more important to old than young small businesses. In other words, the older the business, the more significant industry factors will be as reasons for internationalization. It is therefore hypothesized that:

> Hyp #3c -- Age at internationalization will be positively associated with industry factors.

The characteristics of new small businesses, such as lack of formal systems, resources and structure (Churchill & Lewis, 1983), and less management time limit their ability to keep track of and analyze domestic conditions (Dollinger, 1985), hence the effect of these on young small businesses will be speculative. Because of limitions, these businesses will have less capability to collect and evaluate information about foreign market opportunities and trade policies. On the other hand, old small businesses will have the advantage of experience in operations, giving them first hand experience of the effects of domestic economic, demographic, and regulatory factors on their businesses. As such, favorable or unfavorable domestic conditions may be a likely reason for old small businesses to consider international expansion (Aharoni, 1966; Johanson & Vahlne, 1977). In addition, old small businesses will have the organizational structure and capability to collect information about international opportunities. Because of these differences, it would appear that perceptions of their immediate regional environmental conditions would be more likely to motivate old than new small businesses. In other words, the older the business at internationalization, the more significant regional environment conditions would be as a reason for internationalization. It is therefore hypothesized that:

<u>Hyp. #3d</u> -- Age at internationalization will be positively associated with regional environment factors.

Given that perceptions of international risk are related to experience in markets (Johanson & Vahlne, 1977), it is suggested that host country conditions affecting the decision to internationalize will be different for young and old small businesses. Young small businesses will lack information about market potential, size and distribution channels due to their lack of operating experience (Churchill & Lewis, 1983). As a result, their decision to sell products abroad will be more often based on the personal perceptions of opportunities or contacts of the owner/founder (Cooper, 1981) or unsolicited orders from abroad. Old small businesses will be more likely to cite reasons such as favorable market conditions, growth, or demand resulting from information obtained (Johanson & Vahlne, 1977; Thorelli, 1987). As theories suggest, the market experience of established small businesses will provide them with more information and knowledge of host country conditions (opportunities and barriers) (Johanson & Vahlne, 1977). Therefore it is expected that older businesses will be more likely to cite host country conditions as reasons for internationalization than younger companies. It is therefore hypothesized that:

<u>Hyp. #3e</u> -- Age at internationalization will be positively associated with host country factors.

<u>Research Question #4.</u> What are the similarities and differences across new and established small businesses in their international strategies?

Both young and old businesses are constrained by their small size (employees) and lack of market power (Galbraith & Stiles, 1983; Casson, 1983, others). As a result, horizontal integration or diversification will be difficult strategies for these businesses to implement. Even though there has been research that shows small businesses do invest directly in foreign countries, these small businesses are relatively few in number (Kohn, 1988). In other words, it is likely the most popular entry mode for these businesses will be exporting and that there will be no significant difference in foreign market entry mode based on age of internationalization of small businesses. It is therefore hypothesized that:

> Hyp. #4a -- Age will not be positively associated with any particular mode of entry.

Young small businesses are characterized by their lack of resources, both human and financial (Churchill & Lewis, 1983), and a lack of market experience and product acceptance. As a result, it is less likely they will be able to make a significant commitment of resources or people in foreign markets. Furthermore, these same business characteristics suggest young small businesses will not have the capability to sell a wide variety of products in many countries or internationalize over a broad geographic area. In other words, the older business is at internationalization, the more likely they will be to have a higher degree of internationalization, geographic scope of operation and commitment than younger small businesses. It is therefore hypothesized that:

> Hyp. #4b -- Age will be positively associated with degree of internationalization (commitment and geographic scope) in small businesses.

A summary of all hypotheses are found in Exhibit #5.2. Expected outcomes of hypotheses testing are presented in Exhibit #5.3, 5.4 and 5.5. The next section discusses the research design that will be employed in this investigation.

Exhibit #5.2

SUMMARY OF RESEARCH QUESTIONS AND CORRESPONDING HYPOTHESES

Research Question #1. What factors motivate the decision of young small businesses to engage in international business activities?

> Hyp. 1- In young small businesses, management factors will provide greater explanation for their reasons to internationalize than will firm, industry, regional environment, or host country factors.

Research Question #2. What factors motivate the decision of old small businesses to engage in international business activities?

> Hyp. 2- In old small businesses, firm factors will provide greater explanation for their reasons to internationalize than will management, industry, regional environment, or host country factors.

Research Question #3. Do reasons for internationalization vary significantly by age of small business?

> Hyp. 3a- Age at internationalization will be negatively associated with management factors.
>
> Hyp. #3b- Age at internationalization will be positively associated with firm factors.
>
> Hyp #3c- Age at internationalization will be positively associated with industry factors.
>
> Hyp. #3d- Age at internationalization will be positively associated with regional environment factors.
>
> Hyp. 3e- Age at internationalization will be positively associated with host country factors.

Research Question #4. What are the similarities and differences across young and old small businesses in their international strategies?

> Hyp. #4a- Age at internationalization will not be positively associated with any particular mode of entry.
>
> Hyp. #4b- Age at internationalization will be positively associated with degree of internationalization (commitment and geographic scope) in small businesses.

Exhibit #5.3

EXPECTED IMPORTANCE OF FACTORS MOTIVATING THE DECISION TO INTERNATIONALIZE BY AGE OF SMALL BUSINESSES

Factors	Hypothesis #1 Young	Hypothesis #2 Old
Management	+	
Firm		+
Industry		
Regional Environment		
Host Country		

****

Exhibit #5.4

SUMMARY OF EXPECTED RESULTS FROM HYPOTHESES TESTING FOR SIMILARITIES AND DIFFERENCES IN REASONS FOR INTERNATIONALIZATION BY AGE OF SMALL BUSINESSES

Factors	Business Age
Hypothesis 3a- Management	negative
Hypotheses 3b- Firm	positive
Hypothesis 3c- Industry	positive
Hypothesis 3d- Regional Environment	positive
Hypothesis 3e- Host Country	positive

Exhibit #5.5

SUMMARY OF EXPECTED RESULTS FROM HYPOTHESES TESTING FOR SIMILARITIES AND DIFFERENCES IN INTERNATIONAL STRATEGIES BY AGE OF SMALL BUSINESS

International Strategy	Business Age
Hypothesis 4a- Entry Mode	not significant
Hypothesis 4b- Degree of Internationalization	
Scope	positive
Commitment	positive

D - Research Design

The goal of this research is to develop a descriptive scheme and explore possible relationships between variables (Denzin, 1978, pp. 58-63). The design selected was a non-experimental static group comparison survey, which is suitable for exploratory investigations where a phenomenon is to be described (Denzin, 1978). This design will allow for comparison across two types of small businesses, young and old, at age of internationalization. A cross-sectional mail survey was the major source of data gathering.

This investigation was carried out in four phases: secondary research, pilot studies, and mail survey, and data analysis. Multiple methods of data gathering, or a hybrid methodology (Harrigan, 1983) utilizing some field interviewing, mail survey, and archival data collection was employed. A hybrid methodology allows for more generalizability, as well as for more detailed observations and interpretation of individual experiences (Harrigan, 1983).

E - Sampling Plan

To allow for maximum generalization, a national stratified sample was taken from several listings of small businesses. A national sample avoids any bias due to economic variations in certain areas of the country. Given the descriptive nature of this study and need for wide geographic diversity, stratification was chosen as an efficient means to achieve proportional representation (Kidder & Judd, 1986) across the various geographic regions of the U.S. The sample was stratified based on the ten Small Business Association geographic regions.[9] This stratification was an acceptable means to achieve geographic representation and deemed to be a reasonable way to identify differences in the population before sampling (Fowler, 1988).

A second consideration taken into account for sampling was the present age of the businesses. Because the focus of this study was age at internationalization, and there was no way to determine this from any of the published lists, a higher proportion of young internationalized businesses were sampled. It was felt that this additional stratification would insure a high enough response by young internationalized business to allow for comparison to the old group.

The sample was composed of 1076 internationalized small manufacturing businesses which were identified from six different published lists (see Appendix B for a description of these publications). The reason for this diversity in lists was to avoid sample bias which could occur when relying on one list, and because there is no single comprehensive listing of internationalized small businesses. Moreover, there was no accurate count of the total number of small manufacturers

[9]- Regarding sample stratification, the Small Business Administration has classified small business activity in the U.S. into ten regions (see for example, The State of Small Business, 1990, Appendix, A). To insure adequate geographic representation, questionnaires were mailed to each of the ten regions identified by the SBA.

that are internationalized. The SBA (1986) estimated approximately 90,000 to 100,000 small businesses were engaged in exporting (Report to the President, 1988), but these numbers do not distinguish between service and manufacturing firms. However, using the estimate of 100,000, this represents approximately two percent of the five million small business establishments[10] (State of Small Business, 1990). If we estimate that the proportion of the 485,274 small manufacturing establishments involved in international business are the same as above, we can estimate that approximately two percent of the these, or 9,705 small manufacturing establishments, are internationalized. Using these estimates, this study will survey about eleven percent of the total number of internationalized small business manufacturing establishments. (See Exhibit #5.6.)

Exhibit #5.6

ESTIMATED POPULATION OF INTERNATIONALIZED SMALL BUSINESSES

Estimated number of small businesses establishments in U.S.*	5,004,336
Estimated number of small manufacturing establishments**	385,247
Estimated number of internationalized small manufacturing establishments***	9,705
Number of internationalized small manufacturing establishments surveyed in this research	1,076

*- State of Small Business, 1990, p. 82, based on 1986 estimates
**- State of Small Business, 1990, p. 82
***- An estimate, based the number 100,000 internationalized small businesses, as a proportion of the number of small business establishments, which is two percent. It is estimated the proportion of internationalized small manufacturers would be the same.

10- The SBA defines establishments as those businesses with a single physical location (State of Small Business, 1990, p.82). Establishments differ from enterprises which may be an aggregation of many establishments. It is estimated that the majority of all establishments employ less than 500 employees.

Identification of small businesses by age has been done frequently in the field of entrepreneurship research (Sandberg, 1984; McDougall, 1987). However, there is wide variation as to what age constitutes new. The range is five years (Slevin & Covin, 1987; Goslin, 1987) to twelve years (Slevin & Covin, 1989), with the majority of studies using eight years or less (Sandberg, 1984; McDougall, 1989). Consistent with research using the SBA data base (Kirchoff & Phillips, 1988) and other studies (Olofsson, et al, 1987; Brush & VanderWerf, 1992; Brush & Peters, 1992), it was decided to use six years as the cut-off between young and old.

The size criteria for the sample was consistent with the U.S. Office of Management and Budget classification, where small businesses are identified as those having less than 500 employees (see footnote number one). The decision to limit this sample to non-diversified independently-owned small businesses is consistent with other research where the objective is to maintain some homogeneity in a sample (Sexton & VanAuken, 1984; Denzin, 1978). Other researchers in the field of Entrepreneurship have followed this practice (McDougall, 1987; Slevin & Covin, 1989; 1990; Feeser & Willard, 1988; Brush & Peters, 1992).

There are several precedents in entrepreneurship research for selecting samples using published directories such as Dun and Bradstreet's Directory (McDougall, 1987) or the Corptech Directory (Keeley & Roure, 1989; Tyebjee, 1990). Because there is no single published listing of internationalized small businesses, the decision was made to use multiple directories to identify a sample for this research.

In order to be sure the respondent group included small businesses that had internationalized at an early age, all new businesses that could be identified were surveyed. Old businesses were randomly chosen by selecting one business per every three pages of each directory used (Fowler, 1988).

This research is limited to manufacturing firms for three reasons. First, it is more difficult to measure exchanges, firm-specific advantages and other international activities of service businesses. Second, statistics and records maintained by the Small Business Administration are more readily available for products than for services (The State of Small Business, 1989) and this allows for background and secondary information to be compared to primary data. Finally, small manufacturing businesses produce more jobs and produce more output per hour than small service businesses (The State of Small Business, 1989, pp. 42, 67). The choice of an all-multiple rather than few-industry study was made because it was anticipated that there might be too few internationalized small businesses that internationalized at an early age in any single or limited set of industries.

This sample is also limited to independent small businesses that are not part of larger organizations. This excludes new businesses started by larger parents and divisions or branches of large companies. It is expected that branches or divisions of larger companies will have greater access to financial, human, and informational resources. Hence, this study is deliberately narrowed to provide some homogeneity within the sample (Ireland & VanAuken, 1987).

F - Secondary Data Collection

In order to understand the general economy of the different U.S. SBA regions, background information total exports and top country of export by region, number exports and free trade zones were collected from secondary sources. These sources included industry experts, government officials, and published materials. The purpose of this data was to put the survey into context and allow for comparisons of results. This information is summarized in Appendix C-1.

Government officials and trade representatives were telephoned to inquire about policies and assistance for small firms that wished to internationalize. Major sources were the SBA, the Department of Commerce, and State Offices of International Trade. (This information is summarized in Appendixes C-1 to C-4.)

Recent statistics show that eighteen federal agencies are involved in export promotions while twenty-three state governments are spending $50 million a year supporting twenty-seven technology extension centers (Penner, 1992). Despite these extensive programs, only one half of the potential users are aware of the export promotion programs and only one in four actually use them (Seringhaus, 1991). Services most frequently offered include marketing, procedures and documentation, publicity, direct training, product adaptation and guidance for financing (Seringhaus, 1991).

State level initiatives generally are designed to create awareness of international opportunities. These programs focus on specific industries, such as computer or seafood, or particular countries. For example, the Bureau of Domestic and International Commerce in Pennsylvania, a state subsidized agency, has established offices in Japan and Europe to promote exports. These offices abroad seek to identify competition, evaluate market information, and establish contacts for small businesses. An official of BDIC notes;

> "Small businesses are sometimes reluctant to deal with government agencies because of the bureaucracy. Government agencies often lack visibility for their positive efforts, and could use a more effective marketing strategy."

Some states such as Illinois are cutting back on export promotion activities due to budget constraints. These cutbacks would appear to hurt U.S. small businesses abroad. The National Association of Manufacturers notes that the U.S. spends 50 cents per capita on export promotion compared with four dollars in France and five dollars in Japan (Penner, 1992, p. 70).

. The Small Business Foundation of America is one of many new associations founded to assist small businesses. A representative of SBFA stated:

> "Businesses do not perceive information about foreign markets accurately, but see risks and more management work when this is not necessarily the case. The visibility of resources and information provided by government agencies is poor -- more marketing of programs is needed."

This official indicated that lack of financing and information were the two most common problems, while the development of a central government information system was the most frequent request by companies in the organization.

General information about host country conditions was also collected. Favorable and less favorable market and business opportunities for small businesses were reviewed by using expert sources and periodicals from both the Organization for Economic Cooperation and Development (OECD) and the World Bank. Both organizations frequently collect this type of data. The countries accounting for the most growth in foreign exports are noted in Appendix C-5).

G - Pilot Interviews

The purpose of the pilot studies was to refine constructs and to be sure they had construct validity (Kidder & Judd, 1986). The intent was to assess how well the items (variables) measured the constructs (Zeller & Carmines, 1980, p. 78). Specifically, factors leading to international business activity and types of international business activity were investigated. These interviews served to test questions for understandability and to narrow the scope of this investigation by eliminating variables of peripheral importance. Methodology employed followed field research techniques to the extent that the conceptual framework proposed was verified (Kidder & Judd, 1986, p. 180). Businesses selected for this phase were chosen for their representativeness in terms of age and geographic location. Five pilot interviews were conducted: three with businesses that internationalized within the first six years, and two that internationalized at a later age. These companies were selected from different industries and ranged in size from 45 to 300 employees, and in gross revenues from $700,000 to $35 million. These interviews were conducted either in person or by telephone and lasted between ninety minutes and two hours. Questions were unstructured and non-disguised. (See Appendix D for brief description of each of the companies interviewed for pilot interviews.) The purpose of these pilot interviews was to identify variables of importance and to refine constructs. The two main questions addressed reasons why these businesses internationalized and how they implemented this strategy. (Exhibit # 5.7 reflects a summary of the main findings of these studies.)

Pilot interviews were used to identify important factors and eliminate variables as well. Variables were eliminated if they were not affirmed as important or did not appear to vary widely by age at time of internationalization. On the other hand, new variables were added. For example, two of the businesses noted relationships with customers and clients were quite important. The president of a microfiche products manufacturing company said: "Relationships are everything; reciprocity was a prime concern in our decision to internationalize." A similar comment was made by the president of an electronic dermatology products manufacturer who stated his personal experiences and contacts were factors in the decision to sell products abroad.

Exhibit #5.7

SUMMARY FINDINGS FROM PILOT INTERVIEWS

n=5

1. Main reasons for internationalization:

    - to create or maintain personal relationships
    - the opportunity offered itself
    - lack of competition in product/market abroad
    - always intended to sell products abroad

2. How implemented international strategy:

    - entered single market
    - direct or indirect export

Another variable added was the intention to internationalize. Three of the five presidents stated that they had always intended to internationalize. For instance, the president of a twelve-year old computer software company that first sold abroad at age five stated: "I always envisioned my business as international from the start. In fact, the first employee I hired was a British citizen. I just wish our business had sold products abroad sooner than five years into our operations." This view was supported by a new manufacturer of electronic dermatology products. He said: "I knew there was a market abroad, and I never considered anything but international sales".

In this limited pilot sample, those that internationalized at a young age were strong in their statements about "opportunities." The president of a four-year old golf club company, that internationalized at age one, indicated the company internationalized when the "opportunity presented itself." Japanese buyers had requested they sell their golf products abroad. Likewise, the dermatology products manufacturer felt there was a big "opportunity in Europe" because the competition there was weak.

As far as international strategies were concerned, all the businesses began selling their products in a single market, and entered these markets by exporting. Two businesses exported directly and three exported through agents.

<u>H - Cross-sectional Survey</u>

A cross-sectional survey was the major method of data gathering. The survey was developed inductively, and previously used measures and questions were employed when possible. Pre-testing was carried out to check the questionnaire for understandability and content validity (see Section J of this chapter for a summary of validity and reliability issues). The instrument was tested on a group of six academic experts and three practitioners who reviewed and commented on the clarity, order of questions, comprehensiveness, organization, and overall presentation of the questionnaire. Based on recommendations and comments from this expert panel, revisions were made. After the revised questionnaire was completed by two of the pilot interviewees, these individuals were asked to evaluate the clarity, comprehensiveness and ease of answering the questionnaire. Revisions were once again made in the process consistent with survey research methodology (Fowler, 1988). (A copy of the final questionnaire is included in Appendix E-1.)

The final version of the questionnaire included questions covering four general areas: firm demographics (location, size, products, performance), factors affecting decision to engage in international business activity, types of international business activities, and opinions about regional environment and host country conditions. Where possible, previously used measures were employed. Multiple measures were used for each of the constructs noted in the conceptual framework (Denzin, 1978). (A description of measures and operationalizations follows in the next section.)

Efforts to increase the response rate were taken by including a polite cover letter, offering to send respondents a copy of the summary results, and mailing of reminder postcards (Hinrichs, 1975) (see Appendix E-2 for copy of cover letter). To encourage a higher response, the questionnaire was mailed during a non-holiday period and return postage was pre-paid. The questionnaire was six pages long consistent with findings showing no differences between response rates for questionnaires four- to six- pages in length (Sheth & Roscoe, 1975). The survey was addressed to the president of the company. Previous studies have found that top executives have relevant information about the strategy of a business (Hambrick & Mason, 1984), and new venture researchers have followed this practices (McDougall, 1987).

An important issue for cross-sectional research is reliability or accuracy of the measuring instrument (Kerlinger, 1973). (See Section J of this chapter for a summary of reliability and validity issues.) This can be checked by using the same measure on the same population at more than one point in time (Zeller & Carmines, 1980). In order to check for stability of answers over time, six completed questionnaires were randomly selected. Each of these respondents was telephoned about four months after their response was received and asked about their answers to the questions specific to the interest of this project. (Questions re-checked were #2, #3, #4, #8, #10, #11.) (See Appendix E-1, copy of Questionnaire.) In each case respondents were read the question, their response, and asked if this was what they meant and if they had anything further to add. In all cases, there was no discrepancy between the written answer and the follow-up responses given by telephone (Fowler, 1988).

Another component of reliability is to evaluate the internal consistency of the measuring instrument (Kerlinger, 1973; Zeller & Carmines, 1980, p. 54). This is to determine the consistency of results across populations. The most popular techniques are split-half equivalent and Chronbach's alpha, the latter being more widely used and producing better results (Churchill, 1979). To accomplish this test, respondents may be split into early and late, or odd and even (Churchill, 1979). A high coefficient alpha indicates that the samples perform well in capturing consistency. For this research, the respondent group was split on an odd/even numbered basis, and the reliability test was run. The reliability coefficients ranged from alpha of .6036 to .9418. An item-to-item correlation of .5 to .6 or better, for early stages of basic research are agreed to be adequate measures of reliability (Nunnally, 1970; Churchill, 1979). This instrument met the criteria.

I - Operationalizations and Measures

Constructs and variables were operationalized using a combination of scaled, open, closed, dichotomous, and multiple answer questions. Because the purpose of this research was to differentiate between businesses based on age of the company, five-point Likert Scales were chosen for operationalization of several of the constructs (See Appendix E-1 for copy of Questionnaire.) Likert scales have the advantage of allowing for either positive or negative assessment of each item; are appropriate for assessing multiple aspects of the constructs being measured; can be factor analyzed; and are fairly easy for respondents to complete (Kidder & Judd, 1986). Furthermore, these Likert scales can be divided into subscales, that include two or more content domains (Kidder & Judd, 1986). Likert scales also permit the use of statistical procedures that can be applied to interval data (Nunnally, 1978; Kerlinger, 1973). For each of the main constructs noted in the conceptual framework (see Exhibit #5.1), multiple items were used to measure each of the variables. Exhibit #5.8 indicates the constructs, variables, operationalizations and question number, and type of measure used in this research.

Management factors were operationalized using three main variables: background, contacts, and views toward internationalization. Background consisted of work and travel experience (Bilkey, 1978), education (Simpson & Kujawa, 1978; Cavusgil & Naor, 1987), and business skills (Cavusgil & Naor, 1987). Consistent with work by Johanson & Vahlne (1977) and Cavusgil & Naor (1987), pilot interviews in this project showed that personal contacts either in the form of friends, relatives, or customers were important motivators in internationalization. The view of the manager towards internationalization was also deemed important in both pilot research and in previous empirical investigations (Perlmutter, 1969; Reid, 1984; Kedia & Chokar, 1985; Cavusgil & Nevin, 1984; Ursic & Czinkota, 1984; Lindquist, 1990). All management variables were measured by at least one five point Likert scale allowing respondents to rate the importance of these items in their decision to internationalize as well as either a second scaled or open question. Exhibit #5.8 contains a complete listing of the variables measured, sources, and the question from the survey containing the measure.

Exhibit 5.8

CONSTRUCTS, VARIABLES, OPERATIONALIZATIONS AND QUESTIONNAIRE ITEMS

Construct	Variables	Operationalization/ Empirical or Theoretical Citation	Questionnaire Item
Management Factors	Background	work & travel experience (Bilkey, 1978) education (Simpson & Kujawa, 1978; Cavusgil & Naor, 1987) business skills (Cavusgil & Naor, 1987)	q# 2 open q# 13 scaled
	Contacts	friends, relatives, customers (Johanson & Vahlne, 1977; Cavusgil & Naor, 1987)	q# 2 open q# 13 scaled
	Attitude	view of internationalization (Perlmutter, 1969; Bilkey, 1979; Reid, 1984; Cavusgil & Nevin, 1984; Kedia & Chokar, 1985; Lindquist, 1990)	q# 2 open q# 14 scaled
Firm Factors	Characteristics	age (Ursic & Czinkota, 1984) experience (Johanson & Vahlne 1977; Welch & Weidersheim-Paul, 1980)	q# 2 open q# 12 scaled
	Resources	trained employees (Tesar, 1977; Caves, 1982) employees with international experience (Cavusgil & Naor, 1987) capital (Bilkey, 1978; Tyebjee, 1990) information (Bilkey, 1978; Johanson & Vahlne, 1977)	q# 2 open q# 12 scaled
	Specific Advantages	patented product technology (Reid, 1979; Robock & Simmons, 1983; Cavusgil & Naor, 1987) innovative products (Cavusgil & Naor, 1987; Ursic & Czinkota, 1984) low production costs (Caves, 1982) economies of sale (Caves, 1982; Buckley, 1983)	q# 2 open q# 12 scaled

Exhibit #5.8 (continued)

CONSTRUCTS, VARIABLES, OPERATIONALIZATIONS AND QUESTIONNAIRE ITEMS

Construct	Variables	Operationalization/ Empirical or Theoretical Citation	Questionnaire Item
Firm Factors (cont.)	Specific Advantages	cooperative arrangements (Marchesnay & Julien, 1990; pilots) customer service capability (pilots)	q# 2 open q# 12 scaled
Industry Factors	Characteristics	growth (Caves, 1982; Cavusgil, 1984) competition (Vernon, 1963; Welch & Wiedersheim-Paul, 1980; Kothari, 1978) structure (Dunning, 1979)	q# 2 open q# 12 scaled
Regional Environmental Factors	Environment Conditions	economic conditions (Simpson & Kujawa, 1974) tax laws (Cavusigil & Nevin, 1984) access to port (Cavusgil & Naor, 1987) distribution network (Cavusgil & Naor, 1987, Tesar, 1977)	q# 2 open q# 7 scaled q# 8 ranking
	Resources	foreign market information (Johanson & Vahlne, 1977; Bilkey, 1978; Thorelli, 1987) capital (Bilkey, 1978) experienced employees (Buckley & Casson, 1983) raw materials & supplies (Christensen, 1991)	q# 2 open q# 7 scaled q# 8 ranking
	Market Conditions	customer demand (Miesenbock, 1987) size (Buckley & Casson, 1983; Thorelli, 1987) growth (Buckley & Casson, 1983; Thorelli, 1987) competition (Kothari, 1978; Cavusgil & Naor, 1987)	q# 2 open q# 7 scaled q# 8 ranking

Exhibit #5.8 (continued)

CONSTRUCTS, VARIABLES, OPERATIONALIZATIONS AND QUESTIONNAIRE ITEMS

Construct	Variables	Operationalization/ Empirical or Theoretical Citation	Questionnaire Item
Host Country	Environmental Conditions	economic conditions (Goodnow & Hansz, 1972; Kindleberger, 1969; Kohn, 1988; Galbraith, et al, 1990) tariffs & trade policies (Kindleberger, 1969; Galbraith, et al, 1990) language (Goodnow & Hansz, 1972) transportation systems (Ursic & Czinkota, 1984) distribution network (Johanson & Vahlne, 1977; Ursic & Czinkota, 1984) geographic distance (Goodnow & Hansz, 1972; Kohn, 1988)	q# 2 open q# 3 open q# 9 scaled q# 10 ranking
	Resources	capital (Rugman, 1979; Bilkey, 1978; Dunning, 1980) experienced employees (Thorelli, 1987) raw materials & supplies (Buckley & Casson, 1979; 1983; Dunning, 1980)	q# 2 open q# 3 open q# 9 scaled q# 10 ranking
	Market Conditions	costs to enter (Ursic & Czinkota, 1984) size (Thorelli, 1987) growth (Cooper & Klienschmidt, 1991) customer demand (Cooper & Klienschmidt, 1981) number of competitors (Dunning 1979; Rabino, 1980)	q# 2 open q# 3 open q# 9 scaled q# 10 ranking

Exhibit #5.8 (continued)

CONSTRUCTS, VARIABLES, OPERATIONALIZATIONS AND QUESTIONNAIRE ITEMS

Construct	Variables	Operationalization/ Empirical or Theoretical Citation	Questionnaire Item
International Strategy	Mode of Entry	export, license or contract, direct investment (Buckley, 1989; Akther & Friedman, 1989)	q# 3b multiple choice
	Scope	number of countries where product sold (Thorelli, 1987) percent total manufactured products sold abroad (McDougall, 1989)	q# 4b open q# 4c open q# 20b open
	Commitment	number of employees abroad (Vernon, 1983) goals (Thorelli, 1987) percent total sales from abroad (Cavusgil, 1984; Geringer, et al, 1989)	q# 19c open q# 15 open

Firm factors were operationalized by three variables: characteristics, resources, and specific advantages. Firm characteristics such as age (Ursic & Czinkota, 1984; Welch & Weidersheim-Paul, 1980) and experience in domestic markets (Johanson & Vahlne, 1977), have been found to be important in the decision to internationalize. Resources such as trained employees (Tesar, 1977; O'Rourke, 1982), employees with international experience (Cavusgil & Naor, 1987), capital resources (Bilkey, 1978; Tyebjee, 1990), and information (Johanson & Vahlne, 1977; Bilkey, 1978) have been found to be important in past research as motives for selling products abroad. Specific advantages also motivate internationalization and these are composed of patented product technology (Reid, 1979; Robock & Simmonds, 1983; Cavusgil & Naor, 1987); innovative products (Cavusgil & Naor, 1987; Ursic & Czinkota, 1984), and low production costs and economies of scale (Caves, 1982; Buckley, 1983). Cooperative arrangements (Marchesnay & Julien, 1990) are other forms of firm specific advantages), and customer service capability found important in pilot interviews, and were included. All firm variables were measured using open or multiple answer questions and five point Likert scales which asked respondents to rate their importance in the decsion to sell abroad.

