THE DEGREE OF INTERNATIONALIZATION OF U.S. SERVICE FIRMS

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submitted in partial fulfillment of the requirements
for the degree

DOCTOR OF BUSINESS ADMINISTRATION

at the

CLEVELAND STATE UNIVERSITY

March, 1996

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ACKNOWLEDGMENTS

This dissertation research is partially funded by a grant from the Graduate College of Cleveland State University, Cleveland, Ohio and with support from the Ohio School of International Business.

The author gratefully acknowledges the contribution of the dissertation committee members, Dr. Raj Javalgi, Dr. Bob Cutler, Dr. Andrew Gross, and Dr. Vijay Mathur, and thanks them for their guidance and patience.

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ABSTRACT

The goal of this research is to determine which antecedents significantly contribute to a U.S.-based service firm's degree of internationalization. This study is unique in that it attempts to synergize three different streams of international business research into a cohesive explanatory model. The existing theoretical research, which provides the basis for the proposed project, focuses on exporting, services marketing and internationalization theory. By synergistically unifying the theoretical concepts from these three diverse streams, a pragmatic model identifying the significant impact of hypothesized antecedents is developed.

The model consists of six theoretically-based antecedents to the degree of internationalization: firm characteristics, management attitudes, market characteristics, international experience, strategic motivation to internationalize, and market entry modes. Empirical testing of the model, using data collected by means of a direct mail survey, confirms the structure proposed. Additionally, six of the twelve hypotheses regarding the relationships between the antecedents are statistically significant.

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CHAPTER I

IT'S A SMALL WORLD

The words of Walt Disney proved to be prophetic - it is a small world after all. The new global order presents a bewildering array of cultural, political, technological and economic interdependencies. Furthermore, our country's days as a relative trade isolationist are over. Competitors from all corners of the world are entering the global marketplace with differing economic strengths and competitive advantages. No longer can domestically-based and -oriented companies ignore the reality of international competition.

The U.S. economy is interdependent with other national economies and influences world economic trends (Kedia & Cornwell, 1994), and the increased globalization of the world economy is forcing U.S. firms to adapt to a new international order (Cavusgil & Yeoh, 1994). Although the U.S. is still the world's largest economy and market, its trade deficit has grown dramatically since 1970. Simultaneously, its status as the only dominant capitalistic society has also waned. The change from global market leader to market follower is occurring faster than most Americans thought possible (Serey, Lindsay & Myers, 1989). America's declining position in world markets indicates the need for its businesses to compete more effectively in the global arena (Dertouzos, Thurow & Solow, 1989; Hill, Hitt & Hoskisson, 1988; Kedia, 1993; Young, 1985).

Why Services are Economically Important

Concurrent with its decline in world economic standing, the U.S. lost almost two million manufacturing jobs during the 1980s (Roach, 1991). This decline in manufacturing jobs, coupled with an increasing number of service jobs, has continued to the point that more than 80 percent of all U.S. jobs are now in the service sector (Huey, 1994). Czinkota and Ronkainen (1990) report that in addition to employing more than 80 percent of the U.S. full- and part-time work force, the service sector accounts for 68 percent of our Gross National Product. By all indications, the number of manufacturing jobs will continue to decline, while the number of jobs in the service sector will continue to increase. This continued shift from a predominantly manufacturing-based economy to a services-based economy has profound implications on the U.S. balance of trade.

Since 1971, the U.S. has enjoyed a surplus balance of trade in services. The total volume of service exports has nearly doubled since 1988 and accounts for 25 percent to total U.S. exports (Duncan & Gross, 1993). Yet, the volume of service exports is still only one-third as large as manufactured exports. In 1993, the volume of service exports reached $184 billion while the volume of service imports totaled $128 billion, contributing to a $56.8 billion service trade surplus. The following year, 1994, witnessed a growth in service exports to $195 billion and in imports to $135 billion, for a trade surplus of $60 billion. This trend of growth in the service sector export surplus has continued unabated for the past 23 years.

One plausible reason for the rapid growth in service exports, according to Farnham (1994), is the increased number and political influence of Multi-National Corporations (MNCs). As more American corporations become multi-national corporations, they "pull" their preferred service providers into the global arena, a phenomenon described in the literature as client following (Ball & Tschoegl, 1982; Goldberg and Saunders, 1980; Khoury, 1979; Li, 1994; Li & Guisinger, 1992; Nigh, Cho & Krishnan, 1986; Terpstra & Yu, 1988; Weinstein, 1977). Regardless of the motivation to internationalize, the U.S. needs to foster a more progressive international orientation in its domestic service providers. To fail to do so will lead to increasingly larger balance of trade deficits, and the continued decline of U.S. economic strength in the global market place.

How Service Providers Enter International Markets

Service providers may enter foreign markets either directly, through cross-border transactions, or indirectly, through affiliates in other countries. The method of delivery employed is a function of the type of service offering: many international services are separable, meaning that their production and consumption occur independently (Sampson & Snape, 1985) and these services are exportable, whereas inseparable services are not exportable (Erramilli & Rao, 1993). Exportable services are the biggest segment of U.S. global service trade, with the member countries of the Organization for Economic Cooperation and Development the largest overall consumers of our service exports. In total, the countries of western Europe consumed almost 72 percent of total U.S. service exports in the early 1990s, although the largest single state consumers of U.S. services are (in descending order) Canada, Japan and Mexico. The trade surplus in services has become so large that on March 22nd, 1994, the U.S. government began including an estimate of service exports in its monthly balance of trade reports (Berthelsen, 1994).

To illustrate the rapid growth in the volume of service exports, and the increasing deficit in the trade of goods, Table 1 presents the total volume of exports of goods and services, total volume of imports of goods and services and the trade balance of goods and services for the period 1960 through 1994. Historically, from 1891 through 1970, the U.S. enjoyed an unbroken string of trade surpluses (Business America, 1994). Interestingly, the first year of surplus for the service sector (1971) coincides with the first year of an overall trade deficit and a deficit in goods exports. Both sectors have retained their respective balance of trade orientations since 1971 with two exceptions: a $900 million goods surplus in 1973 and a $8.9 billion goods surplus in 1975. As evidenced in Table 1, America can dramatically reduce its trade deficit by increasing the volume of services sold on the world market.

A closer examination of the data contained in Table 1 provides interesting insights. Since 1983, the average annual rate of growth in service exports is 10.75 percent. During the same period, the average annual growth rate in the exports of goods registers 8.87 percent. When comparing the percentage increase per year, the growth in services surpasses the growth in goods exported every period with two exceptions: 1987 to 1988 and 1993 to 1994. Conversely, the average annual increase in the growth of goods imports equals 8.81 percent for the period 1983 through 1994, while the average increase in the import of services during the same period is 8.70 percent. On average, service exports grew at an average annual rate in excess of three percentage points over the increase in imports. Goods exports grew on average .06 percent faster than the increase in goods

TABLE 1

U.S. International Trade in Goods and Services
Balance of Payments (BOP) Basis
(Billions of U.S. Dollars)

	------ Exports ------			------- Imports -------			---- Trade Balance ---		
Year	Total	Goods	Services	Total	Goods	Services	Total	Goods	Services
1960	25.9	19.7	6.3	22.4	14.8	7.7	3.5	4.9	(1.4)
1961	26.4	20.1	6.3	22.2	14.5	7.7	4.2	5.6	(1.4)
1962	27.7	20.8	6.9	24.4	16.3	8.1	3.4	4.5	(1.2)
1963	29.6	22.3	7.3	25.4	17.0	8.4	4.2	5.2	(1.0)
1964	33.3	25.5	7.8	27.3	18.7	8.6	6.0	6.8	(0.8)
1965	35.3	26.5	8.8	30.6	21.5	9.1	4.7	5.0	(0.3)
1966	38.9	29.3	9.6	36.0	25.5	10.5	2.9	3.8	(0.9)
1967	41.3	30.7	10.7	38.7	26.9	11.9	2.6	3.8	(1.2)
1968	45.5	33.6	11.9	45.3	33.0	12.3	0.3	0.6	(0.4)
1969	49.2	36.4	12.8	49.1	35.8	13.3	0.1	0.6	(0.5)
1970	56.6	42.5	14.2	54.4	39.9	14.5	2.3	2.6	(0.3)
1971	59.7	43.3	16.4	61.0	45.6	15.4	(1.3)	(2.3)	1.0
1972	67.2	49.4	17.8	72.7	55.8	16.9	(5.4)	(6.4)	1.0
1973	91.2	71.4	19.8	89.3	70.5	18.8	1.9	0.9	1.0
1974	120.9	98.3	22.6	125.2	103.8	21.4	(4.3)	(5.5)	1.2
1975	132.6	107.1	25.5	120.2	98.2	22.0	12.4	8.9	3.5
1976	142.7	114.7	28.0	148.8	124.2	24.6	(6.1)	(9.5)	3.4
1977	152.3	120.8	31.5	179.5	151.9	27.6	(27.2)	(31.1)	3.8
1978	178.4	142.1	36.4	208.2	176.0	32.2	(29.8)	(33.9)	4.2
1979	224.1	184.4	39.7	248.7	212.0	36.7	(24.6)	(27.6)	3.0
1980	271.8	224.3	47.6	291.2	249.8	41.5	(19.4)	(25.5)	6.1
1981	294.4	237.0	57.4	310.6	265.1	45.5	(16.2)	(28.0)	11.9
1982	275.2	211.2	64.1	299.4	247.6	51.7	(24.2)	(36.5)	12.3
1983	266.0	201.8	64.2	323.8	268.9	54.9	(57.8)	(67.1)	9.3
1984	290.9	219.9	71.0	400.1	332.4	67.7	(109.2)	(112.5)	3.3
1985	288.8	215.9	72.9	410.9	338.1	72.8	(122.1)	(122.2)	0.1
1986	309.5	223.3	86.1	448.3	368.4	79.8	(138.8)	(145.1)	6.3
1987	348.0	250.2	97.8	500.0	409.8	90.2	(152.0)	(159.6)	7.6
1988	430.2	320.2	110.0	545.0	447.2	97.9	(114.8)	(127.0)	12.1
1989	489.0	362.1	126.8	579.3	477.4	101.9	(90.3)	(115.2)	24.9
1990	537.6	389.3	148.3	616.0	498.3	117.7	(78.4)	(109.0)	30.7
1991	581.2	416.9	164.3	609.1	490.7	118.4	(27.9)	(73.8)	45.9
1992	616.9	440.4	176.6	657.3	536.5	120.9	(40.4)	(96.1)	55.7
1993	641.7	456.9	184.8	717.4	589.4	128.0	(75.7)	(132.6)	56.9
1994	698.0	503.0	195.0	804.0	669.0	135.0	(107.0)	(167.0)	60.0

NOTE: 1. Compiled from official statistics of the U.S. Department of Commerce, Bureau of Economic Analysis. Data reflect all revisions through June 1995.

2. Balance of Payments (BOP) basis for goods reflects adjustments for timing, coverage, and valuation to the data compiled by the Census Bureau. The major adjustments concern: military trade of U.S. defense agencies, additional nonmonetary gold transactions, and inland freight in Canada and Mexico.

3. Goods valuation are F.A.S. for exports and Customs value for imports.

4. Source: National Trade Data Bank

imports. The balance of trade surplus in services will continue to increase as U.S. service companies expand their focus to include the global market place.

Contribution of Services to Gross Domestic Product

The service sector has displaced manufacturing as the largest element of the economies of virtually all advanced nations (Aharoni, 1993; Quinn, Baruch & Paquette, 1987). Services' share in employment and GDP has grown in most countries in the last two decades (Daniels, 1982; Gershuny & Miles, 1983; Kravis, Heston & Summers, 1983; Riddle, 1986; Shelp, 1981, 1983). In particular, services account for about two-thirds of GDP in other developed countries and for almost half of GDP in developing countries (World Bank, 1989). From 1988 through 1992, 43.1 percent of the growth in U.S. GDP was due to service exports (Business America, 1994).

Schoell and Guiltinan (1992) offer eight plausible explanations for the growth in services: 1) increasing affluence, 2) more leisure time, 3) higher percentage of women in the labor force, 4) longer life expectancy, 5) greater complexity of products, 6) increasing complexity of life, 7) greater concern about ecology and resource scarcity, and 8) increasing technological change. Of the eight, five are characteristics of "developed" economies. However, as developing countries close the economic gap, services will account for an even larger proportion of the world economy.

In spite of the importance of the service sector to its economic health, Quinn, Baruch and Paquette (1987) point out that the overall U.S. share of world service exports fell from 23.8 percent in 1970 to 19.2 percent 1985, and will continue to decline.

What is Internationalization?

Despite the popularity of its use, the term "internationalization" eludes a concrete theoretical definition. Piercy (1982) ambiguously describes internationalization as a process of change. For this research effort, internationalization theory (attributed to Perlmutter, 1969), is "the process of increasing involvement in international operations" (Welch & Loustarinen, 1988: p. 36). Internationalization may therefore be described as a developmental and incremental process, during which the firm gains growing experience in international business (Dalli, 1994). A company's degree of internationalization is operationalized as foreign sales as a percentage of total sales (Daniels & Bracker, 1989; Geringer, Beamish & daCosta, 1989; Stopford & Dunning, 1983). This is the definition that will be used throughout this research.

Prophetically, Bower (1968) in his early assessment of the international demand for services, predicted that given the expansion of international business operations, all U.S.

service firms, regardless of their size, would face the issue of internationalizing. The rapid growth in the volume of U.S. service exports since 1988 indicates that the time has come for domestic service firms to face the issue of internationalization. Edvardsson, Edvinsson and Nystrom (1993) muse that given the importance of the internationalization of service firms, the lack of research in this area is unconscionable, and represents a real oversight. Using the aforementioned definition of internationalization, this study seeks to address the lack of research on the internationalization of U.S. service firms by investigating the degree to which our domestic professional service firms have internationalized.

Why Investigating the Degree of Internationalization is Important

The rapid growth of the service sector in economies throughout the world, and the growing level of international trade in this area, has fostered a significant need for research on international services marketing (Giarini, 1987; Leveson, 1985; Nicoulaud, 1989). Specifically, a model to predict which service firms are most capable of internationalizing is lacking. By identifying and assisting domestic service providers to internationalize, the U.S. can reduce its trade deficit and return to economic prosperity.

The role of services in economic development is even greater than previously suspected because many services (e.g., research & development) are important catalysts of economic growth (Aharoni, 1993). In addition, the service sectors of developed country economies are growing faster than manufacturing activities both nationally and internationally (Palmer, 1985). Because of the decline of traditional manufacturing industries globally, and the increase of micro technology, it is reasonable to expect a continued shift "towards employment in, and expansion of" the service economies of both the developed and developing countries (Rushton & Carson, 1989: p. 23). Quinn, Baruch and Paquette (1987) indicate that the U.S. can increase its standard of living, assure the stability of its job markets and become more competitive internationally by focusing on the development of its service sector. Brown (1994) reports that a 15 percent increase in overall service exports will put more than a million Americans to work.

By investigating the degree of internationalization, a concept proposed by Sullivan (1994), this study seeks to determine the differences between service firms who have not yet internationalized, service firms who are in the developmental/learning stages of internationalization, and firms who have completely committed to internationalization. Although previous research reports that the degree of internationalization (DOI) is incremental (Dalli, 1994), the position of this study is that DOI is a much more fluid process - one that experiences ebbs and flows - and that multiple antecedents of internationalization need to be taken into account to accurately measure a service company's degree of internationalization at any given point in time.

Focus of the Dissertation

By investigating the service sector, this study contributes to a largely ignored segment of the international marketing literature. Henkoff (1994) reports that despite its growing size, the service sector remains woefully unexplored. The growing importance of services, their rising share of U.S. GDP and their increased magnitude in international trade have created a vital need to examine the degree to which conventional international trade theories apply to the service industry (Aharoni, 1993).

Two previous studies report that conventional trade theories apply not only to goods, but to services alike (Boddewyn, Halbrich & Perry, 1986; Sapir, 1982). Given the applicability of manufacturing-based theories to the service industry, the main research question for this effort is: What are the factors which explain the degree of internationalization of U.S. service firms?

The Proposal

A significant gap in the marketing literature exists with regard to international services marketing. As evidenced in the previous section, this gap is so vast that scholars are calling for more research in this area (Aharoni, 1993; Henkoff, 1994). It is the goal of this project to answer the call by determining which antecedents significantly contribute to the degree of internationalization of U.S. service firms. By identifying and understanding the differences between service firms who operate internationally and those who operate domestically, this study seeks to develop a means of enticing domestic providers to broaden their market perspective.

More specifically, this study seeks to examine the relationships between:

1) Firm characteristics and international experience,
2) Firm characteristics and market entry mode,
3) Firm characteristics and strategic motivation,
4) Management attitudes and international experience,
5) Management attitudes and market entry mode,
6) Management attitudes and strategic motivation,
7) Market characteristics and international experience,
8) Market characteristics and market entry mode,
9) Market characteristics and strategic motivation,
10) International experience and market entry mode,
11) Strategic motivation and market entry mode,
12) Market entry modes and the degree of internationalization, and
13) All six antecedents and the degree of internationalization.

By examining the relationships proposed above, this study will contribute to the extant body of literature about the marketing of services in three significant ways:

A) It will identify perceived differences between the domestic and international marketing of services;

B) It will synergize three divergent streams of research - international services marketing literature, the exporting literature, and the literature regarding the internationalization process of firms - into a unified explanatory model that delineates the differences between domestic and international providers of services; and

C) It will use a more sophisticated statistical tool (linear structural analysis) than incorporated in prior service marketing research to test the significance of the proposed conceptual framework and to test the hypothesized relationships between the latent constructs.

Organization

Chapter Two presents a literature review of the topics of services marketing, international services marketing, and unique problems associated with the marketing of services internationally. The chapter includes a historical review of the topics, and presents the rationale for pursuing a pragmatic or applied approach in international services marketing research. Finally, the need for empirical research in this area is made clear through the presentation of a summary of current calls for research in international services marketing.

Chapter Three begins with the historical development the degree of internationalization and potential antecedents to the degree of internationalization. Once the presentation of the theoretical foundation of internationalization concludes, a framework for investigating the relationships between the antecedents of internationalization and the degree of internationalization is proposed. The chapter contains the research providing the theoretical justification for the relationships hypothesized. An argument is put forth for the existence of a common, underlying theme among these historically unrelated research streams. The chapter concludes with an explanation of the operationalization of each of the constructs contained in the final model.

Chapter Four highlights the research methodology used as well as the research design enlisted and the rationale for selecting one methodology over another. The instrument used to measure the degree of internationalization and the six constructs of firm characteristics, management attitudes, market characteristics, international experience, market entry mode, and strategic motivation are discussed and defended.

Chapter Five presents the analysis of the data, a discussion of the reliability and validity of the measurement instrument, and discusses the results of the hypothesis testing. Chapter Six provides a summary of the statistical analysis, a discussion of the findings, implications of the findings for the discipline of marketing, limitations of the research project, and suggestions for future research.

CHAPTER II

LITERATURE REVIEW

This chapter contains discussions of research about the nature of services marketing, the status of the research on international services marketing, and unique problems associated with the marketing of services internationally. In doing so, it presents information about the historical development of the treatment of services marketing within the literature of our discipline. The chapter begins with a examination of the classical treatment of the difference between the marketing of goods and services, moves to a discussion of the research on the internationalization of services, and concludes with a summary of the numerous calls for empirical research in international services found in the marketing literature.

