To the Graduate Council:

I am submitting herewith a dissertation written by Lawrence Francis Cunningham entitled "Diversification as an Alternative Growth Strategy for the Airline Industry." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Business Administration.

Gary N. Dicer, Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Vice Chancellor
Graduate Studies and Research

DIVERSIFICATION AS AN ALTERNATIVE GROWTH STRATEGY

FOR THE AIRLINE INDUSTRY

A Dissertation

Presented for the

Doctor of Business Administration

Degree

The University of Tennessee, Knoxville

Lawrence Francis Cunningham

December 1980

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As in all such acknowledgments, the author must assume ultimate responsibility for all errors and omissions in this study.

Lawrence F. Cunningham
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1980

ABSTRACT

The air transportation industry is entering an era of great uncertainty because of regulatory reform. The traditional structure that has characterized the industry is changing rapidly. For the first time, air transport firms are entering an environment where they are no longer competing purely on the basis of service but rather are subject to the many forces which confront other firms in the marketplace. Both the transition period of the industry and the eventual new structure will confront many airline firms with choices which will affect their level of profitability and ultimately their survival. These choices will include greater concentration on existing activities, mergers with other firms, or diversification.

Under the traditional model of regulation, airline firms basically diversified because of low rates of return, their desire to achieve operating or financial synergies, or the need to utilize investments tax credits and tax loss carry forwards. The experience of airline firms with diversifiation under this model was mixed. While some diversification efforts were extremely successful, many of these original diversification activities involved the achievement of "operating synergies" with other travel-oriented firms; there is little evidence to suggest that this objective was ever achieved.

Many of the subsequent diversification activities of the carriers involved service-oriented firms outside the travel industry. The objective of such activities was financial synergies and utilization of investment tax credits. The diversification record of the industry with firms not related to travel has generally proven less successful for a

variety of reasons. From an overall perspective, diversification has proven less than rewarding to the airline industry because of corporate planning failures linked to a lack of commitment on the part of senior management and the failure of management to develop expertise in the acquisition area.

While the history of diversification in the industry is important to provide perspective, four key questions must be answered for the 1980s. What factors will influence diversification in the 1980s? How will these factors influence the nature of carrier diversification objectives? How will diversification help financially strong, weak, and noncompetitive carriers in this period? What improvements can airlines make in future diversification efforts? This research effort offers some insights into these provocative questions.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

The airline industry, while enjoying record profits, is entering an era of great uncertainty. The traditional structure which has characterized the industry is changing rapidly, and the airlines for the first time in their history are entering an environment where they will no longer compete purely on the basis of service but will instead be subject to the many forces which confront other firms within the marketplace. Both the transition period of the industry and the eventual new structure will undoubtedly confront many airlines with critical choices which will affect their level of profitability and ultimately their survival.

Deregulation

Many of the new environmental threats and opportunities which will change the industry structure emanate from government and the financial sector. Under the 1978 Airline Deregulation Act, carriers will compete on the basis of price and will enjoy greater flexibility to increase or decrease fares as they see fit.[1] In addition to this new pricing flexibility, each carrier will have the opportunity to add one new route a year, while at the same time protecting one city pair in its route structure from existing competitors.[2] In addition, airlines may file

[1]Airline Deregulation Act, Public Law 95-504, 95th Congress, enacted October 24, 1978.

[2]Ibid.

immediately to provide service on dormant routes which are presently assigned to a particular carrier but which are not being served.[3] Furthermore, carriers may leave markets which they are presently serving by giving a 90-day notice to the Civil Aeronautics Board (CAB).[4] For the first time within recent history, new carriers may enter the industry upon certification, by the CAB, that they are qualified to provide air service.[5]

The new legislation also calls for the CAB to withdraw gradually from economic regulation of the air transport industry. On December 31, 1981, the legislation will terminate CAB control of domestic route assignments and certification.[6] As a consequence, carriers may enter and leave routes in the same manner in which private firms now enter and leave markets. On January 1, 1983, the CAB will cease to regulate domestic routes, mergers, acquisitions, and charters.[7] This will enable the airlines to vary their fares, depending upon the competition and their costs, and simultaneously to engage in several air transport functions, e.g., schedule service and charters, to acquire other carriers, and to merge with other airlines subject to the normal legal restraints which characterize other industries, e.g., antitrust laws.[8]

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[3]Ibid.