The issue of firm size has yielded inconsistent results as a motive for internationalization (Horst, 1971; Cavusgil, 1984; Caves, 1982). Research on small businesses has found that size doesn't directly motivate a company's decision to internationalize, and internationalization is usually correlated with availability of resources (Reid, 1980; Cavusgil, 1984). In this investigation, the sample was limited to small businesses with less than 500 employees; variations may be reasonably expected in resource availability between businesses of twenty versus 499 employees. Hence, size in terms of number of employees (Caves, 1982) and sales (Cavusgil, 1984) during year one of internationalization were measured in open questions and considered in data analysis.

· Industry factors were operationalized by a variable called characteristics. This variable was operationalized by growth (Caves, 1982; Cavusgil, 1984; Johnson & Czinkota, 1985), competition (Vernon, 1983; Welch & Wiedersheim-Paul, 1980; Kothari, 1978), and structure (Dunning, 1979). Again these variables were measured using open questions, and five point Likert scales where respondents were asked to rate the importance of these variables in the decsion to sell products abroad.

Regional Environment factors were made up of three main variables found by previous researcher's to motivate sales abroad; environmental conditions, resources, and market conditions. Environmental conditions were composed of economic conditions (Simpson & Kujawa, 1974), tax laws (Cavusgil & Nevin, 1984); access to port of exit, and distribution network (Tesar, 1977; Cavusgil & Naor, 1987). Resources were operationalized by foreign market information (Johanson & Vahlne, 1977; Bilkey, 1978; Thorelli, 1987); availability of capital resources (Bilkey, 1978); availability of experienced employees (Buckley & Casson, 1983); and availability of raw materials and supplies (Christensen, 1991). Market conditions included customer demand (Miesenbock, 1988), market size and growth (Buckley & Casson, 1983; Thorelli, 1987), and competition in home markets (Kothari, 1978). These variables were measured using five point Likert scales and an open question asking respondents to list the most important of these Regional Environment factors in the decision to internationalize. (See Exhibit #5.8 and Appendix E-1.)

Host Country Factors were composed of environmental conditions, resources, and market conditions. Consistent with findings from other studies host country environmental conditions included economic conditions (Goodnow & Hansz, 1972; Kindelberger, 1969; Kohn, 1988); tariffs and trade policies (Galbraith, et al, 1990; Kindleberger, 1969), language similarity (Goodnow & Hansz, 1972; Thorelli, 1987; Kohn, 1988), transportation system and distribution network (Johanson & Vahlne, 1977; Ursic & Czinkota, 1984); and geographic distance from the U.S. (Goodnow & Hansz, 1972; Kohn, 1988). Resources were composed of capital resources (Rugman, 1979; Bilkey, 1978; Dunning, 1980), experienced employees (Thorelli, 1987); and raw materials and supplies (Buckley & Casson, 1979; 1983; Dunning, 1980). Market conditions include costs to enter market (Ursic & Czinkota, 1984), size of market (Thorelli, 1987), growth of market and customer demand (Cooper & Klienschmidt, 1980); and number of competitors (Dunning, 1979; Rabino, 1980). These variables were measured using five point Likert scales and an open question asking respondents to list the most important of these home country factors, in the decision to internationalize (See Exhibit #5.8 and Appendix E-1.)

There are two aspects of international strategy: entry mode and degree of internationalization. Entry modes most frequently measured are exporting, licensing and other contractual relationships, and foreign direct investment (Buckley, 1989; Akhter & Friedman, 1989). Degree of internationalization has typically been measured as percentage of foreign sales to domestic sales (Kirplani & McIntosh, 1980). However, because this is only a single dimension of international involvement, this variable was measured in two ways: scope and commitment (Welch & Lousitarinen, 1988). Scope of activities included number and diversity of countries, percentage of total manufactured products sold outside the U.S. (McDougall, 1989), and percentage of total sales from outside the U.S. (Cavusgil, 1984). The level of commitment (Cavusgil, 1984) included percent of foreign to domestic sales (Caves, 1982) as well as percentage of resources employed (people [employees] (Vernon, 1983), and goals (time horizon, short or long term) (Thorelli, 1987). These variables were measured using multiple choice and open questions.

J - Summary of Validity and Reliability Issues

Reliability and validity issues were dealt with in various ways. While some of these issues have been mentioned earlier, this section will summarize reliability and validity concerns and indicate action this research has taken to deal with each of these issues. (Exhibit #5.10 reflects this summary.)

(1) External validity is an issue of concern when a researcher is unable to sample the entire population (Payne, 1973). In this investigation there was no single listing of internationalized small businesses. Therefore, six different listings were sampled in order to prevent list bias (Denzin, 1978). In order to insure the sample was representative geographically, it was stratified based on the ten SBA regions (Fowler, 1988).

To guard against sample bias, testing was done to insure that non-respondents were not significantly different from those businesses that did respond. First, a sample of thirty non-respondents and thirty businesses not surveyed were identified from the six listings. Archival data, including number of employees, age, sales, number of employees, percentage of international sales, product type, and scope of international sales, was obtained from the same directories as was identified in the mail sample. Thirty respondents were randomly identified, and the same data was extrapolated from list data. Chi-square tests were run to see if there were any significant differences among these groups across key dimensions (Fowler, 1988; Johnston & Czinkota, 1982; McDougall, 1989). (See Exhibit #5.9.) Results of these tests showed that there were no significant differences between these groups on key dimensions. The p value for all tests was greater than .15, well above the .05 standard by which most results are regarded significant (Stevens, 1986).

Exhibit #5.9

RESULTS OF X^2 TESTS FOR NON-RESPONSE BIAS AMONG THOSE COMPANIES SURVEYED, NOT SURVEYED, AND NOT RESPONDING

Variable	X^2	Sig.	d.f.	n=
Date of establishment[1]	6.658	.1551	4	88
Port shipped from[2]	13.732	.1856	10	90
Number of countries[3]	2.822	.2439	2	41
Revenue category[4]	.045	.9770	2	34
International sales category[5]	1.621	.7432	2	39
Employee size category[6]	2.821	.2822	2	84

1. The majority of all businesses were established post 1970 (49%).

2. Ports of exit were grouped by region -- West, Midwest, Northeast, Southeast, Gulf, and Great Lakes (consistent with work by Faucett, 1985).

3. Forty-eight percent of the businesses in the combined groups sold products to five or less countries, while 25% sold to six to ten countries, and only 26% sold products to more than ten countries.

4. Directory information on sales is generally given by category and as such tests were done for differences by category. The average revenues were less than $10,000,000 and highest were in the $50,000,000 and less category.

5. Similar to sales, international revenues are generally categorical. International sales data was less frequently available for all three groups.

6. The average number of employees for all groups was 100. The range was 1 to 431

Exhibit #5.10
SUMMARY OF VALIDITY AND RELIABILITY ISSUES

Issue	Action and Results
External Validity - when sampling an entire population is not possible, steps must be taken to ensure that the sample is representative of the population to which the researcher wishes to generalize (Denzin, 1978).	Randomly identified companies from 5 different lists; stratified sample based on 10 SBA geographic regions. Compared samples of non-respondents (n=30), businesses not surveyed (n=30), and respondents (n=30) across key characteristics such as sales, size, number of countries, and age. No significant differences were found in Chi-square tests.
Convergent Validity - evidence from different sources gathered in different ways (Denzin, 1978).	
a- Different Sources	Supplemented mail survey with expert opinions, archival data, and telephone follow-up to six respondents.
b- Multiple Measures	Multiple measures of each construct included in questionnaire (Denzin, 1978). (See Appendix #E-1.)
c- Multiple Methods	Research design included pilot interviewing (n=5), mail survey (n=134), and telephone interviews of respondents, experts and non-respondents. (Denzin, 1978; Harrigan, 1983).
Content Validity- Degree to which the item measures what it is supposed to; proportion of variance observed scores share with true score (Zeller & Carmines, 1980).	Pilot interviews (in-depth) with five companies; pre-tested survey instrument on six experts and three respondents. Many of measures previously used by other researchers.
Construct Validity - Degree to which the theory behind the construct is explicated (Kerlinger, 1973).	Constructs accounting for business internationalization identified from theories; hypotheses developed and empirically tested (Zeller & Carmines, 1980, p. 81).
Reliability - The degree to which independent researchers applying the same operational definition to the same sense data can concur in their determinations (Payne, 1973, p. 3).	
a- Stability	Test-Retest of questions on six respondents at two different points in time (Nunnally, 1970; Kerlinger, 1973, p. 43).
b- Equivalence	Chronbach's alpha testing -- separated sample based on odd/even number respondents (Nunnally, 1970; Kerlinger, 1973). Results of this testing showed satisfactory reliability with alpha levels of .6750 to .9489, satisfactory for early stages of research.

To further rule out any possible non-response bias, a random sampling of eight non-respondents not included in the archival data analysis were contacted. Of these eight: one was no longer in business, three didn't remember receiving any survey, two were no longer selling abroad, and two were too busy or out of town when the survey arrived and "never got around to it." While in conversation with these business managers, inquiries were made about their total sales, number of employees, extent of international sales, industry type, and port of exit. These businesses (n=6) averaged less than 100 employees, their sales ranged from $100,000 to $10,000,000, and they exported to an average of five countries. These results are consistent with the archival data gathered for respondents, non-respondents, and those surveyed (Exhibit #5.9).

Other questions were asked regarding sales in international markets and reasons for internationalization. It might be assumed that non-respondents were less successful (profitable) than respondents. This did not appear to be the case; three indicated they were planning to expand international operations, and the other three were "doing fine." One non-respondent exporter of packaging materials to Europe stated; "American products have much credibility abroad. We are planning to establish direct manufacturing operations in the Philippines." As to reason for internationalization, this owner noted "An English company found us. Then after our initial success in Europe, we attended trade shows to establish distribution in the Pacific Rim Countries." A second company that manufactured aircraft propellers and parts indicated that more than forty percent of total company sales came from abroad. This company internationalized sixty years ago when foreign buyers approached them.

Seven companies that were not surveyed and not included in the archival data analysis were randomly identified from directories and telephoned: one was not presently internationalized; one received less than one percent of total sales from international markets; and the five remaining companies, the average number of employees was less than 100, sales ranged from $500,000 to $11,000,000, and they exported to an average of six countries. One president of man-hole drilling equipment began exporting to Israel in 1965, and then to Mexico, "because the markets had less competition." In all, this qualitative data supported the results of the secondary data analysis confirming no difference between respondents and non-respondents.

(2) Convergent Validity is the extent of agreement to evidence gathered in different ways from different sources. This is referred to as "multiple triangulation" (Denzin, 1978). In this research, the mail survey was supplemented with expert opinion from government and trade officials. The telephone survey to six respondents, eight non-respondents, and seven companies that were not surveyed. A second step taken to improve convergent validity was to include multiple methods of data gathering, in this case, the mail survey was supplemented by telephone pilot interviews and follow-up and archival data gathering. The data gathered from these various sources and methods was consistent.

(3) Content Validity is the degree to which a questionnaire measures what it is supposed to measure (Zeller & Carmines, 1980). Not only were previously used measures were employed and pilot interviews and testing of the survey instrument were accomplished on nine experts and respondents before the final survey was mailed.

(4) Construct Validity is an indicator of the degree to which the theory behind the construct is explicated (Kerlinger, 1973). To insure this constructs were identified from theories and operationalizations from previous research were utilized. Hypotheses were developed and empirically tested (Zeller & Carmines, 1980). (See Chapter VI for results

of hypotheses testing.)

· (5) Reliability is the degree to which the construct is accurate. In other words, fellow researchers should be able to independently apply the same operational definition to another similar population and achieve similar results (Payne, 1973). There are two aspects: (a) stability and (b) equivalence. Stability measures is determined by testing and retesting of measures at two different points in time. This was done on a sample of six respondents and no variation in responses was noted. Equivalence refers to the internal consistency of measures and is tested using the Chronbach's alpha reliability statistic. The alpha levels were satisfactory. (See Section H of this Chapter for further discussion).

K - Summary of Chapter V

In order to examine the reasons that small businesses decide to internationalize and to consider the effect of age, a conceptual framework derived from an integration of theoretical and empirical work in international business and entrepreneurship served for this research. Four sets of hypotheses were developed as a basis to test the effect of age in the small businesses internationalization decision. The research design included pilot studies and a cross sectional mail survey. The sample was composed of a nationally representative cross-section of internationalized small manufacturers. Sample stratification based on the ten SBA geographic regions was used. Secondary data was collected to provide context for this research. Constructs were operationalized using previously used measures. Finally, several steps were taken to insure reliability and validity in this research.

CHAPTER VI

DATA ANALYSIS AND RESULTS

A - Overview

This chapter presents the results of the mail survey and data analysis. A discussion of response rate includes geographic and population representation, a description of the businesses responding, and their international activities, characteristics of the owner/managers, and present activities of the businesses today. This is followed by a description of the hypotheses testing and statistical analysis used to investigate relationships between internationalization and age at the time of the decision. The final section of this chapter covers additional data analysis. This chapter will not present inferences or interpretation of results, rather it describes and presents findings. Interpretation and discussion of the results and relevance to other empirical studies and theories are found in Chapter VII.

B - Response Rate

Questionnaires were mailed in two waves: 1,064 in the first mailing and 216 in the second, for a total of 1,280. Of these, 204 were returned as bad addresses, bringing the total surveyed to 1,076 (See Exhibit #6.1). The number of usable responses was 134, a response rate of thirteen percent. While this rate is lower than planned, it is the modal response rate for mail surveys (Erdos, 1970). Also, as noted in Exhibit #5.6, this research surveyed approximately fifteen percent of the estimated total number of internationalized small manufacturing establishments (7,093). This group of 134 amounts to approximately two percent of this population. Furthermore, tests for non-response bias were taken to insure the respondent group was not different from non-respondents or those not surveyed across key dimensions. (See Chapter V, Sections I and J for further discussion.)

Exhibit #6.1

SUMMARY RESPONSE RATE

Summary	Mailing #1	Mailing #2	Total
Mailed	1064	216	1280
Bad addresses (less)	176	28	204
Total	888	188	1076
Responses	112	22	134
Percentage response	12.6%	11.7%	12.5%

As noted in Chapter V, the sample was stratified in order to achieve geographic representation. The response rates by SBA region are shown in Exhibit #6.2. This reflects the response rate by region as well as the share of U.S. enterprises by region.

Exhibit #6.2

RESPONSE RATE BY SBA GEOGRAPHIC REGION
COMPARED TO TOTAL SHARE OF U.S. ENTERPRISES BY REGION

Region	n=	Percent of Responses	No. U.S. Enterprises	Percent of U.S. Entrprs
I- CT, ME, MA, NH, VT, RI	22	16%	213,124	5.5%
II- NY, NJ	11	8%	442,245	11.4%
III- DE, DC, MD, PA, WVA, VA	9	7%	356,733	9.2%
IV- ALA, FL, GA, SC, KY, MISS, NC, TN	13	10%	601,569	15.7%
V- IL, IND, MI, OH, MN, WISC	27	20%	710,965	18.5%
VI- AR, LA, NM, OK, TX	9	7%	466,066	12.1%
VII- IA, KS, MO, NE	5	4%	207,317	5.4%
VIII-COL, MT, ND, SD, WY, UT	8	6%	150,120	3.8%
IX- AZ, CA, HA, NV	23	17%	543,361	14.2%
X- AK, ID, OR, WA	7	5%	161,752	4.2%
Total	134	100%	3,853,262	100.0%

This exhibit verifies the geographic representation of the research. The proportion of responses from certain regions (i.e. Midwest, Northeast) is consistent with the breakdowns of enterprises by SBA region (State of Small Business, 1990, pp. 114-120).

Besides being representative by region, responses were received from forty-eight states, the highest response rate being from California (n=23) and the second highest from Ohio (n=12). These states have a very high proportion of small businesses. According to SBA information, California has the highest number of small business establishments in the country (Business America, 1992).

As noted in Chapter V, a higher proportion of new internationalized businesses (less than six years old today) were sampled to insure adequate representation of companies that had sold products abroad at a young age. Of the 1280 total surveyed, 269 (twenty percent) were less than six years old today. Thirty-nine surveys were returned, resulting in a total sample of 230 new businesses. The second mailing was composed of a slightly higher proportion of new businesses than the first mailing. The entire respondent group was composed of twenty-three businesses less than six years old today and 111 businesses older than six years old today. Although there is no government data on small businesses that breaks down the population by age, it is presumed that this respondent group has a slightly higher proportion (seventeen percent) of new businesses than may exist nationwide.

C - Sample Characteristics

For all questions, frequencies, means, modes, and other statistics were evaluated. The following offers a brief description of the characteristics of the businesses at the time they internationalized and of today.

For the entire sample, the year of establishment ranged from 1852 to 1989. The average age of business was thirty years old. Thirty percent of the companies had been started after 1980 and thirty percent between 1960-1979.

Since the goal of this research was to compare businesses by age, it was important to be sure that the sample was representative in age that the businesses internationalized. Efforts were taken to identify young internationalized businesses in the initial sampling, the break-down of respondents into early (six or less years) and late (seven or more years) age of internationalization. The groups were nearly equal-sized -- the young group totalled sixty-nine, and the old group totalled sixty-five.

Size of business was controlled. Only businesses of less than 500 employees were surveyed (see Chapter V for discussion of research methodology). Small Business Association data indicates that the majority of small businesses have less than 100 employees (Small Business in the American Economy, 1990). The median number of employees in 1990 for the respondent group was thirty-five, the mean being seventy, and the range was 1 to 450 employees. Eighty percent of the businesses had less than 100 employees. This is consistent with SBA statistics and does not differ significantly from the number of employees in those businesses not surveyed and not responding. (See Chapter VI, section J for a complete discussion.)

An examination of the number of employees at the time of internationalization showed that this sample averaged forty, the median being fifteen, with the range being one to 400. Fifty percent of the respondents had fewer than fifteen employees, and ninety percent of the businesses employed fewer than 100 people at the time they first sold products abroad. Nevertheless, the majority of these businesses added employees after internationalization. In 1990 their total employees averaged seventy-eight, with fifty percent having less than forty.

Sales of these businesses in year one of internationalization ranged from $2,000 to $100,000,000, with the average being $4,607,089, the median $500,000 and the mode $5,000,000. Percentage of revenues from international sales ranged from one percent to ninety-nine percent. The mean was fifteen percent in year one, and in 1990 the mean was twenty-three percent. Gross sales in 1990 for the respondent group ranged from a low of $1,000 to a high of $210,000,000, the median being $2,250,000. Eighty percent of the businesses had gross revenues of less than $10,000,000. This again is consistent with SBA statistics for small businesses (<u>The State of Small Business</u>, 1990, p. 157) which showed a high percentage of small businesses have revenues of less than $20,000,000.

Businesses in this research were also classified by a two digit SIC code consistent with other studies (Faucett, 1988). The results show a wide variety of industries were represented, with the highest responses in electrical and electronic equipment (17%), primary metals (13%), and miscellaneous manufacturing. (Exhibit #6.3 reflects the breakdown by industry.)

Exhibit #6.3

RESPONDENTS CLASSIFIED BY TWO DIGIT SIC CODE

CATEGORY	SIC CODE	NUMBER	PERCENT
Food-kindred Products	20	10	7.5
Textile Mill Products	22	1	.7
Apparel-Fabric	23	3	2.2
Lumber-Wood	24	6	4.5
Furniture Fixtures	25	3	2.2
Paper and Allied Products	26	4	3.0
Chemicals-Allied Products	28	11	8.2
Petroleum Refin. Products	29	1	.7
Rubber-Plastic	30	4	3.0
Leather-Lthr Products	31	4	3.0
Stone-Clay-Glass-Concrete	32	2	1.5
Primary Metal Industry	33	3	2.2
Fbrictd Metal Products	34	19	14.2
Machiny Except Electric	35	7	5.2
Electrical-Electronic	36	24	17.9
Transpo Equipment	37	4	3.0
Intrmnts, Photo, Medic	38	11	8.2
Misc. Mfg-Sftwr, Brushs	39	17	12.7
TOTAL		134	100.0

Respondents were asked to describe their major industry of operations and a tremendous range of industries were represented. Businesses operated in industries ranging from biotechnology to dairy products to sporting goods. The most frequently mentioned were the computer industry (9%, n=12). Health care, including chemicals and pharmaceuticals and telecommunications tied for second mention (7.5%, n=10), with fashion and construction products being third most popular (6.7%, n=9). (See Appendix C-2 for comparison to top five industries of export for all businesses [large and small] in the U.S.)

The products manufactured by these companies ranged from equipment that drilled the holes in bowling balls, to de-hydrated spices, to medical testing equipment, and aircraft jet engine parts. Products also were classified into two technology categories in accordance with work by other researchers; high tech and low tech (Stuart, 1992). In this classification high technology products included electronics (software & computers), advanced materials, test measuring equipment, chemicals, photonics and optics, telecommunications, and subassemblies and components). Low technology products included any other products not identified in the above categories. In this research, twenty-eight percent were classified as high technology, and seventy-two percent were low technology which is not significantly different than small business manufacturers nationwide.

In examining international business activities of the sample, the years of internationalization ranged from 1920 to 1991, and ninety-six percent internationalized by exporting. Of these, sixty-eight percent (n=90) exported directly and twenty-eight percent (n=36) exported indirectly through a broker or agent. The remaining four percent were engaged in licensing or direct investment with only one business noting they had invested directly abroad.

In year one of internationalization, sixty-seven percent sold products in one to two countries, twelve percent sold products in three to ten countries, and four percent sold products in eleven to thirty countries. The average of the sample was three countries. The percentage of total products sold abroad varied from less than one percent to ninety-nine percent, the average being fifteen percent. More than seventy-five percent shipped less than ten percent of their manufactured products abroad.

By way of comparison, the average number of countries where products were sold in 1990 increased to fourteen. Furthermore, fifty percent sold to six or fewer countries, twenty-five percent sell to seven to fifteen countries, and twenty-five percent sold to more than fifteen countries. Likewise the percentage of total manufactured products has increased to an average of twenty-three percent with only forty percent of the companies shipping less than ten percent of products, and seventy-five percent shipping one third of their products or more.

Countries of export varied from one country to world-wide, and products were predominantly sold in Europe (42%), Canada and Mexico (25%), and Asia (10%). Canada was in fact the country most often exported to in the first year of internationalization (21%, n=28), followed by England (16%, n=22), and Japan (12%, n=16). For eighty-one percent of the respondents, the first country of internationalization in year one was an industrialized nation with seventeen percent exporting to less developed, and two percent shipping to newly industrialized countries. (See Appendix C-5 for comparison to countries reflecting the most growth in U.S. exports.) Ports most often shipped from were on the East Coast (thirty-six percent): New York was most popular (thirteen percent), with Los Angeles and San Francisco being used by thirty-five percent of the companies. (See Appendix C-3 for comparison to for trade zones and ports by SBA region.)

The respondents were asked in an open question why they decided to internationalize. The most frequent response was to fill a customer request (24%). (Exhibit #6.4 lists the most frequently mentioned reasons for selling products abroad.) It should be noted that these answers are often difficult to interpret because of respondent phrasing. As a result, key words were identified such as market or customer when data was coded.

Exhibit #6.4

REASONS FOR INTERNATIONALIZATION

Reason	percent	number
Fill customer request	24%	32
Increase sales and profits	14%	19
Broaden markets	13%	18
Personally knew market existed	12%	17
Demand for product	6%	8
Followed customer	5%	6

For example, one manufacturer of golf clubs stated: "We were approached by a rep who assured us good volume and good margins." Similarly, a chemical manufacturer noted: "We were asked by an international customer to sell abroad."

When respondents were asked why they selected the particular country where they first sold their products, the answers were consistent with those in Exhibit #6.5. Thirty-three percent indicated that "the customer selected us." The results of the answer to this question are reflected below.

Exhibit #6.5

REASONS WHY SELECTED COUNTRY

Reason	percent	number
Customer selected company	33%	41
Demand for product	13%	16
Easiest	7%	9
Geographically close	6%	7
Similar language	5%	6
Trade regulations	5%	6
Personal contacts	5%	6

Typical responses to the question of why the business selected the country, as noted by a data product manufacturer: "We didn't pick them, they picked us."

Respondents were also asked to indicate the biggest obstacle encountered in the internationalization process. While there was a wide variety of obstacles noted, ranging from unreliable intermediaries, -- customs, marketing requirements, and electronic conversion standards, the most frequently mentioned problems were financially related (12%, n=15). Exhibit #6.6 reflects the most often mentioned problems encountered in internationalization.

Exhibit #6.6

BIGGEST OBSTACLES ENCOUNTERED IN INTERNATIONALIZATION PROCESS

Reason	percent	number
Costs/financing	12%	15
Marketing	7%	9
Government regulations/policies	7%	9
Lack of industry knowledge	7%	9
Developing contacts	6%	8
Foreign country trade policies	6%	8

Respondents were asked questions about their background, education and previous work experience. Nearly all of the respondents were involved in executive management, with ninety-eight respondents (73%) holding the title of president, owner, or CEO. Of the group, sixty-two (48%) were involved in the founding of the company. For all but one of these individuals (n=61), it was their first entrepreneurial experience. All of the founders had previous experience in the field of their business, the average number of years being fifteen. Sixty-seven of the respondents had personally invested in the business, the average being $10,000 and the mode being $20,000. Similarly, fifty-four percent had controlling interest in their business, the average share held being sixty-two percent.

The age of the respondents ranged from twenty-five to eighty-eight, the average being forty-eight. Eighty-seven percent were males (n=115) and thirteen percent (n=17) were female. The number of years education ranged from ten to twenty-three, the average being four years of college.

Forty-four (34%) of the respondents had some education beyond college. The most popular fields of study ranged from Liberal Arts to Health Care to Physics. The most frequently mentioned area of study was business (33%, n=39), the second Engineering (27%, n=32), and third Liberal Arts (16%, n=19). Notably, only one respondent had a degree in International Relations.