Difference Between the Marketing of Services and Goods:

That services marketing differs from the marketing of goods in some basic way is no longer an issue in the marketing literature. However, there is still considerable debate as to how the marketing of services differs from the marketing of goods and the impact that these differences have with regard to marketing theory (Rushton & Carson, 1989). Furthermore, Rushton and Carson (1989) propose that the marketing of services is far more difficult than the marketing of goods. As an example, Rushton and Carson report that unlike the marketing of goods, the personnel delivering the service largely impact the client's level of perceived satisfaction with the transaction and with the quality of the service.

Before proceeding, it is important to define exactly what is meant by the term service. Despite the recent increase in articles about the marketing of services, a standard definition of what a constitutes a service is still lacking in the literature. This study utilizes the definition put forth by Kotler and Armstrong (1991; p. 603):

> "We define a service as an activity or benefit that one party can offer another that is essentially intangible and does not result in the ownership of anything. Its production may or may not be tied to a physical product."

Common among most definitions of service is that four fundamental differences between the marketing of goods and services exists: intangibility, inseparability, heterogeneity, and perishability (Boddewyn, Halbrich, & Perry, 1986; Edgett & Parkinson, 1993; Zeithaml, Parasuraman & Berry, 1985). The following section includes a definition of each of these characteristics, and provides strategic insights for marketers with respect to each characteristic.

Intangibility:

Despite the absence of a concrete definition of what the service sector entails, prior research reports the main difference between the marketing of goods and services is that services consist of intangible outputs (Bateson, 1977; Berry, 1980; Lovelock, 1981; Rathmell, 1966, 1974; Rushton & Carson, 1989; Sapir, 1982; Shostack, 1977a; Zeithaml, Parasuraman & Berry, 1985). Intangibility implies that services are, at best, performances rather than physically tangible, concrete objects (Edgett & Parkinson, 1993; Zeithaml, Parasuraman & Berry, 1985).

The concept of intangibility presents many unique marketing problems. Zeithaml, Parasuraman and Berry (1985; p. 35) concisely delineate the characteristics of intangibility:

1) Services are not storable - Bateson (1977); Berry (1980); Langeard, Bateson, Lovelock and Eiglier (1981); Sasser (1976).

2) Services are not protectable through patents - Eiglier and Langeard (1975, 1976); Judd (1968).

3) Services are not easily displayable or their benefits communicated - Rathmell (1974).

4) Service prices are difficult to set - Dearden (1978); Lovelock (1981); Thomas (1978).

Strategic methods of solving marketing problems related to intangibility include stressing the tangible aspects of the service offering (Berry, 1980; Booms & Bitner, 1982; George & Berry, 1981; Shostack, 1977a), cultivating a strong organizational image (Judd, 1968; Knisely, 1979; Thomas, 1978, Uhl & Upah; 1980), and engaging in post-purchase communications (Bessom & Jackson, 1975; Fisk, 1981; Zeithaml, 1981). Albeit not an exhaustive list of strategic options, these three are the most pragmatic means of addressing the unique problems posed by intangibility.

Inseparability:

Inseparable alludes to the belief that the production and consumption of the service offering is simultaneous (Zeithaml, Parasuraman & Berry, 1985). In most exchanges, the service provider sells the offering to the buyer, at which time it is then produced and consumed (Edgett & Parkinson, 1993; Regan, 1963). If services are indeed inseparable, probable unique marketing aspects include:

1) There is consumer involvement in the production of the service - Booms and Nyquist (1981).

2) Centralized mass production of the service is not possible - Sasser, Olsen and Wyckoff (1978); Upah (1980).

Marketing strategies for overcoming the issue of inseparability include emphasizing the education and expertise of the company's account executives/consultants

(Berry, 1981; Davidson, 1978; George, 1977; Gronroos, 1978), and locating the service close to its potential clients, or using multi-site locations (Carman & Langeard, 1980; Langeard, Bateson, Lovelock & Eiglier, 1981; Upah, 1980).

Heterogeneity:

The third characteristic of services alludes to the variability in the performance of the service (Zeithaml, Parasuraman & Berry, 1985). Similar to inseparability, heterogeneity pertains to the issue of standards of delivery for the service offering (Edgett & Parkinson, 1993). Rathmell (1966) acknowledges that since most services cannot be mass produced, the standardization of service quality is not feasible. Due to this potential variability in quality, purchasers of services perceive more purchase risk than do the purchasers of tangible goods (Edgett & Parkinson, 1993).

Three notable characteristics of heterogeneity include:

1) Service quality varies on dimensions such as provider, consumer and time - Zeithaml, Parasuraman and Berry (1985).

2) Standardization and quality control are not feasible - Berry (1980); Booms and Bitner (1981).

3) The more labor intensive the service, the less likely it is to be heterogeneous - Zeithaml, Parasuraman and Berry (1985).

Strategic options for addressing heterogeneity in services focus on either standardizing the service through the development of organized preplanned service offerings (Levitt, 1972, 1976), or offering only customized services (Bell, 1981; Berry, 1980; Johnson, 1981; Regan, 1963; Sasser & Arbeit, 1978). Most service offerings are in fact a combination of the two: that is, a core service offering exists in some form, but is adaptable to local tastes and/or preferences.

Perishability:

Edgett and Parkinson (1993) reaffirm that most services are perishable because they are not storable for future use. In this sense, each service encounter is a discrete event. Therefore, marketers must be cognizant of at least two consequences of perishability:

1) Services are not inventoriable - Bateson (1977); Besson and Jackson (1975); Edgett and Parkinson (1993); Sasser (1976); Thomas (1978).

2) Since services are not inventoriable, service businesses have great difficulty in synchronizing supply and demand - Zeithaml, Parasuraman and Berry (1985).

The two strategies for coping addressing the problem of perishability are more management oriented than marketing oriented: try to smooth out the peaks and valleys of the demand curve (Lovelock, 1981), and monitor demand to achieve a closer match between demand and capacity (Sasser, 1976). In essence, by smoothing out the business cycle, service firms attempt to keep the cash flow stable, and by monitoring demand, keep the overhead down.

Classification of Services

Czinkota and Ronkainen (1990) report that the linkage between goods and services increases the difficulty in marketing services. Whereas some service offerings subsist in products, some products are dependent on services. Rathmell (1966) proposed the existence of a goods-services continuum, anchored at one extreme by pure goods and at the other extreme by pure services. The majority of product/ service offerings fall somewhere between the two extremes. The result is the classification of very few offerings as pure goods or pure services - most offerings include a mix of the two. Most goods have an associated service component (i.e., customer support, training, etc.) and similarly most service offerings include a goods component (e.g., computer disks for delivering software programs).

Kotler and Armstrong (1991) offer a tripartite means of classifying services: whether the service is people-based or equipment-based, whether the service meets a personal need or a business need, and in terms of the service provider's objectives (profit versus non-profit) and ownership (public versus private). Classifying services in this manner allows one to develop appropriate marketing strategies to guide the enterprise.

Lovelock (1988) proposed a means of delineating services that considers the reality of a goods-services continuum. He focuses on the nature of the service act and the direct recipient of the service to develop a two by two classification matrix as presented in Table 2:

TABLE 2
SERVICE CLASSIFICATION MATRIX

Nature of Service Act:	Direct Recipient of the Service: People	Things
Tangible Actions	*Services directed at peoples bodies:* Health Care Passenger Transportation Beauty Salons Exercise Clinics Restaurants Hair Cutting	*Services directed at goods and other physical possessions:* Freight Transportation Industrial Equipment Repair and Maintenance Janitorial Services Laundry and Dry Cleaning Landscaping/Lawn care Veterinary Care
Intangible Actions	*Services directed at people's minds:* Education Broadcasting Information Services Theaters Museums	*Services directed at intangible assets:* Banking Legal Services Accounting Securities Insurance

Source: Lovelock, C.H. (1988). Managing Services: Marketing, Operations, and Human Resources. Englewood Cliffs, NJ: Prentice-Hall Inc.

By classifying service offerings in terms of the nature of the service act and the direct recipient of the service, Lovelock sought to develop manageable service marketing segments. His research forms the platform on which more elaborate service classification models are built.

Summary of Service Characteristics

Services marketing differs from the marketing of goods in many respects, however the four key differences as identified in the literature are: intangibility, inseparability, heterogeneity and perishability. Since service firms are growing to such massive size (Huey, 1994), a real need exists for empirical marketing research designed to integrate general marketing theory with the marketing of services at the aggregate level (Zeithaml, Parasuraman & Berry, 1985).

Status of International Services Marketing

Quinn, Baruch and Paquette (1987) report the manufacturing sector is no longer the "largest element of the economy of virtually all advanced nations" (p. 50). Since services play an increasing role in the economies of industrialized nations, it is not surprising that international growth and competition in services is intensifying (Czinkota & Ronkainen, 1990; Erramilli & Rao, 1993). Czinkota and Ronkainen (1990) report that between 1970 and 1980, the world market for services grew at a rate of 16 percent per year. This trend shows no sign of abatement. In fact, just the opposite is true: "Political, economic and technological developments leading to growth in international trade and investment should generate greater opportunities in world markets for producers of services" (Ascher, 1993; p. 20). Vandermerwe and Chadwick (1989) contend that in today's business environment, the whole world is the domain of services. So much so, that the time when domestic service companies were safe from international competition has ended (Mathe & Perras, 1994). In this respect, outside competition is forcing U.S. service firms to internationalize (Mathe & Perras, 1994).

This phenomenon is not unique to industrialized nations. Quinn, Baruch and Paquette (1987) report that most emerging societies highly value the service sector more so than the manufacturing sector. One needs not look far for evidence of the importance of international services to both developed and developing economies: a major point of debate between the 109 countries represented at the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) concerned rewriting the rules of trade for intellectual property and services (Business America, 1994). Representatives from 109 countries signed the final GATT agreement on April 15th, 1994 ushering in a new era of competition in international services.

Services are tradeable on the international market and both developed and developing economies are vying for their share of the potential market (Aharoni, 1993). Previous research indicates that most industrialized nations have a positive services trade balance, and most developing nations do not (Sapir, 1982). The international trade in services accounts for almost one third of all global transactions

(Edvardsson, Edvinsson & Nystrom, 1993), 40 percent of international stock transactions and more than 50 percent of Foreign Direct Investment flows (Aharoni, 1993). In this era of international service growth, it is important for the U.S. to establish itself as the preeminent provider of global service offerings.

Roach (1991) reports that as of 1991, the U.S. dominated the international trade in services, accounting for approximately 48 percent of the total service transactions in the G-7 countries (U.S.A., Japan, Germany, U.K., Canada, France and Italy), and that this dominance is attributable to the shear size of the U.S. economy. Despite the historic dominance of the international service sector, the U.S. share of international service transactions is declining (Quinn, Baruch & Paquette, 1987). Efforts to reverse this trend are underway. Madrick (1994) reports that realizing an opportunity to offset its declining manufacturing base, the U.S. pushed for the agreement on services trade in the last round of the GATT talks. Sapir (1982) identifies a growing desire in the U.S. to promote the internationalization of services in an effort to enhance its international competitiveness.

Porter (1990) indicates that as international competition in services increases, so does the issue of national competitive advantage in services. Sapir (1982) explains that the U.S. can expect to enjoy a competitive advantage in services for two reasons: 1) an abundant supply of human capital, and 2) its focus on the development of high-technology. Technology has played a major role in the recent rapid advancements in the internationalization of services. The effect of U.S. dominance in the development of technology and its impact on national competitive advantage warrants additional investigation.

Influence of Technology

Huey (1994) contends that the instantaneous flow of information has spurned the growth of the service industry. The rapid change in communications technology has made marketing more important for service firms (Kotler & Bloom, 1984). In addition, Vandermerwe and Chadwick (1989) report that technology is influencing service internationalization through:

1) the increased use of information technology in service offerings influences not only the delivery of services, but also how companies are spreading across the world;

2) the scope and reach of the modern telecommunication infrastructures which facilitate different forms of service delivery on a global scale. Technology is progressing to the point where centralized mass production and/or service customization are achievable remotely, and;

3) the changing nature of services due to advanced technologies which are radically altering the methods by which some firms can globalize.

In summary, U.S. dominance in the development and use of advanced information technology provides all domestic service firms with access to the international market. U.S. service providers have a unique window of opportunity to capitalize on one of our competitive advantages.

How Services are Internationalized

Building on the research of Lovelock (1983, 1988) and Schemenner (1986), Vandermerwe and Chadwick (1989) developed a two axis explanatory model for explaining the internationalization of services. While Lovelock acknowledged the goods-services continuum, his model does little to reflect the true interaction of the two extremes of the continuum. Vandermerwe and Chadwick use the continuum as their vertical axis and label it the "relative involvement of goods." The horizontal axis represents the "degree of consumer/producer interaction." Since corporations deliver services in a variety of ways, a single service provider may be located in any one of the six sectors of the two by three matrix presented in Table 3:

TABLE 3

Six-Sector Service Matrix

Relative Involvement of Goods:	Degree of Consumer/Producer Interaction: Lower	Higher
"Pure" service, low on goods	*Sector 1:* Domestic mail delivery Knife sharpening	*Sector 4:* Engineering Consulting Management Advertising Education Insurance Medicine
Services with some goods or delivered through goods	*Sector 2:* Retailing Couriers Fast Food Hotels Shipping Air Freight	*Sector 5:* Banking Personal air travel Maintenance
Services embodied in goods	*Sector 3:* Music/compact disks Software/diskettes Movies/ videocassettes Training/books Journals On-line news services	*Sector 6:* Teleshopping Electronic mail

Source: Vandermerwe, S. & Chadwick, M. (1989). The Internationalization of Services. The Service Industries Journal, (January).

Vandermerwe and Chadwick (1989) further posit the international potential of each service sector:

Sector 1: Limited international potential

Sector 2: High international potential because the goods that facilitate services are easily taken to foreign markets.

Sector 3: Basically exportable and can be globalized easily and quickly.

Sector 4: Internationalization involves people. These are the "traditional services."

Sector 5: Internationalization involves both people and goods and a balance between the two.

Sector 6: The continued development of technology to deliver and customize services gives this sector the most globally significant potential.

International Service Delivery

Services are deliverable to foreign markets either directly, through exporting or foreign direct investment, or indirectly, through affiliates in other countries (Sapir, 1982). Before the development of advanced communications technology, most service firms internationalized by opening additional offices (Gaedeke, 1973). Increasingly, however, the decision of which mode of entry to use relies upon a combination of the nature of the service and the usual means of its delivery (Vandermerwe & Chadwick, 1989). Boddewyn, Halbrich and Perry (1986) classify contemporary international service offerings in one of three ways:

1) Foreign-tradeable Service - generates a product that is separable from the production process itself as well as transportable across national boundaries from the site of production to the location of consumption.

2) Location-bound Service - tied to the service's production location because for this service, the production time and space constraints are common to both producer and consumer, and

3) Combination Services - part of production is location-bound and another part is foreign-tradeable.

Not all researchers support the existence of a growing trend in the internationalization of services. Farnham (1994) disagrees with the entire concept, and believes most services to be inseparable and hence non-exportable. Farnham contends that the shift to an internationally-based service economy is a "force counter to globalization." Although this belief is counter to existing empirical evidence, the behavior of many service industry executives buttresses Farnham's proposition.

Counter to Farnham, and supportive of Boddewyn, Halbrich and Perry (1986), Mathe and Perras (1994) believe that not only is the internationalization of services possible, evidence suggests that there is an increase in the businesses doing so. They developed a five step explanatory process to describe how service firms enter the global arena: 1) global strategy analysis and design, 2) develop a flexible definition of the service offering - e.g., are they transnational or local?, 3) learning process, 4) expansion process, and 5) managing mature service operations.

To assist service firms in developing a flexible definition of their service offerings, Mathe and Perras propose that service providers think of themselves in terms of the service provider matrix presented in Table 4. By doing so, they can classify their various service offerings into the categories as defined, and determine which service offerings are more likely to succeed in the international arena:

TABLE 4
Service Provider Matrix

	Local Service Provider	Multinational Service Provider
Local Service Product	Local service provided locally for the domestic market	Local service provided by multinational in various countries
Transnational Service Product	Transnational service provided locally only	Transnational service provided internationally

Source: Mathe, H. & Perras, C. (1994). Successful Global Strategies for Service Companies. Long Range Planning, 27(1), 36-49.

Mathe and Perras build upon the market entry modes proposed in earlier studies and document the critical success factors for each mode of entry. The three entry strategies investigated by Mathe and Perras are client following, buying into local operations or entering via joint ventures, and starting from scratch or going it alone. In addition to providing critical success factors, they offer some explanations for service firm failures in each mode of entry:

TABLE 5

Critical Factors for Market-Entry Success

Entry strategy:	Client Following	Buying into local operations or Joint venture	Starting from scratch or going it alone
Critical Success Factors:	* Close and loyal customer-supplier commitment to partnership * outstanding international coordination systems * Appropriate for professional services	* Requires investment, need for capital * Smart & sensitive integration of acquired companies (learn from them) * Appropriate for "factory-type" service	* Requires time and patience * Hire local, well-respected executives * Appropriate for services based upon adaptable mix or values
Some Explanations for Failure:	* Inconsistency in the mix and quality of service worldwide * Inappropriate when serving decentralized customers who work in accordance with local cultures	* Insufficient level of investment * Incompatibility between companies' core service and/or cultures * Strong and immediate standardization of corporate procedures	* Pressure for short-term return on investment * Trying to export original culture to locally acculturated markets * Lack of loyalty from local executives and employees

Source: Mathe, H. & Perras, C. (1994). Successful Global Strategies for Service Companies. Long Range Planning, 27(1), 36-49.

Mathe and Perras based their recommendations on longitudinal observations of successful and unsuccessful service firms in the international market. Critical to success, they report, is that the service firm customize its service offering to reflect local tastes and preferences of the new target markets.

Type of Service Classification

Erramilli and Rao (1990) report that all service firms are classifiable as either: a) soft-service firms, which market services for which it is extremely difficult or even impossible to decouple production and consumption (i.e., car rentals, restaurants, health care), or b) hard service firms, which market services which are capable of separating production and consumption (e.g., architectural firms, engineering designers, consultants and software firms). The result is that most hard services, by virtue of their ability to decouple production and consumption, are readily marketable internationally (Sampson & Snape, 1985). Conversely, soft services, which are not separable, face more obstacles to internationalizing (Erramilli & Rao, 1993).

Bhagwati (1984) contends that international trade in storable services is not very different from merchandise trade. Storable, or hard services, are separable in that production and consumption may occur in different locations (Erramilli & Rao, 1993). More specifically, Erramilli

(1990) proposes that a hard service is producible in one country, storable in some tangible form (such as on a computer disk, document or blueprint), and exportable to another country. Examples of hard services include software, engineering design, research and development services, architectural services and some types of banking.

Conversely, Erramilli (1990) defines soft services as those that are not exportable and therefore are limited to entry modes such as joint ventures, licensing or franchising, and foreign direct investment. Examples of soft services include health care, advertising, hospitality, fast food, car rental, management consulting, and customized data processing.