[4]Ibid.

[5]Ibid.

[6]Ibid.

[7]Ibid.

[8]Ibid.

On January 1, 1984, the CAB will present a report to Congress documenting the conduct of the industry during this period of experiment in regulatory reform. If Congress determines that the system is functioning in accordance with the legislation, it will terminate the CAB as a federal agency as of January 1, 1985.[9]

The new legislation will alter the industry environment in two basic ways. First, the carriers will no longer enjoy monopolies or limited competition on their route systems. Competitive activities of existing firms and firms entering the industry will require each airline's management to determine carefully the markets which are most profitable and to estimate the probability of attaining and/or maintaining profitable levels of market share in these markets. Second, management will exercise greater control over pricing rather than deriving fare increases from the CAB's traditional practice of comparing industry return on investment to the statutory 12 percent return on investment. Profitability will result from careful market selection, shrewd pricing policies and careful monitoring of controllable costs.

Financial Problems

Under CAB regulation, the domestic trunk airlines have displayed a poor financial record. They have attained the statutory 12 percent rate of return on investment only once in the last twenty years.[10] In the period from 1970 to 1977, the rate of return on investment for

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[9] Ibid.

[10] Thomas Canning, Air Transport: Basic Analysis, Standard and Poor's Industrial Surveys, April 27, 1978, p. A73.

domestic trunk airlines including Pan American World Airways, Inc. (Pan Am) exceeded 6 percent in only three years of the seven years[11] (Table I-1). Although the domestic trunk airlines enjoyed their most successful year in their history in 1978, achieving a 13.5 percent return on investment under the de facto deregulatory policies of the CAB, the prospects for future earnings are uncertain.[12]

Both inflation and petroleum prices will continue to have a significant impact on the operating expenses of the domestic trunk airlines. At present, labor comprises approximately 40 percent of total operating expenses.[13] The unionized nature of the labor force indicates that carriers will have great difficulty in restraining labor costs. Recently, average industrywide prices have increased from approximately $.67 per gallon to $.90 as a result of the political turmoil in the Middle East and Organization of Petroleum Exporting Countries price increases.[14] Since fuel costs account for 20 percent of airline operating expenses, we will probably witness a continuing escalation in the cost structure of the domestic trunk airlines despite fuel conservation measures and more fuel efficient aircraft.[15] Both labor and petroleum cost increases will push the systemwide break-even load factor to a higher level for

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[11]Ibid.

[12]Civil Aeronautics Board, Quarterly Financial Review, Fourth Quarter 1978: Trunk Carrier, Vol. 4-78 (Washington, D.C.: Author, March 1979), p. 5.

[13]Canning, p. A76.

[14]James Ott, "Carriers' Fuel Outlook Brightens," Aviation Week and Space Technology, September 1, 1980, p. 53.

[15]Richard Witkin "3 Airlines Seek Fare Increases," New York Times, March 8, 1979, p. D1.

TABLE I-1

DOMESTIC TRUNK AIRLINES' RATES OF RETURN ON INVESTMENT[1]

(In percent)

Trunk Airlines	1970	1971	1972	1973	1974	1975	1976	1977	1978
American	(0.16)	3.17	2.76	(1.64)	4.04	(0.56)	7.13	8.74	11.3
Braniff	3.80	5.97	6.07	9.69	12.56	12.14	12.06	12.98	13.5
Continental	5.85	6.76	6.11	6.92	9.20	4.26	7.09	10.79	15.2
Delta	10.69	8.00	14.19	16.44	15.89	7.67	12.16	15.38	17.1
Eastern	3.95	5.39	7.24	1.36	8.30	0.42	9.73	4.44	11.0
National	(1.12)	6.42	8.22	9.75	9.75	6.58	3.41	3.12	8.9
Northwest	5.12	2.10	3.26	8.55	11.26	6.91	8.87	12.90	11.2
Pan Am	1.03	(2.58)	(2.84)	(2.72)	(10.38)	(12.97)	21.70	(3.45)	13.3
TWA	(5.69)	2.03	6.47	7.38	5.63	2.38	4.39	2.79	10.9
United	0.61	2.42	5.28	6.34	8.81	2.33	4.15	9.73	19.1
Western	3.87	4.41	5.62	11.34	12.79	8.21	9.70	10.49	19.7
Total	1.77	3.70	5.97	5.92	8.75	2.95	7.63	8.99	13.5