Ninety-nine percent were U.S. citizens, although three were born abroad. The previous occupation of these respondents crossed a wide range of fields from college professor, to military, to fashion coordinator. Most frequently mentioned were executive (17%, n=19), general management (15%, n=17), sales (11%, n=12), and engineer (10%, n=11).

D - Hypotheses Testing

The hypotheses developed in Chapter V were designed to examine differences between the small businesses in the sample based on age at internationalization. To test these hypotheses, statistical tests including frequencies for the total sample, frequencies for each group (those that internationalized at six or less years of age and those that internationalized at seven or more years of age), Pearson's Correlation analysis, and Discriminant Function analysis were run. Following is a discussion of the statistical tests employed for each hypothesis.

> Hyp. #1- In young small businesses, management factors will provide greater explanation for their reasons to internationalize than will firm, industry, regional environment, or host country factors.

As discussed in Chapter V, it was expected that management factors would be most important to businesses that sold products abroad at an early age. To evaluate this, respondents were grouped into two categories: by age of internationalization six or less years and seven or more years[11]. Separate frequencies were run for each group to evaluate the importance of various factors in the decision to internationalize. Only the most important motive (factor) per respondent was considered. For group aged six or less years at internationalization, the total number of cases for which there was complete data was sixty-nine. To evaluate this hypothesis, first, the answers to question #2a, inquiring why the company first decided to sell products abroad, were evaluated. (See Exhibit #6.7.)

Second, responses were categorized to represent management, firm, industry, Regional Environment or host country factors. Categorization was made by evaluating responses to the open question by the primary researcher. (See Exhibit #6.8.) The criteria for category assignment was based on whether the reasons explicitly mentioned management, company, industry, regional environment, or host country variables. These category assignments were reviewed by a research assistant who independently grouped the same answers. The few disagreements were discussed and re-grouped.

As indicated in Exhibit #6.7, customer request (19%) and personal knowledge of market (19%) were the two most popular motives noted, while increasing sales and profits, and broadening markets were second and third most frequently noted.

[11]- Age at internationalization was computed by subtracting the year of establishment from the year the company first sold its products abroad, q1c - q1a on questionnaire shown in Appendix E-2.

Comments that reflect the typical responses of young companies' reasons for selling abroad are:

"...[B]ecause I was familiar with the overseas market, and because I had an inquiry from overseas." -- Manufacturer of saw chains

"...[W]e were approached by international customers. The domestic market was dominated by the 'Big Guys', and there was genuine managerial interest in the rest of the world." -- Chemical manufacturer

Exhibit #6.7

REASONS WHY BUSINESSES LESS THAN SIX YEARS OLD AT INTERATIONALIZATION DECIDED TO SELL PRODUCTS ABROAD

Reason	number	percentage
To fill customer request	13	20%
Personally knew market existed	13	20%
To increase sales and profits	9	14%
To broaden markets	7	11%
Demand for product	6	8%
Opportunity	5	7%
Personal contacts	4	6%
Other*	9	14%
Total**	66	100%

*- Other-- n=2 or less per item, reasons included; previous experience, Why not?, followed customer, industry growth, defend competitive position, easier to sell products abroad

**- There were three cases missing answers to this question, n=66.

Exhibit #6.8

REASONS WHY SOLD ABROAD CATEGORIZED FOR
BUSINESSES MORE THAN SIX YEARS OLD AT INTERATIONALIZATION

Category	Number	Percent
Management	22	33%
Company	17	26%
Industry	2	3%
Regional Environment	3	5%
Host Country	22	33%
Total	66	100%

Based on the responses to these two questions, it is apparent that management and host country factors contributed equally to motivate these young businesses to internationalize. These data suggest that Hyp. #1 can be partially supported. Management motives, such as personal knowledge of the market and personal contacts, are important reasons, but host country factors are equally important. Statistical analysis using a X^2 test for uniform distribution, confirms this with a significance level of .000 and X^2 value 30.730 which indicates the reasons given are not likely to occur with equal frequency. Based on this frequency distribution, and the X^2 test, it is evident that management factors were not significantly more important that any of the other factors (regional environment, host country, industry, firm). Hence, hypothesis #1 can only be partially supported.

Hyp.# 2- In old small businesses, firm factors will provide greater explanation for their reasons to internationalize than will management, industry, regional environment or host country factors.

This hypothesis addresses the major factors motivating old businesses greater than seven years of age to internationalize . To evaluate this, frequencies were run separately for this group. As in the analysis of the group that internationalized early, the total number of cases for which there was complete data was sixty-nine. To evaluate this hypothesis, first, the answers to question 2a, inquiring why the company first decided to sell products abroad, were evaluated (see Exhibit #6.9.) Second, responses were categorized to represent management, firm, industry, regional environment or host country factors. Categorization was made by evaluating responses to the open question by the primary researcher. (See Exhibit #6.10.) The criteria for category assignment was based on whether the reasons explicitly mentioned management, company, industry, regional environment, or host country variables. These category assignments were reviewed by a research assistant who independently grouped the same answers. The few disagreements were discussed and re-grouped.

Exhibit #6.9

REASONS WHY BUSINESSES MORE THAN SEVEN YEARS OLD
AT INTERATIONALIZATION DECIDED TO SELL PRODUCTS ABROAD

Reason	number	percentage
To fill customer request	16	30%
To broaden markets	10	19%
To increase sales and profits	8	15%
Followed customers	4	7%
Personally knew market existed	3	5%
To develop new market	3	5%
Demand for product	2	4%
Other*	8	15%
Total**	54	100%

*- Other-- n=one per item, to develop greater market presence, why not?, industry need, opportunity, better prices.

**- There were fifteen cases missing answers to this question, n=54.

The most frequently mentioned reasons in order of mention given by established businesses for internationalization were: to fill customer request, to broaden markets and to increase sales. Respondent answers representative of these reasons include:

"We internationalized to increase our company's sales and meet demand for our product." -- Manufacturer of western belts

"The customer required the equipment unit and came to us by way of reputation." -- Manufacturer of electron linear accelerators

Exhibit #6.10

REASONS WHY SOLD ABROAD CATEGORIZED
BUSINESSES MORE THAN SEVEN YEARS OLD AT INTERATIONALIZATION

Category	Number	Percent
Management	6	11%
Company	25	46%
Industry	3	6%
Regional Environment	0	0%
Host Country	20	37%
Total	54	100%

When reasons were categorized, the most frequent responses were company related, with host country reasons being second. As in the case of young firms, statistical analysis using X^2 test for uniform distribution showed a significance level of .000 at X^2 28.709, indicating the reasons are probably not likely to occur with equal frequency. Given that the highest number of responses were company related, there is plausible support for this hypothesis. These data suggest firm factors provided more explanation for reasons to internationalize in the older group than management, industry, regional environment, or host company factors.

In order to examine hypotheses #3a to #3e, which compare small businesses by age of internationalization, Pearsons correlation tests were run. This test measures the strength of a linear relationship between two variables. A perfect positive linear relationship has a coefficient value of +1, and a perfect negative relationship has a value -1. Cause and effect relationships cannot be assumed from this test, only the strength and direction of a relationship. The significant results of these tests are presented in Exhibit #6.11.

Hyp. #3a- Age at internationalization will be negatively associated with management factors.

As discussed in Chapter V, Section C, it was expected that management factors would be negatively and significantly associated with age at internationalization. As indicated in Exhibit #6.11, seven management variables were shown to be negatively correlated with internationalization age, four of these significant at less than .05. These variables included customer contacts, friends, business associates, technical expertise, marketing expertise and experience in starting a new venture. While these correlations are significant, the strength of these associations is very weak suggesting a small but non-linear relationship between age and each of these variables.

Given that there are several significant correlations, this evidence suggests that in fact management factors are negatively and significantly related to age as reasons for internationalization. As such, this hypothesis is supported.

Exhibit #6.11

RESULTS OF PEARSON'S CORRELATION ANALYSIS BETWEEN

AGE AND MOTIVES FOR INTERNATIONALIZATION

Hypothesis	Variable		Sig.	Value
Hyp. #3a Management	q13a	friends abroad	.024	-.2100
	q13b	relatives abroad	.022	-.2179
	q13c	business associate	.030	-.1975
	q13d	customer contacts	.046	-.1734
	q13k	technical expertise	.086	-.1438
	q13n	exper. starting new venture	.078	-.1522
	q13j	marketing expertise	.083	-.1456
Hyp. #3b Firm	q11c	long term relations	.068	.1435
	q11e	overcome problems	.057	-.1552
	q12a	trained employees	.069	.1405
	q12b	emps. with int'l exp.	.056	-.1495
	q12d	info. foreign market	.010	-.2542
	q12n	high dom. profit & sales	.078	.1560
	q12o	planning system	.076	.1448
	q12r	flexible operations	.051	.1549
	q12s	years exp. domestic	.031	.1761
	q12y	innovative product	.059	-.1985
Hyp. #3c Industry	q12t	in slow growing ind'y	.070	.1410
Hyp. #3d Regional Environment	q7c	trade regulations	.034	-.1629
	q7f	avail. exp'd emps.	.089	-.1389
	q7j	home market growth	.069	-.1629
Hyp. #3e Host	q9e	capital resources	.078	-.1932
	q9l	transportation system	.013	.2826
	q9m	distribution system	.007	.3192
Hyp. #4a Entry Mode	q3	entry mode	.311	.0513
Hyp. #4b Scope & Commitment	q4b1	number of countries	.107	-.1117
	q4c1	% total mfd. products	.060	-.1417
	q20b1	% total sales abroad	.010	-.2613
	q19c1	% total emps. abroad	.022	.3707

Hyp. #3b- Age at internationalization will be positively associated with firm factors.

This hypothesis examines the relationship between age and firm factors. Results of the Pearson's correlation analysis show overall firm factors are indeed related to age. But once again even though the correlations are very close to .05 significance, the strength of the relationships is weak, with nothing stronger than .2542. (See Exhibit #6.11.) Furthermore, six of the relationships are positive and four are negative with two significant at less than .05, and four at less than .059. These results suggests that age is positively and significantly associated with some firm factors, but the four negative associations show different firm factors are important in the decision to internationalize depending on age of the business. While it was expected firm factors would be more important to older businesses further exploration was done using discriminant analysis. (Discussed in Section D of this chapter.)

As for support for the hypotheses, these mixed results do not allow for full support because some of the firm factors are positively associated with age and some are negatively associated. This hypothesis is partially supported.

Hyp #3c- Age at internationalization will be positively associated with industry factors.

This hypothesis suggests that business age will be positively related to industry factors as a reason for internationalization. Results of the Pearson correlation are noted in Exhibit #6.11 and these indicate only one positive correlation of close significance (.07). While this is positive as expected, is a weak relationship (.1410) and the significance is not sufficient to support this hypothesis. This hypothesis is not supported.

Hyp. #3d- Age at internationalization will be positively associated with regional environment factors.

This hypothesis suggests that age will be positively and significantly associated with perceived favorability, or unfavorability, of regional environment factors (company's immediate environment) as a reason for internationalization. Results of the correlation analysis (shown in Exhibit #6.11), indicate there are three correlations, one of which was significant at the .05 level but all three of the relationships are negative. Contrary to expectations, regional environment conditions are more often associated with firm internationalization at an early age. As far as the test of support for this hypothesis, it cannot be supported with this evidence. All the relationships were negative.

Hyp. #3e- Age at internationalization will be positively associated with host country factors.

This hypothesis states that age will be positively associated with host country factors. Results of the Pearson's Correlation show three weak relationships, one of which is negative (capital resources) and not significant at less than .05. The positive associations are the two strongest correlations in the analysis with coefficients of .28263 for transportation system and .31925 for distribution system. In other words, businesses that internationalize late are more often concerned with host country conditions. As such, there is support for this hypothesis.

Hyp. #4a- Age at internationalization will not be positively associated with any particular mode of entry.

This hypothesis examines the relationship between entry mode and age. Results of the correlation analysis (shown in Exhibit #6.11) indicate there is not a significant relationship, the coefficient values being .05131 and significance level .3118. This result was as expected --

mode of entry was associated with either a younger or older age. It is notable that since 126 of the 134 businesses exported, the only differentiation was between direct and indirect exporting. Again there were no differences between mode of entries by age and this hypothesis is supported.

> <u>Hyp. #4b</u>- Age at internationalization will be positively associated with degree of internationalization (commitment and geographic scope) in small businesses.

This hypothesis refers to the degree of internationalization. As discussed in Chapter V, it was expected that commitment and scope as measures of degree of internationalization would vary by age, with late internationalizaton being associated with greater commitment and scope.

(1) <u>Scope</u>--It was anticipated that geographic scope would be positively associated with age. Results of the correlation analysis show two correlations, neither of which are significant at less than .05. (See Exhibit #6.12.) Both associations were weak and negative. This infers that greater scope (number of countries) and percentage of manufactured products are associated with early internationalizaton rather than late. As such the hypothesis cannot be supported.

(2) <u>Commitment</u>--As in the case with scope, it was expected that greater commitment to foreign operations would be associated with businesses that internationalized later rather than early. Results of the correlation analysis show mixed results. While both correlations for percentage of total sales abroad in year one, and percentage of total employees abroad in year one are highly significant (.010 and .022 respectively) the strength of these relationships is greater than in other correlations. The former is negative and the later is positive. This suggests that later internationalization is associated with a lower commitment as represented by percent of international sales. On the other

hand, percentage employees abroad is positively associated with age as expected. As far as the hypothesis test, these conflicting results for commitment and geographic scope as measures of degree of internationalization do not allow support for the expected relationships.

In order to summarize the results of these hypothesis testing, Exhibit #6.12 indicates the degree to which the expected relationships were supported or not supported. To further analyze relationships between age and motives for internationalization, the next section discusses the results of a discriminant function analysis.

Exhibit #6.12

SUMMARY RESULTS OF HYPOTHESES TESTING

Hypothesis	Expected Relationship	Findings
Hyp.#1 Management factors will be most important for businesses that internationalize while young	+	partial support
Hyp.#2 Firm factors will be most important for businesses that internationalize while old	+	supported
Hyp.#3a Management factors will be negatively associated with age	-	supported
Hyp.#3b Firm factors will be positively associated with age	+	partial support
Hyp.#3c Industry factors will be positively associated with age	+	not supported
Hyp.#3d Regional environment factors will be positively associated with age	+	not supported
Hyp.#3e Host country factors will be positively associated with age	+	supported
Hyp.#4a Entry mode will not differ by age	+	supported
Hyp.#4b Degree of internationalization will be positively associated with age (scope & commitment)	+	not supported

E - Results of Discriminant Function Analysis

Given that there were several significant correlations, it was decided that a Discriminant Function Analysis might offer greater explanation for any differences in reasons for internationalization by age of business. A Discriminant Analysis is suitable for distinguishing between key factors that differentiate between two groups where a priori different groups are classified based on a set of independent variables (Morrison, 1969).

It is recommended that a hold-out sample of observation be withheld from the initial analysis to allow for subsequent tests of validity of the function. This allows for adjustment to upward bias that can occur if the cases used to compute the discriminant function are also used for the classification matrix (Klecka, 1980). However, given the relatively small size of the two groups and preliminary nature of this research, and being consistent with other researchers (McDougall, 1989), it was decided to use the entire sample in the analysis to be sure the coefficients were stable (Stevens, 1986). This suggests generalizabilty may be weakened, especially if the group classification is low. The method of extraction used was Wilks which minimizes the overall Wilks value of the function. This stepwise method tests each variable by entering and removing them one at a time. Selection and removal were based on tolerance (F-value) which is set a 1.0.

For this research, the intent was to determine which motives distinguished between the businesses internationalizing early and late. First, the analysis was run with all variables that might potentially discriminate between the two groups. Given that there were eighty-eight variables, it was important to reduce the set to a smaller group of significant variables. To do this, the univariate F test of significance was run. F scores of all variables were examined. Only those variables that were significant at >1.0 were used in the analysis (Hair, et al, 1987), allowing only variables that would contribute to discriminating between the two groups to be in the analysis.

The results of the analysis will be discussed in three parts: overall function significance, the classification rate of the function, and the contribution of individual variables to the function.

Exhibit #6.13

RESULTS OF DISCRIMINANT ANALYSIS

Eigenvalue:	.37249
Canonical Correlation:	.52095
Wilks:	.72860
X^2:	39.420
d.f.:	9.
sig.:	.0000

1. As noted in Exhibit #6.13, the function was highly significant. It would have been preferable to have a slightly higher eigenvalue which is a measure of total association. However, the significance level and the high canonical correlation indicated there was a high degree of relatedness between the function and the two groups (Klecka, 1980; Stevens, 1986).

2. Given that the function was significant, the next step in interpretation was to determine how well the function classifies the cases. It is generally suggested that the classification rate should be at least twenty-five percent greater than would occur by chance alone (Klecka, 1980). For instance, considering a fifty percent classification by chance, the function should have a classification rate of at least 62.5%. There are two methods of determining the classification percent: the maximum chance criterion and proportional chance criterion. When group sizes are not equal, the proportional chance is the suggested method

to use (Klecka, 1980; Stevens, 1986; Hair, et al, 1987). For the proportional chance method the criterion value was computed by the following:

$$c \text{ proportional} = p^2 + (1 - p)^2,$$

where: p = proportion of total sample of individuals in group one

1-p = proportion of total sample of individuals in group two

In this case, group one was composed of sixty-nine cases, and group two was composed of sixty-two cases. The c proportional value was 50.49 percent, which means that the classification accuracy of the discriminant function must be greater than 50.49 percent to be higher than chance might allow. The classification process develops a matrix which indicated the prediction ability of the function. It is shown in Exhibit #6.14.

Exhibit #6.14

CLASSIFICATION MATRIX FOR DISCRIMINANT FUNCTION ANALYSIS

Actual		Predicted Group 1	Predicted Group 2
Group 1	= 69	47	22
Group 2	= 62	15	47
Ungrouped	= 3		

Percentage of Cases Correctly Classified (hit rate) 71.76%

As noted above, the c proportional value used to evaluate the hit rate was 50.49 percent, and the hit rate will exceeded this criterion. As such, the predictive ability of the function in classifying the cases is very good.

3. Given that the classification rate met the test of prediction accuracy, it was meaningful to examine the individual standardized coefficient values of the nine variables that entered the function. (See

Exhibit #6.15.)

Exhibit #6.15

STANDARDIZED COEFFICIENT VALUES FOR VARIABLES
ENTERING THE DISCRIMINANT FUNCTION

Variable		Coefficient
q12o	planning system	-.68311
q12s	years experience in domestic markets	-.54349
q13a	friends abroad	.54832
q12b	employees with int'l experience	.49116
q12p	can adapt to market changes	.48368
q 7j	home market growth	.42765
q13c	business associates abroad	-.42231
q20b1	year 1 % sales int'l	.37238
q 4b1	total number of countries year 1 of sales	.25329

+ = group 1 (less than six years of age at internationalization)
- = group 2 (more than seven years of age at internationalization)

The variables contributing the most to differentiating between the two groups (i.e. with highest absolute value of the coefficient) were planning system, having friends abroad and years of experience abroad. Other important motives distinguishing between the young and old groups were employees with international experience, and ability to adapt to market changes.

F - Performance Correlations

As noted in the methodology discussed in Chapter V, correlations were run to see if there were any associations between motives for internationalization and performance. Performance was operationalized using computed variables, growth in sales and growth in employees. These operationalizations are consistent with the most frequently used measures in the entrepreneurship field (Brush & VanderWerf, 1992). The results of this analysis are reflected in Exhibit #6.16.

Exhibit #6.16

CORRELATIONS OF MOTIVES FOR INTERNATIONALIZATION WITH PERFORMANCE

Growth in Sales

Variable	Value	Sig.
q7a Regional market econ. conditions	.2595	.018
q7k Regional market competition	.2044	.047
q12b Economies of scale	.2010	.051
q13c Business associates	.2188	.044
q13g Studied abroad	.2466	.030
q13h Lived abroad	.2185	.047

Growth in Employees

Variable	Value	Sig.
q7a Regional market econ. conditions	-.2613	.005
q7e Regional capital resources	-.1957	.026
q7f Regional experienced employees	-.1803	.040
q7g Regional raw mat'ls & supplies	-.1853	.035
q91 Host transportation system	-.1955	.028
q12d Foreign market information	.1974	.028
q12k Economies of scale	.2377	.011
q13e Foreign government contacts	.2495	.010
q13i Travelled abroad	.2422	.010

These tests show that growth in sales is significantly and positively related to three personal factors; business associates, studied abroad and lived abroad. Economies of scale was the only company factor to reflect a relationship. Regional market competition was positively related while favorable economic conditions were negatively related to growth in sales.

Relationships between motives and growth in employees were different in that five of the nine significant correlations were negative. Four of the negative correlations were regional environment conditions -- favorability of economic conditions, capital resources, experienced employees, and raw materials. On the other hand, host country transportation system was negatively related. Company factors reflecting a positive relationship were economies of scale and foreign market information. Management factors that were positively related were foreign government contacts and travel abroad. It is notable that the negative relationship between regional market economic conditions and growth in employees is highly significant, p. .005.

In addition to correlations between motives and performance, an analysis was run between age at internationalization and performance. The results of this test are noted in Exhibit #6.17.

Exhibit #6.17

CORRELATIONS AGE AT INTERNATIONALIZATION BY PERFORMANCE

Variable	Value	Sig.
Year 1		
q19a1 year 1 total employees	.2227	.011
q19c1 year 1 total employees abroad	.3707	.022
q20a1 year 1 total sales	.0276	.406
q20b1 year 1 % int'l sales	-.2613	.010
1990	Value	Sig.
q19a3 1990 total employees	.1490	.099
q20a3 1990 total sales	.0112	.459
q20b3 1990 % total int'l sales	-.3072	.004
q4c2 % product sold abroad today	-.2847	.001
Growth in sales (1990 sales - year 1 sales)	-.0106	.464
Growth in employees (1990 employees - year 1 employees)	-.0799	.207

In examining these correlations by age at internationalization, it appears that in the first year of internationalization, a higher level of employees at domestically and abroad are characteristic of businesses that sell abroad late. As for sales, total sales year one do not differ significantly. Younger age at internationalization is associated with a higher percentage of international sales.

In 1990, there is no significant difference in total employees or total sales, however once again younger age at internationalization is associated with a higher percentage of products and sales from abroad.

The correlations growth in sales and growth in employees by age at internationalization were not significant. In other words, there is no apparent relationship between growth in sales or employees and age. This suggests that age does not matter in the overall performance of these small businesses.

G - Analyses of Size Effects

It is important to determine that the effect of firm size will not confound the interpretation of results. Other researchers have indicated that size and age are related (Reid, 1980). Because older businesses that grow frequently have more resources and employees (Churchill & Lewis, 1983), it is possible that the reason for internationalization may be explained by size and not age, if there are significant differences. To guard against mis-interpretation of results due to any significant size differences between the two groups, t-tests were run. The null hypothesis was that the means were likely to be equal -- there is no significant difference between group one (early) and group two (late) based on employees and sales in year one of internationalization. If the observed significance value is .05 or less, one cannot confidently assume the means are not the same. The results of these tests are shown below in Exhibit #6.18.

Exhibit #6.18

RESULTS OF T-TESTS FOR DIFFERENCES IN COMPANY SIZE

	t-value	d.f.	2 tail prob.
Year 1 total employees	-1.50	105	.137
Year 1 total sales	-0.52	74	.604

Group means - Employees		Group means - Sales in Year #1	
Young =	30 employees	Young =	$3,890,948
Old =	50 employees	Old =	$5,540,242

As noted in Exhibit #6.18, the significance values for both sales and employees were not less than .05, suggesting that we cannot assume the means are not the same. However, we cannot assume the mean values are equal. The mean number of employees for young businesses was thirty, and for old it was fifty. In fact the businesses older at internationalization appear to be larger, but the difference according to the statistics is not significant. The same was true for sales in that the mean value for young firm sales was $3,890,948 and for old businesses was $5,540,242. Furthermore, correlations between age at internationalization size in year one of sales abroad revealed a positive and significant relationship between employees and age (.2227, sig. .011) but no statistically significant relationship was apparent between sales year one and age (.0276, sig. 406).

Even though the lack of statistical significance from the t-tests suggests these two groups are not widely different, in order to be most confident that the relationships between age and motives were not being confounded by size effects, three additional steps were taken. First, correlation analyses were run using all the same motives used in the analysis of age at internationalization. These tests yielded only five motives that significantly (less than .05) correlated with the number of employees in year one of internationalization. (See Exhibit #6.19.)

Exhibit #6.19

CORRELATIONS OF MOTIVES FOR INTERNATIONALIZATION

WITH SIZE IN YEAR ONE

Motive	Sig.	Value
q12a trained employees	.006	.2690
q12k economies of scale	.006	.2856
q12t in slow growing domestic industry	.010	.2520
q13b relatives abroad	.049	-.1925
q13k technical expertise	.010	-.2570

Of these correlations, only three showed up in the age analysis, relatives abroad, trained employees, and technical expertise. (See Exhibit #6.11.) Both of the latter two motives were more significantly related with age than size. These results show that between age and motives there are only three variables from the entire univariate analysis where size and age both matter. However, it also should be noted by the reader that the correlation between age and size was weak.

Second, to examine further the role of size, both sales and number of employees in year number one of internationalization were included in the initial discriminant analysis with eighty-eight valuables. Sales year one had a very insignificant univariate F value (sig. .7786), while employees was significant only at .2095. Because the criteria for inclusion in the final discriminant analysis was a significant F value of .05 or less (Hair, et al, 1987) these variables were not included in the final discriminant analysis.

Third, to take the analysis one step further, the best discriminant function was re-executed and size/employees year #1 of internationalization was added even though the variable technically did not meet the F-test criteria, (F value 1.591, p.2095). Size/employees year #1 did enter the equation, along with all nine of the same variables in the previous discriminant analysis. However, the addition of size (employees) did not improve the hit rate at all, and the canonical correlation improved only by .01. Hence the confounding effect of size in this analysis of age and motives is quite minimal. For only three variables is size a possible alternative explanation.

These tests suggest that, as expected, there are slight size effects: age is more frequently and significantly related to motives for internationalization than size.

H - Summary of Chapter VI

This chapter presented the results of the mail survey of 134 internationalized small businesses. The response rate from the initial survey of 1,076 companies was thirteen percent. The survey was representative both geographically and by business sector. Data analysis included descriptive statistics, X^2 tests correlation analysis, and discriminant analysis. These statistical tests were used to evaluate hypotheses proposed in Chapter V and assessed the relationship between age of internationalization and motives for selling products abroad. Overall, the results of the hypotheses were mixed: four were supported, two were partially supported, and three were not supported. Findings of the discriminant analysis indicated there were nine variables that contributed to a significant function which classified seventy-one percent of the cases accurately. Discussion and interpretation of these finding follows in Chapter VII.

CHAPTER VII

DISCUSSION OF FINDINGS

A - Overview

This chapter discusses the results and offers interpretation of the findings noted in Chapter VI. The findings of this research are discussed relative to theories of entrepreneurship and international business, empirical studies and secondary information, and will be presented in two sections. First, general findings on reasons for small business internationalization will be discussed; and second, similarities and differences by age will be noted. Finally, this chapter will conclude with the limitations of this research with which any interpretation of findings must be considered.

B - Discussion of General Findings

(1) Findings Relative to Theories

As noted in Chapter III, there are many possible motives that may encourage small businesses to sell products abroad. The findings in Chapter VI support this in that a wide range of motives. Theories for internationalization from international business and entrepreneurship were indicated by this sample.