The operators of soft service firms do not have the benefit of gaining international marketing experience prior to making substantial resource commitments to foreign markets (Erramilli, 1990). Whereas internationalization is thought to be a sequential process initiated with exporting, soft service providers entering new markets must do so in an all or none fashion.

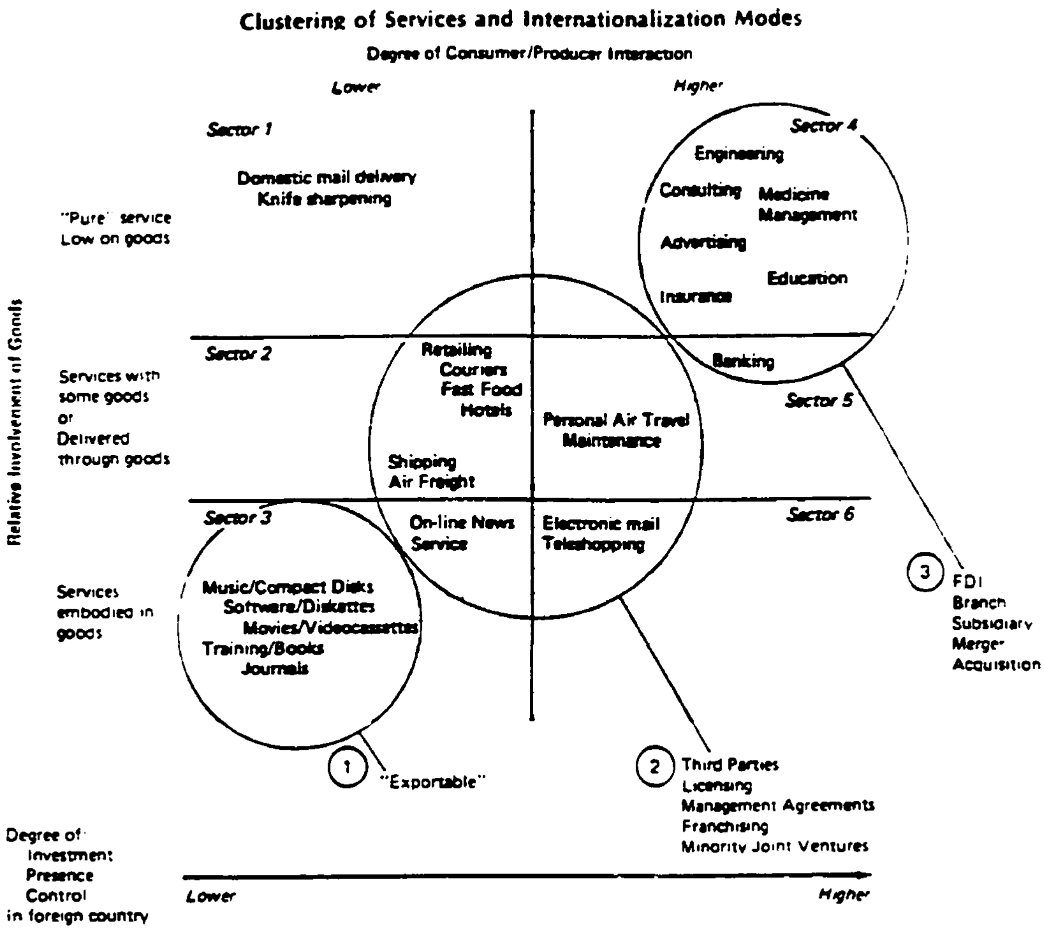
Vandermerwe and Chadwick (1989) provide an excellent synopsis of the internationalization of services and market entry modes. Figure 1 presented below illustrates potential market entry methods for the various types of services. The exportable services are those which are separable, or as classified by Erramilli, hard services. The second segment encompasses services in the middle of the service-goods continuum such as retailing, hotels, shipping, teleshopping, etc. Finally, the last segment consists of largely professional (or soft) services. These services are most likely ill-fitted for exporting or franchising, and are best internationalized through overseas acquisition, foreign direct investment, mergers, etc.

Regardless of the means of entry selected, prior research establishes a strong need for international providers of services to adapt their service offerings to reflect local tastes and preferences (Gaedeke, 1973; Li & Guisinger, 1992; Mathe & Perras, 1994). Therefore, arguments for service customization warrant closer scrutiny.

Need for Customization

While it is possible to offer services internationally, offering a highly standardized service may be problematic. Multinational and multicultural environments influence cultural preferences in service offerings (Edgett & Parkinson, 1993; Nicoulaud, 1989). Previous researchers warn of the need to customize some aspect of the service offering to reflect local or regional preferences (Li & Guisinger, 1992; Mathe & Perras, 1994). Edvardsson, Edvinsson and Nystrom (1993) contend that "... service companies must be able to balance entrepreneurial vision with systematic planning and global service concepts and work methods with adaptation to local conditions" (p. 93).

FIGURE 1



Source: Vandermerwe, S. & Chadwick, M. (1989). The Internationalization of Services. The Service Industries Journal, (January).

To be successful in offering services internationally requires a firm to adjust to local business practices, and the culture in general (Gaedeke, 1973).

The need for customization is not the only problem domestic service providers face when internationalizing. Other hurdles that pertain to both marketers of goods and services must be overcome in order to operate internationally.

Problems Associated with International Services Marketing

The process of marketing services internationally is very similar to the process of marketing services domestically. The differences between the two processes reflect differences in the social, political, economic, legal and cultural environments. While an in-depth analysis of problems associated with marketing services internationally is beyond the scope of this proposal, two particularly problematic areas of concern when marketing services overseas include:

1) The overall risk of marketing services internationally, and
2) Barriers to the global trade of services.

Overall Risk. The internationalization process most resembles an incremental growth strategy. Carmen and Langeard (1980) contend that international expansion for a service firm is riskier than both concentric diversification or new service development in the domestic market, and is more risky for service providers than it is for manufacturers of goods. The logic on which they base these contentions holds that product manufacturers can gradually enter markets, and thus have the luxury of a much longer learning curve, whereas the inseparability of services dictates that the service provider enter foreign markets in a "sink or swim" environment.

The most costly risk international businesses face is the risk of nationalization. Nationalization occurs when a host government takes control of a foreign company within its borders. According to Jeannet and Hennessey (1992), three types of nationalization are most prevalent: Expropriation, confiscation and domestication. Expropriation involves the formal takeover of a foreign operation by a host government. In some instances the foreign owner receives compensation for the assets expropriated, but typically, this is not the case. The latter scenario is known as confiscation. Domestication occurs when a host government requires a foreign owner to concede majority ownership or hire indigenous people for key management positions or use only local suppliers for the sources of production.

Hawkins, Mintz and Provissiero (1976) found the risk of nationalization for U.S. subsidiaries operating in foreign countries to average six (6) percent globally. Significant differences in the risk of nationalization exist between the various regions of the globe. Africa, as a region, has the highest degree of risk (6.4 percent), followed by the Middle East (3.0 percent), Latin America (2.2 percent) and Asia (1.3 percent). Hawkins, Mintz and Provissiero (1976) further report that for the period 1946 through 1973, ten countries account for two-thirds of all take-overs.

Political risk closely parallels the risk of nationalization, as most nationalizations occur soon after a radical change in government. Root (1968) recommends that before investing in an overseas operation, companies need to answer each of the following six questions for each market under consideration:

1) How stable is the host country's political system?

2) How strong is the host government's commitment to specific rules of the game, such as ownership or contractual rights, given its ideological and power position?

3) How long is the government likely to remain in power?

4) If the present government is succeeded, how are the specific rules of the game likely to change?

5) What would be the effect(s) of any projected changes in the specific rules of the game?, and

6) In light of the possible effects, what decisions and actions should be taken now?

Conducting a political risk assessment prior to entering a new market allows companies committed to internationalization a means to reduce or manage political risks. Jeannet and Hennessey (1992) offer six strategic tools that are capable of either singularly or in tandem reducing political risks to manageable levels: utilize local partners, achieve a status of indispensability, pursue vertical integration within the host country, borrow your capital locally, minimize the value of fixed assets or capital risk, and purchase political risk insurance.

Barriers to International Trade in Services. Carmen and Langeard (1980) propose that the root of all problems with host governments is the realization that "service firms rank just behind the raw materials extractors as the firms that take the most out of a country" and leave the least.

Barriers identified by Robock and Simmonds (1989) include host government regulations and/or restraints on market entry, prohibition or limitation of foreign ownership, local content requirements, and financial and fiscal controls.

Host Government Regulations/Restraints on Market Entry: Robock and Simmonds (1989) indicate that host countries may use tax measures, foreign exchange control, and legal restrictions in differing proportions in an attempt to overtly control the degree of foreign competition. Other means of restriction include restrictive licensing, and tariffs or taxes.

Another barrier raised to justify limiting the participation of foreign service firms in the host market is the infant industry argument. Host governments claim that their own fledgling service industries need protection from external competition in order to grow to the point where they can withstand the competition.

Often, prior to receiving permission to operate in another country, service firms must gain host country approval. This most likely involves a bureaucratic process during which the firm must provide operational plans, financial goals, and projected contributions to national goals to the host government (Robock & Simmonds, 1989).

Prohibition/Limitation of Foreign Ownership: Some service firms, such as those in the banking and communications industries, face obstacles in terms of competing internationally because of entry barriers enforced by host governments in the name of national security. As an example, foreign ownership of television, radio and news publications in the U.S. is prohibited by law. Other services, such as public utilities, are not available for foreign ownership because of their importance to the country's infrastructure and its economic development.

If not expressly prohibited from entering and operating in a host country, service firms may find governmental limitations pertaining to the allowable degree of foreign ownership permitted within the country. Host countries may enforce policies requiring firms entering their borders to take local partners, and/or limit foreign firms to minority ownership in joint ventures.

Local Content Requirements: Service firms are not directly influenced by local-content policies, but may fall under the jurisdiction of indirect performance requirements such as the local employment policies. Host governments can mandate the percentage of indigenous employees on a service firm's in-country payroll.

Financial and Fiscal Controls: As previously discussed, host governments may limit the amount of ownership a foreign firm may have, or have regulations regarding the number of national employees a firm must hire. While these policies have a direct financial impact on service firms entering these markets, more direct means of limiting the flow of capital may exist. Robock and Simmonds (1989) indicate that some governments regulate the amount of profit a foreign firm can make within the host country's borders, limit or forbid the repatriation of funds earned within the country's borders, and/or limit the amount of foreign financing a service firm may obtain.

While none of the elements discussed under overall risk or barriers to trade are limited to only service industries (that is, these same obstacles must be overcome by manufacturing firms as well), service firms are more likely to face host country regulation. Service providers in communication and banking/financial industries can expect host government intervention and regulation.

Although great strides in rectifying the lack of empirical research pertaining to international services marketing are being made, significant gaps in the literature continue to exist. The ensuing section summarizes the recent calls for research in the international marketing of services as put forth in the marketing literature.

Need for Research/Literature

In a 1983 white paper presented to the President, the American Service Industries identifies the lack of a solid framework as the main hinderance to the internationalization of our service sector (Palmer, 1985). Despite the importance of the service sector in both the domestic and world markets, the amount of empirical research addressing international services marketing remains relatively low (Li, 1994; Nicoulaud, 1989; Sapir, 1982). This phenomenon exists because few academicians regard services marketing to be as important as the marketing of goods (Palmer, 1985). Another plausible explanation revolves around the uncertainty of the applicability of marketing theories developed for tangible goods to the marketing of services (Boddewyn, Halbrich & Perry, 1986). Daniels (1985) contends that no principal theory, analytical model or dominant mode of interpretation applies to services at the aggregate level because of the diversity of service providers.

Research in international services to date focuses on the entry mode of international service firms (Erramilli, 1990, 1991; Erramilli & Rao, 1990, 1993), the growth of service multinationals (Boddewyn, Halbrich & Perry, 1986; Gaedeke, 1973), and the strategies of international service firms (Li, 1994; Mathe & Perras, 1994; Nicoulaud, 1989). A review of the literature produced one article on the internationalization of services (Edvardsson, Edvinsson & Nystrom, 1993), however its focus was theoretical rather than empirical.

Although the volume of research regarding the marketing of services internationally is increasing, it is not increasing in proportion to the relative importance of the service sector in international trade (Boddewyn, Halbrich & Perry, 1986; Hirsch, 1993). Hirsch (1993) muses that given the large share of world employment and trade volume associated with the service industry, it is surprising that academic interest in the internationalization of services has been slow in forthcoming.

Summary

The role of the service industry in the international economy is growing in importance. By all indications, this trend will continue. The U.S. is currently the largest provider of services internationally, but its share of the global market is declining. In addition, an inverse relationship between the number of people employed in the U.S. service sector and the total volume of service exports exists. If the service sector had the same relationship between employment and export volume as exists in the manufacturing sector, the total volume of service exports would exceed $1 trillion.

Additionally, new technologies have fostered an era of increased competition in the international services market. No longer can the U.S. assume a competitive advantage in the offering of services. A concerted effort of research, leading to the pragmatic application of theory, must be undertaken to insure the international competitiveness of our service industries.

Conclusion

Having reviewed the research on the internationalization of services, and the need for more empirical research in this area, this chapter presents a number of areas for further investigation. The next chapter addresses the research focus of this project, proposes a model for investigation the degree of internationalization of U.S. service firms, and contains specific hypotheses with which to test the relationships proposed.

CHAPTER III

DEVELOPMENT OF HYPOTHESES

This chapter begins with a discussion of the degree of internationalization and offers an operationalization of the construct in order to effectuate its measurement.

What is the Degree of Internationalization?

Having earlier attributed the creation of the theory of internationalization to Perlmutter (1969), and identifying it as a process of change (Piercy, 1982), through which a firm gradually increases its involvement in international operations (Welch & Luostarinen, 1988), it is surprising to note the lack of a consensually accepted definition of internationalization. Welch and Luostarinen (1988) muse that internationalization is possibly the most widely used and least understood term in international business.

Edvardsson, Edvinnson and Nystrom (1993) point out that internationalization is often portrayed in dichotomous terms: globally or locally oriented. Historically, however, internationalization consists of a developmental and incremental process, through which as a firm gains more experience, it broadens its international involvement (Dalli, 1994; Johanson & Vahlne, 1977). Carlson (1975) proposes that the internationalization process appears to follow a learning curve. Both philosophies describe an increase in international operations based on the reduction of perceived risk through experience. Management's uncertainty over how to operate in foreign markets limits the international potential of the firm (Cavusgil, 1984a; Johanson & Vahlne, 1977).

Bower (1968: p. 51) predicts that as U.S. companies continue their international expansion, most U.S. service firms will face the issue of internationalization; and those that decide to internationalize "will undoubtedly seek multiple objectives." The decision to internationalize is not an easy one to make. Service companies entering the global competitive environment are not without risks. Sullivan and Bauerschmidt (1990) report that internationalization exposes the company to new contingencies that only serve to increase the uncertainty associated with the decision to internationalize. Edvardsson, Edvinsson and Nystrom (1993) agree with Sullivan and Bauerschmidt and contend that since information is the means by which to reduce uncertainty, the study of the internationalization of service companies is an important field of research. To date, however, there have been very few studies published on the internationalization of service firms, and the ones that do exist do not focus on U.S.-based service providers.

According to Cavusgil and Yeoh (1994), the principal obstacles to internationalization are threefold: motivational, informational and operational/resource- based. The degree of risk associated with the decision to internationalize is a factor of management's expectations of growth and profits, the technological orientation of the firm, and the aggregate amount international exposure present in the management team (Cavusgil, 1984b).

No single pattern of internationalization best characterizes the service sector (Boddewyn, Halbrich & Perry, 1986; Cowell, 1983; Shelp, 1981). However, most research to date characterizes internationalization as a sequential process, in that firms entering the global market typically start by learning how to operate in one market of similar size, culture and values, and if successful, begin to expand to other less-similar markets. Cavusgil's (1984a) findings provide partial support for this "stages of internationalization" framework. Edvardsson, Edvinsson and Nystrom (1993) carry this further by dividing internationalization into four stages: prospecting, introduction, consolidation and reorientation.

When prospecting, the company is actively seeking new possible trade relationships and establishing contacts in the countries in which they seek to operate. During the introduction stage, the service provider systematically organizes its efforts into establishing itself within one or more geographical areas. Consolidation occurs when the company entrenches and seeks to improve its market position, either regionally or within each market. Finally, reorientation occurs when the service provider fine tunes its service offering to reflect local conditions or preferences. It is during this phase, that companies committed to internationalization actively begin to seek new opportunities.

Dalli (1994) reports that the consequences of viewing internationalization as a linear developmental process are threefold:

1) Firms tend to increase their commitment towards foreign markets as their experiences grow: in this sense it is a widely accepted idea that, during and along the internationalization path, companies will allocate more and more resources to international activities, both inside and outside the firm.

2) Firms tend to diversify the ways and modes by which they approach foreign markets, both in a structural and operational sense.

3) The incremental view fosters a tendency towards developing a wider geographical scope as internationalization proceeds.

Conversely, much research exists suggesting that firms seldom go through a concrete, stepwise process of internationalization (Millington & Bayliss, 1990; Sullivan & Bauerschmidt, 1990; Welch & Loustarinen, 1988). The process of internationalization and the experiences gained are unique to each service firm entering the global market. The only apparent common thread tying all of the successfully internationalized service firms together is the existence of someone in top management who is strongly-motivated, highly committed, and internationally oriented.

Historically, to measure the degree of internationalization, most studies included as the dependent variable foreign sales as a percentage of total sales (Daniels & Bracker, 1989; Geringer, Beamish & daCosta, 1989; Stopford & Dunning, 1983). Recent research by Sullivan (1994) reports that the degree of internationalization has three attributes: performance (Vernon, 1971), structural (Stopford & Wells, 1972), and attitudinal (Perlmutter, 1969). Sullivan thus proposed that a more appropriate indicator of a firm's degree of internationalization includes more than one indicator variable. While his efforts to broaden the measurement of the degree of internationalization are laudable, his results may be considered suspect due to the lack of sufficient statistical rigor, and due to his use of secondary data for the analysis.

Therefore, consistent with the majority of the previous research on the construct, the degree of internationalization in this research is treated as a latent variable best measured in terms of a firm's foreign sales as a percentage of its total sales.