[1] On domestic operations in 1973 and subsequently, on corporate investment; prior to 1973, on modified rate-making basis.

Source: Civil Aeronautics Board.

all domestic trunk airlines at precisely the same time that they will be seeking to compete from a pricing perspective.

Scope of the Problem

Philip Kotler has stressed the need for a firm to continuously review corporate objectives and missions based upon environmental threats and opportunities which arise in the macro-environment.[16] He has suggested that a company after carefully monitoring the environment should pursue an intensive, integrated, or diversified growth opportunity set. In other words, a company should either fully exploit its present markets; pursue opportunities for backward, forward, or horizontal integration; or, lastly, diversify from its main industry through a concentric, horizontal, or conglomerate structure.[17]

There is evidence to suggest that more than a few airlines have already sought to follow an integrated growth opportunity set through horizontal integration, i.e., Pan Am-National, North Central-Southern, and Continental-Western.[18] Although many aviation economists such as Miller and Eads suggest that airline firms rapidly exhaust economies of scale with size, these airlines have already sought to combine in order to concentrate their financial muscle and marketing prowess.[19]

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[16] Philip Kotler, Marketing Management: Analysis, Planning, and Control (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976), pp. 45-52.

[17] Ibid.

[18] "Carrier Consolidations Advance," Aviation Week and Space Technology, September 11, 1978, p. 36.

[19] George W. Douglas and James C. Miller, III, Economic Regulation of Domestic Air Transport: Theory and Policy, Studies in the Regulation

Other carriers either have followed diversified growth opportunities or have given indications that they plan to pursue such a strategy. Since 1977, Trans World Airlines (TWA) has received more than 50 percent of its income before income taxes from two nonairline subsidiaries--Hilton International and Canteen Corporation.[20] Recently, TWA also sought to acquire another nonairline subsidiary, American Medicorp.[21]

Similarly, United Airlines recently applauded a court decision which prevented the CAB from regulating transactions between an airline holding company and its subsidiaries. In commenting upon the decision, United made the following statement in its 1977 annual report:

> Following implementation of the 1975 CAB orders, UAL, Inc., had adopted a self-imposed restraint on further diversification until the reach of the airline regulators was more clearly and authoritatively defined. The Court's findings are a welcome step toward resolving this important issue.[22]

Perhaps these recent indications of further diversification are not surprising since nonairline subsidiaries accounted for vertically all of the total 1979 income before income taxes of three major airlines--TWA, Pan Am and United Airlines.[23]

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of Economic Activity (Washington, D.C.: The Brookings Institution, 1974); George C. Eads, The Local Service Airline Experiment, Studies in the Regulation of Economic Activity (Washington, D.C.: The Brookings Institution, 1972).

[20] Trans World Corporation, 1979 Annual Report.

[21] Trans World Airlines, Inc., 1977 Annual Report.

[22] UAL, Inc., Annual Report 1977.

[23] Trans World Corporation, 1979 Annual Report; UAL, Inc., Annual Report 1979; Pan American World Airways, Inc., Annual Report 1979.

Several studies have sought to analyze the reasons for transportation companies operating under a regulatory model to diversify from their primary business. The rationale for diversification has included the desire to reduce shareholder vulnerability to low rates of return and cyclicality of earnings in order to improve the access to capital markets by reducing dependency on a single line of business.[24] Additional factors mentioned have included the desire to attract better economies of scale through expansion into closely related lines of business.