Behavioral theories posit that motives for internationalization will include response to opportunity, problem resolution, and internal or external impetus. As noted in Chapter VI, the most popular reason given for selling products abroad was to "fill customer request." Similarly, the reason given for choosing the particular country of export was that "the customer selected us." These responses appeared to be consistent with behavioral theory which suggests businesses will be motivated by the strength of an internal or external stimulus (Aharoni, 1966). Along these lines, Reid (1980) and Suzman and Wortzel (1984) theorized that "opportunity" is key to the decision to internationalize.

These theories also noted the importance of the executive and his/her role in the decision process (Aharoni, 1966; Johanson & Vahlne, 1977). There was support for the role of managerial impetus in that several businesses noted that "personal knowledge of markets" was a major reason for selling products abroad. Relatedly, the experience of the owner/manager (travel and business skills) suggested that experiential learning is related to the executive decision (Johanson & Vahlne, 1977). Aharoni (1966) argued that the leadership role of the manager was important to the decision to invest abroad, and this research seemed to support this. It should also be noted that some of these businesses were young, and the skills and knowledge obtained likely did not come from experience with the present venture. However, this does support entrepreneurial theory which notes that the strategy of a new venture will be closely tied to the background and experiences of the owner/manager (Cooper, 1981; Vesper, 1980).

Also consistent with behavioral theories, these small businesses most frequently sold first to countries that were close, both geographically and culturally, to the U.S. (Johanson & Vahlne, 1977). Several respondents noted they selected the first country of export because it was "close" or had "similar language."

On the other hand, one of the major aspects of behavioral theory that was not supported was the premise that businesses must have experience and be established before exporting products abroad. In this research, not only were several businesses currently less than six years old identified as internationalized, but also several respondents that were currently seven or more years of age had sold products abroad at an early age. Furthermore, there were no significant differences in present sales (1990) or number of employees based on age at internationalization, suggesting success abroad can occur at any age. This research indicates that the stepwise process of internationalization can be either speeded-up over a shorter period of time, or that businesses can leap-frog over different steps. Relatedly, the importance of planning systems and years experience in the market (question #12, Appendix F-4)[12] had mean values of 2.8 (on a five point scale) or lower in terms of importance in the decision to sell products abroad. Similar to Bygrave's (1989) chaotic theory of entrepreneurship, the process of internationalization observed here in young businesses may not be incremental and stepwise. Steps are skipped and the process is disjointed. In this study, there were twenty-one businesses, or sixteen percent of the entire sample, that were internationalized at start-up, and seventeen (thirteen percent) that internationalized within year one. Of the thirty-eight that sold abroad in year one or before, fourteen were identified in the original sampling procedures, but twenty-four of the companies sold abroad at an early age and were founded more than six years ago. This indicates that nearly twenty percent of businesses old today internationalized very young in life. Clearly the proposition of global start-ups offered by McDougall (1989), and McDougall, Ray & Oviatt (1991), was true for nearly thirty percent of this sample.

Similarly, these theories assumed that a motive for internationalization will be to resolve problems (Johanson & Vahlne, 1977). Respondents in this sample rated this reason fairly low (mean value 2.4 on the five point scale), compared to others, which indicates it was not a major motivation. As noted earlier, it was customer request

---

[12]It should be noted that by design, there may be a higher proportion of young internationalized businesses in the sample than may exist in the population overall. This discussion and that hereafter concerning mean values should take this into account. However, as shown in Appendices F1-F5, the ranking of variables by importance in the decision to internationlize are similar.

that caused the majority of these businesses to seek international sales, rather than the existence of a problem. There appeared to be support for Aharoni's (1966) premise that internationalization is not only problem driven, but can result from a positive stimulus.

Classical theories of international business proposed that firms will search for new exchange opportunities while seeking profit maximization. Motives for internationalization (foreign direct investment) included limited exchange opportunities, structural conditions and industry factors. Even though these theories of the MNE were intended to apply to large established businesses, and this sample was composed of small manufacturers that exported, some of these classical motives were noted as reasons for selling abroad. For instance, consistent with these theories, one of the responses to the open question asking why companies decided to sell products abroad was: "to increase sales and profits." Likewise, in question #11 (See Appendix F-3) which included reasons for internationalization, "to increase sales and profits" was very highly rated relative to other responses, the mean value being 4.41 on a five point scale. Other reasons noted in this question, -- "to develop a new market" and "to seek large market share" -- also are consistent with classical theory and were similarly rated high with mean values of 4.24 and 3.4 respectively. Contrary to the intended application of classical theories, increasing sales and profits, seeking exchange opportunities, market share, and new markets as motives to sell abroad apply to small businesses as well.

Other reasons such as domestic "high growth in sales," domestic "high product acceptance," domestic "high profits" (from question #12, Appendix F-4) were not highly rated and did not appear to be important motives for this group of small businesses. Similarly, industry factors such as "in slow growing industry," "large number of domestic competitors," and "intense domestic competition" were rated quite low overall by this sample (mean value of two or less). In other words, industry factors compared to management, regional environment, host and company factors were relatively less important motives. However, this generalized interpretation must be treated cautiously. This was a cross industry study and certain industry factors may be more or less important depending on the type, growth stage, and size of the industry.

Hence, some of the motives from classical theories do seem to apply in this context. Exchange opportunities, and high profits and sales were reasons for selling products abroad in this sample.

Neoclassical theories of internalization argue that a desire to seek cost efficiency and decrease risk are reasons for foreign direct investment. In this research, cost efficiency, or a goal of economizing on costs, was not a motive noted in the open question asking reasons why businesses internationalized. Reasons such as "low production costs" (2.7 mean value) and "economies of scale" (2.3 mean value) were relatively low rated compared to others in question #12. (See Appendix F-4.) Given the size of businesses in the sample (most had 100 employees or less), this is logical in that they do not produce products on a grand scale. On the other hand, aspects of competitive advantage noted in question #12 (see Appendix F-4), such as "quality product," had a mean value of 4.0 (on five point scale) making it an important reason for selling abroad. Similarly, "to capitalize on domestic competitive advantage" was given a moderate importance rating. This implies that possession of a unique competence, or firm specific advantage (Hymer, 1960), will motivate small businesses to seek sales from abroad.

Finally, from entrepreneurial theory factors important in new venture creation were identified, innovation, creation, risk-taking, and general management activities. Start-up strategy is a function of identification and pursuit of an opportunity (Timmons, 1985). While responses to open questions were not intended to address motives venture creation, many of the reasons for internationalization are similar to those important in venture creation. For example, nearly one third of the respondents indicated that the customer came to them. This suggests that these businesses took advantage of an opportunity when it was presented. This is consistent with Timmons (1985) who argues entrepreneurs recognize, seize and implement opportunities.

Several respondents noted that they sold abroad "to develop new markets," and that possession of "innovative products" were important to the decision. These reasons seem to support the ideas of creation, exploitation of new markets, and innovation which are important to entrepreneurship. As noted by entrepreneurial theorists, some small businesses identified opportunities abroad where they "gap filled" or took advantage of opportunities for profitable innovation (Liebenstein, 1968).

Contacts and relationships were also very important reasons for the decision to internationalize, noting the importance of the role of the owner/manager in general management. In question #13 (see Appendix F-5), contacts with customers, business associates, and others were all relatively highly rated (mean values 3.5 or 3.75). Mitton, (1989); Aldrich, Woodward & Rosen, (1987); and Christensen, (1991) noted that it was "know who" that leads to "know how". In this case, contacts and relationships appeared to be instrumental to the decision to sell products abroad.

Exhibit #7.1

SUMMARY OF MOTIVATIONS TO INTERNATIONALIZE FROM THEORIES OF INTERNATIONAL BUSINESS AND ENTREPRENEURSHIP

	Behavioral		Classical		Neoclassical	Entrepreneurship	This Research
	Export;	FDI	FDI;	International Diversification	Horizontal/Vertical Integration	New Venture Creation	
Motives							
Resolve problem, avoid risk	+	+			+	*	
Pursue opportunity		+				*	F
Executive push		+				*	F
Profit		+	+			*	F
Political imperative				+		*	
Industry structure			+			*	
Economize on costs			+		+	*	
Competitive advantage			+	+	+	*	F
Spread risk			+	+		*	
Innovation						#	F
Creation						#	F
Risk-bearing						#	
General management						#	F

+ - Motives for direct investment or exporting as noted from theories of international business.
* - Motives stated from theories of international business that may be associated with the decision of small young and old businesses.
# - Factors in the decision to create new ventures.
F - General findings from this research.

In general, these findings suggested that various aspects of all of the theories discussed in Chapter III help to explain the motives for small business internationalization. Consistent with previous research on small businesses, the behavioral theories seemed to offer greater explanation than the others discussed herein. There is evidence that classical, neoclassical, and entrepreneurial theories can contribute to our understanding. Exhibit #7.1 reflects the motives noted from theories in Chapter III and includes a new column noting the motives for which evidence was found in this research.

(2) <u>Findings Compared to Empirical Studies</u>

The general findings about reasons why small businesses internationalize supported several previous studies. While this research differed in that it did not examine differences between exporters and non-exporters, several of the motives for internationalization were similar to those found in these studies.

Even though several previous studies have examined whether there was a difference in age between exporters or non-exporters, none of the previous studies examined the importance of age at the time the decision was made. The closest work was done by Christensen (1991) who noted that fifty percent of the Danish firms in his sample exported within the first three years of operations. Similar to work by Kirplani & McIntosh (1980), this research found no evidence that businesses internationalizing early were less successful than those that sold products abroad later, or visa versa.

In support of Bilkey's (1978) early research which found more than sixty percent of businesses were motivated by unsolicited orders, this study also found unsolicited orders to be an important reason for selling abroad. And, similar to Cavusgil & Naor (1987), this study also indicated that having personal contacts abroad was important to the decision to sell abroad. As far as problems, Rabino (1980) noted paperwork and distribution continued to be high on the list of obstacles, and respondents to this study indicated these were problems in internationalization. Also similar to Cavusgil & Naor (1987), the personal skills of the owner/manager, in particular marketing and technical expertise, were rated important to the decision.

However, contrary to previous studies, there were other factors that did not appear to be as important in the decision. For example, capital resources (Tyebjee, 1990), trained and skilled personnel (O'Rourke, 1985), industry competition (Kathari, 1978) and experience internationally (Telesio, 1979) were rated relatively lower than other motives (questions #11, #12). (See Appendix F-3, F-4.)

(3) General Findings Related to Secondary Data

As noted in Chapter II, the government does not collect detailed information on the exporting activities of small businesses making it difficult to compare the results of this study to other statistics. However, a survey by the National Association of Manufacturers (NAM) (sizes not distinguished) indicated that sixty-six percent of their respondents (1390 of 2105) 2,105 sold products abroad. Of those that were internationalized, fifty-eight percent (n=880) derived less than five percent of their revenues from exporting, and only ten percent derived more than twenty-five percent, of their sales from abroad. While percentage of international sales from this research was higher than the NAM Study, it might be explained by higher proportion of very small businesses in this sample. Problems indicated in the NAM study were similar to those noted in this research: financing and costs, distribution and representation were common obstacles to selling abroad.

Studies by Cognetics, a small business research firm located in Massachusetts, indicated that the majority of small business exporters were very small (less than 100 employees), employed niche strategies, and used FAX machines for international business (reported in Business Week, April 13, 1992, p. 70). Furthermore, the most popular countries shipped to were Canada, Japan, Mexico, Germany, Great Britain and Korea, with the range in international sales being four to sixty percent, the average being twenty-six percent, which is closer to the results of this study. These are the same countries accounting for the highest growth in U.S. exports overall. (See Appendix C-5). The majority of the businesses in this sample employed fewer than 100 people, exported few products to a few countries, and selected countries that were culturally and geographically close.

C - Discussion of Similarities and Differences based on Age at Internationalization

In comparing the differences between old and young businesses at the time they sold products abroad, both younger and older businesses tend to fit the profiles discussed in Chapter II. The young businesses were different from old in terms of motives, and management factors (personal experiences of the owner/manager) were relatively more important (see Exhibit #6.11 correlations) than other motives. This is similar to Feeser and Willard (1990), and Cooper (1981), which noted that start-up strategy of a new venture, in this case, international strategy, is largely influenced by the background of the owner/manager. Similarly, contacts, business associates, relatives, and friends were more often important to young businesses than old, which supports work by Aldrich, Woodward & Rosen; (1987) in the entrepreneurial area.

In contrast, as business age at internationalization increased, management factors, contacts, and skills assumed lesser importance as reasons for selling abroad. The results of Hypotheses #1, #2, #3a, and #3b bore this out in that reasons for internationalization in young businesses were predominantly based on the personal knowledge of the owner/manager: for older businesses, company factors were more important. The correlation analysis showed that contacts and friends were associated with younger age at internationalization significantly, but not strongly. This suggests that friends and contacts are more often important to young businesses than old, but are of only mild importance as a reason for internationalization.

Differences in company factors existed between young and old age at internationalization, where aspects of competitive advantage, -- such as innovative products (Namiki, 1988; McDougall, 1989; Robock & Simmonds, 1983) -- are more likely to be associated with younger than older businesses. This seemed to support theories of international business, in particular the neoclassical stream, which emphasized the importance of proprietary assets which firms try to exploit internationally (Buckley, 1983). On the other hand, the importance of foreign market information also was associated with younger firms, which supports the behavioral stream of literature (Johanson & Vahlne, 1977). It is interesting that competitive advantage and possession of foreign market information were not associated with older businesses in this study, and theories proposing these motives were intended to apply to established firms.

In contrast, established planning systems, resources (trained employees, profits), and years experience in the market were associated with businesses that internationalized later in their operations (see Exhibit #6.11 correlations). This is as expected in that the life cycle literature indicates these will be characteristics of established businesses (Churchill & Lewis, 1983; see Chapter II). Similarly, this supports the contention of the stage model (Johanson & Vahlne, 1977), whereby firms will endeavor to gain experience, develop systems and acquire resources before considering internationalization. In other words, this research suggests that businesses young at the age of entry in foreign markets have a particular advantage in terms of product, and possess knowledge about foreign markets usually arising from the experience of the owner/manager; businesses selling products abroad at an old age had a stable administrative structure and resources that facilitated internationalization. It would be expected that businesses internationalizing later would also do more planning. Ironically, existence of a written plan for international expansion did not differ by age at internationalizaton. Only 16 of the 134 respondents indicated that they had a written plan for selling products abroad. Once again, the serendipitous nature of the decision, -- responding to customer orders -- was characteristic of the entire sample. Taking this one step further, this also suggests that strategy is emergent (Mintzberg, 1978), which is consistent with research on planning in small businesses (Sexton & VanAuken, 1984).

The regional environment conditions motivating internationalization seemed to support international business theory in that conditions, such as perceived favorable local market growth and trade regulations played an important role in the decision for both young an old businesses. Because old businesses had more experience and were better established in domestic markets, consistent with behavioral theories, they would appear to be more capable than young firms in evaluating potential regional environment threats or opportunities. Therefore it was expected regional environment conditions would be more often cited as important by old companies. However, once again it was the younger businesses rather than older, for which perceived favorable or unfavorable regional environment factors were somewhat important. (See Exhibit #6.12 correlations.) The perceived favorability ratings may vary by industry or region, but overall for the sample perceived regional environment conditions were only somewhat important to younger firms.

As far as the importance of perceived host country conditions, only the availability of capital resources was important to younger businesses. This supports entrepreneurial theory that posits new ventures will seek to acquire resources (Stevenson & Gumpert, 1985). On the other hand, the existence of transportation and distribution systems was highly significantly related to established businesses which is consistent with previous empirical studies (Tesar, 1977; Cavusgil & Naor, 1987). This suggests older businesses consider the importance of implementation of an international strategy.

As expected, entry mode into foreign markets did not differ by age at internationalization, except that younger businesses more frequently exported directly and older companies more often exported indirectly, using a broker or agent. As far as international strategy, young businesses adopted a riskier international strategy than older businesses, in that they entered a larger number of countries and sold a greater percentage of their entire products abroad in year one. (See Exhibit #6.11 correlation analysis and Exhibit #6.15 discriminant analysis.) Furthermore, younger businesses had an average of twenty-three percent of total sales from abroad, while for older the average was only six percent. On the other hand, average gross sales for businesses selling abroad young was lower than for older companies. (See exhibit #6.18.) This supports entrepreneurial theory in that entrepreneurial businesses are often characterized as being risk-takers compared to more established businesses. Similarly, the international diversification literature would say spreading the risk, by serving more than one country, is advisable (LeCraw 1984). On the other hand, old businesses were more often associated with a strategy of having a greater percentage of employees abroad, consistent with the increasing commitment expected with more established businesses (Cavusgil, 1984).

In analyzing the results of the discriminant function analysis and the correlations, these results showed that established systems, years of experience, and a conservative entry strategy were more often associated with businesses that internationalize at a later age which supports the stage model (Johanson & Vahlne, 1977). On the other hand, businesses that sold abroad early in life were more often encouraged by friends, employees with international experience, an ability to adapt to market changes and a more risky entry strategy, which seemed to support the entrepreneurship literature (Cooper, 1981; Feeser & Willard, 1990). In spite of these differences in motives, the results of the performance analysis show that there was no significant relationship between 1990 sales and age at internationalization. (See Exhibit #6.17.) Similarly, age at internationalization was not significantly related to either growth in sales or growth in employees (Exhibit #6.17). This implies that age is not related to success. In other words, it doesn't matter whether a business internationalizes early or late in terms of performance. Hence motives for internationalization varied by age, but there was no relationship between age of internationalization and performance.

D - Limitations

As with any research, there were limitations to this study. Throughout the project efforts were made to minimize these limitations, but there remains some that must be stated and kept in mind for any interpretation of these findings.

This research had the advantage of allowing for objective responses and generalizability due to the cross sectional survey design. Convergent validity is a threat (Denzin, 1978) because of the static nature of the responses (measures at a single point in time) and reliance on a single self-reporting source for each measure. However, to overcome this limitation, it would have been necessary to have at least three sources for each company. This was prohibitive and of questionable feasibility. Many small firms typically have only one or two senior managers. Steps were taken to overcome this limitation in that several businesses were interviewed either in person (pilots) or by telephone. In addition, others were contacted both by mail and phone to verify the responses and insure temporal stability of response (Huber, 1985). (See Chapter V, section J for a complete discussion.) Based on these efforts, there was reason to be confident of the validity of these results, given the exploratory nature of this study. Moreover plans for a future phase of this research program will involve a field study of a limited number of businesses randomly selected from this respondent group which will allow for a second measure and second source of information.

Another limitation was the effect of business size in this analysis. While every effort was made to ensure that explanations of motive for internationalization were not being affected by size. The fact remains there were very slight but not statistically significant differences in size (employees and sales) simply because older firms tend to have grown bigger. The t-tests, correlations and discriminant analysis all took into account the effect of size, and it was found there was some very minimal effect, although it could nor be controlled for completely.

Perhaps the most serious limitation to this study was the response rate, which was 13 percent. Although this matches the modal response rate for mail surveys (Erdos, 1970), researchers typically like to receive at least a thirty to forty percent response rate (Fowler, 1988). Several steps were taken to promote a higher response rate including a polite cover letter, follow-up postcards, pre-paid postage, and offer of results. Unfortunately, budget constraints did not allow for telephone calls before and after the mailing, which would certainly have improved the response rate (Fowler, 1988).

Another effect of the lower than planned response rate was inability to compare responses by the ten geographic regions. This also resulted in some generalization across perceived favorability and unfavorability of regional environment conditions. Moreover, perceptual rather than objective measures of industry factors also were used. An extension of this research will endeavor to survey more businesses by region to allow greater regional comparisons and to compare to objective industry data.

As such, precautions were taken to guard against response bias. First, a three group statistical comparison of companies surveyed, companies not surveyed, and companies surveyed but not responding (n= 30 in each group) was made across six key dimensions using secondary data. The results of this testing reflected no significant differences. (See Chapter V, Section J.) Second, telephone follow-ups were made to non-respondents to insure they did not differ in terms of success (sales and profits) or motives for internationalization. This phone survey indicated respondents and non-respondents were indeed quite similar. Hence, in spite of the low response rate, there is reason to be confident that these results reflected the characteristics of the population of internationalized small businesses.

Other limitations included the retrospective recall nature of this study. Executives were asked to report on factors leading to a decision that they may not remember very well (selective recall) depending on the time that the decision was made. To help in overcoming this limitation, multiple measures were included in the survey instrument. Furthermore, this was an exploratory study designed to describe major factors of importance in internationalize and not intended to investigate the decision process. Therefore this limitation was not a major shortcoming.

In addition, future research will include investigation of the antecedents to the decision to internationalize using field research methods.

It should be recalled that this study focused on businesses from a large industrialized country and generalization of findings to companies in small less developed or newly industrialized countries must be made with caution. Replication of this research in other settings is important for future investigation.

Finally, the respondent group was composed only of surviving businesses from a wide variety of industries. Although the decision to sample across industries was deliberate, the broad representation combined with the small sample size suggested that specific motives may vary by type of business. Once again, this will be investigated in future phases of this research.

In all, every effort was made to insure external and internal validity and prevent sample bias given the resources available for this study. However, given the limitations as noted above, results must be qualified.

E - Summary of Chapter VII

This chapter presented a discussion of the general findings of the reasons that small businesses decided to sell products abroad relative to theories of entrepreneurship and international business, empirical studies, and secondary data. A discussion of similarities and differences by age at internationalization and limitations were also included. The findings of this study suggested that a broad variety of motives from various theories will help to explain why small business in general will sell products abroad. Young businesses had different motives from old businesses in that the experience and contacts of the owner/manager, competitive advantage, and foreign market information were more important.

Businesses that sell abroad at an old age are more frequently motivated by established planning systems and profits from domestic sales. While the entry mode for nearly all of the businesses in the sample was exporting, younger businesses tended to export directly and shipped a higher percentage of their products to more countries: older companies more frequently exported indirectly and had more employees abroad.

CHAPTER VIII

CONCLUSIONS AND IMPLICATIONS

A - Overview

This final chapter of the dissertation briefly reviews the purpose and description of this research. Following this summary, the major conclusions of this study and implications to researchers, practitioners and public policy-makers are noted.

B - Summary

This study was inspired by the increasing number of new small businesses that are internationalizing from start-up. New businesses are increasingly important to the U.S. economy because of the jobs and innovations they produce. The SBA estimated that nearly 100,000 small firms are exporting their products abroad. However, data was not collected by age and there was limited information available regarding the motives or international strategies of internationalized small businesses in general. Furthermore, the U.S. Government continues to encourage small businesses to sell products abroad as a means of improving the balance of trade. Because old and new small businesses differed across dimensions of focus, organizational structure and systems, role of the manager, and resources, it was expected that age at internationalization would make a difference in their motives and strategies.

A survey of theoretical literature from international business indicated that most of these theories were intended to explain foreign direct investment behavior of large established firms and had not been tested in the context of small businesses. Furthermore, many of these theories presumed that the business was established and experienced, therefore these would not seem to explain behavior of young firms.

Theories from entrepreneurship explain new venture creation, but dimensions of these theories, such as innovation, creation, and risk-taking had not been applied to the context of international strategy. Hence, an integration of theories from international business and entrepreneurship was used to explore the motives and international business activities of small businesses.

The review of empirical studies revealed that many studies of small businesses had been done in the international marketing area, but the majority of these had concentrated on differences between exporters and non-exporters. This research focused predominantly on the role of the owner/manager and often has not addressed motives such as industry factors or international strategies. The effect of age in the decision to internationalize has never been investigated in this area.

Four research questions were proposed as a guide for this exploratory research. A conceptual framework integrating theories and empirical work from international business was developed. This framework included four major factors: management, company, industry, regional environment, and host country. From this, hypotheses relating to the age of the business at internationalization were developed consistent with previously described differences between young and old firms.

The sample chosen for this investigation was small manufacturers located across the U.S. The purpose was to identify the factors that caused these small companies to seek revenues abroad, to consider the effect of firm age in this decision, and to test the applicability of theories of international business and entrepreneurship in this context. A cross sectional survey design was used to gather data, and 134 companies responded. Several tests of reliability and validity were met including telephone follow-ups and a survey of non-respondents.

Because the intent of this research was to answer questions, the following section restates the initial research questions and provides brief answers based on the findings.

> Research Question #1. What factors motivate the decision of young small businesses to engage in international business activities?

Consistent with entrepreneurship theories, it was expected that the most important factors would be related to management, rather than company, industry, regional environment, or host country factors. This expectation was confirmed in that the manager's personal knowledge of markets, personal contacts, and expertise were all rated highly by young firms as reasons for selling products abroad. However, the importance of management factors was tied with aspects of the market in the host country -- such as market demand and the unsolicited order by customers abroad. In other words, for young firms, market opportunity and management factors operated together to motivate internationalization.

> Research Question #2. What factors motivate the decision of old small businesses to engage in international business activities?

It was anticipated that company factors would be most important in motivating older businesses to sell abroad, given they had a track record of operations. This was the case in that company factors such as a desire to increase sales and profits were most highly rated. However, second in importance and similar to younger firms, host country factors such as to fill customer request were also important motives.

> Research Question #3. Do reasons for internationalization vary significantly by age of small business?

The findings of this research showed that indeed reasons for internationalization do vary by age of small business. In particular, it was management and firm factors that differed by age, with younger businesses being more often motivated by personal contacts, the expertise of the owner/manager, product innovation, and information about foreign markets. On the other hand, the catalysts for older businesses include trained employees, planning system in place, and years of domestic experience. Perceptions of regional environment conditions, such as trained employees, regulations, home market growth and availability of experienced employees, more frequently caused younger than older businesses to sell products abroad. In contrast, host country distribution and transportation systems were more important to old businesses.

> Research Question #4. What are the similarities and differences across young and old small businesses in their international strategies?

Businesses that are both young and old at age of internationalization were quite similar in the entry mode chosen. Ninety-seven percent engaged in exporting rather than licensing or foreign direct investment. However, young businesses were more likely to export directly while old businesses exported indirectly. The international strategies differed by age as well. Young businesses exported a greater percent of total products, had a greater percent of total sales from exporting, and sold to a greater number of countries than old businesses. Old businesses were more likely to have more employees abroad than young.

In all, this research reflected that small businesses do differ by age in their motives and international strategies. However, overall unsolicited orders and customer demand played a big role in the decision for both old and young businesses. The next section discusses the major conclusions and implications of this research.

C - Conclusions and Implications

There are three main conclusions to this study, each having implications for researchers, managers, and public policy-makers. These three conclusions are: (1) internationalization in small businesses is serendipitous; (2) age at internationalization is not important for success; and (3) age at internationalization is characterized by different motives and strategies. Each will be discussed below.

(1) Internationalization in Small Businesses is Serendipitous. It was expected that internationalization would be planned and intended. Instead response to opportunity was the major motivation for selling products abroad. The majority of businesses in this sample did not have a written plan to internationalize and noted that they didn't chose the country, but rather the customer from a particular country selected them. These businesses were responding to an opportunity that presented itself.

The implication for managers of small businesses is that they should scan the environment and be alert to opportunities (Aguilar, 1967). Where possible, obtaining foreign market information will be helpful. Furthermore, creating awareness of their products abroad through advertising or personal contacts is a good way to encourage customers to come to them.

Teachers should endeavor to help students learn scanning techniques, be knowledgeable of sources and types of information about possible foreign customers, and develope communication and networking skills.