Conceptual Framework

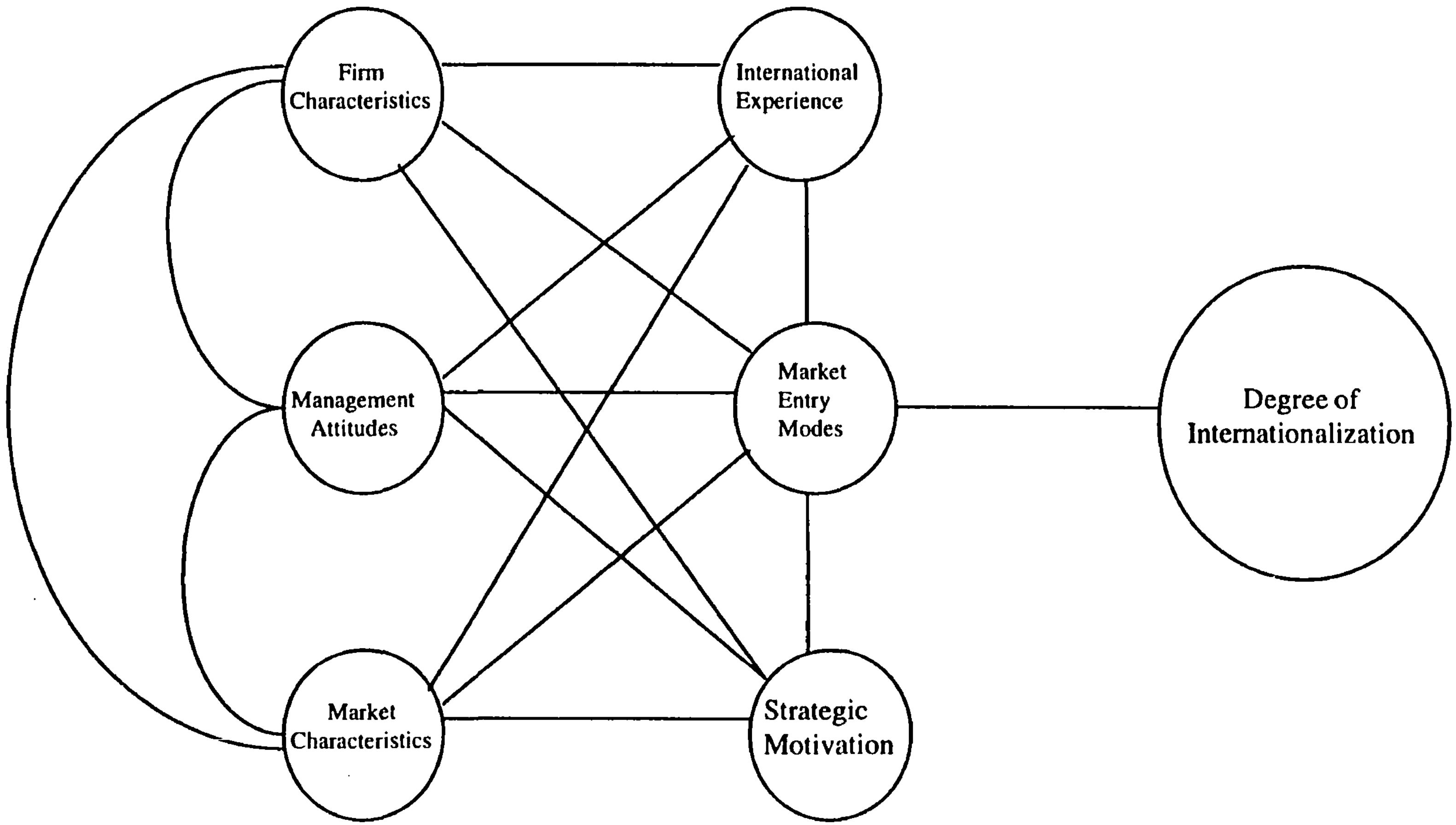
Figure 2 presents the constructs included in the proposed conceptual framework and the hypothesized relationships under investigation. This framework is unique in that it combines divergent streams of research into a cohesive explanatory model. A search of the literature identified six potential theoretical antecedents to the degree of internationalization of service firms. They are; firm characteristics, management attitudes, market characteristics, international experience, market entry strategies, and strategic motivation. Forthcoming is a discussion of each antecedent and the resulting hypotheses.

Firm Characteristics

Firm characteristics influence international business behavior in many ways. According to the literature, this latent construct is measurable in terms of firm size (number of employees and total sales), age of the firm and firm ownership.

Previous research uphold that firm size has an impact on internationalization in general and on market entry

FIGURE 2
Conceptual Framework



strategies in particular (Ali & Camp, 1993). The key issue regarding firm size still under debate in the exporting literature surrounds the question of how to measure size. To be consistent with Calof (1994), this study will investigate two dimensions of size rather than one: number of employees and total sales. Those seeking a logical argument regarding the need for investigating multiple measures of firm size, will find an excellent explanation in Calof's comprehensive examination of the theoretical foundation of the export literature.

Number of Employees

Numerous studies measure firm size using the number of employees working for the firm (Bilkey & Tesar, 1977; Bonaccorsi, 1992; Burton & Schlegelmilch, 1979; Cavusgil & Naor, 1987; Hirsch, 1971; Holzmuller & Kasper, 1991; Kaynak & Kothari, 1984; Lee & Yang, 1990; Madsen, 1989; Maleksadeh & Nahavandi, 1985; Mugler & Miesenbock, 1986; Yang, Leone & Alden, 1992). Overall, the results indicate that firms with larger numbers of employees are more likely to engage in international trade (Keng & Jiuan, 1989). Kedia and Chhokar (1986) go so far as to proclaim that most small- and medium-sized firms do not internationalize. This relationship between employee size and international trade experience holds true within size categories. Kaynak and Kothari (1984) found that even small and medium-sized businesses participating in international trade have more employees than non-international businesses within the same size categories.

Total Sales

Other studies measure firm size as the gross sales level of the firm (Calof, 1994; Cavusgil, 1984a; Cavusgil & Nevin, 1981; Christensen, Rocha & Gertner, 1987; Czinkota & Johnston, 1983; Hester, 1985; Holden, 1986; Kaynak & Kothari, 1984; Keng & Jiuan, 1989; Lall & Kumar, 1981; Lee & Yang, 1990; Madsen, 1989; Maleksadeh & Nahavandi, 1985; Yang, Leone & Alden, 1992). These studies show that firms with higher levels of sales are more likely to engage in international trade.

Age of Firm

Czinkota and Ursic (1991) report that much research exists illustrating the contribution of firm age to internationalization. Some studies indicate that younger firms exhibit more interest in foreign markets than older, established firms (Kaynak & Kothari, 1984; Kirpalani & MacIntosh, 1980; Lee & Brasch, 1978; Ursic & Czinkota, 1984). Conversely, evidence also exists suggesting that older firms are more likely to internationalize than younger firms (Lee & Yang, 1990; Welch & Wiedersheim-Paul, 1978). Diamantopoulos and Inglis (1988) report that no relationship between firm age and internationalization exists. Finally, Cooper and Kleinschmidt (1985) contend that the age of an internationally oriented firm varies by its strategy. Firms identified by them as "world marketers" were significantly younger than firms guided by other strategies.

Firm Ownership

Few studies investigating degree of internationalization include a firm ownership variable, and those that do, measure ownership in terms of foreign versus domestic (Keng & Jiuan, 1989). The explanation offered is that foreign-owned firms are more likely to send goods out of the country, perhaps back to company headquarters for distribution or inclusion in other products.

Since the goal of determining the antecedents of the degree of internationalization is to identify, encourage and assist potential service providers not yet international in orientation to become so, measuring firm ownership in terms of private versus public makes more intuitive sense. Yang, Leone and Alden (1992) included private versus public ownership in their analysis, but report finding a lack of significance.

At the construct level, previous research reports a positive relationship between firm characteristics and; international experience (Ali & Camp, 1993; Terpstra & Yu, 1988), modes of entry (Axinn, Sinkula & Thach, 1994), and strategic motivation to internationalize (Axinn, Sinkula & Thach, 1994). Given the results of earlier research efforts, it is reasonable to hypothesize:

H1: A service firm's characteristics positively relate to its strategic motivation to internationalize.

H2: A service firm's characteristics positively relate to its number of market entry modes.

H3: A service firm's characteristics positively relate to its international experience.

Management Attitudes

Ajzen and Fishbein (1977) propose that attitude is a stronger predictor of specific intention to behave than behavior itself. Aaby and Slater (1989) believe that management attitudes are more important than firm characteristics in determining the degree of internationalization of a firm. They base their belief on the observation that unless management has an international vision, consistent export goals, favorable perceptions and attitudes towards export, is willing to take risks and is capable of engaging positively in exporting activities, the firm is not likely to successfully internationalize. Building upon both propositions, and based upon the extant exporting literature, the construct of management attitudes warrants investigation.

Cooper and Kleinschmidt (1985) call for management attitudes towards internationalizing and performance to be measured multidimensionally. For the purposes of this dissertation, three manifest variables allow for the measurement of management attitudes: attitudes towards internationalization, attitudes towards profits and attitudes towards growth and risk.

Management Attitudes Towards Exporting

A large body of literature exists documenting the positive relationship between international trade and management attitudes towards exporting (Cavusgil & Nevin, 1981; Czinkota & Johnston 1983; Dichtl, Koeglmayer & Mueller, 1990; Johnston & Czinkota, 1985). Axinn (1988) cautions that the link between managers' attitudes towards internationalization and firm export performance should not be undervalued. Furthermore, in her 1988 study she finds managers' perceptions of the relative advantage of exporting to be the single most significant indicator of firm export performance. In an earlier study, Kedia and Chhokar (1986b) find that managerial attitudes toward exporting strongly correlate with the international performance of the firm. Finally, Koh (1991) proposes that a firm's management will modify its internationalization strategy if a high level of commitment to exporting exists within the firm.

While most of the existing research regarding management attitudes towards internationalizing and international trade behavior indicate a significant, positive association between the two, Eshghi (1992) reminds us that managerial attitudes towards exporting and exporting behavior do not necessarily have to be consistent. Plenty of firms, reports Eshghi, harbor strongly positive management attitudes towards exporting, yet do not engage in international trade.

Goals, Risk, Performance

Cavusgil and Nevin (1981) indicate that managerial aspirations and expectations about the contribution of exporting to the achievement of basic goals have a direct bearing on the decision to engage in international trade. Schlegelmilch (1986) subsequently reports managerial aspirations and expectations about the contribution of international trade to the achievement of basic goals influences the decision to engage in international trade.

Cooper and Kleinschmidt (1985) define management attitudes, goals and aspirations as including expectations for exports, corporate growth goals, and corporate goals regarding security of investment. The stronger the firm's motivation to grow, the greater the search for new opportunities in order to find means of fulfilling its growth ambitions (Wiedersheim-Paul, Olson & Welch , 1978).

Significant attitudinal differences between firms engaging in international trade and those not yet internationalized are known to exist. Roy and Simpson (1981) show that perceptions of profit and costs of exporting differ significantly between exporters and non-exporters. Cavusgil and Naor (1987) report the perceived risks of exporting are seen as higher by non-exporters than by exporters. Finally, Simpson and Kujawa (1974) find that exporters are not risk adverse, unlike most non-exporters.

At the construct level, management attitudes are shown to positively influence international experience (Czinkota & Johnson, 1983), modes of entry (Erramilli, 1991), and strategic motivation (Edvardsson, Edvinsson & Nystrom, 1993; Wiedersheim-Paul, Olson & Welch, 1978). Based upon prior research, the following hypotheses develop:

> H4: A service firm's management attitudes positively relate to its international experience.
>
> H5: A service firm's management attitudes positively relate to its number of market entry modes.
>
> H6: A service firm's management attitudes positively relate to its strategic motivation to internationalize.

Market Characteristics

Edvardsson, Edvinsson and Nystrom (1993) found that the most profitable international service companies have chosen markets that closely match the service concepts, knowledge, organization and control systems of their home country. Erramilli (1991) explains that this phenomenon may be a function of experience, as firms with less experience show a stronger preference for countries culturally, politically and economically proximate to the United States, whereas firms with more experience do not hesitate to seek out distant markets. The construct of market characteristics is measurable through manifest variables such as cultural similarity, economic similarity, competition, market size, and cultural distance.

Research on cultural similarity and internationalization indicates that firms tend to select countries culturally similar to their own in order to increase their chance of success when internationalizing (Styles & Ambler, 1994). Erramilli and Rao (1993) report that foreign market entrants often perceive a significant amount of uncertainty when entering countries not deemed similar to the home country. Quite simply, firms tend to enter nations whose similarity in consumer behaviors, market conventions, industry structures, and institutional settings creates a feeling of market similarity (Sullivan & Bauerschmidt, 1990).

Da Rocha and Christensen (1994) summarize the results of studies on cultural perceptions and find a negative association between psychic distance to foreign markets and 1) a firm's commitment to exporting (Goodnow & Hansz, 1972), 2) the probability to export to a foreign market (Gripsrud, 1990), and 3) the likelihood of participating in export activities (Dichtl, Koglmayr & Muller, 1990). For the purpose of this research project, psychic distance means the degree to which a firm is uncertain of the characteristics of a foreign market. Psychic distance is reasoned to be influenced by differences in the culture and language of the home and target countries (Kogut & Singh, 1988).

Li and Guisinger (1992) report that foreign investment by service firms is negatively related to the cultural distance between the home and host countries. This is consistent with the Uppsala school of thought which argues that internationalization begins with the psychologically closest country and then extends progressively to countries that are more-and-more distant (Johanson & Vahlne 1977; Wiedersheim-Paul, Welch & Olson, 1975).

Market characteristics are known to positively influence a firm's international experience (Erramilli, 1991; Li, 1994), and entry modes (Erramilli, 1991; Li, 1994). The relationship between market characteristics and strategic motivation is not investigated in the literature to date. It is therefore reasonable to predict:

H7: Market characteristics positively relate to a service firm's international experience.

H8: Market characteristics positively relate to a service firm's number of market entry modes.

H9: Market characteristics positively relate to a service firm's strategic motivation to internationalize.

International Experience

The construct international experience is measurable in terms of scope, length, effort and satisfaction. Previous research by Madsen (1989) finds experience to be a good overall indicator of the degree of internationalization.

Erramilli (1991) measures scope in terms of the geographic spread of a service company's international expertise. Similarly, Louter, Ouwerkerk and Bakker (1991) define scope as the number of countries in which a company engages in international trade. Conversely, Cavusgil and Kirpalani (1993) define scope in economical rather than geographic terms. Scope economies occur, according to Cavusgil and Kirpalani, when a sustainable advantage in one market is usable to build sustainability in another market. Therefore, inherent in their definition is the stipulation that in order to exhibit scope, a company must be able to share resources across markets. This study intends to use the definitions of Erramilli (1991) and Louter, Ouwerkerk and Bakker (1991) which allow for a more accurate means of collecting data on scope.

Length of international experience represents the number of years the service firm has been engaging in international operations (Erramilli, 1991). The rationale behind using length as a variable centers on the concept of an internationalization learning curve. As companies gain more international exposure and experience, they are more likely to increase their degree of internationalization.

Closely related to length, effort is measurable categorically: passive versus active. Louter, Ouwerkerk and Bakker (1991) report that years exporting influences internationalization because exporting can be seen as a learning process during which firms proceed from passive to active exporters. Passive exporters are order processors. That is, passive exporters fill international orders that the firm receives. Active exporters, on the other hand, seek new markets in which to sell their services. They are active in the sense that the search for new markets and/or clients is an active process.

Seifert and Ford (1989) report a major gap in the literature involving the lack of information pertaining to a firms' satisfaction with their internationalization efforts. While much literature exists describing how and why to internationalize, little to no research exists measuring a firm's satisfaction with its degree of internationalization. It is for this reason that this research includes measures of satisfaction with internationalization.

International experience is known to influence the market entry types a firm will use in internationalizing (Erramilli, 1991; Thomas & Araujo, 1985). It is thus prudent to hypothesize:

H10: A service firm's international experience positively influences its number of market entry modes.

Strategic Motivation

Cooper and Kleinschmidt (1985) propose that management looks to foreign markets because of increasing competition at home, maturing domestic markets, or limited domestic market opportunities. Gaedeke (1973) found many similarities in the motives of U.S. advertising, consulting, and law firms who internationalized. They report that the primary incentives for internationalizing are the perception of favorable opportunities abroad, following domestic clients overseas, and/or seeking entry into growing world markets.

For this research, the construct of strategic motivation consists of three manifest components: client following, market expansion/diversification, and domestic market saturation. Weinstein (1977) distinguishes between the first strategy and the other two by referring to them as being either client followers or market seekers.

Client following behavior is often first stage in the internationalization process (Ball & Tschoegl, 1982; Goldberg & Saunders, 1980; Khoury, 1979; Li & Guisinger, 1992; Nigh, Cho & Krishnan, 1986; Terpstra & Yu, 1988; Weinstein, 1977). One of the benefits of following clients overseas is the existence of preestablished relationships, which serve to reduce the uncertainty of entering a foreign market (Li , 1994).

Research exists exploring the strategy of market diversification as a goal of internationalization (Cooper & Kleinschmidt, 1985; Hamermesh, Anderson & Harris, 1978; Hirsch & Baruch, 1973; Piercy, 1981). Service firms seeking to diversify geographically are attempting to secure a niche in a much larger market than is available in the U.S.

Strategic motivation links positively to market entry mode (Diamantopoulos & Inglis, 1988). It is thus logical to hypothesize:

> H11: A service firm's strategic motivation positively influences its number of market entry modes.

Market Entry Modes

Service firms face some unique challenges expanding internationally (Carmen & Langeard, 1980; Cowell, 1983; Erramilli, 1991; Palmer, 1985). As discussed in chapter two, service firms can enter foreign markets through exporting, contractual means, and foreign direct investment. Subsidiaries and joint ventures are the two dominant means of foreign direct investment, whereas licensing and franchising are contractual methods of entering a new market.

Entry choice is often influenced by the firm's uncertainty over target country characteristics (Kogut & Singh, 1988). Within the service industry, foreign market entry is considerably diverse (Erramilli, 1990). So much so that more researchers are focusing on service firms enter foreign markets and whether they differ from manufacturers in this respect (Carmen & Langeard, 1980; Cowell, 1983; Erramilli, 1990; Erramilli & Rao, 1993; Sharma & Johanson, 1987).

Welch and Luostarinen (1988) offer this observation: "one can perhaps argue that the future international success of companies will partly depend upon their ability to master and successfully apply a range of methods of foreign operations" (p. 40). By this, they mean that service firms may select different market entry methods depending on the market. That is, it is plausible for an international provider of services to export to one market while operating as a joint venture in another. Becoming proficient in the different means of market entry thus becomes important for service firms intent on internationalizing.

At the construct level, Erramilli (1990) finds that internationalization is a function of the number of market entry types enlisted. Thus, it is hypothesized:

> H12: A service firm's number of market entry modes positively influences its degree of internationalization.

Operationalization of the Variables

The manifest variables enlisted for this research are presented in Table 6. All six potential antecedents of the degree of internationalization, as well as the selection of the variables through which they are measurable, come from existing theoretical literature.

While it is not possible to account for all possible antecedents of the degree of internationalization, theory supports the importance of the six identified.

TABLE 6

Operationalization of the Modules of the Model

Latent Variables (Theoretical Construct)	Manifest Variables (Measurement)
Firm Characteristics	-Number of employees -Total sales/billings -Years in business -Firm ownership
Management Attitudes	-Attitudes regarding internationalization -Attitudes regarding profits -Attitudes regarding growth/risk
Market Characteristics	-Cultural similarity -Economic similarity -Competition -Market size -Cultural distance
International Experience	-Scope -Length -Effort -Satisfaction
Strategic Motivation	-Client following -Market diversity -Market saturation
Market Entry Mode	-Exporting -Contractual methods -Foreign direct investment
Degree of Internationalization	-Foreign sales as a percentage of total sales

The following chapter presents the research methodology and the type of statistical analysis employed to empirically test the relationships proposed.

CHAPTER IV

SURVEY METHODOLOGY

This chapter begins with a discussion of the development of the survey instrument, beginning with a brief justification for using previously designed measures for the data collection process. The population and sample under consideration are defined, the collection procedure discussed, and the probable means of statistical analysis presented. The chapter ends with a discussion of the limitations of the selected research methodology.