According to the airline industry, carriers have sought to diversify because of the particularly high degree of cyclicality which characterizes their earnings.[25] They have argued that diversification into lines of business displaying even more stable or, preferably, countercyclical earnings patterns would reduce their cost of capital.[26] They have also cited the desire to use substantial tax benefits consisting of investment tax credits and loss carry forwards as a further justification for their diversification.[27]

Industry sources suggest that there is evidence which indicates that cost savings result from the diversified growth opportunities.[28]

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[24]Russel F. Murphy, Chief, Industry Analysis Division, Office of Policy and Plans Development, U.S. Department of Transportation, testimony given in the Air Carrier Reorganization Investigation, Docket 24283, November 24, 1972, Exhibit DOT-T-1, p. 3.

[25]A. M. deVoursney, Senior Vice President, Corporate Planning United Airlines, testimony given in the Air Carrier Reorganization Investigation, Docket 24283, Exhibit U-T-5, pp. 1-12.

[26]Ibid.

[27]Ibid.

[28]Ibid.

However, aviation economists have argued that there is a direct trade-off between horizontal and conglomerate diversification. In other words, a firm may enjoy operational synergies if it enters businesses with similar operating characteristics, i.e., horizontal diversification, but such diversification will probably not produce financial synergies, i.e., reduced cost of capital provided by conglomerate diversification.[29] As a last point, they also suggest that although cost savings may result from diversification, there is no evidence to suggest that they are likely to be great, and that this is particularly true in cases where businesses follow a strategy which embodies conglomerate diversification.[30]

Problem Definition

At the present time, there is relatively little information available regarding diversification in the airline industry. While the Interstate Commerce Commission (ICC) and the U.S. Department of Transportation have investigated the public policy implications of diversification in the railroad industry and the CAB has examined the benefits and disbenefits of holding companies in the airline industry, the issue of diversification in the transportation industry remains largely unexplored from a managerial perspective.

Although the domestic trunk airlines provide a wealth of information in their annual reports regarding their diversification activities,

[29] George C. Eads, "Railroad Diversification: Where Lies the Public Interest?" Bell Journal of Economics and Management Science, Autumn 1974, p. 602.

[30] Ibid.

little formal research exists which describes the magnitudes of diversification among the carriers, the profitability of such activities, or even types of diversified businesses in which they are engaged.

The specific issues which deserve attention from a managerial perspective include:

1. An Analysis of Diversification Objectives--Research in this area is required to determine what diversification activities airlines pursue when acquiring nontransportation entities. Do airlines formulate rational diversification objectives? Do these diversification policies and objectives change over time? What are the primary internal factors and exogenous variables which precipitate changes in diversification policies? Will diversification objectives change in the future? Which factors are likely to affect these objectives in the future?
2. Types of Diversified Growth--Several outstanding research issues are identifiable in this area. What are the major types of businesses into which airlines diversify? Are airlines more successful in operating certain types of businesses than others? What factors ensure the success of airline diversification efforts?
3. Variability of Income Stream--Does diversification in relatively large but diversified airlines reduce the variability of income streams? Why or why not? Do nontransportation subsidiaries make important financial contributions to airline firms?

While ideally these questions deserve investigation on an industry-wide basis, they are difficult to address on such a basis because of data constraints. Airline firms, in many cases, fail to provide adequate financial data regarding their diversification activities. This often happens because the investments are of insufficient magnitude to warrant detailed financial descriptions. Of the domestic trunk airlines or airline holding companies, only three have diversified entities of sufficient size and adequate financial data bases to warrant inclusion in the study--Pan Am, UAL, Inc. and Trans World Corporation (TWC).

The following three hypotheses were selected for testing among the three selected carriers:

1. In initial diversification activities reported as business segments among TWA, Pan Am and United Airlines, the stated objective was to achieve operating synergies, i.e., related diversification, through the acquisition or establishment of subsidiaries in the travel industry.
2. In all subsequent diversification activities reported as business segments among the selected domestic trunk airlines, the stated objective was the pursuit of financial synergies, i.e., conglomerate diversification, through the acquisition or establishment of subsidiaries unrelated to the travel industry.
3. The diversified subsidiaries of the selected domestic trunk airlines have enabled these carriers to enjoy a less variable income stream than they would receive solely from their airline operations.