For researchers, this study reflects aspects of entrepreneurial and behavioral theory given the "pursuit or seizing of an opportunity" that characterizes these businesses. In this study, internationalization was motivated by an opportunity (inquiry) that came to the business. The company's subsequent engagement in exporting did not appear to be the result of long range planning or even intended planning. This result was similar to Gartner, Bird and Starr's (1992) description of emergent organizations where they suggested the creation is an enactment process, or socially constructed reality (Berger & Luckman, 1979). Along these lines, Stone and Brush (1992) have proposed that planning can be interpretive rather than linear or adaptive. Interpretive planning focuses on building commitment and attaining legitimacy; planning is improvised rather than analytical. Findings from this research suggested there is an "enacted reality" aspect to the initial decision to sell abroad, while the subsequent planning is interpretive.

This research strongly suggested that aspects of entrepreneurship and behavioral theory need to be combined in a new mid-range theory that may better explain motives, strategies, and performance of internationalized small businesses. Furthermore, because this study was exploratory, there remained many empirical questions to be answered. For instance, the following questions would be logical extensions of this conclusion:

- What is the decision process used by owner/manager's in internationalizing their businesses?
- What is the role of planning in internationalization, and how is it related to existing planning motives?
- Are the causes of internationalization similar or different for small service businesses and small product manufacturers?
- What motivates businesses to take advantage of unsolicited opportunities?

For public policy makers, this conclusion suggests that the development of communication networks, or clearing houses where potential exporters and importers can make contact with each other would be important. None of the small businesses indicated that they were motivated to export as a result of government incentives, contacts or information. Furthermore, conversations with small business owner/managers indicated that they found the information provided by both state and federal government sources to be "not too helpful"; they were better off "faxing or calling someone they knew overseas". On the other hand, the Federal government provides a number or programs, in fact Business Week, April 6, 1992 points out more than eighteen federal agencies were involved in export promotions while twenty-three state governments were spending $50 million a year supporting technology extension centers. This suggests that resources being allocated to assist small businesses may need to be redirected. In other words, more effective programs that help small companies get in touch with future importers abroad are needed. Similarly, several noted that U.S. "government red tape" was an obstacle, suggesting paperwork needs to be simplified to facilitate the internationalization process.

(2) Age at Internationalization is not Important for Success.

This study showed that there were no significant differences in the performance of businesses that internationalized when they were old or young. In other words, as might be expected, businesses selling abroad young were not performing more poorly than those going abroad old. There were no significant relationships between performance and age of internationalization.

The implications for small business managers are that international strategy does not have to be considered separate and later than start-up strategy. The start-up strategy of a new business can be international in scope. Experience in the marketplace is not necessary. The personal experience, contacts and travel background of the owner/manager can be helpful. However, given the obstacles noted by all businesses, persistence is an important ingredient in implementation. For teaching, this research points out that contrary to theories and available government data, businesses are internationalizing from start-up. Teaching cases about these companies illustrating how international product sales can be a part of initial start-up strategy similarly would be of great value.

Implications for theory also are important. The stage model of internationalization is supported only for established businesses and not for young businesses. This is not to say that the stage model is wrong, rather there are examples of businesses "leap frogging," or skipping steps. This is consistent with theories proposed in entrepreneurship, where new ventures will proceed in a disjointed fashion.

Steps in the stage model may need to be revised to incorporate an accelerated stage "O" where activities occur simultaneosly (pre-export - export) and tranference of previous experiences of the management team are included. Along these lines, variables from classical and neoclassical economics are included in this research, and even though these theories are intended to explain foreign direct investment of large firms, several variables are important motivators. Therefore, an integration of international business and entrepreneurship theories is suggested to further explain international business activities of small businesses. For research, empirical questions remain to be answered:

- What factors from international business theories will explain performance of small businesses?
- What are the differences in performance of internationalized small businesses based on position in their industries?

It should also be noted that this research carefully examined size effects as a possible alternative explanation in motives for internationalization. Even though these firms were all small, (less than 100 employees) they were not of equal size in sales and revenues. However the lack of significance of size as an explanation for differences across business in reasons for internationalization has important implications for entrepreneurship researcher. In other words, age matters more than size as it relates to strategies of small firms. Further comparisons of age and size in small business strategies and international strategies is an area suggested for further research.

For public policy-makers, this conclusion suggests that government assistance, training, and information must be directed at both young and old businesses. In fact, this research shows that younger businesses have broader, more risky strategies. Workshops and assistance programs for new venture creation should also include information about options for entering foreign markets. Incentives to encourage small firms to internationalize would also be appropriate. These small businesses continue to expand abroad and are important to the U.S. balance of trade.

(3) Age at Internationalization is Characterized by Different Motives and International Strategies.

As noted earlier, motives and strategies differed by age, and the correlations and discriminant analysis were significant but weak. The major differences noted were that businesses selling products abroad at a young age were more frequently motivated by the contacts and expertise of management, the innovation of the product, and demand from the host country. Old businesses were catalyzed by planning, profits from domestic sales, experience, and trained employees. These characteristics are depicted below in Exhibit #8.1.

Exhibit #8.1

SUMMARY OF DIFFERENCES BETWEEN BUSINESSES
YOUNG AND OLD AT INTERNATIONALIZATION

	Young	Old
management:	contacts (friends) skills expertise (finance & marketing)	
resources:	foreign market information employees with int'l experience	trained employees experience in domestic markets profits & sales
structure/ systems:	flexible operations planning systems	
competitive advantage:	innovative product ability to adapt to market changes	
strategy:	broad--several countries high percent of products high percent of sales	long term commitment employees abroad

Given that both old and young businesses in these samples performed well, these differences suggest that managers in young businesses need to invest time in building relationships, developing innovative products, and structuring companies that are able to adapt to market changes rapidly. On the other hand, managers in old businesses should spend time in planning activities.

For researchers, integration theories of international business and entrepreneurship need to occur. In particular, the neoclassical concept of competitive advantage is important to recognize. Empirical questions arise also from this conclusion:

- What are the differences in the cognitive processes for managers of young versus old businesses in the decision to internationalize?
- What is the effect of experiential versus objective learning inthe development of international strategy?

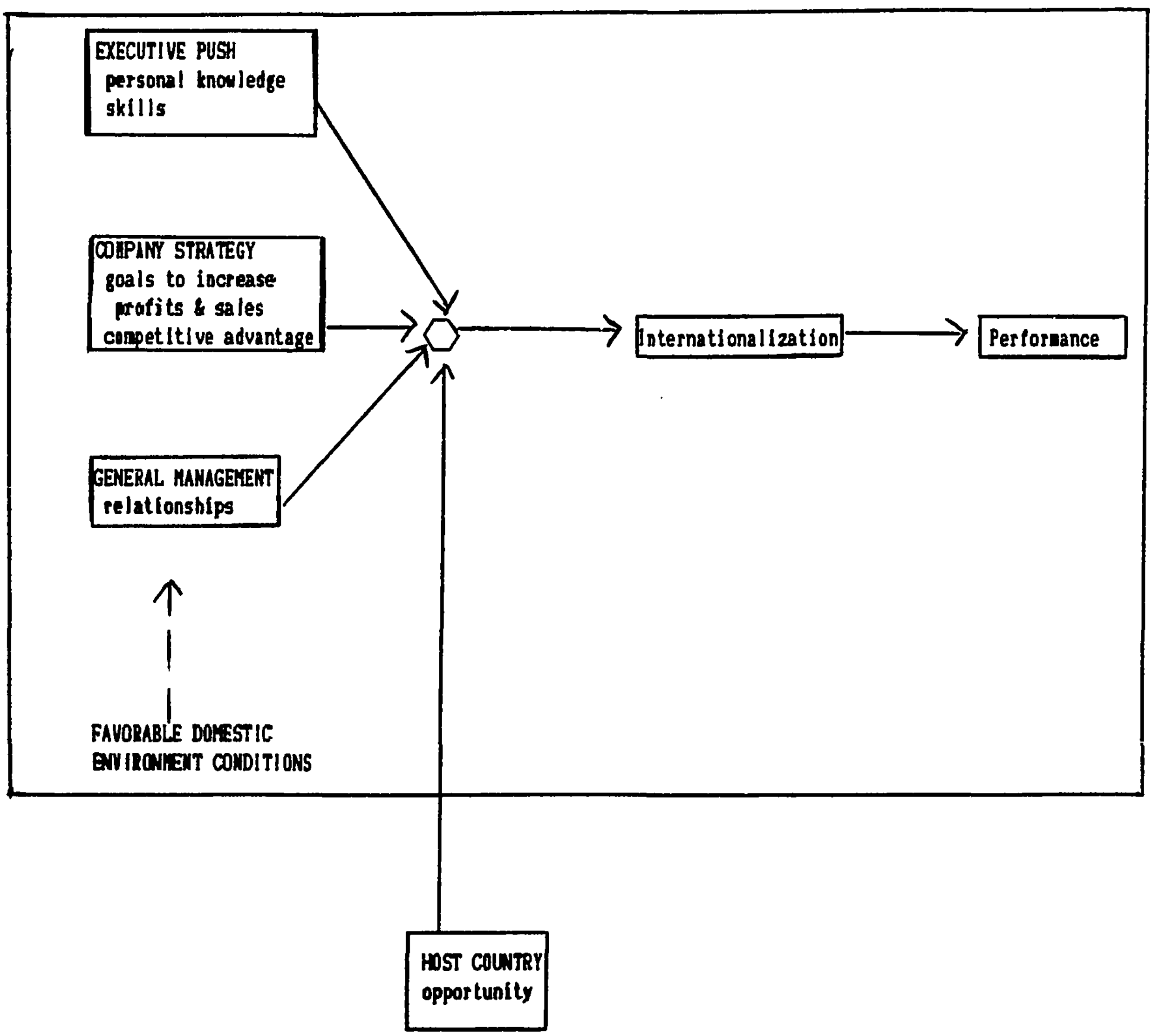
- What are the similarities/differences in international strategy content and process?

- Do small manufacturers from other countries have the same motives and strategies noted in this sample?

Exhibit #8.2 reflects a revised version of the conceptual framework used as a basis for this research. This revised framework includes variables found important in this research from theories of international business and entrepreneurship. While further adaptations of this descriptive framework may be made with future empirical testing, this framework recognizes the relatively greater importance of management factors and opportunity which were not included in the original conceptualization (See Exhibit #5.1).

EXHIBIT #8.2

REVISED CONCEPTUAL FRAMEWORK



Finally, implications for public policy-makers suggest that businesses of different ages will have different needs in terms of information required and training. Blanket policies and programs for small business internationalization may need to be revised to recognize the different characteristics and strategies of small companies based on age.

The role of small business in the international marketplace has changed. No longer is this primarily the domain of large businesses. The innovations in telecommunications, transportation, information and computer technology have made it possible for small companies to be contacted by buyers and to promote and distribute their products worldwide.

Along with these environmental changes, it is important to re-examine theories that explain behavior of businesses internationally. This research has probed the motives encouraging small businesses to sell abroad and considered the effect of age. The findings show that many businesses are selling abroad at an early age. While the motives of young and old businesses do differ, their performance does not. More importantly, the process of internationalization is very much the response to an opportunity. The range of market opportunities is much greater for the small firm. The number of small firms exporting products is steadily increasing.

These results of this research are contrary to stage models that suggest internationalization is an incremental planned process that is stimulated by a problem. On the other hand, variables from entrepreneurship and international business were found to be important in explaining motives for selling abroad. The identification and description of these variables should spur further integration and synthesis of theories explaining the behavior of small business as their role in the international marketplace changes.

APPENDIX A

EMPIRICAL STUDIES FROM INTERNATIONAL BUSINESS

Abdel-Malek, 1978
Study tested differences in export orientation of large and small firms. Interviewed 58 CEO's from exporting and non-exporting Canadian manufacturers with less than $20 million in sales. Findings- Few significant differences were found in export orientation by size of company.

Aharoni, 1966
Author investigated motives and process in foreign investment decision. Interviewed 27 companies with investments abroad. Findings- Strength of external threats/opportunities or internal impetus motivates FDI. Supported Cyert & March (1963) decision process except that role of leader, environment and innovation played greater roles.

Ali & Swiercz, 1991
Tested relationships between firm size, export experience and attitudes. Surveyed 195 companies having less than $5 million in sales. Findings- Size was not related to attitudes toward internationalization, but was related to perceptions and skills required for selling abroad.

Bilkey & Tesar, 1977
Study tested stage model of internationalization. Surveyed 423 small and medium-sized Wisconsin manufacturers. Findings- Unsolicited orders were most important motive for exporting; the stage model was supported.

Bilkey, 1978
Purpose was to research factors distinguishing between exporters and non-exporters. Surveyed 423 small and medium-sized Wisconsin manufacturers, some exporters and some non-exporters. Findings- Manager's experience, foreign language ability, travel, view of risk, cultural similarity, available capital and information motivated exporting.

Cavusgil, 1979
Investigated factors distinguishing between exporters and non-exporters. Surveyed 423 small and medium-sized manufacturers, some exporters and some non-exporters. Findings- Favorable attitude of management was important motive.

Cavusgil & Nevin, 1981
Study researched firm determinants of export behavior. Surveyed 423 small and medium-sized Wisconsin manufacturers, some exporters and some non-exporters. Findings- Differences in export behavior were due to characteristics of firm, and management commitment and interest.

Appendix A- continued

Cavusgil, 1982

Purpose was to investigate factors distinguishing between stages of exporting. Surveyed manufacturing firms in Maine and New Mexico by mail survey to CEO's. Findings- Management commitment affected stages, manager's experience was related to growth, size was not important.

Cavusgil, 1984

Study investigated differences among export firms across stages in exporting. Interviewed 70 CEO's from manufacturers in Wisconsin and Illinois. Findings- Life cycle stage is related to market research internationally; level of sales and profits did not differentiate among stages.

Cavusgil & Naor, 1987

Explored firm and management characteristics important to export behavior. Surveyed 310 firms in Maine, exporters and non-exporters. Findings- Manager's experience in finance and planning, higher level of education, product characteristics, access to distribution and available foreign market information differentiated between exporters and non-exporters.

Chatterjee, 1990

Investigated factors determining market entry by direct investment or acquisition. Data base analysis of 47 Fortune 500 companies. Findings- Concentration of markets and high stock prices related to acquisition; availability of internal funds was related to direct investment.

Christensen, daRocha & Gertner, 1987

Researched factors determining export success in exporters and non-exporters. Sample composed of 152 Brazilian manufacturers. Findings- Greater quality control, size and diversification associated with exporters.

Clegg, 1990

Study investigated industry and country determinants of international non-affiliate licensing. Data base analysis of manufacturers from 5 countries. Findings- Country specific differences lead to different models (strategies) for licensing.

Contractor, 1985

Research investigated why companies engage in international licensing rather than foreign direct investment as corporate strategy. Analyzed Department of Commerce data base composed of 241 companies. Findings- Licensing is a profitable alternative to foreign direct investment; constraints on direct investment such as trade policy and international risk, or goals such as desire for fast market entry motivated licensing.

Appendix A- continued

Cooper & Kleinschmidt, 1985

Authors investigated the impact of export strategy on performance in small firms. Personal interviews with 142 Canadian firms having sales of less than $20 million. Findings- Types of market, segmentation strategies and product strategies related to greater performance (exporting sales to total sales). Firm size and sales were not related. Market orientation and "world view" of management was important to better performance.

Czinkota & Johnston, 1981

Study attempted to differentiate firms based on level of international activities. Surveyed 237 small and medium sized materials manufacturers. Findings- Stages of internationalization differentiates firms better than size, service or managerial attitude.

D'Souza & Eramilli, 1990

Investigated the motives and choices for foreign market entry in small service firms. Surveyed 175 computer consulting and technical services firms, with less than $5 million in sales. Findings- Main motive was response to client request, top market choice was preference for English speaking country.

Galbraith, DeNoble & Estavillo, 1990

Researched the location criteria and perceptions of business climate in Mexico in small U.S. companies. Sample composed of 55 electronics assemblies firms in Baja California, and 45 U.S. based electronics firms. Findings- Perceptions of business climate specifically low cost labor, stable political environment and infrastructure were important in the location decision.

Geringer, Beamish & daCosta, 1989

Study explored performance differences in MNE's. Analyzed diversification strategies of 100 largest MNE's. Findings- Related diversification strategy is associated with better performance.

Gomez-Casseres & Kohn, 1990

Authors investigated how small firms compete using technology internationally. Sample was composed of 1200 U.S. high technology companies having less than 1000 employees and extensive operations abroad (direct investment). Findings- Small firms compete using deep niche, narrow market strategy. Dominant position and large size are not requirement for success in high technology companies abroad.

Goodnow & Hansz, 1972

Purpose was to investigate environmental determinants on market entry strategy. Analyzed data base of characteristics of 100 countries and surveys from 222 firms. Findings- Availability of information and positive environmental factors (political, government, legal, physio-graphic, geo-cultural) encourage exporting, joint ventures or foreign investment.

Appendix A- continued

Green & Cunningham, 1975
Research measured extent to which factors determining foreign investment supported Aharoni's (1966) work. Analyzed data base of U.S. companies having foreign direct investment in 25 countries. Findings- Total allocation of foreign investment related to country GNP, population and expected profit. Marketing potential was most important determinant of foreign investment.

Gripsrud, 1989
Explored determinants decisions of Norwegian firms to export to distant markets. Sample composed of 131 fishery process companies in Norway. Findings- Larger companies more likely to export to markets a greater distance away; product categories important. Experience influences attitude toward future expectations.

Hirsch & Adar, 1974
Analyzed effect of firm size on export performance. Method involved data base test of model. Findings- Results showed strong relationship between export performance and firm size in several industries.

Hisrich & Peters, 1983
Study explored participation and attitude of U.S. manufacturers in East-West trade. Mail survey of 140 large U.S. manufactures; 50 involved in East-West trade. Findings- Motive for trade was desire to have long term access to markets. Government support and political climate had little effect on attitude toward East-West trade.

Holzmuller & Kasper, 1990
Investigated the effect of decision-maker orientation on export activities. Surveyed 103 Austrian companies by mail. Findings- Firm orientation is important in exporting, even though measurement of "orientation" is difficult due to cultural dimensions.

Horst, 1972
Researched factors affecting the decision of multinationals to go abroad. Analyzed a data base using a model. Findings- Size (market share) was a significant factor in the business' decision to invest abroad.

Johnston & Czinkota, 1982
Authors investigated factors discriminating between exporters and non-exporters. Cross-sectional survey of national sample of 181 consumer goods companies. Findings- Exporting is result of proactive and reactive motives. Major motives were profit, unique product, technology advantage, management urge, tax benefits, competitive pressures and market advantage. Proactive- had greater service, sales volume and broader strategy; reactive- focused on operations.

Appendix A- continued

Kedia & Chokar, 1985

Purpose was to investigate the importance of managers perceptions of costs and risks in exporting. Interviewed 49 exporters, 47 non-exporters in food processing industry from Louisiana. Findings- Negative attitude of manager is barrier to exporting; non-exporters perceive costs differently. Profiles of managers from exporting and non-exporting companies differed.

Kirplani & MacIntosh, 1980

Investigated factors affecting international marketing effectiveness of technology-oriented small firms. Sample composed of 34 high technology firms; 10 from the U.S. and 24 from Canada having less than 1000 employees. Findings- Age of company (younger) related to greater success in terms of growth in total sales, and growth in export sales. Price, promotion and technology leadership also associated with better performance.

Kobrin, 1991

Analyzed industry structure determinants of global integration. Employed data base analysis to test model. Findings- Scale economies were less important than technology intensity in decision to integrate globally.

Kohn, 1988

Study investigated foreign direct investment by small U.S. based manufacturers. Analyzed Dept. of Commerce data base. Findings- Costs, strategy and technology advantage were important in the decision to invest abroad.

Kothari, 1978

Researched strategic exporting approaches of U.S. manufactures in international markets. Sample composed of 308 Texas manufacturers with less than 250 employees. Findings- Competition at home, limited domestic opportunity and unique skills and knowledge motive exporting.

Kwei Chong & Wai Chong, 1988

Study explored differences between small and medium sized exporting firms. Sample composed of Korean furniture manufacturers having less than 150 employees. Findings- Exporters with more employees perceived more marketing strength abroad.

Langston & Teas, 1976

Authors researched differences between exporting and non-exporting firms. Findings- Companies are more likely to export when managers have lived and travelled abroad.

Lecraw, 1983

Research investigated determinants of performance in trans-national manufacturers. Surveyed 153 managers of subsidiaries of 5 ASEAN countries; all were light manufacturers. Findings- Competitive advantage of transnational companies are different in domestic markets than internationally.

Appendix A- continued

Lecraw, 1984

Study explored the degree of importance of structural and firm characteristics on diversification strategy and performance. Sample included 200 publicly held non-financial firms from Canada. Findings- Determinants analysis showed that choice of base industry and firm characteristics influenced diversification strategy.

Lecraw, 1989

Investigated factors influencing success in counter-trade. Mail survey of 152 exporters from U.S., Japan and Canada was conducted. Findings- Large firms with experience in exporting and counter-trade, with high value, highly visible complex products were better able to succeed in counter trade. Supports economic theory where success in counter-trade is related to larger size.

Lindquist, 1990

Research investigated international success in exporting of small Swedish firms. Conducted survey of 85 Swedish companies by mail. Findings- Level of commitment to foreign markets was related to success; more resources committed and the more positive the attitude of management, the better the performance.

Malezadeh & Nahavandi, 1985

Purpose was to investigate the impact of competitive advantage on the motivation to export or not to export. Surveyed 296 California exporting and non-exporting manufacturers. Findings- Exporters and non-exporters differ based on how they plan for new markets. Determinants in decision to export included taxes and proximity to foreign markets.

McDougall, 1989

Researched differences in strategy and structure of new ventures having domestic and international operations. Sample composed of 269 Dun and Bradstreet listed businesses of less than 8 years old. Findings- Strategy and structure variables differed between domestic and international operations; most distinguishing in computer, and communications industry. Domestic businesses emphasized product expansion strategy while international businesses emphasized greater distribution, competitive and market strategies.

Millington & Bayliss, 1990

Study tested sequential model of internationalization. Sample composed of 50 manufacturing companies in the United Kingdom. Findings- Results did not support the stepwise internationalization model. Planning was important in joint ventures.

Namiki, 1988

Study examined types of export strategies in small firms. Sample composed of 3 computer hardware companies having less than 250 employees. Findings- Small firms differentiated by marketing, innovation, and product quality. Multiple strategies used for competing internationally. Higher performing firms followed a single strategy.

Appendix A- continued

O'Rourke, 1985

Explored differences in attitude, practices and problems in exporters by size of business. Surveyed by mail 304 companies from the Northwestern U.S. Findings- Skilled personnel, smaller (in sales) more often responded to unsolicited orders or contacts. Government contacts not a factor. Larger firms were more proactive in initiating exporting.

Pak & Weaver, 1990

Investigated differences among exporters based on level of involvement (extent to which depended on export activity). Conducted national survey of 566 small exporters. Findings- International experience of top management (spoke foreign language, lived abroad) related to interest in growth abroad. Age was not related to export involvement.

Pinney, 1970

Research investigated the importance of top management attitudes in exporting. Surveyed 209 manufacturers from Indiana. Findings- Firms with younger age and managers with positive attitude toward internationalization are more likely to export.

Rabino, 1980

Study investigated barriers to exporting faced by small firms. Sample composed of 46 Massachusetts companies, 17 were high technology firms. Findings- Advantages of exporting perceived to be increased sales, and diversification; biggest barrier was distribution abroad.

Reid, 1984

Purpose was to investigate information acquisition and intent to export in small firms. Sample composed of 89 Canadian fabricated metal (furniture) manufacturers (71 exporters and 18 non-exporters). Findings- Multiple sources of information associated greater expansion; low usage of government programs.

Roy & Simpson, 1981

Researched CEO perceptions of costs and profits in export marketing. Sample composed of 124 companies with less than 500 employees; 65 were exporters. Findings- CEOs in smaller firms perceive more risk in exporting; no significant differences between exporters and non-exporters except that exporters perceived greater costs and profits.

Simpson & Kujawa, 1974

Authors investigated factors distinguishing between exporters and non-exporters. Sample composed of 120 Tennessee manufacturers (50 exporters and 70 non-exporters). Findings- Unsolicited orders, high level of manager education, low perceived risk, available resources (management time, money, personnel and information), and low perceived costs associated with exporters.

Appendix A- continued

Sriram & Sapienza, 1991

Study investigated the role of marketing in small exporters and identified marketing variables associated with export involvement. Sample composed of market executives in 121 exporting firms. Findings- Small (less than 250 employees) and large companies vary in marketing activities; large focus on individual buyers and export to more countries than small.

Sullivan & Bauerschmidt, 1990

Research tested stage model of internationalization, barriers and incentives to exporting. Surveyed 62 forest products companies from Austria, Finland, Sweden and West Germany by mail. Findings- Internationalization is a strategic decision that must fit into cognitive and resource character of the company. Manager's perceptions of foreign markets and country conditions motivate entry.

Sweeney, 1970

Investigated factors important in successful internationalization of small companies. Case study methodology was employed. Findings- Commitment and communication were found vital to success.

Telesio, 1979

Study investigated decision to license technology abroad. Sample composed of 200 managers of Fortune 500 companies. Findings- Motives for licensing were decisre to supplement resources and reciprocate exchanges; companies with high percent research and development, large size, experience internationally, and high level of diversification more likely to consider licensing.

Tesar, 1977

Explored planning. attitudes and operational differences in exporters and non-exporters. Sample composed of 423 small and medium-sized manufacturers in Wisconsin. Findings- Proximity to market encouraged exporting; product characteristics, technology advantage, and greater sales volume associated with exporting.

Tookey, 1964

Examined differences between exporters and on-exporters. Sample composed of 54 clothing manufacturers from Great Britain. Findings- Larger firms with experienced managers more likely to export; lack of trained staff can be a handicap in exporting.

Tyebjee, 1990

Investigated factors causing high technology ventures to internationalize. Surveyed 105 high technology start-up in 8 industries. Findings- Factors motivating international involvement and international success are different; firm demographics are motives for selling abroad while management activities and product adaptations are related to success. Larger size firms are more likely to internationalize.

Appendix A- continued

Ursic & Czinkota, 1984
Study investigated the effect of experience curve on propensity to export. Surveyed 126 companies (100 old; 26 young) U.S. exporters in 3 industries. Findings- Younger aged firms had more favorable attitude toward exporting than older.

Vachani, 1989
Study examined the effect of country environment on MNE diversification. Employed data base analysis of overseas subsidiaries of Fortune 500 MNE's. Findings- There is less incidence of foreign direct investment in lower developed countries; companies in these market use high advertising and low research and development. No significant differences in experiences and behaviors of subsidiaries across type of country.

Weidersheim-Paul, Olson & Welch, 1978
Investigated factors distinguishing between exporting and non-exporting firms. Developed model which was tested on data base. Findings- In manufacturing firms, unique assets and favorable orientation of management encourage exporting.

Welch & Weidersheim-Paul, 1980
Research investigated factors influencing decision to export. Developed model which was tested on data base. Findings- Older age of firm, receipt of unsolicited orders and perceived low psychic distance were motives for exporting.

Withey, 1980
Study investigated differences between small exporters and non-exporters. Sample composed of 357 small mid=western manufacturers having less than 500 employees; 166 were exporters. Findings- Larger businesses (more than 50 employees) were more likely to export. Exporters had more "global" perspective than non-exporters.

Yaprak, 1985
Investigated differences between small exporting and non-exporting firms. Sample composed of 84 exporters and 44 non-exporters from Michigan. Findings- Available resources, especially capital encouraged exporting.

APPENDIX B

Description of Published Lists from Directories used in Sampling

1. Corporate Technology Directory (1991), 6th U.S. Edition, Woburn, MA: Corporate Technology Information Services, Inc.

Company profiles are provided in each listing. This directory lists address, phone number, establishment date, sales, employees, internationalization status, management team, SIC codes, and a brief description of the products sold.