Survey Development

An extensive review of the literature yielded variable measures successfully employed in other research efforts. The majority of the measures utilized for this study emanate from the exporting literature. The purpose of the survey is to gather basic information regarding firm characteristics, management characteristics, market characteristics, international experience, market entry mode strategic motivation and degree of internationalization. As stated before, all of the questions contained in the survey instrument have been gleaned from the research of others. The logic of using previously developed questions rests upon the assumption that questions known to capture the characteristics of a specific latent variable will perform better than new questions developed just for this project.

Table 7 lists the research from which the item measures for each construct's manifest variables emanate:

TABLE 7

Source of Item Measures

Latent Construct:	Manifest Variable:	Item Measures:
Firm Characteristic	-Number of Employees	Bilkey & Tesar 1977
	-Total sales/billings	Calof 1994
	-Years in business	Ursic & Czinkota 1984
	-Firm ownership	Yang et al. 1992
Management Attitudes	-Attitudes regarding internationalization	Czinkota & Johnson 1983
	-Attitudes regarding profits	Cavusgil et al. 1979 Eshghi 1992
	-Attitudes regarding growth/risk	Cavusgil et al. 1979 Cavusgil & Naor 1987
Market Characteristics	-Cultural similarity	Erramilli 1990
	-Economic similarity	Kogut & Singh 1988
	-Competition	Erramilli 1990
	-Market size	Erramilli 1990
	-Cultural distance	Madsen 1988
International Experience	-Scope	Erramilli 1991
	-Length	Erramilli 1991
	-Effort	Koh 1991
	-Satisfaction	Erramilli 1991
Market Entry Mode	-Exporting	Erramilli 1990, 1991
	-Contractual methods	Erramilli & Rao 1990
	-Foreign direct investment	Erramilli 1991
Strategic Motivation	-Client following	Weinstein 1977
	-Market diversification	Diamantopoulos & Inglis 1988
	-Market saturation	Eshghi 1992
Degree of Internationalization	-FS/TS	Sullivan 1994

The questionnaire was designed and pretested using an iterative process including expert validation and a pretest conducted using a small number of business executives not included in the sampling frame. Based upon the feedback of both pretest groups, modifications to the research instrument were made. The revised version of the questionnaire and a sample cover letter were submitted to Cleveland State University's Institutional Review Board. The final version of both the questionnaire and cover letter reflect the changes recommended by the Review Board, and meets with its approval.

Attitudinal measures are collected by means of Likert-style questions, anchored at the extremes by the values one to five. Fishbein and Ajzen (1975) report that the literature on measurement indicates that Likert-style scales are generally highly reliable when measuring attitudes. Research on how the number of scale points affects reliability is mixed. Jacoby and Matell (1971) report that reliability is independent of the number of scale points. Bendig (1954) contends that the number of scale points strongly influences the survey's reliability. Boote (1981) mediates the debate by proposing that scales fully labelled appear significantly more reliable than scales with only the extremes labelled. Taking all of this into consideration, and consistent with prior research in this area, the five point Likert-style scales used were fully labelled.

Population and Sample

Previous research in both the exporting literature and in the limited existing literature on international services marketing is based on cross-sectional data. This study is no different. In addition, no full listing of all of the service firms operating in the U.S. is known to exist.

In order to obtain an aggregate view of the degree of internationalization of these firms, seven specific service industries were selected for inclusion in this study: advertising, architects/design, computer software/data, contractors/engineers, financial services, health services, and securities/commodity/investment brokers. These seven were identified in previous research as being classifiable in terms of hard and soft services. As highlighted before, hard services are more prone to export, whereas soft services must use other modes of internationalization.

A listing of the headquarters locations of 1,754 service firms was purchased from a well known business-to-business list provider. These lists are validated and updated yearly and are known to be highly accurate. The entire list of 1,600 firms provided the sampling frame for this study. No a priori knowledge regarding the degree of internationalization of the firms targeted for this study existed, but the sampling frame was deemed large enough to capture the broad range of responses possible. The list was screened for duplicates and inappropriate industries prior to the data collection procedure. After eliminating duplicate listings and non-service firms from the database, 1,600 businesses remained.

Collection Procedure

Given the size of the undertaking, and the amount of information to be collected, it was decided that a direct mail collection procedure would yield acceptable results at an economically affordable price. Questionnaires were mailed to the top executives of the 1,600 firms in the sampling frame. Efforts to insure an adequate response rate included personalizing the mailing labels, personalizing the cover letter, including in the cover letter an explanation of the importance of the research to the development of the U.S. economy, providing a pretest-paid business reply envelope, and offering participants a summary of the results. It should be noted that to insure anonymity, respondents were asked to send their business cards under separate cover to the investigator in order to receive a summary of the results.

Two other tools to garner an adequate response rate were utilized: the survey packets were sent out in 10 inch by 13 inch envelopes, and the business reply envelopes provided were 9 inches by 12 inches. Selecting larger envelopes was a matter of convenience as well as aesthetics. It meant that the sampling frame would receive a questionnaire and cover letter that had not been folded, and respondents would not need to fold their questionnaires to return them. The cover letters were printed on school letterhead, and the school was identified on the questionnaire. In addition, the affiliation of the researcher was identified. In the event that the initial mailing does not produce enough completed responses, multiple mailings will be used.

Statistical Analysis

Holzmuller and Kasper (1991: p. 58) summarize the goals of an exploratory model to be as follows:

> "It is the objective of exploratory model development to estimate a predictively valid structure for explaining export performance, with the restriction of generating a conceivable simple model (principle of parsimony) which, however, takes into account all theoretically relevant factors of influence."

Given the goals as stated above, Holzmuller and Kasper recommend the procedure of structural equation analysis to investigate the complex cause-and-effect connections between observable (manifest) and non-observable (latent) variables.

Hair, Anderson Tatham and Black (1992) uphold that the real value of structural equation modeling derives from the ability to analyze both structural and measurement models simultaneously. They propose a seven step process to ensure that models are correctly specified and thus yield valid results:

1) The development of a theoretically based model,

2) The construction of a path diagram of causal relationships,

3) Converting the path diagram into a set of structural equations and measurement equations,

4) Choosing the appropriate input matrix and estimating the proposed model,

5) Assessing the identification of the model equations,

6) Evaluating the results for goodness-of-fit, and

7) Making the indicated modifications to the model if theoretically justified.

Every effort to follow the seven steps put forth by Hair et al. is made. As clearly indicated in the previous chapters, the model proposed in Figure 2 is strongly based upon theoretical research. Completion of the next step, constructing a path diagram of the causal relationships, will follow a brief discussion of the linear structural relationships (LISREL) inherent in structural equation modeling.

Underlying Assumptions of LISREL

Dillon and Goldstein (1982) report that the LISREL model forces researchers to recognize that many of the variables they seek to measure are unobservable and are in all probability measured with error. They caution that the effective use of LISREL requires a minimum of six assumptions:

1) Path-analytical models assume that the relationships among the variables are linear and additive; curvilinear and multiplicative models are excluded.

2) All error terms (i.e., residuals) are assumed to be uncorrelated with each other.

3) Only recursive models are considered; that is, there are only one-way causal flows in the system; reciprocal causation between the variables is prohibited.

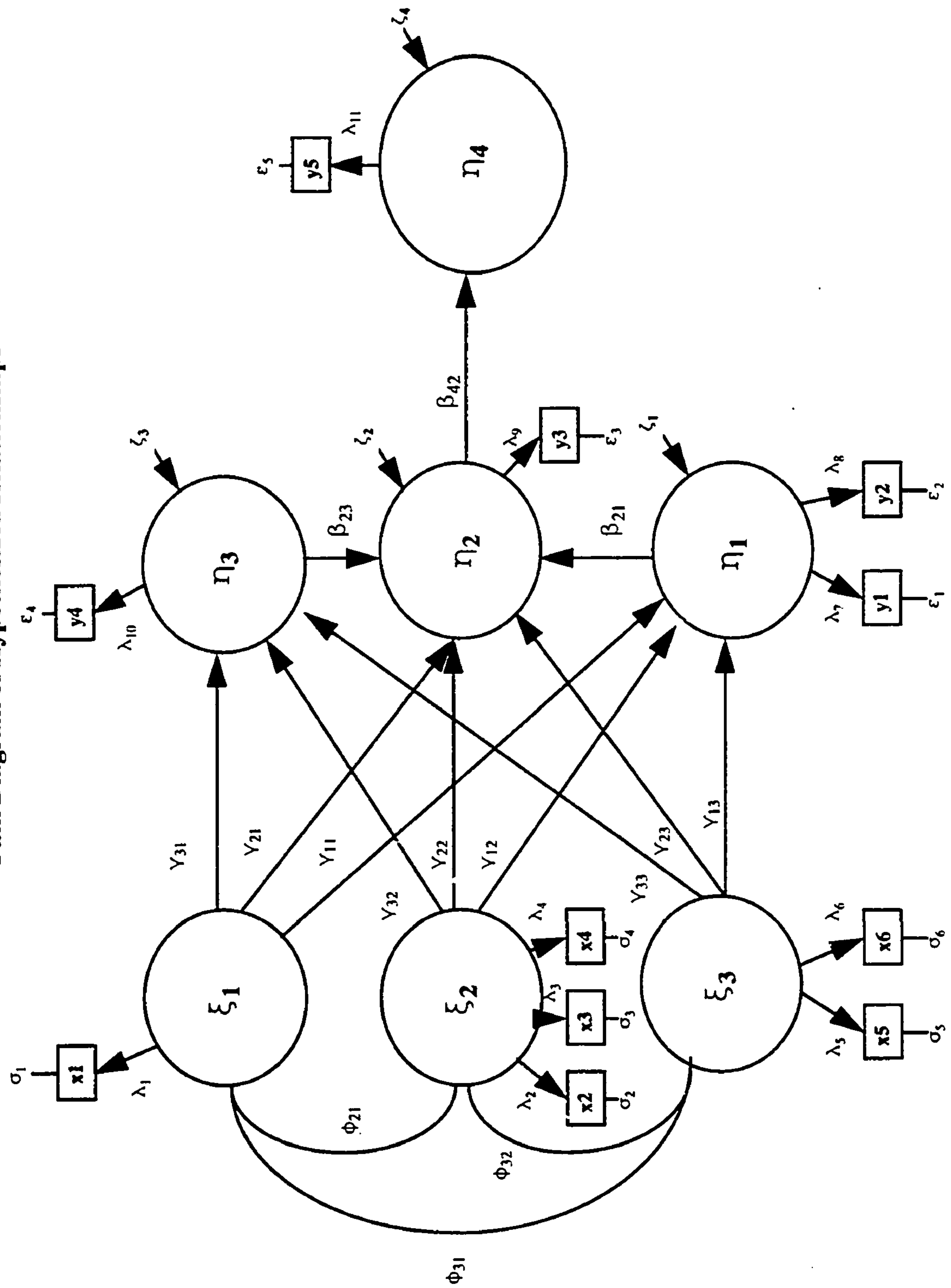
4) Path-analytic models assume that endogenous (dependent) variables have, at least, interval scale properties.

5) The observed (manifest) variables are assumed to be measured without error.

6) The model being considered is assumed to be correctly specified; that is, all of the causal determinants have been properly included in the model. If other causal determinants of endogenous variables have been excluded, the assumption is that they are independent of the ones included in the analysis.

Based upon both the advice of Hair et al. (1992), and the assumptions of LISREL as defined by Dillon and Goldstein (1984), a path diagram of the hypothesized causal relationships is presented in Figure 3. Hair et al. report that all constructs included in a path diagram are categorizable into one of two classes of constructs: exogenous (source or independent variables) or endogenous (dependent variables). In the model presented in Figure 3, the degree of internationalization is the endogenous variable and the six antecedents are the exogenous variables.

Figure 3
Path Diagram of Hypothesized Relationships



Translation of Path Diagram into Structural Equations

Hair et al. (1992) indicate that the next step after developing a theoretical model and portraying it in a path diagram, such as presented in Figure 3, is to specify the model in formal terms. The equations for this project are thus:

Structural Model:

ENDOGENOUS VARIABLE	=	EXOGENOUS VARIABLES	+	ENDOGENOUS VARIABLES	+	ERROR
η_1	=	$\gamma_{11}\xi_1+\gamma_{12}\xi_2+\gamma_{13}\xi_3$			+	ζ_1
η_2	=	$\gamma_{21}\xi_1+\gamma_{22}\xi_2+\gamma_{23}\xi_3$	+	$\beta_{21}\eta_1+\ \beta_{23}\eta_3$	+	ζ_2
η_3	=	$\gamma_{31}\xi_1+\gamma_{32}\xi_2+\gamma_{33}\xi_3$			+	ζ_3
η_4	=			$\beta_{42}\eta_2$	+	ζ_4

Measurement Models:

EXOGENOUS INDICATOR	=	EXOGENOUS CONSTRUCTS		ERROR
X_1	=	$\lambda^x_{11}\xi_1+\lambda^x_{12}\xi_2+\lambda^x_{13}\xi_3$	+	σ_1
X_2	=	$\lambda^x_{21}\xi_1+\lambda^x_{22}\xi_2+\lambda^x_{23}\xi_3$	+	σ_2
X_3	=	$\lambda^x_{31}\xi_1+\lambda^x_{32}\xi_2+\lambda^x_{33}\xi_3$	+	σ_3
X_4	=	$\lambda^x_{41}\xi_1+\lambda^x_{42}\xi_2+\lambda^x_{43}\xi_3$	+	σ_4
X_5	=	$\lambda^x_{51}\xi_1+\lambda^x_{52}\xi_2+\lambda^x_{53}\xi_3$	+	σ_5
X_6	=	$\lambda^x_{61}\xi_1+\lambda^x_{62}\xi_2+\lambda^x_{63}\xi_3$	+	σ_6

ENDOGENOUS INDICATOR	=	ENDOGENOUS CONSTRUCTS		ERROR
Y_1	=	$\lambda^y_{11}\eta_1+\lambda^y_{12}\eta_2+\lambda^y_{13}\eta_3$	+	ε_1
Y_2	=	$\lambda^y_{21}\eta_1+\lambda^y_{22}\eta_2+\lambda^y_{23}\eta_3$	+	ε_2
Y_3	=	$\lambda^y_{31}\eta_1+\lambda^y_{32}\eta_2+\lambda^y_{33}\eta_3$	+	ε_3
Y_4	=	$\lambda^y_{41}\eta_1+\lambda^y_{42}\eta_2+\lambda^y_{43}\eta_3$	+	ε_4
Y_5	=	$\lambda^y_{51}\eta_1+\lambda^y_{52}\eta_2+\lambda^y_{53}\eta_3$	+	ε_5

Translation of the path diagram into a series of structural equations based upon the above equations yields:

ENDOGENOUS VARIABLE	=	EXOGENOUS VARIABLES + ENDOGENOUS VARIABLES	+	ERROR
Y_i	=	$X_1 + X_2 + X_3 + Y_1 + Y_2 + Y_3$	+	ε_i
Y_1	=	$b_1X_1 + b_2X_2 + b_3X_3$	+	ε_1
Y_2	=	$b_4X_1 + b_5X_2 + b_6X_3 + b_7Y_1 + b_8Y_2$	+	ε_2
Y_3	=	$b_9X_1 + b_{10}X_2 + b_{11}X_3$	+	ε_3
Y_4	=	$b_{12}Y_2$	+	ε_4

Once the equations are defined in this manner, and the data is collected, the only remaining task is to perform the LISREL analysis and interpret the results. However, to properly interpret the results, one must know how well the actual data fits with the proposed model.

To estimate the final model, the data collected from the direct mail survey will be analyzed in three separate steps. First, the technique of factor analysis will be employed to identify the major significant indicators for each exogenous and endogenous construct. Once the appropriate indicators are identified, the technique of confirmatory factor analysis will be used estimate maximum likelihood parameters for each indicator and to check the reliability of both the exogenous and endogenous measurement models. Finally, the simultaneous estimation of the system of equations proposed above will be undertaken using LISREL VI. Goodness-of-fit criteria, discussed in detail in the following chapter, will be used to determine whether the linear structural model adequately represents the relationships hypothesized.

CHAPTER V

RESULTS AND ANALYSIS

In order to test the proposed conceptual framework, questionnaires were mailed to the Chief Executive Officers (CEOs) of 1,600 U.S.-based service firms. Consistent with the recommendations of other researchers employing linear structural analysis as the means of hypothesis testing, a minimum target response of 200 CEOs was established. In LISREL, small samples tend to produce results that falsely appear significant (Fornell, 1983; Cagli, 1984). Therefore, researchers have recommended a minimum response of 100 (Bagozzi, 1981). Complex models may require a response of 200 or more (Joreskog, 1981). The model proposed for this research may be considered complex.

To obtain an adequate response, the direct mail survey approach recommended by Dillman (1978) served as the model to follow: personalized cover letters, multiple mailings and friendly reminders. A copy of the cover letter and survey instrument may be found in Appendix A and a copy of the follow-up letter may be found in Appendix B. Three separate mailings yielded 228 useable responses. The first mailing was to all 1,600 CEOs and resulted in 148 responses. The second and third mailings were targeted towards low response service categories such as advertising agencies, computer services, and financial services. The 228 responses constitute a 14.3 percent response rate, but this figure may be considerably lower than the actual response rate. The list of the CEOs for the survey was purchased from a leading marketing list provider, and is believed to contain few undeliverable addresses. However, the list provider considers 95 percent accuracy as indicative of an "error free" direct mail campaign. All survey packets for this research were mailed via 3rd class pre-sort in order to minimize the mailing expense. Undeliverable mail sent 3rd class pre-sort is not returned to the sending address, and as such, the number of undeliverable survey packets is unknown.

Regardless of how many surveys were actually deliverable, the 228 responses is impressive considering the length and complexity of the questionnaire (seven pages). Additionally, the response rate is consistent with recently published studies of professional communities (Dorsch & Kelley, 1994; Baalbaki & Malhotra, 1995; Cullen, Johnson & Sakano, 1995).

Nonresponse bias is considered minimized when early versus late respondents do not differ significantly when comparing demographic variables (Armstrong & Overton, 1977). Early and late respondents did not differ significantly when compared on the following variables: number of employees, total sales and foreign sales as a percentage of total sales. Table 8 offers the results of the analysis of variance for these three variables. None of the F-values even approach significance, thus suggesting that the effect of nonresponse bias may be considered minimized.

Table 8
Results of Test for Nonresponse Bias

Number of Employees			
Group	n	mean	significance
1	114	420.95	
2	114	377.48	F = .2116
Total Sales			
Group	n	mean	significance
1	114	305,048,070	
2	114	117,941,053	F = .8649
Foreign Sales as a Percentage of Total Sales			
Group	n	mean	significance
1	114	11.56	
2	114	9.43	F = .8464

Additionally, researchers have suggested that nonresponse bias is more problematic when estimating population parameters than when testing relationships between constructs (Moschis & Moore, 1982; Herzog & Rodgers, 1988; Moschis, Mathur & Smith, 1993). Therefore, because the test for nonresponse bias suggests its absence, and because the goal of this research is to test the relationships between the identified constructs, nonresponse bias is considered a non-issue.