Importance of Diversification as an Issue

Diversification into nontransportation business firms in the airline industry is a germane topic today for three important reasons. First, a historical base in the transportation industry now exists to establish some perspective on the contributions of diversification. Diversification by many airlines since the late 1960s has produced a wealth of financial data regarding this issue, and the recent ruling of the Securities and Exchange Commission to require 10-K and disclosure of business segment data facilitates public scrutiny of this information.

Second, the transportation industry is facing enormous capital needs in the immediate future. Weller points out in an excellent article written on the financial problems of the transportation industries during the early 1970s that the industry typically undergoes a capital crisis at the start of each decade.[31] In the late stages of 1979, it is fairly obvious that the record prime interest rates being charged corporations and the emerging recession which has already affected the airline industry may yet produce a repetition of this problem during the early 1980s.

Recent estimates of the capital requirements in the airline industry which have been performed by government and financial institutions indicate that the industry will require a total of at least $35 billion over the course of the next five to ten years.[32] Other studies by

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[31] John L. Weller, "Access to Capital Markets," in Ernest W. Williams, Jr. (ed.), The Future of American Transportation (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1971), pp. 83-113.

[32] National Transportation Study Commission, National Transportation Policies Through the Year 2000 (Washington, D.C.: Author, June 1979), p. 190.

financial institutions indicate the capital needs between 1976 and 1990 at closer to $69 billion.[33] Without debating the specific amounts of capital needed in the industry, many analysts seem to agree that at least some of the carriers will have great difficulty in acquiring the needed funds for capital improvements.[34]

Third, the threat or opportunity of regulatory reform is rapidly becoming a reality. This new environment will pose competitive threats for airline firms. For the first time, firms wll be faced with difficult choices regarding pricing, competition, and the type of innovation which is necessary in this new environment. While the 1978 Airline Deregulation Act suggests that regulatory reform is an experiment, there seems to be a definitive move in the airline industry towards allowing the noncompetitive firm to endure the consequences of failure in the marketplace.

In the new environment, the competitiveness of each airline firm will determine its long-term survival. Certain firms will prove highly competitive, others marginally competitive; and some firms will be unable to compete in the new environment. The criteria for segmenting the firms, while not all inclusive, include a very strong cash position, a low operating cost structure relative to the industry, and a reasonable debt-to-equity ratio. However, at least two other nonfinancial capabilities are also important. An airline firm must possess the capabilities to devise market strategies which will facilitate the

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[33] William H. Gregory, "Airline Reequipment Financing Studied," Aviation Week and Space Technology, July 11, 1977, pp. 26-29.

[34] Ibid.

identification and penetration of profitable markets. While this may add up to just common sense in many other industries, the transportation industry, having matured in a regulated environment, does not generally possess the same degree of managerial expertise in this area as its counterparts in other industries. Lastly, an extremely important factor in this new competitive environment will be the aggressiveness of management. While competition based on service and tight control of operating expenses will continue to characterize "good management" in the transportation industry, fundamental changes in the industry may render traditional "blue chip" transportation firms vulnerable to the entreprenurial spirit of young aggressive transportation firms.

These characteristics have particular relevance to the diversification strategies of many airlines. In the case of the highly competitive carrier, there seems to be little motivation to undertake a program of diversification because of the high return which the carrier is liable to enjoy in the transportation industry, especially under deregulation. However, such a carrier may find a perfect rationale for diversification in its desire to offset the cyclical trends in the economy which impact on the transportation industry. In the case of the marginal carrier, we clearly have a situation where the firm may or may not be able to visualize a long-term future in the transportation industry. In such a case, it may make excellent sense for this carrier to diversify its risk by dividing new asset deployment between the transportation industry and a commitment into nontransportation activities. If a firm finds several years down the line that it is unable to compete adequately in transportation, it will have the offsetting earnings to allow a phased withdrawal from the industry. On the other hand, we must also consider the position of the weak carrier, or the carrier which is probably going to be unable to compete in the future. It is certainly difficult for the financial community to justify the commitment of further assets to a business which has proved unprofitable in the past and displays a gloomy future. Largely, the commitment of funds to this type of corporation would make sense if they were earmarked for a fairly rapid acquisition of assets in an industry in which the firm would prove competitive and a fairly rapid divestment from the transportation industry.