2. Dun's Principle International Businesses: World Marketing Directory (1991) New York: Dun and Bradstreet

This directory identifies companies by name, SIC code, number of employees, sales, CEO, address, telephone number, establishment date, and whether or not the company is internationalized (no differentiation is made between exporting of foreign direct investment). Approximately 7900 businesses are listed.

3. Partner's in Export Trade, Directory for Export Trade Contacts (1987), Volume 2, Washington, D.C.: U.S. Department of Commerce

This directory lists about 4,500 U.S. based companies and products/services by state. Phone number, address, and CEO name are listed.

4. Ward's Directory of U.S. Private and Public Companies (1989-1990), Detroit, Michigan: Gale Research Inc.

Approximately 90,000 companies are listed in this directory which provides information about products by SIC code, export involvement, categorical information on sales and employees, year of establishment, address, phone number and CEO name.

5. U.S. Import/Export Directory (1990) Volume 2, New York: Journal of Commerce

The U.S. Import/Export Directory is published by the Journal of Commerce every year. About 17,300 exporting companies are listed. Companies are listed by state, and data includes products/services produced, SIC code, date of establishment, names of CEO and management team, number of countries served, percentage of sales from international markets, ports of exit, bank references, number of employees, FAX, telephone and address.

6. In addition to published lists, two listings from small business associations were made available to the researcher. The total number of companies surveyed in this sample was forty-nine. Eight of this small sample responded and these businesses were similar in every way to the rest of the companies responding. These two organizations will remain anonymous as per their request.

APPENDIX C-1

TOTAL EXPORT DOLLARS BY REGION AND TOP COUNTRY OF EXPORT[1]

Region I	Millions of Dollars	Top Country	Top Country %
Connecticut	$ 3,828	Japan	18%
Massachusetts	9,691	Japan	14%
Maine	805	Canada	37%
New Hampshire	1,025	G.Britain	18%
Rhode Island	559	Canada	23%
Vermont	1,172	Canada	70%
Region II			
New Jersey	8,308	Canada	16%
New York	26,961	Canada	14%
Region III			
Delaware	1,202	Canada	75%
Washington D.C.	269	W. Germany	39%
Maryland	2,551	Canada	31%
Pennsylvania	7,801	Canada	25%
West Virginia	1,349	Canada	23%
Virginia	7,887	Belgium	16%
Region IV			
Alabama	2,867	Japan	20%
Florida	13,423	Venezuela	9%
Georgia	4,889	Canada	13%
Kentucky	2,938	Canada	26%
Mississippi	1,359	Canada	18%
North Carolina	6,786	Canada	17%
South Carolina	2,997	Canada	16%
Tennessee	2,995	Canada	27%
Region V			
Illinois	11,513	Canada	27%
Indiana	4,758	Canada	38%
Michigan	21,015	Canada	71%
Minnesota	5,093	Canada	21%
Ohio	12,276	Canada	42%
Wisconsin	4,727	Canada	30%
Region VI			
Arkansas	709	Canada	32%
Louisiana	14,921	Canada	17%
New Mexico	193	Canada	12%
Oklahoma	1,541	Canada	31%
Texas	34,578	Mexico	27%

(Appendix C-1, continued)

Region VII	Millions of Dollars	Top Country	Top Country %
Iowa	$ 2,164	Canada	35%
Kansas	1,961	Japan	16%
Missouri	2,737	Canada	30%
Nebraska	916	Japan	21%
Region VIII			
Colorado	2,098	Japan	20%
Montana	398	Japan	34%
North Dakota	279	Canada	53%
South Dakota	91	Canada	38%
Utah	943	Canada	22%
Wyoming	235	Canada	29%
Region IX			
Arizona	3,547	Mexico	22%
California	47,789	Japan	18%
Hawaii	202	Japan	56%
Nevada	248	Switzerland	20%
Region X			
Alaska	2,358	Japan	74%
Idaho	697	Japan	24%
Oregon	4,522	Japan	29%
Washington	17,865	Japan	27%

1- Source: U.S. Bureau of Census, Foreign Trade Division, University of Massachusetts, MISER Services, 1988

APPENDIX C-2

TOP FIVE INDUSTRIES OF EXPORT IN 1983 AND 1987

1983	SIC Code	1987	SIC Code
1. Electrical Machinery	35	Transportation Equipment	37
2. Transportation Equipment	37	Chemicals & Allied Products	28
3. Chemicals & Allied Products	28	Electrical & Electronic	36
4. Electrical & Electronic	36	Machinery except Electrical	35
5. Primary Metals	33	Auxiliary Office Products	40

-- Source: Mehl, G. (1983)

-- Source: Office of Finance, Industry & Trade (1991)

APPENDIX C-3

NUMBER OF FOREIGN TRADE ZONES AND PORTS BY REGION

Region I	Number of Foreign Trade Zones[1]	Number of Ports [2]
Connecticut	2	1
Massachusetts	2	2
Maine	1	1
New Hampshire	1	1
Rhode Island	1	1
Vermont	2	-
Region II		
New Jersey	2	5
New York	12	23
Region III		
Delaware	1	1
Washington, D.C.	1	1
Maryland	2	1
Pennsylvania	3	7
West Virginia	-	-
Virginia	2	2
Region IV		
Alabama	3	3
Florida	8	13
Georgia	2	8
Kentucky	2	3
Mississippi	1	6
North Carolina	4	5
South Carolina	3	5
Tennessee	3	2
Region V		
Illinois	3	17
Indiana	2	4
Michigan	4	2
Minnesota	2	3
Ohio	6	5
Wisconsin	1	4
Region VI		
Arizona	1	3
Louisiana	3	25
New Mexico	1	-
Oklahoma	2	2
Texas	16	14

	Number of Foreign Trade Zones[1]	Number of Ports [2]
Region VII		
Iowa	2	-
Kansas	1	-
Missouri	2	1
Nebraska	2	-

Appendix C-3, continued

Region VIII		
Colorado	2	-
Montana	1	1
North Dakota	1	-
South Dakota	-	-
Utah	1	-
Wyoming	-	-
Region IX		
Arizona	4	-
California	4	13
Hawaii	1	1
Nevada	1	-
Region X		
Arkansas	1	3
Idaho	-	2
Oregon	2	10
Washington	8	19

1- Source: Goldsmith, H. (1989) Import/Export: A Guide to Profit and Market Share, NY: Prentice Hall, pp. 177-196

2- Source: U.S. Import/Export Directory, New York: Journal of Commerce, Inc. pp. 799-808

APPENDIX C-4

HIGHLIGHTS OF U.S. GOVERNMENT EXPORT PROMOTION ACTIVITIES 1982-1992[1]

1980-1985-	34 states sponsored more than 300 export trade activities and trade fairs
1982-	Export Trading Company Act passed- joint export initiatives allowed
1984-	19 states received federal funding for export promotion activities 27 states ran more than 52 overseas trade and investment offices in 10 countries
1987-	47 states sponsored organized trade missions 27 states ran over 80 overseas trade and investment offices in 40 countries
1992-	18 federal agencies involved in export promotion activities 23 state governments spend more than $50 million a year supporting 27 technology extension centers

1- Sources: Seringhaus, 1992; Penner, 1991

APPENDIX C-5

COUNTRIES ACCOUNTING FOR THE MOST GROWTH IN U.S. EXPORTS[1]

Country	1986- Billions $	1991- Billions $	Percent Increase
Canada	$ 55.0	$ 85.1	55%
Japan	26.6	48.1	80%
Mexico	12.4	33.3	168%
Germany	10.4	21.3	105%
G. Britain	11.3	22.1	95%
Korea	5.9	15.1	155%
France	7.2	15.4	114%
Taiwan	5.2	13.2	154%

1. Holstein, W.J. & Kelly, K.(1992) "Little Companies, Big Exports", Business Week, Apr. 13, 1992

APPENDIX D

Summary of Pilot Interviews

Company A- This company was a producer of small electronic dermatology products founded in 1982, but first sold abroad at age four. Current sales were $10,000,000 and the company employed 50 people. In year one of exporting, the company sold products in England subsequent to the owner's travel experiences there. The owner, a chemist by training explained that his main reasons for internationalization were personal experiences abroad and knowledge of similar products sold in Europe. As he noted; "I KNEW there was a market abroad, and I never considered anything but international sales. Competing products required wires and plugs, whereas our product was battery operated and electrical conversion was not a problem". The process of internationalization for this company was gradual, personnel constraints made it necessary to sell abroad slowly. Biggest barriers were cash flow, language and barriers to entry were not important in the decision.

Company B- A California based manufacturer of microfiche products, this $9 million dollar company employs eighty people. Founded in 1974, the company sold abroad after eight years of operations. The founder noted the industry was internationalizing and in order to maintain relationships, it was important for her company to begin to sell products abroad. Similarly, customers and clients abroad had inquired about the product. Obtaining U.S. government approvals and endorsements facilitated entry into foreign markets. This company plans to license its products abroad in coming years.

Company C- This computer software manufacturer will reach 300 employees and $35 million in sales this year. The company was founded twelve years ago but first sold its products abroad at age five. The owner noted "I always envisioned my business as international from the start. I attended a graduate program about the time I was starting this business in my garage, and one of my colleagues was from England. As a result, the first person I hired was a British citizen. My only regret was that our company didn't internationalize sooner". This owner felt that cultural aspects and education were not terribly important, rather customer demand was more important.

Company D- A manufacturer of golf clubs, this business started in 1987 and internationalized within the first year when a Japanese customer suggested they sell abroad. Approximately fourteen percent of the products are shipped abroad by an indirect exporter. The owner's vision was "world-wide" from the start. The present sales are about $800,000.

Company E- A southern based manufacturer of custom elevators, the owner stated the company had "no choice but to expand markets and step outside the U.S.". There was market demand abroad, whereas the big companies were competitive in domestic markets. This company internationalized at age five when sales were nearly four million. Problems have been encountered only in follow-up servicing.

Boston University

Entrepreneurial Management Institute
School of Management
621 Commonwealth Avenue
Boston, Massachusetts 02215
617/353-4298

Office of the Director

October 15, 1991

Dear Entrepreneur:

The attached survey is **one of the first national studies** about the international business activities of small businesses. Although a growing number of small manufacturers are selling their products outside of the U.S., little is known about the international experiences of these companies. This project will provide information about opportunities, problems, and key factors to success for small businesses in the global marketplace. I am asking for your participation in this research.

This survey should take 20 minutes to complete. In return for your help, I will send you a copy of the summary results from this study. **Your responses will remain completely confidential** and no individual respondents or companies will be identified by name.

Your knowledge and experiences are very important to this project. Please submit your responses <u>before November 30, 1991</u>. Enclosed is a self-addressed postage paid envelope for your convenience. You may also FAX the completed survey to (617) 353-2564. Please include your business card if you would like to receive a copy of the summary results.

Thank you for your help and participation.

Very truly yours,

Candida G. Brush
Doctoral Candidate and Project Director
Entrepreneurial Management Institute
(617) 353-4413

Enclosure

INTERNATIONAL BUSINESS QUESTIONNAIRE

This survey is part of a national study of small manufacturers and their international activities. <u>This survey should be completed by a manager or owner who was with the firm when the business first sold its products abroad</u>. You and your responses will remain **COMPLETELY ANONYMOUS.** The term "internationalized" means "PRODUCTS SOLD AND REVENUES RECEIVED FROM OUTSIDE THE U.S.". Thank you for your time.

1. In what YEAR:
   a. was your company ESTABLISHED? _______ (year)

   b. did your company FIRST <u>DECIDE</u> TO SELL ITS PRODUCTS ABROAD?____ (year)

   c. were your company's PRODUCTS FIRST <u>SOLD</u> ABROAD? ______ (year)

2. WHY did your company first DECIDE to SELL ITS PRODUCTS ABROAD? (Please list in order of importance the top three reasons.)

   1.____________________
   2.____________________
   3.____________________

3. WHAT was the FIRST FOREIGN COUNTRY(s) in which your products were sold?
   ____

   a. WHY did your company SELECT this particular COUNTRY(s)?____________
   ____

   b. WHAT was your company's ORIGINAL MEANS OF ENTRY into this COUNTRY'S markets? (Please check one.)

direct export	__	franchising	__
indirect export through intermediary	__	licensing	__
sole venture direct investment	__	contracting	__
joint venture direct investment	__		

   other: (please specify)____________________

4. The following questions relate to PRODUCTS SOLD ABROAD in YEAR #1 of product sales abroad and TODAY.

	<u>Year #1 of Sales Abroad</u>	<u>Today</u>
a. MAIN PRODUCTS sold abroad	____________	____________
	____________	____________
b. TOTAL NUMBER of COUNTRIES where product was sold	________	________
c. PERCENTAGE of TOTAL MANUFACTURED PRODUCTS sold abroad	________%	________%

5. Did your business have a WRITTEN LONG RANGE PLAN for international expansion when your company first sold its product abroad? Yes ___ No___

6. What has been the BIGGEST OBSTACLE(S) faced in the INTERNATIONALIZATION PROCESS?

____

____

____

7. Please rate your opinion of the FAVORABILITY of the BUSINESS CONDITIONS FOR YOUR COMPANY in the U.S. in YEAR #1 of sales abroad and TODAY. Please circle the number that applies. (DK= don't know)

	U.S. Conditions in Year #1						U.S. Conditions Today					
	not favorable					favorable	not favorable					favorable
Economic conditions	DK	1	2	3	4	5	DK	1	2	3	4	5
Tax laws	DK	1	2	3	4	5	DK	1	2	3	4	5
Trade regulations	DK	1	2	3	4	5	DK	1	2	3	4	5
Foreign market information	DK	1	2	3	4	5	DK	1	2	3	4	5
Capital resources	DK	1	2	3	4	5	DK	1	2	3	4	5
Experienced employees	DK	1	2	3	4	5	DK	1	2	3	4	5
Raw materials and supplies	DK	1	2	3	4	5	DK	1	2	3	4	5
Customer demand	DK	1	2	3	4	5	DK	1	2	3	4	5
Market size	DK	1	2	3	4	5	DK	1	2	3	4	5
Market growth	DK	1	2	3	4	5	DK	1	2	3	4	5
Competition	DK	1	2	3	4	5	DK	1	2	3	4	5
Access to Port of Exit	DK	1	2	3	4	5	DK	1	2	3	4	5
Access to international transportation network	DK	1	2	3	4	5	DK	1	2	3	4	5

8. Were any of the BUSINESS CONDITIONS listed above IMPORTANT factors in your company's ORIGINAL DECISION TO SELL ITS PRODUCT ABROAD?
Yes___ No___ If YES, please list the two most important.

1.______________________ 2.______________________

9. Please rate your opinion of the FAVORABILITY of the BUSINESS CONDITIONS for your company in the FIRST FOREIGN COUNTRY WHERE YOUR PRODUCTS WERE SOLD in year number one of product sales abroad and today. Please circle the number that applies. (DK= Don't know) Please indicate the country:______________________

	Country Conditons in Year #1						Country Conditions Today					
	not favorable					favorable	not favorable					favorable
Economic conditions	DK	1	2	3	4	5	DK	1	2	3	4	5
Tarrifs and trade policies	DK	1	2	3	4	5	DK	1	2	3	4	5
Language similarity	DK	1	2	3	4	5	DK	1	2	3	4	5
Capital resources	DK	1	2	3	4	5	DK	1	2	3	4	5
Experienced employees	DK	1	2	3	4	5	DK	1	2	3	4	5
Raw materials and supplies	DK	1	2	3	4	5	DK	1	2	3	4	5
Costs to enter market	DK	1	2	3	4	5	DK	1	2	3	4	5
Size of market	DK	1	2	3	4	5	DK	1	2	3	4	5
Growth of market	DK	1	2	3	4	5	DK	1	2	3	4	5
Number of competitors	DK	1	2	3	4	5	DK	1	2	3	4	5
Customer demand	DK	1	2	3	4	5	DK	1	2	3	4	5
Transportation system	DK	1	2	3	4	5	DK	1	2	3	4	5
Distribution network	DK	1	2	3	4	5	DK	1	2	3	4	5
Geographic distance from U.S.	DK	1	2	3	4	5	DK	1	2	3	4	5

10. Were any of the CONDITIONS listed above IMPORTANT factors IN YOUR COMPANY'S ORIGINAL DECISION to SELL ITS PRODUCTS ABROAD?
Yes ___ No ____ If YES, please list the two most important.

1.________________________________ 2.________________________________

11. Please rate the IMPORTANCE of the following REASONS why small businesses DECIDE TO SELL PRODUCTS ABROAD as they related to your company when this decision was first made. (DK= don't know)

	not important					important
To obtain new sources of capital	DK	1	2	3	4	5
To develop new markets	DK	1	2	3	4	5
To establish long term business relationships	DK	1	2	3	4	5
To be the first U.S. company in the market	DK	1	2	3	4	5
To overcome problems faced in domestic markets	DK	1	2	3	4	5
To reciprocate with suppliers abroad	DK	1	2	3	4	5
To fill customer orders for product	DK	1	2	3	4	5
To keep up with industry competitors	DK	1	2	3	4	5
To increase sales and profits	DK	1	2	3	4	5
To survive	DK	1	2	3	4	5
To obtain long term stability for the company	DK	1	2	3	4	5
To gain a large market share	DK	1	2	3	4	5
To capitalize on domestic competitive advantage	DK	1	2	3	4	5
Other (please specify)________________________	DK	1	2	3	4	5

12. Please rate the IMPORTANCE of the following COMPANY CHARACTERISTICS as they related to your company when the decision TO SELL PRODUCTS ABROAD was first made. (DK= don't know)

The Company had:	not important					important
well trained employees	DK	1	2	3	4	5
employees with international experience	DK	1	2	3	4	5
capital resources	DK	1	2	3	4	5
information about foreign markets	DK	1	2	3	4	5
cooperative arrangements with other small companies	DK	1	2	3	4	5
patented product technology	DK	1	2	3	4	5
innovative products	DK	1	2	3	4	5
quality products	DK	1	2	3	4	5
strong customer service capability	DK	1	2	3	4	5
low production costs	DK	1	2	3	4	5
economies of scale	DK	1	2	3	4	5
high growth in sales domestically	DK	1	2	3	4	5
high product acceptance domestically	DK	1	2	3	4	5
high profits from domestic sales	DK	1	2	3	4	5
planning systems in place	DK	1	2	3	4	5
the ability to adapt to market changes quickly	DK	1	2	3	4	5
standardized production operations	DK	1	2	3	4	5
flexible operations systems	DK	1	2	3	4	5
years of experience in domestic markets	DK	1	2	3	4	5
operated in slow growing industry domestically	DK	1	2	3	4	5

a large number of competitors domestically	DK	1	2	3	4	5
faced many new companies entering industry	DK	1	2	3	4	5
faced rapid technological changes domestically	DK	1	2	3	4	5
faced intense competition domestically	DK	1	2	3	4	5
operated in highly regulated domestic industry	DK	1	2	3	4	5
no competitive advantage in the U.S.	DK	1	2	3	4	5
other (please specify)________________	DK	1	2	3	4	5

13. Were YOU PERSONALLY INVOLVED in the company's DECISION TO SELL ITS PRODUCTS ABROAD? Yes___ No ___ IF NO, please go to QUESTION # 21.

a. If YES, please RATE THE IMPORTANCE of the following PERSONAL FACTORS as they related to your involvement in this decision.

You had:	not important				important	
friends abroad	DK	1	2	3	4	5
relatives abroad	DK	1	2	3	4	5
business associates or contacts abroad	DK	1	2	3	4	5
customer contacts abroad	DK	1	2	3	4	5
government contacts abroad	DK	1	2	3	4	5
worked abroad	DK	1	2	3	4	5
studied abroad	DK	1	2	3	4	5
lived abroad	DK	1	2	3	4	5
travelled abroad	DK	1	2	3	4	5
marketing expertise	DK	1	2	3	4	5
technical knowledge	DK	1	2	3	4	5
financial management skills	DK	1	2	3	4	5
small business management expertise	DK	1	2	3	4	5
experience starting new businesses	DK	1	2	3	4	5
experience raising capital	DK	1	2	3	4	5
fluency in a foreign language	DK	1	2	3	4	5
a degree international business	DK	1	2	3	4	5
other (please specify)________________	DK	1	2	3	4	5

14. Please indicate the degree to which you DISAGREE or AGREE with the following statements: (DK = don't know)

	strongly disagree				strongly agree	
Small businesses should be geographically unlimited from start-up	DK	1	2	3	4	5
Small businesses should sell their products abroad only after selling in U.S. markets	DK	1	2	3	4	5
Foreign markets offer unlimited opportunities for small businesses	DK	1	2	3	4	5
Selling products abroad is risky for small businesses	DK	1	2	3	4	5
Internationalization for a small business should be planned over time	DK	1	2	3	4	5
Small businesses should be quick to take advantage of international opportunities	DK	1	2	3	4	5

15. What are your company's PRESENT GOALS INTERNATIONALLY?

____

____

____

16. If you EXPORT PRODUCTS, from which PORT(s) does your COMPANY SHIP most often? ______________________________

17. Approximately what percentage of your company's INTERNATIONAL COMMUNICATIONS are sent by each of the following means: (The total should equal 100%)

Air Mail	____%	Computer	____%
Telephone	____%	FAX	____%
Overnight Express Mail	____%		

Other (please specify)______________________________

18. Which of the following best describe your company? (please check all that apply.)

sole proprietorship	___	public corporation	___	private corporation	___
"s" corporation	___	partnership	___	subsidiary	___
division or unit of another company			___	franchise	___
independently owned business			___	family-owned business	___

19. How many people did your company EMPLOY in past years?

	Year #1 of Sales Abroad	1989	1990
a. TOTAL number of employees	______	______	______
b. FULL TIME (or equivalent) employees assigned in U.S.	______	______	______
c. FULL TIME (or equivalent) employees assigned ABROAD	______	______	______
d. PERCENTAGE employees assigned abroad who were U.S. citizens	______	______	______

20. What were the approximate ANNUAL SALES, PERCENTAGE OF TOTAL SALES DERIVED FROM SALES OUTSIDE THE U.S., and RETURN ON SALES of your business for past years?

	Year #1 of Sales Abroad	1989	1990
a. TOTAL annual sales	$______	$______	$______
b. PERCENTAGE of total sales derived from SALES OUTSIDE U.S.	_____%	_____%	_____%
c. RETURN ON TOTAL SALES	_____%	_____%	_____%

21. Were you involved in the FORMATION of this COMPANY? Yes___ No___

a. If YES, what was your role? ______________________________

b. Is this your FIRST entrepreneurial effort? Yes___ No ___
If NO, how many other ventures have you tried? ___

c. Did you have PREVIOUS EXPERIENCE in the field of your business?
Yes___ No___ If YES, how many years? _____

d. What was your VISION of the SCOPE and FUTURE of the business at the time the company was formed? ____

____

____

____

e. What was the TOTAL INVESTMENT in your business at start-up?
personal $_________ other equity $_________ debt financing $_________

22. If you were NOT involved in the founding of this business, HOW DID YOU BECOME INVOLVED in the MANAGEMENT of this company? (Please check one.)

purchased business___ hired by management___ succeeded family member___
inherited business___ hired by owners ___ worked up through ranks___
other (please specify)____

23. Were you previously EMPLOYED by a company where you worked OUTSIDE the United States? Yes____ No ____ If YES, number of years ____

24. Do you have a CONTROLLING INTEREST in this company (greater than 50%)?
Yes____ No______ Percent Owned_____

25. GENERAL CLASSIFICATION INFORMATION:

Your AGE: ____ Your GENDER: male ____ female _____

Highest LEVEL OF EDUCATION you have completed:________________
MAJOR FIELD of study _________________________________

U.S. citizen: Yes___ No___ If no, in what country were you born?
____

PREVIOUS OCCUPATION:______________________ NUMBER OF YEARS:____

PRESENT TITLE:____________________________ NUMBER OF YEARS: ____

26. COMPANY CLASSIFICATION INFORMATION:

MAIN PRODUCT(S) sold by your company in the United States TODAY:________
____

MAIN INDUSTRY OF DOMESTIC OPERATIONS:___________________________________

ZIP CODE where your MAIN OFFICE is LOCATED:_________________

THANK YOU for your participation in this survey. Please check the appropriate box or boxes and include your BUSINESS CARD if you would like:
[ ] to receive a copy of the summary results of this survey
[ ] to participate in a follow-up survey
[ ] to offer additional comments about small business internationalization or discuss this survey by telephone.