Respondent Characteristics

Table 9 presents a breakdown of the responses by service industry. Although this analysis uses aggregate data, it is important to understand the types of service industries that responded to the questionnaire. The largest response came from contractors/engineers and accounted for 34.2 percent of the total responses. Computer software/data service providers accounted for 17.1 percent of the responses, and architects represent 13.2 percent of the respondents. These other service providers each contributed less than 10 percent of the responses per sector.

TABLE 9

Response by Service Industry Type

Primary Area of Business	Frequency	Percent
Advertising	19	8.3
Architects/Building Design	30	13.2
Computer Software/Data	39	17.1
Contractors/Engineers	78	34.2
Financial Services/Investment	22	9.6
Health Services	17	7.5
Other	23	10.1
Total	228	100.0

At the firm level, respondents average 399.2 domestic employees, 79.14 non-U.S. employees, average sales(billings) of $211 million, have been in business an average of 30.8 years, operate in an average of 10.6 countries where average billings account for 10.5 percent of the company's total. Almost two thirds of respondents (62.7 percent) report serving foreign customers, and just over half of the respondents (50.9 percent) were not satisfied with their current level of internationalization. Of the companies that operate internationally, 43.8 percent use one market entry mode, 26.8 percent use two market entry modes, 13.1 percent use three market entry modes, and 16.3 percent use four or more market entry modes. Of the service providers who are internationally oriented, a majority operate in Canada, the U.S. and/or Mexico only. The next two biggest regional markets for U.S. service firms are Asia and Western Europe.

At the individual level, 22 respondents had college degrees from foreign universities (9.6 percent). Almost half of the respondents have graduate degrees (47.4 percent), and 37.7 percent have undergraduate degrees. Respondents also averaged 12 months of overseas work experience. Finally, 50.9 percent reported speaking no languages other than English.

Factor Analysis

Questionnaires are considered valid if they measure what they are intended to measure. To assess the validity of the survey instrument, the measurement scales used in this study were purified by means of factor analysis.

According to Hair et al. (1992), when used in the context of structural equation analysis, factor analysis differs from its traditional definition in that factors are now synonymous with the terms latent variables and constructs. In traditional factor analysis, the researcher cannot control which variables make up each factor. In confirmatory factor analysis, the researcher specifies which variables define each construct. In addition, the term indicators refers to the manifest variables used to collect the data. Indicators are named as such because they are used to measure the latent constructs (factors).

The indicator variables were therefore subjected to the data reduction technique of factor analysis and refined until the resulting factor structure was unidimensional. This criterion resulted in the deletion of numerous proposed measurement variables from each construct. Three of the constructs were measured using more than one indicator variable, and based upon prevailing theory, the remaining four constructs were measured using single indicators. Table 10 provides an overview of the indicator variables utilized.

TABLE 10

Final Indicators Used to Operationalize the Constructs

Firm Characteristics:	
Number of Employees	Measured categorically, values range from 1 to 5.
Management Attitudes:	
Internationalization is a desirable task for my firm.	
My firm's top management has a favorable attitude towards operating internationally.	
My firm's top management is supportive of offering our services internationally.	Measured on a Likert-style scale ranging from 1 to 5 with 5 defined as strongly agree and 1 1 defined as strongly disagree.
Market Characteristics: (How important are the following global market characteristics in determining the markets in which you operate?).	
Size of tariffs, quotas	Measured on a Likert-style scale ranging from 1 to 5 with 5 defined as very important and 1 defined as not important.
Existence of non-tariff barriers	
Strategic Motivation:	
Our internationalization is a result of our desire to take advantage of markets with large and growing potential.	
Our internationalization is an effort to establish our company name in markets that will be important in the future.	Measured on a Likert-style scale ranging from 1 to 5 with 5 defined as strongly agree and 1 defined as strongly disagree.
Market Entry Modes:	
Number of market entry modes	Total number of market entry modes used, values range from 0 (no international billings) to 9.
International Experience:	
Scope of international operations	Total number of world regions in which the company operates, values range from 1 (North America) to 9.
Degree of Internationalization	
Foreign sales as a percentage of total sales.	Measured categorically with values ranging from 0 (no international sales) to 3 (67 to 100 percent of total billings from international sales).

The three constructs utilizing multiple indicator variables are management attitudes (3 indicators), market characteristics (2 indicators), and strategic motivation (2 indicators).

Content validity was assessed using factor loadings and the percent of variance explained. The three variables used to assess management attitudes had factor loadings of .81154, .91058, and .88775. These three variable accounted for 87 percent of the variance explained by the single factor model. For market characteristics, each variable had a factor loading of .94621 and the two variables explained 94.6 percent of the variance explained by the single factor solution. Finally, the two variables used to measure strategic motivation each had a factor loading of .81700 and accounted for 81.7 percent of the variance.

Cronbach Alpha

While a measurement scale may be considered valid, it is not necessarily reliable. The reliability of a questionnaire concerns its ability to yield consistent results. To assess the reliability of a survey administered one time, researchers recommend assessing the internal consistency of the measurement instrument through the calculation of a reliability coefficient (Cronbach, 1951; Carmines & Zeller, 1979). Cronbach alpha measures were calculated for each of the three constructs measured by multiple indicator variables. The three variables used to measure management attitudes have a Cronbach alpha of .9235. The two variables used to measure market characteristics have a Cronbach alpha of .9424, and the two variables used to measure strategic motivation have an alpha of .7758. All of the Cronbach alphas exceed the minimum benchmark of .70 set by Nunnally (1978). Additionally, the results of the factor analyses strongly support the unidimensionality of the constructs. Therefore, it is assumed that the measurement instrument possesses validity and reliability. Table 11 presents a summary of the results of the factor analysis and the internal reliability estimate (Cronbach Alpha) for each construct.

TABLE 11

Results of Factor Analysis

Construct/ Indicator	Factor Loading
Management Attitudes (i=3)	
Internationalization is a desirable task for my firm	.81154
My firm's top management has a favorable attitude towards internationalization	.91058
My firm's top management is supportive of offering our services internationally	.88775
Eigenvalue	2.6099
Variance explained	87.0%
Cronbach Alpha	.92350
Market Characteristics (i=2)	
Size of tariffs, quotas	.94621
Existence of non-tariff barriers	.94621
Eigenvalue	1.8924
Variance explained	94.6%
Cronbach Alpha	.94240
Strategic Motivation (i=2)	
Our internationalization is a result of our desire to take advantage of markets with large and growing potential	.81700
Our internationalization is an effort to establish our company name in markets that will be important in the future	.81700
Eigenvalue	1.6340
Variance explained	81.7%
Cronbach Alpha	.77580

Measurement Validity and Reliability

LISREL VI (Joreskog & Sorbom, 1984) is employed to assess the measurement properties of the scales and to test the relationships proposed in the hypotheses. Confirmatory factor analysis is used to test the measurement model and structural equation modeling with squared multiple correlations is used to test the hypotheses. Although the analytical model does not contain multiple variable indicators for all of the constructs, simultaneous estimation of the system of equations is required because of the model structure proposed (Judge et. al, 1982; Bollen, 1989). The number of responses for this study (n=228) meets the sample size requirements for this type of analysis (Bearden, Sharma, & Teel, 1982; Tanaka, 1987; Bagozzi & Yi, 1988).

Evaluating Goodness-of-Fit

Hair et al. (1992) indicate that once the data is collected and analyzed, the goodness-of-fit should be assessed at several levels. Three measures of goodness-of-fit are typically used to assess the overall fit of the LISREL model: the likelihood-ratio chi-square statistic, the goodness-of-fit index, and the root mean square residual.

The likelihood-ratio chi-square statistic is extremely sensitive to sample size. Sample sizes that are too small and too large yield similar results, but for different reasons. Its use, according to Hair et al. (1992) is most appropriate for sample sizes between 100 and 200. The goodness-of-fit index ranges from poor fit (value of zero) to perfect fit (value of 1.0). This non-statistical measure has as of yet to establish a threshold for acceptability. The root mean square residual consists of the square root of the mean of the squared residuals. As with the goodness-of-fit index, no real solid threshold for acceptability has been established.

Hair et al. (1992) offer these generalizations to indicate a models acceptable fit:

1) Nonsignificant chi-square value (at least $p>.05$, perhaps .10 or .20).

2) Incremental fit indices greater than .90.

3) Parsimony indices that portray the proposed model as more parsimonious than alternative models.

4) Low root mean square residual based on the use of correlations or covariances.

Hair et al. summarize goodness-of-fit by contending that acceptability of the model can be proclaimed only after all of the goodness-of-fit criteria have been examined.

Measurement Model

To assess the measurement properties of the constructs included in the model, two separate confirmatory factor analyses were conducted: one for the exogenous constructs and one for the endogenous constructs. Table 12 presents the results of the confirmatory factor analysis of the exogenous constructs. Five goodness-of-fit indices generated by LISREL VI were used to assess the overall strength of the measurement model. The values of these goodness-of-fit indices were chi square = 14.00 with 7 degrees of freedom, goodness of fit index = .980, adjusted goodness of fit index = .940, root mean square residual = .031, and Cmin/df = 2.108. The standard error values for each construct are low, indicating that these measures are precise. The overall strength of these goodness-of-fit indices suggest that the measurement properties of the exogenous variables are sufficient to proceed with the structural analysis.

For the second confirmatory factor analysis, four goodness-of-fit indices generated by LISREL VI were used to assess the overall strength of the endogenous measurement model. The values of these goodness-of-fit indices were chi square = 6.600 with 1 degree of freedom, goodness of fit index = .986, adjusted goodness of fit index = .858, and root mean square residual = .05731. The strength of these indices also suggests that the endogenous measurement model adequately reflect constructs it proposes to measure.

TABLE 12

Estimated Maximum Likelihood Parameters and Reliabilities
for the Measurement Model (Confirmatory Factor Analysis)

Construct/Indicator	Standardized Coefficient (t-value)
Firm Characteristics (ξ_1)	
Number of Employees	.580*
Management Attitudes (ξ_2)	
Internationalization is a desirable task for my firm	.813 (17.48)
My firm's top management has a favorable attitude towards internationalization	.955 (24.27)
My firm's top management is supportive of offering our services internationally	.926*
Market Characteristics (ξ_3)	
Size of tariffs, quotas	.917*
Existence of non-tariff barriers	.974 (8.65)
Strategic Motivation (η_1)	
Our internationalization is a result of our desire to take advantage of markets with large and growing potential	.728*
Our internationalization is an effort to establish our company name in markets that will be important in the future	.871 (5.51)
Market Entry Modes (η_2)	
Number of market entry modes	.673*
International Experience (η_3)	
Total number of world regions in which the firm operates	.395*

* Parameter values fixed by scaling

Structural Model

Once the measurement properties of the model were found to be acceptable, the simultaneous estimation of the system of equations was undertaken using LISREL VI. To determine whether the linear structural equation model adequately represents the relationships it hypothesizes, the evaluation guidelines of Bagozzi and Yi (1988) were followed. The resulting goodness-of-fit indices were: chi square = 76.450 with 33 degrees of freedom, goodness of fit index = .946, adjusted goodness of fit index = .892, root mean square residual = .069, and Cmin/df = 2.317.

The chi square value was significant, but Anderson and Gerbing (1984) argue that because of the sensitivity of chi square to sample size, other goodness-of-fit indices are better indicators of the ability of the structural model to measure what it proposes to measure. The values of the other goodness-of-fit indices are well within the acceptable ranges set by Bagozzi and Yi (1988). In addition, Cmin/df ratios in between 2-to-1 and 3-to-1 may be considered indicative of an acceptable fit between the proposed model and the sample data (Carmines & McIver, 1981). Finally, the model's normed fit index (NFI) = .950 indicating that the model explains 95 percent of the observed measure covariance. Overall, these indices indicate a good fit between the data and the proposed structural model.

The results of the structural equation model testing may be found in Table 13. In addition to investigating the overall goodness-of-fit indices, each hypothesized link needs to be examined in order to determine its individual level of significance. T-values are used as indicators of significance for the parameter estimates, and for this study, any absolute values greater than 1.90 are considered significant (p=.05). As a refresher, the beta values indicate relationships between endogenous constructs, the gamma values indicate relationships between exogenous and endogenous constructs, and lambda values reflect the impact of the indicator variables in determining the latent construct. Some t-values for the lambda estimates are missing, which indicates that the parameter value for that indicator was fixed for the purpose of conducting the analysis.

TABLE 13
LISREL Estimates for the Structural Model

Parameter	Standardized Estimate	t value
β_{21}	0.049	0.671
β_{23}	0.581	5.924
β_{42}	0.494	10.960
γ_{11}	0.017	0.115
γ_{21}	-0.120	-0.817
γ_{31}	0.330	1.987
γ_{12}	0.448	3.814
γ_{22}	0.452	4.573
γ_{32}	0.383	3.332
γ_{13}	0.049	0.668
γ_{23}	-0.026	-0.432
γ_{33}	-0.025	-0.349
λ_1	0.579	-------[a]
λ_2	0.819	17.667
λ_3	0.958	25.106
λ_4	0.919	-------[a]
λ_5	0.928	-------[a]
λ_6	0.961	8.839
λ_7	0.748	-------[a]
λ_8	0.847	6.472
λ_9	0.755	-------[a]
λ_{10}	0.919	-------[a]
λ_{11}	0.972	-------[a]

Goodness of Fit Index	.946
Adjusted Goodness of Fit Index	.892
Root Mean Square Residual	.069
Chi-Square (33 df)	76.450
Chi-square/degrees of freedom	2.317

[a] Parameter values fixed by scaling

Results of the Hypothesized Relationships

In H1, it was hypothesized that a service firm's characteristics positively relate to its strategic motivation to internationalize. The results of the LISREL analysis indicate that the hypothesized relationship is not significant (Υ_{11} = .017, t = .115). Firm characteristics do not significantly influence a service firm's strategic motivation to internationalize.

In H2, a service firm's characteristics are posited to positively relate to its number of market entry modes. Again, the results of the linear structural analysis indicate that the hypothesized relationship is not significant (Υ_{21} = -.020, t = -.817). Firm characteristics do not significantly influence the number of international market entry modes used by service firms.

A service firm's characteristics were also hypothesized to relate to its international experience. Hypothesis H3 was supported (Υ_{31} = .330, t = 1.99). Firm characteristics positively relate to a firm's overall scope of international experience.

In H4, it was expected that a service firm's management attitudes positively relate to its international experience. The statistically significant estimate for Υ_{32} supports this claim (Υ_{32} = .383, t = 3.332). Management attitudes positively relate to a firm's overall scope of international experience.

A service firm's management attitudes were hypothesized to positively relate to the number of market entry modes it uses. This relationship for H5 was supported (Y_{22} = .452, t = 4.573). Management attitudes significantly impact the number of market entry modes a service firm utilizes in its international operations.

In H6, a service firm's management attitudes are posited to positively relate to the firm's strategic motivation to internationalize. The hypothesis was supported (Y_{12} = .448, t = 3.814). Management attitudes significantly influence a service firm's strategic motivation to internationalize.

H7 examines the influence market characteristics has upon a service firm's international experience. The statistically insignificant estimate for Y_{33} (Y_{33} = .049, t = .668) fails to lend support to this hypothesis. In this sample, market characteristics do not significantly impact a firm's scope of international experience.

In H8, market characteristics are posited to positively relate to a service firm's overall number of market entry modes. This relationship is not supported (Y_{23} = -.026, t = -.432). Market characteristics do not significantly influence a service firm's number of market entry modes.

Hypothesis nine addresses the relationship between market characteristics and a service firm's strategic motivation to internationalize. Contrary to the proposed relationship between the constructs, the results are not significant (Y_{13} = .017, t = .115). Market characteristics do not significantly influence a service firm's strategic motivation to internationalize.

In H10, a service firm's international experience is hypothesized to positively influence the number of market entry modes it utilizes. Consistent with the expectations, H10 is strongly supported (β_{23} = .581, t = 5.924). The greater a service firm's international experience, the more market entry modes it uses.

H11 investigates the relationship between a service firm's strategic motivation and the number of market entry modes it uses. The statistically insignificant estimate for β_{21} (β_{21} = .049, t = .671) fails to lend support to the hypothesized relationship. A service firm's strategic motivation to internationalize does not significantly influence the number of market entry modes it selects to do so.

The final hypothesis addresses the impact of the number of market entry modes used by the firm on its degree of internationalization. The positive, statistically significant estimate for β_{42} (β_{42} = .494, t = 10.960) suggests a very strong relationship between the number of entry modes a service firm utilizes and its degree of internationalization.

A summary of the hypothesis testing is presented in Table 14. Overall, six of the twelve hypotheses were supported. Three of the non-supported hypotheses indicated that the direction of the relationship hypothesized was correct, and the other three contained standardized estimates with the opposite sign of the hypothesized relationship.

TABLE 14

Summary of the Results

Hypothesized Link:	Result:	Decision:
Firm Characteristics to Strategic Motivation (H1)	$\gamma_{11} = .017, t = .115$	Not Supported
Firm Characteristics to Market Entry Modes (H2)	$\gamma_{21} = -.020, t = -.817$	Not Supported
Firm Characteristics to International Experience (H3)	$\gamma_{31} = .330, t = 1.99$	Supported
Management Attitudes to International Experience (H4)	$\gamma_{32} = .383, t = 3.332$	Supported
Management Attitudes to Market Entry Modes (H5)	$\gamma_{22} = .452, t = 4.573$	Supported
Management Attitudes to Strategic Motivation (H6)	$\gamma_{12} = .448, t = 3.814$	Supported
Market Characteristics to International Experience (H7)	$\gamma_{33} = .049, t = .668$	Not Supported
Market Characteristics to Market Entry Modes (H8)	$\gamma_{23} = -.026, t = -.432$	Not Supported
Market Characteristics to Strategic Motivation (H9)	$\gamma_{13} = .017, t = .115$	Not Supported
International Experience to Market Entry Modes (H10)	$\beta_{23} = .581, t = 5.924$	Supported
Strategic Motivation to Market Entry Modes (H11)	$\beta_{21} = .049, t = .671$	Not Supported
Market Entry Modes to Degree of Int'l (H12)	$\beta_{42} = .494, t = 10.960$	Supported

Limitations

Two limitations exist pertaining to the generalizability of the study and the assumptions of the LISREL model. For random sampling procedures to be generalizable to the population as a whole, the researcher must know the number of subjects in the total population. For this study, the population under consideration consists of all service firms within the U.S. It is already acknowledged that a listing of all service firms operating within our country's borders does not exist.

In order to investigate a more manageable sub-population of the whole, seven service industries are selected and a database containing the information on the headquarters of firms within each standard industrial classification is purchased. Although restricting the analysis to seven service industries limits the generalizability of the results to the service sector as a whole, it increases the generalizability of the results to the sub-population as a whole. It also offers an opportunity to study differences between industries at a later date.

The second limitation pertains to the assumptions of the LISREL model. In particular, the last two limitations presented by Dillon and Goldstein (1984) are of particular concern: that the observed (manifest) variables are measured without error, and the model under consideration is correctly specified in that all causal determinants are included in the model.

All methods of variable measurement include an element of error. The goal of measurement is to minimize or control the amount of error present. While an attempt is made to minimize measurement error through the use of previously developed and refined variable measures, it cannot be claimed with certainty that the influence of measurement error will be negligible. Of greatest concern to this study is the assumption that all causal determinants are included in the model. Given the unique attempt to combine three streams of theoretical research into a cohesive model, the likelihood that unidentified causal determinants exist is high. In the best case scenario, all causal determinants inadvertently excluded from the model will be independent of the ones included in the analysis.