Diversification is not a panacea to all the financial problems which characterize all airline firms. In fact, an improperly formulated diversification program may prove an extremely rapid road to bankruptcy. Diversification is one alternative corporate strategy that must be reviewed and finalized in an overall strategic planning process.

Traditionally, textbooks in the field of strategic planning and business policy have suggested that top management should address, when formulating long-term corporate objectives, the key issue of what type of company they would like to be five or ten years from now. However, one of the key issues in deciding a corporate strategy in the airline industry today is what type of company they will be five or ten years from now in the transportation industry, and more importantly, can they survive in the transportation industry five or ten years down the line. For many carriers which reply in a negative fashion to this latter question, an intelligent diversification program may be a viable alternative.

Chapter Organization

This research effort consists of seven chapters which describe the problem, explore past research relating to the topic, explain the methodology, analyze the data, state the conclusions of the research, and explore the implications of the report. Chapter I, in particular, describes the critical factors, i.e., regulatory reform and structural financial problems, which are forcing airline firms to reexamine the alternative corporate strategies which will ensure survival during the 1980s. It identifies the three key corporate strategies available to airline firms in the future and presents examples of companies pursuing each of these alternatives. It specifically explores the major reasons for pursuing the strategy of diversification in the airline industry. The chapter also identifies numerous issues of importance regarding diversification and specifies the three hypotheses which are tested in the research effort. Lastly, the chapter highlights the factors which have contributed to the importance of diversification as a managerial issue today.

Chapter II provides a systematic review and critique of the literature dealing with diversification. It reviews literature on the subject in the areas of corporate policy and finance. It seeks to define the nature of diversification as well as the benefits and disbenefits of this business strategy. Chapter III explores the conclusions of studies addressing the diversification issue in the transportation industry from the perspective of regulatory authorities. It also assesses the rather limited work which has been completed on diversification from a managerial perspective.

Chapter IV describes the methodology which is utilized in the study. After the hypotheses of the study are identified, the chapter describes the nature and role of each data source in the study. This information serves as the basis for developing a diversification history for each of the firms in the study. It also describes the necessary information to determine managerial objectives of each diversification effort. The chapter also explains the techniques that were used in evaluating, weighting, and reaching conclusions regarding the motivations for both initial and subsequent diversification activities.

Chapter IV also describes the development of sales and earning stream measures for both the holding company and its airline and non-airline subsidiaries. It also reviews different techniques for assessing income streams and comparing the variance between the business segments in each firm. It also describes the methodology which was employed to assess the financial performance and contribution of non-airline subsidiaries to the overall firm.

Chapter V provides an in-depth analysis of each of the three airline firms: UAL, Inc., Pan American World Airways, Inc., and Trans World Corporation. It documents the diversification history of each firm. The objectives of both the initial and subsequent diversification effort are analyzed, and conclusions are reached regarding the motivation for such activities.

Chapter VI deals with the nonairline subsidiaries' strategic and financial performances, as well as their total contribution to the firm. The chapter also assesses the financial performance of nontransportation subsidiaries in terms of return on assets, percentage of sales retained as operating income and, lastly, the magnitude of the impact of non-transportation subsidiaries on overall holding company income operating streams. At the conclusion of the chapter, an effort is made to assess the validity of the last hypothesis across the three case examples which are evaluated in the study.

Chapter VII states the conclusions of the research effort. It attempts to describe the types of diversification which have occurred among the three airline firms evaluated in the research. Secondly, it provides some insight regarding the three hypotheses identified in the study. The chapter also assesses trends towards more or less diversification in the three examples and offers some insights regarding the direction of future diversification. Future key research areas are also identified.