APPENDIX F-1

PERCEIVED FAVORABILITY OF REGIONAL ENVIRONMENT CONDITIONS IN YEAR ONE (q#7)[13]

Condition	Young	Old	Total
Economic conditions	3.0	2.6	2.7
Tax laws	2.2	2.0	2.0
Trade regulations	2.5	1.9	2.2
Foreign market information	2.3	2.0	2.1
Capital resources	2.3	2.3	2.3
Experienced employees	2.6	2.1	2.3
Raw materials and supplies	3.2	3.0	3.0
Customer demand	3.2	2.7	2.9
Market size	3.0	2.5	2.7
Market growth	3.1	4.0	2.7
Competition	2.9	2.7	2.8
Access to Port of Exit	3.4	2.9	3.1
Access to international transportation network	2.6	2.8	2.9

RANKING OF MOST IMPORTANT REGIONAL ENVIRONMENT CONDITIONS q#10

Young
1 Favorable customer demand
2 Favorable market size
3 Unfavorable customer demand

Old
1 Favorable customer demand
2 Favorable market growth
3 Favorable market size

Total
1 Favorable customer demand
2 Favorable economic conditions
3 Favorable market size
4 Unfavorable economic conditions

[13] mean values based on respondents rating of domestic regional environment conditions year one of internationalization
Scale 1 = unfavorable 5 = very favorable
See Appendix E for copy of questionnaire

APPENDIX F-2

PERCEIVED FAVORABILITY OF HOST COUNTRY CONDITIONS IN YEAR ONE (q#9)[14]

Condition	Young	Old	Total
Economic conditions	2.8	2.4	2.5
Tariffs and trade policies	2.2	1.7	2.0
Language similarity	2.7	2.7	2.6
Capital resources	2.2	2.0	2.0
Experienced employees	2.3	2.0	2.1
Raw materials and supplies	2.1	2.3	2.2
Costs to enter market	2.6	2.5	2.5
Size of market	2.6	2.5	2.5
Growth of market	2.7	2.5	2.5
Number of competitors	2.7	2.6	2.6
Customer demand	3.1	2.8	2.9
Transportation system	2.6	2.6	2.5
Distribution network	2.2	2.4	2.2
Geographic distance from US	2.6	2.5	2.5

RANKING OF MOST IMPORTANT HOST COUNTRY FACTORS (q#10)

Young
1 Favorable customer demand
2 Favorable economic conditions
3 Favorable size of market

Old
1 Favorable customer demand
2 Favorable market growth
3 Favorable economic conditions
4 Favorable language

Total
1 Favorable customer demand
2 Favorable market size
3 Favorable economic conditions

[14] mean values based on respondents rating of host country conditions year one of internationalization
Scale 1 = unfavorable 5 = very favorable
See Appendix E for copy of questionnaire

APPENDIX F-3

REASONS WHY SMALL BUSINESSES DECIDE TO SELL PRODUCTS ABROAD (q#11)[15]

Reason	Young	Old	Total
To obtain new sources of capital	2.72	1.8	2.07
To develop new markets	4.25	4.25	4.24
To establish long term business relationships	3.67	3.75	3.89
To be the first US company in the market	2.45	1.90	2.26
To overcome problems faced in domestic markets	2.59	2.30	2.40
To reciprocate with suppliers abroad	1.43	1.57	1.52
To fill customer orders for product	3.96	3.72	3.90
To keep up with industry competitors	2.79	2.51	2.72
To increase sales and profits	4.47	4.33	4.41
To survive	3.13	2.62	2.91
To obtain long term stability for the company	3.61	3.3	3.49
To gain a large market share	3.62	3.46	3.23
To capitalize on domestic competitive advantage	3.24	1.88	3.14

[15]mean values based on respondents rating 1-5 for each item; 1 = not important, 5 = very important
See Appendix E for copy of questionnaire

APPENDIX F-4

IMPORTANCE OF COMPANY AND INDUSTRY FACTORS (q#12)[16]

Factor	Young	Old	Total
The Company had:			
well trained employees	2.6	2.8	2.8
employees with international experience	2.3	1.5	1.9
capital resources	2.4	2.5	2.4
information about foreign markets	2.8	2.5	2.7
cooperative arrangements with other small companies	1.7	1.5	1.6
patented product technology	2.3	1.8	2.1
innovative products	3.6	3.1	3.3
quality products	4.1	3.9	4.0
strong customer service capability	3.1	3.1	3.1
low production costs	2.8	2.5	2.7
economies of scale	2.3	2.3	2.3
high growth in sales domestically	2.5	2.4	2.5
high product acceptance domestically	3.1	3.2	3.2
high profits from domestic sales	2.4	2.5	2.5
planning systems in place	1.7	2.0	1.9
the ability to adapt to market changes quickly	3.1	2.7	2.9
standardized production operations	2.7	2.6	2.6
flexible operations systems	2.8	3.0	2.9
years of experience in domestic markets	2.7	3.2	2.9
operated in slow growing industry domestically	2.5	2.7	2.5
a large number of competitors domestically	2.4	2.6	2.4
faced many new companies entering industry	2.1	1.8	2.0
faced rapid technological changes domestically	2.0	1.9	2.0
faced intense competition domestically	2.4	2.4	2.3
operated in highly regulated domestic industry	1.5	1.5	1.5
no competitive advantage in US	1.8	1.6	1.7

[16] mean values based on respondents rating 1-5 for each item;
1 = not important, 5 = very important
See Appendix E for copy of questionnaire

APPENDIX F-5

IMPORTANCE OF PERSONAL FACTORS (q#13)[17]

Factor	Young	Old	Total
You had:			
friends abroad	2.1	1.3	1.8
relatives abroad	1.3	1.0	1.2
business associates or contacts abroad	3.2	2.3	2.8
customer contacts abroad	3.6	3.0	3.2
government contacts abroad	1.5	1.5	1.5
worked abroad	1.4	1.3	1.3
studied abroad	1.2	1.2	1.2
lived abroad	1.3	1.2	1.3
travelled abroad	2.6	2.6	2.6
marketing expertise	3.1	2.8	2.9
technical knowledge	3.5	3.2	3.4
financial management skills	2.7	2.7	2.6
small business management expertise	3.1	3.3	3.2
experience starting new businesses	2.9	2.3	2.6
experience raising capital	2.3	1.9	2.1
fluency in a foreign language	1.6	1.8	1.7
a degree international business	1.0	1.4	1.2

[17]mean values based on respondents rating 1-5 for each item;
1 = not important, 5 = very important
See Appendix E for copy of questionnaire

BIBLIOGRAPHY

Abdel-Malek, T. (1978) "Export Marketing Orientation in Small Firms", American Journal of Small Business, 3:1, pp. 25-34

Aharoni, Y. (1966) The Foreign Investment Decision Process, Boston: Harvard Business School

Aldrich, H.; Woodward, W.; & Rosen, B. (1987) "The Impact of Social Networks on Business Founding and Profit", in Churchill, N.C.; Hornaday, J.; Kirchoff, B.; Krasner, O. & Vesper, K.H.; Frontiers of Entrepreneurship Research, Proceedings of the Babson College Conference on Entrepreneurship, Wellesley, MA, pp. 154-168

Aldrich, H.(1990) "Using and Ecological Perspective to Study Organization Founding Rates", Entrepreneurship Theory and Practice, 14:3, pp. 7-24

Ali, A. & Swiercz, P. (1991) "Firm Size and Export Behavior; Lessons From the Midwest", Journal of Small Business Management, 29:2, pp. 71-78

Akhter, S. H & Friedman, R. (1989) "International Market Entry Strategies and Level of Involvement in Marketing Activities", in Negandhi, A.R. & Savara, A. (Eds.), International Strategic Management, Lexington, MA: D.C. Heath & Co., pp. 157-172

Ayal, I. & Hirsch, S. (1982) "Marketing Factors in Small Country Manufactured Exports: Are Market Share and Market Growth Rate Really Important?", Journal of International Business Studies, 16:2, pp. 73-85

Bain, J.S. (1968) Industrial Organization, New York: John Wiley

Berger, P.L. & Luckman, T. (1967) The Social Construction of Reality, New York: Anchor Press (Doubleday)

Bilkey, W.J. (1978) "An Attempted Integration of the Literature on the Export Behavior of Firms", Journal of International Business Studies, 9:1, pp. 33-46

Bilkey, W. J. & Tesar, G. (1977) "The Export Behavior of Smaller-Sized Wisconsin Manufacturing Firms", Journal of International Business Studies, 8:1, pp. 93-98

Birch,D. (1987), Job Creation in America, New York: Free Press

Bird, B. (1989), Entrepreneurial Behavior, Glenview, Ill: Scott Foresman

Bradley, M. F. (1987) "Nature and Significance of International Marketing", Journal of Business Research, 15: pp. 205-219

Brockhaus, R.H. (1980) "Risk-Taking Propensity of Entrepreneurs", Academy of Management Journal, 23: pp. 509-520

Brush, C. G. & VanderWerf, P. (1992) "A Comparison of Methods and Sources for Obtaining Estimates of New Venture Performance", Journal of Business Venturing, 7:2, pp. 157-170

Brush, C. G. & Peters, M.P. (1992) "The Impact of Market Information Scanning Practices on the Performance of New Service and Manufacturing Ventures", Unpublished Working Paper, Boston College

Buckley, P. J. & Casson, J. (1978) "A Theory of International Operations", in Ghertman, M. & Leontiades, J. (eds.), European Research in International Business, Amsterdam: North Holland Publishing Co., pp. 1-8

Buckley, P. J. (1983) "New Theories of International Business: Some Unresolved Issues", in Casson, M. (ed.), The Growth of International Business, London: George Allen & Unwin, pp. 34-50

Buckley, P. J. (1988) "The Limits of Explanation: Testing the Internalization Theory of the Multinational Enterprise", Journal of International Business Studies, 19:1, pp. 181-193

Buckley, P. J. (1989) "Foreign Market Servicing Strategies and Competitiveness: A Theoretical Framework", in Negandhi, A.R. & Savara, A. (eds.), International Strategic Management, Lexington, MA: D.C. Heath & Co., pp. 69-88

Bygrave, W. D. (1989) "The Entrepreneurship Paradigm (11): Chaos and Catastrophes Among Quantum Jumps?" Entrepreneurship Theory and Practice, 14:2, pp. 7-30

Bygrave, W. D. and Hojer, C. W. "Theorizing About Entrepreneurship", Entrepreneurship Theory and Practice, 16:2, pp. 13-22

Carmines, E. G. & Zeller, R.A. (1985) Reliability and Validity Assessment, Beverly Hills, CA: Sage University Press

Casson, M. (1979) Alternatives to the Multinational Enterprise, London: MacMillan Press Ltd.

Casson, M., (ed.) (1983) The Growth of International Business, London: George Allen & Unwin

Casson, M. (1983) "Introduction: The Conceptual Framework", in Casson, M. (ed.) The Growth of International Business, London: George Allen & Unwin, pp. 1-33

Cateora, P.R. & Hess, J.M. (1975) International Marketing, 3rd Edition, Homewood Ill., Richard D. Irwin

Caves, R.E. (1982) Multinational Enterprise and Economic Analysis, New York: Cambridge University Press

Cavusgil, S. T., & Nevin, J.R. (1981) "Internal Determinants of Export Marketing Behavior", Journal of Marketing Research, 18:2, pp. 114-119

Cavusgil, S. T., (1982) "Some Observations on the Relevance of Critical Variables for Internationalization Stages", in Czinkota, M.R. & Tesar, G., Export Management: An International Context, New York: Praeger, pp. 276-287

Cavusgil, S. T. (1984a) "Organizational Characteristics Associated with Export Activity", Journal of Management Studies, 21:1, pp. 3-22

Cavusgil, S. T. (1984b) "Differences Among Exporting Firms Based on Their Degree of Internationalization", Journal of Business Research, 12:2, pp. 195-208

Cavusgil, S. T. & Nevin, J. R. (1981) "Internal Determinants of Export Marketing Behavior: An Empirical Investigation", Journal of Marketing Research, 18:1, pp. 114-119

Cavusgil, S. T. & Naor, J. (1987) "Firm Management Characteristics as Discriminators of Export Marketing Activity", Journal of Business Research, 15:3, pp. 221-235

Chandler, A.D., Jr. (1962) Strategy and Structure: Chapters in the History of American Industrial Enterprise, Cambridge, MA: MIT Press

Chatterjee, S. (1990) "Excess Resources, Utilization Costs and Mode of Entry", Academy of Management Journal, 33:4, pp. 780-800

Christensen, P. R. (1991) "The Small and Medium-sized Exporters Squeeze: Empirical Evidence and Model Reflections", Entrepreneurship and Regional Development, Vol. 3, pp. 49-65

Churchill, G. A. Jr. (1979) "A Paradigm for Developing Better Measures of Marketing Constructs", Journal of Marketing Research, 16: pp. 64-73

Churchill, N. C. & Lewis, V. (1983) "The Five Stages of Small Business Growth", Harvard Business Review, 61:3, pp. 30-50

Cole, A. H. (1965) "An Approach to the Study of Entrepreneurship: A Tribute to Edwin F. Gay", in Aitken, H.G. (Ed.), Explorations in Enterprise, Cambridge, MA: Harvard University Press, pp. 30-44

Contractor, F. J. (1990) "Contractual and Cooperative Forms of International Business: Towards a Unified Theory of Modal Choice", Management International Review, 30:1, pp. 31-54

Contractor, F. J. (1989) "Ownership Patterns of U.S. Joint Ventures Abroad and the Liberalization of Foreign Government Regulations in the 1980's: Evidence from the Benchmark Surveys", Journal of International Business Studies, 21:1, pp. 55-73

Cooper, A. C. (1981), "Strategic Management: New Ventures and Small Businesses", Long Range Planning, 14:5, pp. 39-45

Cooper, A. C. & Dunkelberg, W.C. (1986) "Entrepreneurship and Paths to Business Ownership", Strategic Management Journal, 7:, pp. 53-68

Cooper, A. C., Woo, C. & Dunkelberg, W.C. (1989) "Entrepreneurship and the Initial Size of Firms", Journal of Business Venturing, 4:5, pp. 317-332

Cooper, R. G. & Kleinschmidt, E.J. (1985) "The Impact of Export Strategy on Export Sales Performance", Journal of International Business Studies, 16:1, pp. 37-55

Cyert, R. M. & March, J.G. (1963) A Behavioral Theory of the Firm Englewood Cliffs, NJ: Prentice Hall

Czinkota, M. R. & Johnston, W. J. (1981) "Segmenting U.S. Firms for Export Development", Journal of Business Research, 9:4, pp. 353-365

Czinkota, M. R. & Tesar, G., (Eds.) (1982) Export Management: An International Context, New York: Praeger Publishing

Czinkota, M. R. & Johnston, W.J. (1983) "Exporting: Does Sales Volume Make a Difference?", Journal of International Business Studies, 14:1, pp. 147-153

Daniels, J. D. (1983) "Combining Strategic and International Business", Management International Review, 23:3, p. 4-15

Daniels, J. D.; Pitts, R.; & Tretter, M.J. (1985) "Organizing for Dual Strategies of Product Diversity and International Expansion", Strategic Management Journal, 6: pp. 223-237

Dean, T. & Meyer, D. (1989) "Venture Development in High-Technology Firms: The Impact of Managerial Quoties Across the Organizational Life Cycle" in Brockhaus, R.H. Sr.; Churchill, NC. Katz, J.A.; Kirchoff, B.A., Vesper, K.N., and Wetzel, W. E. Jr.; (Eds.) Frontiers of Entrepreneurship Research, Proceedings of the Babson College Conference on Entrepreneurship, Wellesley, MA: Babson College. pp. 93-108

Denis, J. E. & Depelteau, D. (1985) "Market Knowledge Diversification and Export Expansion", Journal of International Business Studies, 16:3, pp. 77-89

Denzin, N. K. (1978) The Research Act: A Theoretical Introduction to Sociological Methods, 2nd Ed. , New York: McGraw Hill

Dollinger, M. (1985) "Environmental Contacts and Performance of the Smaller Firm", Journal of Small Business Management, 23:1, pp. 24-30

Donckels, R. (1989) "New Entrepreneurship: Lessons from the Past, Perspectives for the Future", Entrepreneurship and Regional Development, 1:1, pp. 75-84

Drucker, P. F. (1985) Innovation and Entrepreneurship, New York: Harper & Row

D'Souza, D. E. & McDougall, P.P. (1989) "Third World Joint Venturing: A Strategic Option for the Smaller Firm", Entrepreneurship Theory and Practice, Summer, pp. 19-33

D'Souza, D. & Eramilli, M. (1991) "Market Entry Behavior of Small Firms: Some Empirical Evidence", paper presented at the Babson College Conference on Entrepreneurship Research, Pittsburgh, PA

Dunning, J. H. (1974) (Ed.) Economic Analysis and the Multinational Enterprise, London, George Allen & Unwin

Dunning, J. H. (1979) "The Distinctive Nature of the Multinational Enterprise", in Dunning, J.H. (ed.) Economic Analysis and the Multinational Enterprise, New York: Praeger Publishing, pp. 1-12

Dunning, J. (1988) "The Eclectic Paradigm of International Production: A Restatement and Some Possible Extensions", Journal of International Business Studies, Spring, pp. 1-31

Eglehoff, W. G. (1988) "Strategy and Structure in Multinational Corporations: A Revision of Stopford and Wells Model", Strategic Management Journal, 9: pp. 1-14

Faucett, J. (1988) "Small Business Exports of Manufactured Products, 1985" Final Report to the Office of Advocacy, U.S. Small Business Administration, Washington, D.C., SBA Contract 2066-AER 87

Fayerweather, J. (1978) International Business Strategy and Administration, Cambridge, MA: Ballinger

Feeser, H. R. & Willard, G. E. (1990), "Founding Strategy and Performance: A Comparison of High and Low Growth High Tech Firms", Strategic Management Journal, 11, pp. 87-98

Ford, D. & Rosson, P. (1982) "The Relationships Between Export Manufacturers and Their Overseas Distributors", in Czinkota, M.R. & Tesar, G., (Eds.) Export Management: An International Context, pp. 257-275

Fowler, F. J. (1988) Survey Research Methods, Revised Ed., Beverly Hills, CA: Sage Publications

Frank, H., Plaschka, G., & Roessl, D. (1989) "Planning Behavior of Successful and Non-Successful Founder of New Ventures", Entrepreneurship and Regional Development, 1:1 pp. 191-20

Fredriksen, C.; Klofsten, M.; Olofsson, C. and Wahlbin, C.; (1989) "Growth, Performance and Financial Structure of New Thecnology-Based Firms", in Brockhous, R. Sr.; Churchill, NC; Katz, J.A.; Kirchoff, B.A.; Vesper, R.A.; and Wetzel, W.E. Jr. (Eds) Frontiers of Entrepreneurship Research, Proceeding's of the Babson Conference; Wellesley, MA: Babson College, pp. 189-199

Galbraith, C. & Stiles, C. (1983) "Firm Profitability and Relative Firm Power", Strategic Management Journal, 4, pp. 237-249

Galbraith, C. S.; DeNoble, A.F. & Estavillo, P. (1990) "Location Criteria and Perceptions of Regional Business Climate: A Study of Mexican and U.S. Small Electronics Firms", Journal of Small Business Management, 28:4, pp. 34-47

Gartner, W. B. (1985) "A Conceptual Framework for Describing the Phenomenon of New Venture Creation", Academy of Management Review, 14:4, pp. 696-706

Gartner, W. B., Bird, B. J. & Star, J. A. (1992) "Acting As If: Differentiating Entrepreneurial Behavior from Organizational Behavior", Entrepreneurship Theory and Practice, 16:3, pp 13-33

Geringer, J. M., Beamish, P. W. & dacosta, R. C. (1989) "Diversification Strategy and Internationalization: Implications for MNE Performance", Strategic Management Journal, 10, pp. 109-119

Ginn, C. W. & Sexton, D. L. (1990) " A Comparison of the Personality Type Dimension of 1987 Inc. 500 Company Founder/CEO's with those of Slower-Growth Firms", Journal of Business Venturing, 5:5, pp. 313-326

Gomes-Casseres, B. & Kohn, T. (1990) "Global Competition by Small Technology-Based Firms", Working Paper, Harvard Business School; 89-070

Goodnow, J. D. & Hansz, J. E. (1972) "Environmental Determinants of Overseas Market Entry Strategies", Journal of International Business Studies, 3:1, pp. 33-50

Goslin, L. N. (1987), "Characteristics of Successful High-Tech Start-up Firms" in Churchill, NC; Hornaday, J. A; Kirchoff, B. A.; Krasner, O. J.; and Vesper, K. H. (Eds) Frontiers of Entrepreneurship Research, Proceedings of the Babson College Conference on Entrepreneurship, Wellesley, MA: Babson College, pp. 452-463

Green, R. T. & Cunningham, W. H. (1975) "The Determinants of U.S. Foreign Investment: An Empirical Examination", Management International Review, 15: 2-3, pp. 113-120

Greiner, L. E. (1972) "Evolution and Revolution as Organizations Grow", Harvard Business Review, 50:4, pp. 37-46

Gripsrud, G. (1989) "The Determinants of Export Decisions and Attitudes to a Distant Market: Norwegian Fishery Exports to Japan", Journal of International Business Studies, 21:3, pp. 469-485

Hair, J. F., Jr., Anderson, R. E. & Tatham, R.L. Multivariate Data Analysis, 2nd Edition, New York: MacMillan Publishing

Hambrick, D. & Mason, P. A. (1984) "Upper Echelons: The Organization as a Reflection of its Top Manager's" Academy of Management Review 9:2, pp 193-206

Harrigan, K. (1983) "Research Methodologies for Contingency Approaches to Business Strategy", Academy of Management Review, 8:3, pp. 398-405

Harrigan, K. (1985) "Vertical Integration and Corporate Strategy", Academy of Management Journal, 28:2, pp. 397-425

Hill, C. W. L., Hwang, P. & Kim, W. C. (1990) "An Eclectic Theory of the Choice of Entry Mode", Strategic Management Journal, 11, pp. 117-128

Hinrichs, J. R. (1975) Effects of Sampling Follow-up Letters and Commitment to Participate on a Mail Attitude Survey Response", Journal of Applied Psychology, 60:2, pp 249-257.

Hirsch, S. & Adar, Z. (1974) "Firm Size and Export Performance" World Development, 2:7, pp. 41-46

Hisrich, R. D. & Peters, M. P. (1983) "East-West Trade: An Assessment by U.S. Manufacturers", Columbia Journal of World Business, 18: 4, pp. 44-50

Holziger, A. G. (1990a) "Reach New Markets", Nation's Business, Dec. pp. 18-27

Holziger, A. G. (1990b) "More Progress in East-West Trade", Nation's Business, June, pp. 33-38

Holziger, A. G. (1990c) "Eastern Europe: A New Frontier", Nation's Business, April, pp. 45-49

Horst, T. (1979), "The Theory of the Firm", in Dunning, J.H. (ed.) Economic Analysis and the Multinational Enterprise, New York: Praeger Publishing, pp. 31-46

Huber, G. G. (1985) "Temporal Stability and Response Order Bias in Participant Descriptions of Organizational Decisions", Academy of Management Journal, 28:4, pp. 943-950

Hymer, S. (1960) "The International Operations of National Firms: A Study of Direct Investment", Unpublished Doctoral Dissertation, MIT

Ireland, R. D. & Van Auken, P. (1987) "Entrepreneurship and Small Business Research: An Historical Topology and Directions for Future Research", American Journal of Small Business, 11:4, pp. 9-20

Johanson J. & Vahlne, J. E. (1977) "The Internationalization Process of the Firm--A Model of Knowledge Development and Increasing Foreign Market Commitment", Journal of International Business Studies, 8:1, pp. 23-32

Johnston, W. J. & Czinkota, M. R. (1982) "Managerial Motivations as Determinants of Industrial Export Behavior", in Czinkota, M.R. & Tesar, G., (Eds.) Export Management: An International Context, New York: Praeger Press

Kao, J. (1989) Entrepreneurship, Creativity and Organization, Englewood Cliffs, NJ: Prentice Hall

Katz, J. & Gartner, W. B. (1988) "Properties of Emerging Organizations", Academy of Management Review, 13:3, pp. 429-441

Kazanjian, R. K. & Drazin, R. (1990) " A Stage Contingent Model of Size and Growth for Technologically Based Ventures", Journal of Business Venturing, 5:3, pp. 137-150

Kedia, B. & Chokar, J. (1986) "Factors Inhibiting Export Performance of Firms: An Empirical Investigation", Management International Review, 26:4, pp. 33-43

Keeley, R. H. & Roure, J. B., Goto; M; Yoshimura, K. (1990) "An International Comparison of New Ventures"; in Churchill, NC.; Bygrave, W.D., Hornaday, J.A.; Muzyka, D.F.; Vesper, K.H.; and Wetzel, W.E. (Eds.) Frontiers of Entrepreneurship Research Proceedings of the Babson College Conference on Entrepreneurship; Wellesley, MA; Babson College, pp. 472-480

Kent, C. A., Sexton, D. L. & Vesper, K. H.(eds.) (1982) Encyclopedia of Entrepreneurship, Englewood Cliffs, NJ: Prentice Hall

Kent, C. A. (1982) "Entrepreneurship and Economic Development" in Kent, C. A., Sexton, D. L. & Vesper, K. H.(eds.) (1982) Encyclopedia of Entrepreneurship, Englewood Cliffs, NJ: Prentice Hall

Kerlinger, F. N. (1964) Foundations of Behavioral Research, 2nd ed., New York: Holt, Rinehart & Winston, Inc.

Kidder, L. H. & Judd C. M. (1986) Research Methods in Social Relations, 5th edition, New York: Holt Rinehart & Winston

Kindleberger, C. P. (1969) American Business Abroad: Six Lectures on Direct Investment, New Haven, CT: Yale University Press

Kirchoff, B. & Phillips, B. (1987) "Examining Entrepreneurship's Role in Economic Growth", in Churchill, N.C., Hornaday, J.A., Kirchoff, B., Krasner, O.J. & Vesper, K. (Eds.) Frontiers of Entrepreneurship Research, Wellesley, MA Babson College, pp. 57-71

Kirchoff, B. & Phillips, B. (1988),"The Effect of Firm Formation and Growth on Job Creation in the United States", Journal of Business Venturing, 3:4, pp. 261-272

Kirchoff, B. A. (1991) "Entrepreneurship's Contribution to Economics", Entrepreneurship Practice and Theory, 16:2, pp. 93-112

Kirplani, V. H. & MacIntosh, N. B. (1980) "Internal Marketing Effectiveness of Technology-Oriented Small Firms", Journal of International Business Studies, Vol. 11 (Winter) pp. 81-90.

Klecka, W. R. (1980) Discriminant Analysis, Beverly Hills, CA: Sage Publications

Kobrin, S. J. (1987) "Testing the Bargaining Hypothesis in the Manufacturing Sector in Developing Countries", International Organization, 41:4, pp. 609-638

Kogut, B. (1985), "Designing Global Strategies: Profiting from Operational Flexibility", Sloan Management Review, Fall, pp. 27-38

Kogut, B. & Singh, H. (1988), " The Effect of National Culture on the Choice of Entry Mode", Journal of International Business Studies, Fall, pp. 411-432

Kohn, T. (1988) International Entrepreneurship: Foreign Direct Investment by Small U.S.-Based Manufacturing Firms, Doctoral Dissertation, Harvard University Graduate School of Management

Kothari, V. (1978) "Strategic Approaches of Small U.S. Manufacturers in International Markets", in Susbauer, J. (ed.), Academy of Management Proceedings, 38th Meeting, pp. 362-366

Lahti, A. (1989) "A Contingency Theory of Entrepreneurial Strategy for a Small Scale Company Operating from a Small and Open Economy in Open European Competition", Entrepreneurship and Regional Development, 1:3, pp. 221-236

Lecraw, D. J. (1984) "Diversification Strategy and Performance", The Journal of Industrial Economics, 33:2, pp. 179-198

Lecraw, D. J. (1989) "The Management of Countertrade: Factors Influencing Success", Journal of International Business Studies, 20:1, pp. 41-59

Liebenstein, H. (1968) "Entrepreneurship and Development" American Economic Review, 58:2, pp. 72-83

Lindquist, M. C. (1990) "Critical Success Factors in the Process of Internationalization of Small Hi-Tech Firms", in Birley, S. (ed.) Building European Ventures, published by European Foundation for Entrepreneurship Research, Elsevier, pp. 36-60

Lippitt, G. & Schmidt, W. (1967) "Crises in a Developing Organization" Harvard Business Review, Nov.- Dec., pp. 102-112

Malekzadeh, A. R., & Nahavandi, A. (1984) "Small Business Exporting: Misconceptions are Abundant", American Journal of Small Business, 9:4, pp. 7-14

Marchesnay, M. & Julien, P. A. (1990) "The Small Business: as a Transaction Space", Entrepreneurship & Regional Development, 2:3 pp. 267-277

Mascarenhas, B. (1986) "International Strategies of Non-Dominant Firms", Journal of International Business Studies, Spring, pp. 1-25

McClelland, D. (1961) The Achieving Society, New York: The Free Press

McDougall, P. P. (1989) "International Versus Domestic Entrepreneurship: New Venture Strategic Behavior and Industry Structure", Journal of Business Venturing, 4, pp. 387-399

McDougall, P. P.; Ray, D. & Oviatt, B. (1991) "A Symposium on Global Start-ups: Entrepreneurial Firms that are Born International", paper prepared for the Entrepreneurship Division of the National Academy of Management Meetings

McGuire, J. W. (1976) "The Small Enterprise in Economics and Organizational Theory", Journal of Contemporary Business, 15:3, pp. 165-188

McMullan, W. E. & Long, W. A. (1990) Developing New Ventures: The Entrepreneurial Option, Orlando, FL Harcourt Brace Jovanovich

Merton, R. K. (1962) Social Theory and Social Structure, New York: The Free Press

Miesenbock, K. J. (1988) "Small Businesses and Exporting: A Literature Review", International Small Business Journal, Jan-Mar., pp. 42-63

Miller, D. (1983) "The Correlates of Entrepreneurship in Three Types of Firms", Management Science, 29:7, pp. 770-791

Mintzberg, H. (1978) "Patterns in Strategy Formulation", Management Science, 29:4, pp. 934-948

Mitton, Daryl, (1989) The Complete Entrepreneur, Entrepreneurship Theory and Practice, 13:3, pp. 9-19

Morrison, A. J. & Roth, K. (1989) "International Business-Level Strategy: The Development of a Holistic Model", in Negandhi, A.R. & Savara, A. (eds.) International Strategic Management, Lexington, MA: D.C. Heath & Co., pp. 29-52

Morrison, D. (1969) "Discriminant Analysis", Journal of Marketing Research, VI, May, pp. 156-163

Namiki, N. (1988) "Export Strategy for Small Business", Journal of Small Business Management, 26:2, pp. 33-37

Norusis, M. J. (1987) The SPSS Guide to Data Analysis for SPSSX, Chicago, ILL: SPSS, Inc.