In the following chapter, the results of the statistical analysis are summarized, and conclusions based upon the results are be offered. In addition, the contributions of this research project are explicitly identified, the limitations of the project are discussed, and directions for future research are offered.

CHAPTER VI

SUMMARY AND CONTRIBUTION

As the United States continues to shift from a manufacturing-based economy to a service-based economy, research in the international marketing of services becomes increasingly important. To date, few studies have focused on how service firms operate internationally, and how the internationalization process works for service firms. This study is possibly the first to empirically test manufacturing-based theories explaining the international activities of firms from a service industry perspective. Six of the twelve hypotheses are supported, indicating that some of the manufacturing theories may adequately explain the internationalization process of service firms.

In the ensuing section, the results for each of the six antecedents to the degree of internationalization will be discussed, conclusions that may be drawn from the research will be presented, the contributions of the research to the discipline of marketing will be delineated, the limitations of the current project will be discussed, and directions for future research will be offered.

Summary of the Results

Rather than attempting to summarize the results as a whole, each hypothesized relationship between the exogenous and endogenous constructs will be examined. Logically, this presentation format offers a more understandable explanation of the LISREL results and the implications of those results.

Firm Characteristics

Previous research by Axinn, Sinkula, and Thach (1994) indicated that from a manufacturing perspective, firms characteristics have a significant impact on the firm's strategic motivation to internationalize. The assumption is that larger firms are more likely to have international clients, or national clients who are entering foreign markets.

Client following, or entering new global markets because your clients have, is characterized as the first step in internationalization (Ball & Tschoegl, 1982; Goldberg & Saunders, 1980; Khoury, 1979; Li & Guisinger, 1992; Nigh, Cho & Krishnan, 1986; Terpstra & Yu, 1988; Weinstein, 1977).

The results of this study indicate that within the context of the service industry, firm characteristics do not significantly influence a service provider's strategic motivation to internationalize. In other words, larger and smaller firms alike may share the same strategic motivations to internationalize.

Firm characteristics were also hypothesized to have a significant influence on the total number of market entry modes a service firm uses to internationalize. This hypothesis was based upon the research of Ali and Camp (1993) and Axinn, Sinkula and Thach (1994). Once again the premise is that larger firms, by virtue of their resources (both capital and human) are more capable of sustaining multiple entry modes successfully than are smaller firms.

Again, the results of the current study do not support the hypothesis. The total number of market entry modes utilized by a U.S. service firm is not significantly influenced by the firm's size. Therefore, it appears that regardless of firm size, the number of market entry modes used by domestically-based service firm's operating internationally is, on average, the same.

The final hypothesis relating to firm characteristics claims the existence of a positive relationship between the firm characteristic of size and international experience. The premise of this hypothesis is that the more employees a firm has, the more likely it is to have people experienced in operating internationally.

This relationship is found to be true within the context of the service industry: a firm's total number of employees significantly influences its scope of international experience. In other words, the more employees a service firm has, the more regions of the globe it is likely to conduct business in.

Management Attitudes

Aaby and Slater (1989) believe that management attitudes are more important than firm characteristics in determining the international behavior of firms. Unless the firm's management has favorable attitudes about operating internationally, it most likely will not successfully internationalize. More succinctly, positive management attitudes toward operating in global markets translates directly to the firm international operations.
The results of this study indicate that Aaby and Slater's proposition is correct when examining the international behavior of service firms.

Czinkota and Johnson (1983) report that management attitudes significantly influence international experience. They found that firms with positive attitudes towards operating internationally averaged more overall international experience than firms with neutral or negative attitudes towards internationalization.

This relationship is found to be true when examining U.S. service firms. On average, the more positive management's attitudes are toward operating internationally, the greater the scope of the firm's international experience. Firm's with strongly positive attitudes towards offering their services internationally operate in more world regions than firms who do not.

Erramilli (1991) reports that management attitudes positively influence the number of market entry modes a service firm is likely to use. The more positive the attitudes of a firm's management toward operating internationally, the more modes of entry the firm will use in pursuing global clients.

In examining U.S. service firms, the relationship between management attitudes toward operating internationally and the number of market entry modes used by the firm in servicing international markets is statistically significant. Strongly positive management attitudes towards operating internationally influence the total number of market entry modes used by the firm.

Management's attitudes toward operating internationally positively influence its strategic motivation to do so (Edvardsson, Edvinsson, & Nystrom, 1993; Wiedersheim-Paul, Olson, & Welch, 1978). That is, the more positively a firm's attitudes toward competing in the global environment, the stronger the firm's motivation to do so.

Again, the current investigation indicates that for U.S. service firms, this relationship is indeed true. Managers who strongly agree that internationalization is a desirable task for the firm, that top management has a favorable attitude towards operating internationally, and that top management is supportive of offering the services internationally are more motivated to operate internationally.

Market Characteristics

Market characteristics are known to influence a firm's choice of both domestic and international operations. Historically, service firms have chosen to enter international markets that closely match the service concepts, knowledge, organization, and control systems of their home country (Edvardsson, Edvinsson, & Nystrom, 1993). Of particular interest to U.S. service firms is the regulatory and legislative environment of the countries in which it plans to do business.

Erramilli (1991) and Li (1994) both report finding a positive relationship between market characteristics and a firm's scope of international experience. The characteristics of the potential international markets significantly influences the number of global regions the company is likely to operate within.

In the case of U.S. service providers, the link between market characteristics and international experience is not significant. This may be interpreted to mean that a U.S. service provider's scope of international operations is not related to perceived market characteristics. Specifically, different perceptions of trade barriers do not significantly influence the number of regions in which the company offers its services.

Market characteristics are also believed to influence the number of market entry modes that service firms utilize internationally (Erramilli, 1991; Li, 1994). Indigenous laws protecting domestic service firms from outside competition, protecting services deemed critical for national security interests from being owned by non-nationals, and local ownership mandates all create less than hospitable market environments. In the past, these trade constraints have been thought to significantly influence the number of market entry modes that service firms would deem profitable.

The results of this research endeavor indicate that the link between market characteristics and market entry modes is not significant. In other words, the average number of market entry modes used by service firms operating internationally is not significantly influenced by market characteristics.

No prior link between market characteristics and a firm's strategic motivation to internationalize was identified in the literature. Logically, one might expect the relationship to be as follows: The stronger the perception of adverse market characteristics, the weaker the firm's strategic motivation to internationalize.

The resulting test of Hypothesis 9 indicates that market characteristics do not significantly influence a service firm's strategic motivation to internationalize. The strategic motivation to internationalize is thus independent of the direct influence of market characteristics.

International Experience

International experience is operationalized in this research project as the geographic spread of the service company's international expertise (Erramilli, 1991). The premise underlying this definition is that the more regions of the world in which the company operates, the more modes of entry the company will use to service these regions. This is also consistent with the research of Thomas and Araujo (1985) who confirm that more international experience equates to the utilization of more market entry types.

The results of this research indicate that the link between a service firm's scope of international experience and the number of market entry modes used by the firm is significant. The more world regions in which the firm operates, the more market entry modes it utilizes.

Strategic Motivation

Diamantopoulos and Inglis (1988) identified a positive link between strategic motivation to internationalize and the number of market entry modes used by the firm. The rationale is that the more motivated a firm is to pursue international operations, the more market entry modes it will utilize to do so.

In researching U.S. service firms, this proposed relationship was found to be not significant. In other words, a service firm's strategic motivation to internationalize does not significantly impact the number of market entry modes that it utilizes to do so.

Market Entry Modes

Welch and Luostarinen (1988) predict that mastering multiple modes of market entry is the key to a firm's international business success. In the service industry, Erramilli (1990) found that market entry modes significantly influences a firm's level of internationalization. The more market entry modes used by the firm, the higher the percentage of total sales derived from international operations.

In the current study, the relationship between the number of market entry modes used by a service firm, and its corresponding degree of internationalization is found to be highly significant. The more market entry modes employed by the firm, the higher the firm's degree of internationalization.

Implications

As evidenced by the six significant findings, some of the theories developed to explain the international behavior of manufacturing firms are applicable to service firms. Within the service industry framework, the link between firm characteristics and international experience is significant, the link between management attitudes and international experience is significant, the link between management attitudes and market entry modes is significant, the link between management attitudes and strategic motivation to internationalize is significant, the link between international experience and market entry modes is significant, and the link between market entry modes and the degree of internationalization is significant.

In addition, based upon the evidence provided by the goodness-of-fit measures employed, the overall theoretical model developed for this research can not be rejected. The theoretical model adequately reflects a service firm's overall degree of internationalization as tested.

The implications of these findings are important for those academicians and practitioners interested in describing the internationalization process of U.S. service firms. Management attitudes towards operating internationally are the most important factor to consider before a service firm attempts to do so. Firms that ultimately realize a higher percentage of their total sales/billings from outside the U.S. have a management that harbors positive attitudes towards operating in the global market place and is supportive of efforts to do so.

Firm characteristics, so dominant in the manufacturing-based export literature, appear to have little impact on the degree of internationalization of U.S. service firms with one exception; the larger the firm, the more international experience it is likely to have. Perhaps this suggests that other antecedents exist which explain why some service firms operate internationally and others do not.

Likewise, the lack of significant impact of market characteristics in explaining the international behavior of U.S. service firms is surprising. Market characteristics are traditionally thought to be an integral part of the international market entry decision process. Perhaps in the service industry the characteristics of potential markets are less important in that even greenfield service facilities require less capital investment than greenfield manufacturing facilities. In addition, the risk of nationalization is minimized in that all that service providers can lose is a building and its contents.

International experience strongly contributes to the number of market entry modes a service firm uses in its pursuit of international business. In both manufacturing- and service-based industries, the greater the scope of a firm's international experience, the more market entry modes it utilizes. This finding is particularly important because it illustrates two key contentions: first, service firms do not rely on a single market entry mode to enter all markets, and second, internationalization may indeed be an incremental process in that the more experience and confidence a firm has in operating globally, the more market entry modes it is willing to use.

Strategic motivation to internationalize does not significantly influence the number of market entry modes a service firm uses to do so. In other words, regardless of the motivation to internationalize, service firms on average use the same number of different market entry modes.

In summary, the driving force behind the internationalization of U.S. service firms is the presence of upper level managers with a positive attitude towards operating internationally. In a service industry context, the degree of internationalization appears to be an incremental process whereas the more experience in operating internationally a company obtains, the more market entry types it will utilize and the higher the percentage of its total sales will be attributable to foreign sales.

Contribution to Marketing Theory

The contributions of this project to international marketing theory are threefold: first, the results indicate that manufacturing-based theories are applicable to the service industry, second, a theoretical foundation on which to build future research on the internationalization process of service firms has been built, and third, the thoroughness of the literature review has resulted in the compilation of a comprehensive bibliographical listing of relevant literature. Each of these contributions will be discussed in detail.

International marketing theory may indeed be universal. That is, theories developed to explain the international activities of manufacturing firms are indeed applicable to service firms. This is one of only a few documented attempts to determine the applicability of the existing theoretical concepts to the international service sector. Erramilli (1990, 1991) and Erramilli and Rao (1990, 1993) have empirically tested the applicability of manufacturing-based theories to service firms when they examined market entry modes. This research project builds upon their efforts and expands the knowledge base by incorporating export theory and theory developed to explain the degree of internationalization of manufacturing firms into the investigation.

The baseline relationships between the proposed exogenous and endogenous constructs have been established. This project provides a theoretical foundation on which to build a comprehensive model. Through the use of structured, systematic inquiry, a more robust model may be developed. New antecedents can be tested replacing those of firm characteristics, market characteristics, and strategic motivation.

Finally, the thoroughness of the literature review for this project has resulted in the compilation of an comprehensive bibliographical listing of articles pertaining to the internationalization process of both the service and manufacturing industries. This compilation will save future researchers interested in the internationalization process of firms significant amounts of time and effort.

Limitations

Although considerable effort was put forth to ensure the generalizability of the research results, limitations to the applicability of the results exists.

First, although the goal of the study was to develop a model to explain the degree of internationalization of service firms, it only focused on seven segments of the service sector. The seven selected may best be characterized as professional services. Not included in the analysis are service firms associated with the travel and/or leisure industry. This sector dominates the volume of U.S. service exports identified in Table 1, accounting for almost 50 percent of the total.

The second limitation concerns the response rate and respondent characteristics. The response rate was an acceptable 14.3 percent, but one wonders about how the other 83.7 percent of the sampling frame would have responded. If the responses of the participants are representative of the sampling frame, and therefore the population as a whole, then the issue of generalizability of the results is minimized. The test of non-response bias employed in this project indicates that the impact of non-response bias may be considered minimal.

However, some concerns still exists. Given the nature of the research, educated managers from larger service firms may have responded in disproportionate numbers. A review of the respondent characteristics reveals that respondents were clearly from larger firms, averaging 399 employees, and $211 million in annual billings. Respondents averaged 12 months of overseas work experience and almost half possessed graduate degrees. Finally, 49.1 percent report having the ability to speak or read more than one language. Clearly these are not the characteristics of the average American CEO or President.

Finally, the current study uses a cross-sectional data collection approach, and as such provides no basis for reviewing the dynamic nature of the internationalization process. To determine whether or not internationalization is in fact an incremental phenomenon, one must investigate the international behavior of firms over a number of periods - such as years - to see if international expansion follows the theoretical suppositions.

Directions for Future Research

Now that baseline relationships between the proposed exogenous and endogenous antecedents to the degree of internationalization of service firms have been established, more research is needed to determine more applicable constructs to replace firm characteristics, market characteristics and strategic motivation to internationalize. Only through the rigorous empirical testing of all possible antecedents to the degree of internationalization of service firms can a predictive model be developed.

A broader spectrum of service firms needs to be included in future projects. Specifically, since the travel and leisure industry contributes to almost half of the U.S. surplus in the balance of service trade, it is logical that this sector be included in future analyses.

Finally, rather than performing a series of cross-sectional analyses and drawing aggregate inferences, it would serve the theoretical development of the degree of internationalization literature better to conduct longitudinal studies of specific service sector industries. Only through investigating the behavior of firms and their development of international operations over time can we truly understand the ebb and flow of internationalization.

By adopting a more proactive international orientation for its domestically-based service providers, the U.S. will assure the long-term stability of its economy. To fail to adopt this perspective will lead to the continued decline of the importance of the U.S. economy in the world market place.

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APPENDICES

APPENDIX A

COVER LETTER AND QUESTIONNAIRE

THE OHIO SCHOOL OF INTERNATIONAL BUSINESS
The University of Akron - The Cleveland State University - Kent State University - Youngstown State University
29100 Aurora Road, Suite 101, Solon, Ohio 44139
(216) 349-0090
Fax (216) 349-4644

31 March 1995

Harry Jeffcoat Jr
Jeffcoat & Assoc
5266 Grantswood Rd
Birmingham, AL 35210

Dear Harry:

Please assist us in our research endeavor by taking 15 minutes to complete the enclosed survey. Our goal is to better understand the U.S. service industry in order to assist in the growth and development of the U.S. economy.

The U.S. economy has been experiencing a continued shift of workers away from manufacturing into services, where almost 80% of U.S. jobs now reside. All net job creation through the year 2005 is projected to come from the growth in the service sector.

In addition to this shift, the increasing globalization of the world economy is forcing many U.S. service firms to adapt to the new international order. Although the service sector dominates our domestic economy, the level of international trade attributable to the U.S. service sector is only one-third as large as that attributable to manufacturing.

With the service sector currently the fastest growing component of international trade, it is clear that the U.S. can bolster its standard of living, the stability of its job markets, and its international competitiveness by effectively and efficiently developing this industry. Unfortunately, little is known about the differences between service providers who decide to operate internationally and those who do not.

The purpose of this research project, therefore, is to determine how service providers with an international focus differ from those with a domestic focus with regard to a set of predetermined variables. It is important to understand these differences because growth and competition in the international service sector is projected to intensify in the future.

Your response is important to us regardless of whether you offer your services internationally or not. Participation is voluntary, and you may indicate your agreement to participate by completing and returning the questionnaire in the enclosed prepaid business reply envelope.

Your response is completely anonymous. We have no way of identifying you and/or your company from the information that you provide. If you have any questions about your rights as a research subject, feel free to contact Cleveland State University's Institutional Review Board. at (216) 687-3630.

Thank you for your willingness to contribute to our understanding of your industry.

Sincerely,

Raj Javalgi, Cleveland State University
D. Steven White, Ohio School of International Business

SURVEY ON THE INTERNATIONALIZATION OF SERVICES

Raj G. Javalgi, Ph.D.
Professor of Marketing
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Cleveland, OH 44115
(216) 687-4789

D. Steven White
Research Fellow
The Ohio School of International Business
Cleveland, OH 44139
(216) 349-0090

The Ohio School of International Business is working with Professor Raj Javalgi of Cleveland State University on his national project to assess the degree of internationalization of U.S. service firms. The project seeks to profile service firms operating globally, to provide information that can be used to improve international competitiveness, and to enhance the understanding of the degree of internationalization of our service industries.

Every response is crucial if we are to develop an accurate picture of the international efforts of service firms. We therefore urge you to complete the entire questionnaire. ALL RESPONSES IN THE QUESTIONNAIRE ARE COMPLETELY CONFIDENTIAL. COMPANY-SPECIFIC INFORMATION WILL AT NO TIME, FOR ANY REASON, BE ISOLATED, DISSEMINATED, OR MADE PUBLIC.

I. COMPANY PROFILE

Please circle the one category that best describes your company's primary area of business:

01 Advertising	05 Financial Services
02 Architects/Building Design	06 Health Services
03 Computer Software/Data	07 Securities/Commodity/Investment Brokers
04 Contractors/Engineers	08 Other (Please Specify) ______________

Please answer the following questions about your firm to the best of your ability. If uncertain of the exact percentage or number, educated guesses will suffice.

Total number of employees__________________

Total Sales_______________________

Total number of foreign employees _________

Year company was established________

Estimated Percent of Total Sales attributable to Foreign Sales_____________________

In how many countries does your company operate today?

____

Estimated total number of foreign customers

____

What percentage of your service(s) is/are marketed to businesses and to individual consumers?

_____ **%Business** _____ **%Consumer**

Which description best fits your company? (Check one in each column)

____ **Wholly independent entity**	____ **Sole proprietorship**
____ **Parent Company with subsidiaries**	____ **Partnership**
____ **Subsidiary of another company**	____ **Private Corporation**
____ **Joint Venture**	____ **Public Corporation**
____ **Operating division or unit**	____ **Employee Owned**
____ **Other**	____ **Other**
(specify)____________________	**(specify)**____________________

Where is your company's main headquarters or central corporate office located?

_____ Within the United States of America or its territories

_____ Outside the United States

Where?______________________________________

Your company's position within the parent corporate system is: (Please check one)

_____ Corporate headquarters _____ Subsidiary

_____ Division or Unit _____ Other

(specify)____________________

Is your firm's international experience part of a sustained (regular) effort or is it more sporadic in nature? Please circle the appropriate response.

Sustained experience Sporadic experience No experience

How satisfied are you with the results of your firm's international experience? Please circle the appropriate level of satisfaction.

Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied

II. FOREIGN MARKET ENTRY MODE

The following statements are designed to determine the methods your firm uses to **serve international markets.** Please write the number of each international market entry mode utilized by your firm - for example, if your firm markets its services in 10 different countries and in five of those you utilize 50-50 joint venture agreements, you should enter the number 5 in the response space provided to the left of the selection "50-50 Joint Venture." Likewise, if you export your services to customers in five different countries, enter the number 5 in the response space provided to the left of the selection "Direct to Customer Exports." Please continue until all market entry types utilized by your firm are accounted for.

Number

_____ Wholly-Owned Subsidiary - Branch started from scratch

_____ Wholly-Owned Subsidiary - Acquired

_____ Majority Joint Venture

_____ 50-50 Joint Venture

_____ Minority Joint Venture

_____ Foreign Based Agent/Distributor

_____ Direct to Customer Exports

_____ U.S. Based Agent/Distributor

_____ Licensing/Franchising

III. SCOPE OF BUSINESS OPERATIONS

Country Matrix: For this section, please indicate whether or not you currently operate in any of the world regions mentioned. If you select "YES" for any of the regions listed, please indicate in which country or countries within the region you operate by writing in the country or countries in the space provided.

Region	Operations?	Specific Countries
Africa	Yes No	
Asia	Yes No	
Australia/New Zealand	Yes No	
Central America	Yes No	
North America (USA, Canada, Mexico)	Yes No	
South America	Yes No	
Middle East	Yes No	
East/Central Europe	Yes No	
Western Europe	Yes No	

IV. MANAGEMENT ATTITUDES

The attitude of a company's management toward operating internationally, significantly influences the company's effectiveness in doing so. Please indicate how strongly you agree with each of the following statements by circling the appropriate response.

Scale:	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Internationalization is a desirable task for my firm.	5	4	3	2	1
Lack of managerial expertise in operating outside the domestic market is a barrier to internationalization.	5	4	3	2	1
My firm is capable of internationalizing its service offerings.	5	4	3	2	1
My firm's top management has a favorable attitude towards operating internationally.	5	4	3	2	1
My firm's top management is supportive of offering our services internationally.	5	4	3	2	1
My firm should increase its current level of international operations.	5	4	3	2	1

V. COMPETITIVE OR STRATEGIC ADVANTAGES

Please rate the extent to which each of the following advantages have helped your firm to compete more successfully. Circle the appropriate response.

Scale:	**Great Extent**			**Least Extent**	**No Extent**
Technological Competence	5	4	3	2	1
Adequate Financial Resources	5	4	3	2	1
Domestic Networks and Relationships	5	4	3	2	1
International Networks and Relationships	5	4	3	2	1
Company Image	5	4	3	2	1
Adequate Financial Assets	5	4	3	2	1

Scale:	Great Extent			Least Extent	No Extent
Technological Advantages	5	4	3	2	1
Competitive Pricing	5	4	3	2	1
Unique Service Offering	5	4	3	2	1
Unique Service Advantage	5	4	3	2	1
Specialized Know-How	5	4	3	2	1
Professional Skills	5	4	3	2	1

VI. MARKET CHARACTERISTICS

How important are the following global market characteristics in determining the markets where you operate? Please circle the appropriate response.

Scale:	Very Important				Not Important
Intensity of Competition	5	4	3	2	1
Market Size	5	4	3	2	1
Market Growth Potential	5	4	3	2	1
General Economic Growth	5	4	3	2	1
Size of Tariffs, Quotas	5	4	3	2	1
Existence of Non-Tariff Barriers	5	4	3	2	1
Strength of Local Competitors	5	4	3	2	1
Local Conventions for Doing Business	5	4	3	2	1
Ease of Establishing Personal Relationships	5	4	3	2	1
Cultural Similarity	5	4	3	2	1
Economic Similarity	5	4	3	2	1

VII. PERFORMANCE

What is, or would be during the foreseeable future, the effect of internationalizing on each of the following areas. Circle the appropriate response.

Scale:	Increase Greatly	Increase Slightly	No Effect	Decrease Slightly	Decrease Greatly
Your Firm's Profits	5	4	3	2	1
Your Firm's Growth	5	4	3	2	1
Security of your Firm's Investment	5	4	3	2	1
Development of your Firm's Markets	5	4	3	2	1
Security of your Firm's Markets	5	4	3	2	1
Contribution to the Development of the U.S. Economy	5	4	3	2	1

For each of the following goals, indicate its current importance to your firm? Please circle the appropriate response.

Scale:	Very Important		Moderately Important		Not Important
Good Return on Investment	5	4	3	2	1
High Growth Rate	5	4	3	2	1
Security of your Firm's Investment	5	4	3	2	1
Development of your Firm's Markets	5	4	3	2	1
Security of your Firm's Markets	5	4	3	2	1
Contribution to the Development of the U.S. Economy	5	4	3	2	1

In this section, you are asked to rate the risk of internationalization in comparison to the risk of doing business domestically. For each of the following statements, indicate which of the following considerations reflects your level of agreement by circling the appropriate response.

Scale:	Much More than Domestic		Same as Domestic		Much Less than Domestic
Perceived Risks of Internationalization	5	4	3	2	1
Perceived Profits of Internationalization	5	4	3	2	1

VIII. STRATEGIC MOTIVATION

For each of the following statements about strategic motivation, please indicate your level of agreement by circling the appropriate response.

Scale:	Strongly Agree				Strongly Disagree
Our initiation into international markets is a result of a deliberate strategic plan	5	4	3	2	1
Our international experience is a result of filling unsolicited orders	5	4	3	2	1
Our move to internationalize was to follow our clients	5	4	3	2	1
Saturated markets at home is an important reason for internationalization	5	4	3	2	1
Our internationalization is a result of our desire to take advantage of markets with large and growing potential	5	4	3	2	1
Our internationalization is a result of our desire to be known as a multinational service provider	5	4	3	2	1
Our internationalization is an effort to establish our company name in markets that will be important in the future	5	4	3	2	1
Our major competitor is internationalized	5	4	3	2	1
The rapid expansion of other service providers provided our motivation to internationalize	5	4	3	2	1

IX. INTERNATIONAL ORIENTATION OF DECISION MAKER

The following section is designed to obtain more information about your personal characteristics and experiences. Previous research has indicated that the characteristics and experiences of a manager correlates with the company's degree of internationalization.

Number of weeks of vacation spent in U.S. or its territories last year?_____________

Number of weeks of vacation spent outside of the U.S. last year?_________________

Total number of domestic business trips taken last year?_______________________

Total number of foreign business trips taken last year?_________________________

How much total time in your career have you spent outside of the U.S. in international work assignments? (total number of months)_______________________

Highest level of education completed. Please check the appropriate response:

_____ High School or Equivalent _____ Some College
_____ College Graduate _____ Some Graduate/Professional College _____ Graduate/Professional Degree

Any degree(s) from colleges/universities outside U.S.A.?
(circle one) **Yes** **No**

What percentage of your training in international business would you estimate that you received in the following formats?

____% Course work ____% On the job ____% Seminars
____% Self Motivated ____ No Training

How many foreign languages do you speak or read?

_____ None _____ 1 _____ 2 _____ 3 _____ 4 _____ 5+

PLEASE RETURN THE COMPLETED QUESTIONNAIRE IN THE ENCLOSED BUSINESS REPLY ENVELOPE.

APPENDIX B

FOLLOW-UP LETTER

THE OHIO SCHOOL OF INTERNATIONAL BUSINESS

The University of Akron · The Cleveland State University · Kent State University · Youngstown State University
29100 Aurora Road, Suite 101, Solon, Ohio 44139
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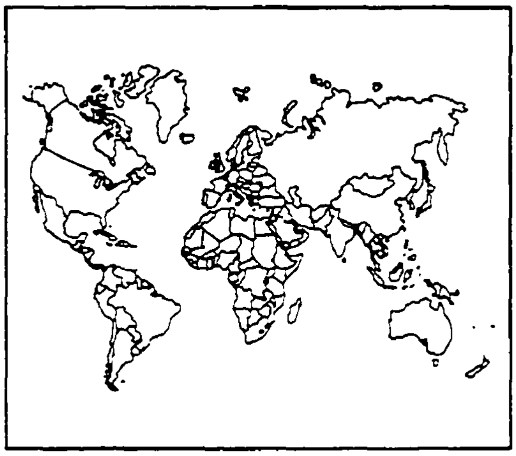
Fax (216) 349-4644



Just a Reminder -
The 15 minutes it takes to complete the enclosed services survey will make a world of difference.

If you have already completed a survey, we thank you. If you have not yet participated, we encourage you to do so. Please take the time to respond.

Thank you for your participation!

Sincerely,

D. Steven White
Research Associate

APPENDIX C

GLOSSARY OF TERMS

Hair, Anderson, Tathum & Black's (1992)
Structural Equation Modeling Key Terms (pp. 427 - 432)

Causal Relationship A dependence relationship between two or more variables in which the researcher clearly specifies that one or more of the variables "cause" or create an outcome represented by at least one other variable. Must meet the requirements for causation.

Causation The principle by which "cause and effect" is established between two variables. It requires that there be sufficient degree of association (correlation) between the two variables, that one variable occur before the other (i.e., one variable is clearly the outcome of the other), and that there be no other reasonable causes for the outcome. Although in its strictest terms causation is rarely found, in practice strong theoretical support can make empirical estimation of causation possible.

Competing models The competing models approach compares the proposed model to a number of alternative models in an attempt to demonstrate that no better-fitting model exists. This approach is particularly relevant in structural equation modeling because a model can only be shown to have acceptable fit, but acceptable fit alone will never guarantee that another model will not fit even better.

Confirmatory analysis The use of a multivariate technique to test (confirm) a prespecified relationship. For example, suppose we hypothesize that only two variables should be predictors of a dependent variable. If we empirically test for the significance of these two predictors and the nonsignificance of all others, this test is a confirmatory analysis. It is the opposite of exploratory analysis.

Construct A concept that the researcher can define in conceptual terms, but which cannot be directly measured (e.g., the respondent cannot articulate a single response that will totally and perfectly provide a measure of the concept) or measured without error. Constructs are the basis for forming causal relationships as they are the "purest" representation of a concept possible. A construct can be defined in varying degrees of specificity, ranging from quite narrow concepts (e.g., household income) to more complex or abstract constructs, such as intelligence or emotions. Yet no matter what its level of specificity, a construct cannot be measured directly and perfectly, but instead must be approximately measured by indicators.

Cronbach alpha A commonly used measure of reliability for a set of two or more construct indicators. Values range between 0 and 1.0 with higher values indicating higher reliability among the indicators.

Degrees of freedom (df) Defined in formal terms as the number of bits of information available for estimating the sampling distribution of the data after all model parameters have been estimated. In practical terms, the degrees of freedom are the number of nonredundant correlations/covariances in the input matrix (the number of variances/correlations above or below the diagonal plus the diagonal) minus the number of estimated coefficients. The analyst attempts to maximize the degrees of freedom available while still obtaining the best-fitting model. Each estimated coefficient "uses up" a degree of freedom. A model can never estimate more coefficients than the number of nonredundant correlations/covariances, meaning that zero is the lower bound for the degrees of freedom for any model.

Endogenous construct A construct or variable that is the dependent or outcome variable in at least one causal relationship. In terms of a path diagram, there are one or more arrows leading into the endogenous construct or variable.

Exogenous construct A construct or variable that acts only as a predictor or "cause" for other constructs or variables in the model. In path diagrams, the exogenous variables are those constructs or variables that only have causal arrows leading out of them and are not predicted by any other variables in the model.

Exploratory analysis The opposite of confirmatory analysis, exploratory analysis defines possible relationships in only the most general form and then allows the multivariate technique to estimate a relationship based on its methodology. The researcher is not looking to "confirm" any relationship specified prior to the analysis, but instead lets the method and the data "do the work" and define the nature of the relationships. An example is the use of stepwise multiple regression, in which the method adds predictor variables until some criterion is met.

Goodness-of-fit The degree to which the actual/observed input matrix (covariances and correlations) is predicted by the estimated model. Goodness-of-fit measures are computed only for the input matrix, making no distinctions between exogenous and endogenous constructs or indicators.

Heywood cases One of the most common types of offending estimates, a Heywood case occurs when the estimated error term for an indicator becomes negative, a nonsensical value. The problem is remedied either by deletion of the indicator or by constraining the measurement error value to be a small positive value.

Identification The degree to which there is a sufficient number of equations to "solve for" each of the coefficients (unknowns) to be estimated. Models can be underidentified (can't be solved), just identifies (number of equations equals the number of estimated coefficients with no degrees of freedom), or overidentified (more equations than estimated coefficients and the degrees of freedom greater than zero). The analyst desires to have an overidentified model for the most rigorous test of the proposed model.

Indicator An observed value (manifest variable) used as a measure of a concept or latent construct that cannot be measured directly. The researcher must specify which indicators are associated with each construct.

Latent construct or variable The operationalization of a construct in structural equation modeling, a latent construct cannot be measured directly, but can be represented or measured by one or more variables. For example, a person's attitude toward a product can never be measured so precisely that there is no uncertainty. But by asking various questions, we can assess many aspects of the attitude. In combination the answers to these questions give us a reasonably accurate measure of the latent construct (attitude) for an individual.

Manifest variable An observed value for a specific item or question, obtained either from respondents in response to questions, as in a questionnaire, or from observation by the researcher. Manifest variables are used as the indicators of latent constructs or variables.

Measurement error The degree to which the variables we can measure (the manifest indicator variables) do not perfectly describe the latent construct of interest. For all practical purposes, all constructs have some measurement error even with the best indicator variables. However, the researcher's objective is to minimize the amount of measurement error. Then, structural equation modeling can take measurement error into account and provide more accurate estimates of the causal relationships.

Measurement model A submodel in structural equation modeling that 1) specifies the indicators for each construct, and 2) assess the reliability of each construct for use in estimating the causal relationships. The measurement model is similar in form to factor analysis; the major difference lies in the degree of control provided by the researcher. In factor analysis, the researcher can only specify the number of factors, but all variables have loadings (i.e., act as indicators) for each factor. In the measurement model, the researcher specifies which variables are indicators of each construct, with the variable having no loadings other than those on its specified construct.

Model The term model is, in its most general form, a specified set of dependence relationships that can be tested empirically - an operationalization of a theory. The purpose of a model is to concisely provide a comprehensive representation of the relationships to be examined. The model can be formalized in a path diagram or a set of structural equations.

Modification indices A modification index is calculated for each unestimated relationship possible in a specified model. The modification index values for a specified unestimated relationship indicate the improvement in overall model fit (the reduction in the chi-square statistic) that is possible if a coefficient is calculated for that untested relationship. The researcher should use modification indices only as a guideline for model improvements of those relationships that can theoretically be justified as possible modifications.

Nested models Models that have the same constructs but differ in terms of the number or types of causal relationships represented in the model. The most common form of nested model occurs when a single relationship is added or deleted from another model. Thus the model with fewer estimated relationships is "nested" within the more general model.

Null model The baseline or comparison standard used in incremental fit indices. The null model is hypothesized to be the most simple model that can be theoretically justified. The most common example of a null model is a single construct model related to all indicators with no measurement error.

Offending estimates Any value that exceeds its theoretical limits is known as an offending estimate. The most common occurrences are negative error variances (the minimum should be zero - no measurement error) or a very large standard error. The researcher must correct the offending estimate with one of a number of remedies before the results can be interpreted for overall model fit and the individual coefficients examined for statistical significance.

Parsimony The degree to which a model achieves model fit for each estimated coefficient. The objective is not to minimize the number of coefficients or maximize the fit, but instead to maximize the amount of fit per estimated coefficient. The objective is to avoid "overfitting" the model with additional coefficients in an attempt to make small gains in model fit.

Path analysis The process of employing simple bivariate correlations to estimate the "true" causal relationships between the two variables/constructs in a system of structural equations. The method is based on specifying all possible effects that are contained in a correlation and then estimating the amount of correlation attributable to each effect. When employed with multiple relationships among latent constructs and a measurement model, it is then termed structural equation modeling.

Path diagram A graphical portrayal of the complete set of relationships among the model's constructs. Causal relationships are depicted by straight arrows, with the arrow emanating from the predictor variable and the arrowhead "pointing" to the dependent variable. Curved arrows represent correlations between constructs or indicators, but no causation is specified.

Reliability Reliability simply means that a set of latent construct indicators are consistent in their measurements. In more formal terms, reliability is the degree to which a set of two or more indicators "share" in their measurement of a construct. Highly reliable constructs are those in which the indicators are highly intercorrelated, indicating that they all are measuring the same latent construct. As reliability decreases, the indicators become less consistent and thus are poorer indicators for the latent construct. The reliability can be computed as 1.0 minus the measurement error.

Specification error The lack of model fit resulting from the omission of a relevant variable from the proposed model. Tests for specification error are quite complicated and involve numerous tests between alternative models. The researcher can avoid specification error to a high degree by using only theoretical bases for constructing the proposed model. In this manner, the researcher is less likely to "overlook" a relevant construct for the model.

Structural equation modeling A multivariate technique combining aspects of multiple regression (examining dependence relationships) and factor analysis (representing unmeasured concepts - factors - with multiple variables) to estimate a series of interrelated dependence relationships simultaneously.

Structural model The set of one or more dependence relationships linking the model constructs. The structural model is most useful in representing the interrelationships of variables between dependence relationships.

Theory Strictly defined as a systematic set of relationships providing a consistent and comprehensive explanation of a phenomenon. In practice, a theory is a researcher's attempt to specify the entire set of dependence relationships explaining a particular set of outcomes. A theory may be based on ideas generated from one or more of three principal sources: 1) prior empirical research; 2) past experiences and observations of actual behavior, attitudes, or other phenomena; and 3) other theories that provide a perspective for analysis. Thus, theory building is not the exclusive domain of academic researchers, but rather has an explicit role for the practitioner as well. For any researcher, theory provides a means by which to address the "big picture" and assess the relative importance of various concepts in a series of relationships.

Unidimensionality Similar to the concept of reliability, a unidimensional construct is one in which the set of indicators has only one underlying trait or concept in common. Based on the match between the chosen indicators and the theoretical definition of the construct, the researcher must establish both conceptually and empirically that the indicators are reliable and valid measures of the construct before unidimensionality is established.

Validity The ability of a construct's indicators to measure the concept under study accurately. For example, how accurate is our measure of household income or a person's intelligence? Validity is determined to a great extent by the researcher, since the original definition of the construct or concept is proposed by the researcher and must be matched to the selected indicators or measures. Validity does not guarantee reliability, and vice versa. A measure may be accurate (valid) but not consistent (reliable). Also, it may be quite consistent, but not be accurate. Thus, validity and reliability are two separate but interrelated conditions.

APPENDIX D

ABOUT THE AUTHOR

About the Author

D. Steven White is a doctoral student in marketing at Cleveland State University, Cleveland, Ohio. Mr. White received his M.B.A. in marketing from Cleveland State University and his M.A. in communications from Bowling Green State University. A former vice president of an advertising agency as well as a former research fellow and Assistant to the Dean of the Ohio School of International Business, he is currently a research fellow and an administrator at Kent State University. Mr. White is the co-author of seven refereed journal publications, most recently in International Marketing Review, the Journal of International Consumer Marketing, and the Journal of Marketing Education. His research interests include international marketing, the internationalization of services marketing, environmental marketing, interactive marketing and advertising.