Nunnally, J. C. (1970) Introduction to Psychological Measurement, New York: McGraw Hill

Olson, Ch. H., & Weidersheim-Paul, F. (1978) "Factors Affecting the Pre-export Behavior of Non-exporting Firms", in Ghertman, M. & Leontiades, J. European Research in International Business, pp. 283-305

O'Rourke, A. D. (1985) "Differences in Exporting Practices, Attitudes and Problems by Size of Firm", American Journal of Small Business, 9:3, pp. 25-29

Pak, J. & Weaver, K. M. (1990) "Differences Among Small Manufacturing Firms Based on their Level of Export Involvement: Potential, Opportunistic and Strategic Exporters", Proceedings of the USASBE Conference, edited by Garsombke, T.W. & Garsombke, D.J., pp. 119-125

Palmer, M. (1971) "The Application of Psychological Testing to Entrepreneurial Potential", California Management Review, 13:3, pp 32-38

Parsons, T. & Smelser, N. J. (1956) Economy and Society, Glencoe, ILL: The Free Press

Payne, J. (1973) Principles of Social Science Measurement, College Station, Texas: Lytton Publishing

Perlmutter, H. V. (1969) "The Tortuous Evolution of the Multinational Corporation", Columbia Journal of World Business, pp. 9-18

Pezeshkpur, C. (1979) "A Systematic Approach to Finding Export Opportunities", Harvard Business Review, Sept.- Oct., pp. 182-196

Porter, M. (ed.) (1986) Competitive Advantage in Global Industries, Boston: Harvard Business School Press

Rabino, S. (1980) "An Examination of Barriers to Exporting Encountered by Small Manufacturing Companies", Management International Review, 20:1, pp. 67-73

Ray, D. (1991) " Reconfiguring Small Business Exports: Shifting the Paradigm Towards New Venture Development and Internationalization", Unpublished Working Paper

Reid, S. D. (1980) "A Behavioral Approach to Export Decision Making", in Bagozzi, R., Bernhardt, K., Busch, P., Cravens, D., Hair, J. & Scott, C. (eds.) Marketing in the 80's, Educators Conference Series, pp. 265-268

Reid, S. D. (1981) "The Decision-maker and Export Entry and Expansion", Journal of International Business Studies, 12:2. pp.101-112

Reid, S. D. (1984) "Information Acquisition and Export Entry Decisions in Small Firms", Journal of Business Research, 12:2, pp. 141-157

Reynolds, P. D. (1991) "Sociology and Entrepreneurship: Concepts and Contributions", Entrepreneurship Theory and Practice, 16:2, pp. 47-70

Rice, G. H. & Hamilton, R. E. (1979) Decision Theory and the Small Business, American Journal of Small Business, 4: pp. 1-7

Robinson, R. & Pearce, J. A. (1984) "Research Thrusts in Small Firm Strategic Planning", Academy of Management Review, 9:1, pp. 1-4

Robock, S. & Simmonds, K. (1983) International Business and Multinational Enterprises, Homewood, Ill: Richard D. Irwin

Roy, D. A. & Simpson, C. L. (1981) "Export Attitudes of Business Executives in the Smaller Manufacturing Firm", Journal of Small Business Management, 19:2, pp. 16-22

Rugman, A. (1971) "Risk Reduction by International Diversification", Journal of International Business Strategy, 7, pp. 75-80

Rugman, A. (1979) International Diversification and the Multinational Enterprise, Lexington, MA: Lexington Books

Sandberg, W. (1984) New Venture Performance: The Role of Strategy and Industry Structure, Lexington, MA: Lexington Books

Sandberg, W. (1992) "Strategic Management's Potential Contributions to a Theory of Entrepreneurship", Entrepreneurship Theory and Practice, 16:3, pp. 73-90

Schumpeter, J. (1942) Capitalism, Socialism and Democracy, New York: Harper and Row

Scott, M. & Bruce, R. "Five Stages of Growth in Small Businesses", Long Range Planning, 20:3, pp. 45-52

Sekaran, U. (_____) "The Research Process: Theoretical Framework, Hypothesis Development and Elements of Research Design" _______________

Sexton, D. L. & Van Auken, P. (1984) "A Longitudinal Study of Small Business Planning", Journal of Small Business Management, 22:2, pp. 6-15

Shaver, K. G. & Scott, L. R. "Person, Process and Choice: The Psychology of New Venture Creation", Entrepreneurship Theory and Practice, 16:2, pp. 23-46

Simon, H. (1957) Administrative Behavior, Second Edition, New York: Macmillan Company

Simpson, C. Jr. & Kujawa, D. (1974) "The Export Decision Process: An Empirical Inquiry", Journal of International Business Studies, 5:1, pp. 107-117

Slevin, D. & Covin, J. (1989) "Strategic Management of Small Firms in Hostile and Benign Environments", Strategic Management Journal, 10:1, pp. 75-87

Slevin, D. & Covin, J. (1990) "New Venture Strategic Posture, Structure and Performance: An Industry Life Cycle Analysis", Journal of Business Venturing, 5:2, pp. 123-135

Slevin, D. & Covin, J. (1987) "The Competitive Tactics of Entrepreneurial Firms in High- and Low-Technology Industries", in Churchill, NC; Hornaday, J.A; Kirchoff, B.A.; Krasner, O.J.; and Vesper, K.H. (Eds) Frontiers of Entrepreneurship Research, Proceedings of the Babson College Conference on Entrepreneurship, Wellesley, MA: Babson College, pp. 87-101

Slevin, D. & Covin, J.; Covin, T. (1991) "Content and Performance of Growth Seeking Strategies: A comparison of Small Firms in High- and Low-Technology Industries", Journal of Business Venturing, 5:6, pp. 391-412

Small Business in the American Economy, (1988), U.S. Government Printing Office, Washington, D.C.

Snaveley, W. P.; Weiner, P.; Ulbrich, H. H.; & Enright, E. J. (1964) "Export Survey of the Greater Hartford Area", Vols. 1 & 2, in Miesenbock, K. (1988) "Small Business Exporting: A Literature Review", International Small Business Journal, Jan.- Mar., pp. 42-59

Sriram, V. & Sapienza, H. (1991) "An Empirical Investigation of the Role of Marketing for Small Exporters", Journal of Small Business Management, 29:4, pp. 33-43

Starr, J. A. & MacMillan, I. C. (1990) "Resource Cooptation via Social Contracting: Resource Acquisition Strategies for New Ventures", Strategic Management Journal, 11: pp. 79-92

Stewart, A. (1991) "A Prospectus on the Anthropology of Entrepreneurship", Entrepreneurship Theory and Practice, 16:2, pp. 71-92

Stewart, R. (1992) "The Relationships and Relevance of New Venture Performance Measures"; Working Paper Northeastern University

Stevens, G. V. G. (1979) " The Determinants of Investment", in Dunning, J.H. (ed.) Economic Analysis and the Multinational Enterprise, New York: Praeger Publishing, pp.47-88

Stevens, J. (1986) Applied Multivariate Statistics for the Social Sciences, Hillsdale, NJ: Lawrence Erlbaum Assoc.

Stevenson, H. H. & Gumpert, D. E. (1985), "The Heart of Entrepreneurship", Harvard Business Review, Mar-Apr. pp. 85-94

Stinchcombe, A. L. (1965), "Social Structures and Organizations", in March, J.G. (Ed.), Handbook of Organizations, Chicago: Rand McNally, pp. 142-193

Stone, M. S. & Brush, C. G. (1992) "Planning in Nonprofit Organizations and Entrepreneurial Firms: An Assessment and a New Interpretation", Bostón University Working Paper, 92-05

Stuart, R. & Abetti, P. A. (1987) "Start-Up Ventures: Towards the Prediction of Initial Success", Journal of Business Venturing, 2:3, pp. 215-230

Sullivan, D. & Bauerschmidt, A. (1990) "Incremental Internationalization: A Test of Johanson and Vahlne's Thesis", Management International Review, 30:1 pp. 19-30

Suzman, C. L. & Wortzel, L. H. (1984) "Technology Profiles and Export Market Strategies", Journal of Business Research, Vol. 12, pp. 183-194

Tannenbaum (1991) Wall Street Journal, Nov. 30, 1991, p. B-2

Telesio, P. (1979) Technology Licensing and Multi-national Enterprises, New York: Praeger Press

Tesar, G. (1977) "Identification of Planning, Attitudinal and Operational Differences Among Types of Exporters", American Journal of Small Business, 11:2, pp. 16-21

Timmons, J. (1985) New Venture Creation, 2nd Edition, Homewood, ILL: Richard D. Irwin

The State of Small Business, (1987), A Report of the President, Washington, D.C.: U.S. Government Printing Office

The State of Small Business, (1989), A Report of the President, Washington, D.C.: U.S. Government Printing Office

The State of Small Business, (1990), A Report of the President, Washington, D.C.: U.S. Government Printing Office

Thorelli, H. (1987) "Entrepreneurship in International Marketing: Some Research Opportunities", in Hills, G. E., Research at the Marketing/Entrepreneurship Interface, University of Chicago at Illinois, published by United States Association for Small Business and Entrepreneurship, pp. 183-204

Tookey, D. A. (1964) "Factors Associated with Success in Exporting", The Journal of Management Studies, 1:1, pp. 48-66

Toyne, B. (1989) "International Exchange: A Foundation for Theory Building in International Business", Journal of International Business Studies, 20:1, pp. 1-17

Ursic, M. L. & Czinkota, M. R. (1984) "An Experience Curve Explanation for Export Expansion", Journal of Business Research,
112:2, pp. 159-168

U.S. Import/Export Directory, (1989), Washington, D.C.: Department of Commerce, Office of Trade and Development

Vachani, S. (1991) "A Longitudinal Study of the Bargaining Power of American, British and Other European Multinationals in India Between 1973-1987, Working Paper, Boston University

Vachani, S. (1990) "Distinguishing Between Related and Unrelated International Geographic Diversification: A Comprehensive Measure of Global Diversification", Journal of International Business Studies, ___:2, pp. 307-322

VanderWerf, P. A. & Brush, C. G. (1989) "Achieving Empirical Progress in an Undefined Field", Entrepreneurship Theory & Practice, 14:2, pp. 45-58

Van de Ven, A. H., Hudson, R. & Schroeder, D. M. (1984) "Designing New Business Start-ups: Entrepreneurial, Organizational and Ecological Considerations", Journal of Management, 10:1 pp. 87-107

Vernon, R. (1974) "The Location of Industry", in Dunning, J.H. (1974) (Ed.)Economic Analysis and the Multinational Enterprise, London, George Allen & Unwin

Vesper, K. (1990) New Venture Strategies, 2nd Ed., Englewood Cliffs, NJ: Prentice Hall

Wall Street Journal, "Enterprise", Nov. 8, 1990, p. A-2

Wall Street Journal, "Three Small Businesses Profit by Taking on the World", Oct. 13, 1990, p. A-2

Walters, G. P. & Samiee, S. (1990) "A Model for Assessing Performance in Small U.S. Exporting Firms", Entrepreneurship Theory and Practice, 15:2, pp. 33-50

Weick, K (1984) The Social Psychology of Organizing, 2nd Edition, New York: Random House

Weidersheim-Paul, F.; Olson, C. H. & Welch, L. (1978) "Pre-Export Activity- The First Step in Internationalization", Journal of International Business Studies, 9:1, pp. 47-58

Welch, L. S. & Wiedersheim-Paul, F. (1980) "Initial Exports- A Marketing Failure?" The Journal of Management Studies, 17:4, pp. 334-344

Welch, L. S. & Loustarinen, R. (1988) "Internationalization: Evolution of a Concept", Journal of General Management, 14:2, pp. 34-55

Williamson, O. E. (1978) Markets and Hierarchies: Analysis and Antitrust Implications, New York: The Free Press

Withey, J. J. (1980) "Differences Between Exporters and Non-Exporters: Some Hypotheses Concerning Small Manufacturing Businesses", American Journal of Small Business, 4:3 pp. 29-37

Yaprak, A. (1985) "An Empirical Study of the Differences Between Small Exporting and Non-exporting U.S. Firms", International Marketing Review, 2:2, pp. 72-83

Zeller, R. A. & Carmines, E. G. (1980), Measurement in the Social Sciences: The Link Between Theory and Data, London: Cambridge University Press

CANDIDA G. BRUSH

Home Address:

612 Washington St.
Duxbury
MA 02332
(617) 934-5183

Office Address:

Boston University
Management Policy Department
621 Commonwealth Avenue
Boston, MA 02215
Tel: (617) 353-2654

<u>EDUCATION</u>

1992 BOSTON UNIVERSITY — Boston, MA

DBA, Management Policy-Specialization in Entrepreneurial Studies. Recipient of the 1992 Richard D. Irwin Foundation Doctoral Dissertation Fellowship.

1982 BOSTON COLLEGE — Chestnut Hill, MA

MBA- Specialization in Entrepreneurship and Marketing
Dean's Commendation Award

1974 SIMMONS COLLEGE — Boston, MA

M.Ed. Student (13 Credits)

1970 UNIVERSITY OF COLORADO — Boulder, CO

B.A. Spanish and Latin American Studies
Dean's List, President's Honor Roll

<u>DISSERTATION</u>

"An Investigation of Factors Motivating Small Companies to Internationalize: The Effect of Firm Age". This research identified factors that motivated small companies to internationalize, described their approaches to implementing such a decision, and provided information about their performance. Similarities and differences were assessed based on age of company at time of internationalization.

<u>RESEARCH, CONSULTATION AND PROFESSIONAL EXPERIENCE</u>

1987-present BOSTON UNIVERSITY — Boston, MA

<u>Independent Researcher</u>- Boston University, "Scanning Practices of New Ventures." This exploratory study investigated the market information scanning practices of a sample of new manufacturing firms. Sources, methods and types of market information were described. Implications of owner/founder experiences on new venture scanning behaviors, and a comparison of scanning behaviors across profitable and nonprofitable businesses are presently under investigation. Co-researcher is Dr. Michael P. Peters.

"Modes of Planning in New Ventures." This research explores modes of planning in new ventures and compares these to planning activities in non-profit organizations. Co-researcher is Dr. Melissa Stone.

"Entrepreneurship and Education." An empirical study was carried out to assess the perceived value of entrepreneurship courses in new venture start-up and careers of graduates of entrepreneurship courses at Boston University.

"Women Business Owners." Since 1981 a longitudinal study has investigated characteristics, problems and performance of women business owners and their businesses. Recent research examines women's enterprise creation internationally. Conducted in part with Dr. Robert D. Hisrich.

Research Associate- "Marketplace Sensitive Manufacturing Organizations." The objectives of this exploratory study were to investigate the characteristics, benefits, costs and barriers to marketplace sensitivity in manufacturing organizations. This study included a comprehensive review of articles from strategic management, operations management and marketing; development of a conceptual framework and research agenda. This research was sponsored by the Manufacturing Roundtable at Boston University. Conducted with Dr. Edwin A. Murray and Dr. Liam Fahey.

Research Assistant-"Performance of New Ventures." This study examines methods and measures used to assess performance of new ventures. Included are a conceptual treatment of sampling procedures in new venture research, an extensive literature review of empirical research on new venture performance, and empirical testing of most popular methods and sources. Conducted with Dr. Pieter VanderWerf.

1985-present | BRUSH AND COOGAN ASSOCIATES | Barnstable, MA
North Conway, NH

Partner in consulting, seminar and research business.

Seminar Leader and Workshop Presenter for 40 workshops attended by over 1,000 women entrepreneurs in the New England Region. Topic areas include Evaluating Business Ownership, Steps to Venture Start-up, Market Assessment and Planning, Financial Plan Preparation, Managing Growth in a New Venture, Long Range Planning, and Special Issues for the Woman Entrepreneur. Presentations involve lecture, discussion, and problem solving activities. Partner with Patricia Coogan.

Consultant-assisted 33 start-up businesses in the New England area. Activities included Business Concept Development, Market Research and Planning, Turn-around Strategies, and Financial Management.

Public Speaker- Keynote speaker, panelist or program chairperson at 25 events on topic areas such as New Venture Creation, The Woman Entrepreneur, Community Strategic Planning, Marketing for New Ventures, and Issues for Women in Business.

Independent Researcher- Conducted a major survey of all 2,000 clients of the Boston College SBDC to determine perceived value of the services of the Center. Responsible for all aspects of the project, research design, development of survey instrument, data collection, coding, analysis and final report preparation. Co-researcher was Patricia Coogan.

1978-89 DAVID W. BRUSH, INC. Barnstable, MA

Partner- Responsible for market research, market planning and general administration in land development company specializing in property improvement and land sales.

1979-81 SMALL BUSINESS DEVELOPMENT CENTER (BOSTON COLLEGE) Chestnut Hill, MA

Student Consultant- Developed business plans, assessed market feasibility, and conducted market research for several new business owners who were clients of the center.

1975-78 AIR NEW ENGLAND Boston, MA

Manager of Inflight Services- Managed a profit center ($300,000 budget). In charge of all services and operations aboard aircraft; supervised more than 30 people, conducted training classes, revised policy manual, negotiated catering and labor contracts, and dealt with Federal Regulatory Agencies including Federal Aviation Administration.

TEACHING EXPERIENCE

1992-present BOSTON UNIVERSITY Boston, MA

Asst. Professor- Management Policy and International Business Courses, Business Policy Department, School of Management. Activities include lectures, grading, and facilitating class discussion.

1990-1992 Instructor- General Management and International Business Courses, Business Policy Department, School of Management. Activities include lectures, grading, and facilitating class discussion of cases. Classes composed of 35% international students.

1983-1987, 1990 BOSTON COLLEGE Boston, MA

Instructor- Marketing Courses, Marketing Department, School of Management. Activities included lectures, grading and facilitation of class discussion. Also supervised independent study projects for honors programs students on topics of Marketing a New Product and Advertising Management.

1982-87 CAPE COD COMMUNITY COLLEGE West Barnstable, MA

Instructor- Marketing, Consumer Behavior, Product Analysis and Development Courses; Division of Continuing Education; Business Technologies.

Product Analysis and Development Course was grant funded and had never previously been taught in the Massachusetts State University and College System. The course was designed to train students to analyze all aspects of a product from raw materials and manufacturing process to image development and advertising. Students then learned to develop and produce an original videotape presentation. Responsibilities included developing and selecting all materials, coordinating and editing the video presentation, lectures and grading.

Workshop Presenter at the Sunrise Executive Breakfast Series for chief executives of small businesses. Topic presented was "Implementing Your Long Range Plan." Cases interactive discussions and lectures were techniques employed.

1984-85 BARRINGTON COLLEGE Barrington, RI

Instructor- Marketing, Advanced Marketing Courses, Business Division. Responsible for all aspects of preparation, lecture, grading and facilitating class discussion.

PUBLICATIONS

Fall 1992 — "Market Place Information Scanning Practices of New Manufacturing Ventures", Journal of Small Business Management, forthcoming- October 1992.

Fall 1992 — "Research on Women Business Owners: Past Trends, Future Directions, and a New Perspective" Entrepreneurship Theory and Practice, forthcoming.

March 1992 — "A Comparison of Methods and Sources for Obtaining Estimates of New Venture Performance" Co-authored with Dr. Pieter VanderWerf, Journal of Business Venturing, 7:2, pp. 157-170.

Spring 1991 — "The Impact of Antecedent Influences on the Survival and Growth of Women-Owned Businesses." Co-authored with Dr. Robert D. Hisrich, Journal of Managerial Psychology, Vol. 5, No. 5, pp. 9-16.

Spring 1990 — "Market Information Scanning Practices of New Ventures" Frontiers of Entrepreneurship Research-Proceedings of the Babson College Conference on Entrepreneurship, pp. 103-116.

Fall 1990 — "Women and Enterprise Creation," in Gould, Sarah and Parzen, Julia (eds), Women, Entrepreneurship and Economic Development, OECD, 1990, pp. 37-50. The Organization for Economic Cooperation and Development (OECD) is a prestigious International organization composed of members from 24 developed countries. The aims of OECD are to promote policies that encourage economic growth, employment, and trade in member and non-member countries. This chapter described the women's enterprise development in 24 countries.

Winter 1989 — "Toward Agreement on the Focus of Entrepreneurship Research: Progress Without Definition." Co-authored with Dr. Pieter VanderWerf, Entrepreneurship Practice and Theory, Vol. 14. No. 2, pp. 45-57.

Candida Brush

Spring 1988	"Women Entrepreneurs: Strategic Origins Impact on Growth," Co-authored with Dr. Robert D. Hisrich. Frontiers of Entrepreneurship Research- Proceedings of the Babson College conference on Entrepreneurship, April, 1988, pp. 612-625.
Spring 1988	"Women Entrepreneurs: Problems and Opportunities," chapter for book entitled Women's Careers: Pathways and Pitfalls; edited by Susanna Rose; Praeger Publishing, 1988. Co-authored with Dr. Robert D. Hisrich, pp. 193-208.
April 1987	Women Entrepreneurs: A Longitudinal Study," Frontiers of Entrepreneurship Research - Co-authored with Dr. Robert D. Hisrich. Proceedings of the Babson College Conference on Entrepreneurship, April, 1987, pp. 187-199.
January 1987	"The Woman Entrepreneur," chapter for book entitled Entrepreneurship and Venture Management, 2nd Edition, Clifford M. Baumback and Joseph R. Mancuso, editors, Prentice Hall, 1987. Co-authored with Dr. Robert D. Hisrich.
January 1986	The Woman Entrepreneur: Starting, Financing and Managing a Successful New Business, co-authored with Dr. Robert D. Hisrich, Boston: Lexington Books.
October 1985	"The Minority Entrepreneur: Characteristics, Problems and Prescriptions for Success," Co-authored with Dr. Robert D. Hisrich. Journal of Small Business Management, Vol. 24, No. 4., pp. 1-8.
April 1985	"Women and Minority Entrepreneurs: A Comparison," Frontiers of Entrepreneurship Research, Co-authored with Dr. Robert D. Hisrich, Proceedings of The Babson College Conference on Entrepreneurship, 566-587.
January 1984	"The Woman Entrepreneur: Management Skills and Business Problems," Co-authored with Dr. Robert D. Hisrich. Journal of Small Business Management, Vol. 2, No. 1, pp. 30-37.
June 1983	"The Woman Entrepreneur: Implications of Family Education, and Occupation", Co-authored with Dr. Robert Hisrich. Frontiers of Entrepreneurship Research- Proceedings of the Babson College Conference on Entrepreneurship, pp. 255-270.

PAPERS UNDER REVIEW

January 1992	"Planning in Nonprofit Organizations and Entrepreneurial Firms: An Assessment of Empirical Research and a New Interpretation", Co-authored with Dr. Melissa Stone, accepted at the Public and Nonprofit Sector Division for the 1992 Academy of Management Meetings.
May 1992	"The Impact of Market Information Scanning Practices on the Performance of New Service and Manufacturing Businesses", Co-authored with Dr. Michael P. Peters. Under review at Journal of Business Venturing.

Candida Brush

WORKING PAPERS

May 1992	"Note on Women Business Owners: Past Trends and A New Perspective"; teaching note for class discussion, Entrepreneurial Management Institute, Boston University.
January 1992	"Planning in Nonprofit Organizations and Entrepreneurial Firms: An Assessment of Empirical Research and an New Interpretation", Co-authored with Dr. Melissa Stone, Boston University Working Paper #92-05.
April 1991	"Market Information Scanning Practices of New Service Ventures: The Impact of Owner/Founder Experience", co-authored with Dr. Michael P. Peters, Entrepreneurial Management Institute Working Paper, #92-3-1.
July 1990	"The New Venture and the Venture Capital Investment Firm-Comparison of Power Dynamics." Co-authored with Dr. Wendy C. Handler.
July 1989	"Women Business Owners: An International Perspective."
May 1989	"Entrepreneurship Courses at Boston University: Perceptions of Students Who Graduated 1985-1988."

PAPERS PRESENTED

August 1992	"Planning in Nonprofit Organizations and Entrepreneurial Firms: An Assessment of Empirical Research and a New Interpretation", Co-authored with Dr. Melissa Stone. Presented at the Public and Nonprofit Sector Division for the 1992 Academy of Management Meetings.
April 1991	"Market Information Scanning Practices of New Service Ventures: The Impact of Owner/Founder Experience", co-authored with Dr. Michael P. Peters. Babson College Conference on Entrepreneurship Research, University of Pittsburgh, Pittsburgh, PA.
April 1990	"Measuring Performance of New Ventures." Co-presented with Dr. Pieter VanderWerf, Babson College Conference on Entrepreneurship, Babson College, Boston, MA.
April 1990	"Market Information Scanning Practices of New Ventures," Babson 1990 College Conference on Entrepreneurship, Babson College, Boston, MA.
August 1989	"Toward Agreement on the Focus of Entrepreneurship Research: Progress Without Definition." Co-presented with Dr. Pieter VanderWerf, Annual Academy of Management Meeting, Entrepreneurship Division, Washington, D.C.
May 1988	"Women Entrepreneur: Strategic Origins--Impact on Growth," Babson College Conference on Entrepreneurship, University of Calgary, Calgary, Canada.

Candida Brush

April 1983	"The Woman Entrepreneur: Implications of Family, Education, and Occupation." Macalester College Conference-Women Business and Risk, Macalester College, Minneapolis, MN.

HONORS

April 1992	Recipient of the 1992 Richard D. Irwin Foundation Doctoral Dissertation Fellowship.
August 1990	One of 37 doctoral students selected from business schools nationally to participate in Business Policy Doctoral Consortium, Annual Academy of Management, San Francisco, CA.
March 1990	Recognized by national directory-Who's Who of Women Executives.
May 1988	Recipient of a scholarship to 1988 the Doctoral Consortium at the Annual Babson College Conference on Research in Entrepreneurship.
February 1987	IDS--American Express Fellow; Macalester College Conference, "Women, Business and Risk."

PROFESSIONAL ASSOCIATIONS

Academy of Management
Entrepreneurship Division of Academy of Management
National Association of Female Executives
United States Association for Small Business and Entrepreneurship
Small Business Institute Directors Association
Strategic Management Society

PROFESSIONAL ACTIVITIES

Ad hoc reviewer for Entrepreneurship Theory and Practice, ed. Ray Bagby, 1990-1991. Published by Baylor University.

Reviewer for papers submitted to the Entrepreneurship Division of the Academy of Management for annual meetings in 1991, 1992.

Reviewer for papers submitted to the International Council for Small Business (ICSB) World Conference, 1992.

OTHER

August 1992	Discussant- Entrepreneurship Division, National Academy of Management Meetings, Session entitled "Strategy Perspectives in Entrepreneurship".
August 1992	Participant- Junior Faculty Consortium, Entrepreneurship Division. National Academy of Management, Las Vegas, NV.
August 1991	Panelist- "Symposium on Global Start-ups: Entrepreneurial Firms that are Born International." Entrepreneurship Division, Annual Academy of Management Meetings, Miami, FL.

Candida Brush

August 1989	Discussant- "Pathways to Excellence- New Patterns for Human Resource Utilization", Pre-Conference Workshop, Annual Academy of Management Meetings, Washington, D.C.
1988-Present	Cape Cod Ballet Society--Advisory Board Member.
1988-Present	Cape Cod Women's Resource Center at Cape Cod Community College--Advisory Board Member.
1988-89	Taurian Gymnastics Parents Association--Publicity Director.
1986-87	Media Planner for Trinity School Fund Raising Event.