CHAPTER II

DIVERSIFICATION: A LITERATURE SEARCH

Diversification is an issue which many individuals in both the academic and "real" world often discuss. However, few individuals have a firm grasp of the topic. This ignorance of the concept does not reflect a lack of intelligence but rather reflects the fact that very little is actually known about the topic.

Despite the rash of acquisitions during the 1960s and the internal diversification which has taken place since the early 1900s, the business community is actually operating in the dark. The academic community operates under basically the same handicap. One academician, after examining the empirical evidence regarding the issue and publishing several articles in the area, stated: "We really don't know very much about diversification after ten years of concentrated research."[1] The same researcher commented that "a literature search for this issue will probably require great creativity and anecdotal material."[2]

With these caveats in mind, this literature search will attempt to address several diversification issues pertinent to the research effort. These include:

1. What is diversification?
2. What are the objectives of diversification?

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[1] Interview with Ronald Shrieves, Associate Professor of Finance, The University of Tennessee, January 3, 1980.

[2] Ibid., May 28, 1980.

3. What are the major methods of diversification?

4. What are the major types of diversification?

5. What are the benefits and disbenefits of each major type of diversification?

6. What empirical evidence exists regarding the effectiveness of various types of diversification?

What is Diversification?

Diversification of a firm's activities means many things to many different people. It may mean developmental (research and development) diversification, functional diversification, product diversification, customer diversification, geographical diversification, or diversification of the means of financing. However, the more traditional meaning of diversification concentrates on the homogeneity of product markets. If two products have a high cross elasticity of demand or are essentially substitutes, there is great homogeneity in the markets served by the firm. Markets are also homogeneous if the firm can shift resources from the manufacture of one product to another product quickly. In such cases, there is relatively little diversification in the firm. As the cross elasticity of demand between product markets served by the same firm decreases, the degree of diversification in the firm generally increases.[3]

It is important to note that there are many intermediate points between a nondiversified and highly diversified firm. For this reason,

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[3]Malcolm S. Salter and Wolf A. Weinhold, Diversification through Acquisition: Strategies for Creating Economic Value (New York: The Free Press, 1979), pp. 3-35.

some theorists have preferred to use a simplified scheme to examine the extent of diversification in firms. One scheme classifies firms in terms of whether they are dominant-business firms, related-business companies, or unrelated-business firms.[4]

What are the Motivations for Diversification?

Many individuals in the fields of both corporate policy and corporate finance have examined the reasons for diversification. They suggest that firms diversify for several major reasons. First, diversification often facilitates the growth of a firm. Rather than for increases in profits alone, growth may be motivated by "a deep, pioneering spirit." While a firm may diversify to achieve corporate objectives regarding profitability, growth may often produce other benefits, such as the "fulfillment of the entrepreneurial drives of businessmen." Other executives, of course, seek "bigness" for the sake of "bigness."[5]

Second, firms diversify to avoid dependence on one product line.[6] Management may feel that they face great uncertainty in sticking to their traditional product line. They may find, after considerable planning activities, that the basic core business is no longer capable of providing specified profitable growth and expansion.[7] The rapid

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[4]Richard P. Rumelt, Strategy, Structure and Economic Performances (Boston: Division of Research, Graduate School of Business Administration, Harvard Unversity, 1974).

[5]George A. Steiner, Top Management Planning (New York: MacMillan Company, 1979), pp. 631-632.

[6]Ibid., p. 632.

[7]Thomas J. McNichols, Executive Policy and Strategic Planning (New York: McGraw-Hill Book Company, 1977), pp. 147-151.

increase in product obsolescence has, no doubt, spotlighted the uncertainties of depending on one product or traditional product lines.[8]

Third, many companies seek to ensure stability in both sales and profit.[9] The major causes of instability are numerous, including cyclicality, seasonal trends, secular shifts in demand, and life cycles of different products in the line. The main motivations for ensuring stability include management's desire to avoid layoffs, stockholder pressure during "trough" years, and reducing the perceived "overall risk" of the corporation.[10]

Fourth, diversification may also enable a firm to acquire managerial and technological know-how which is not presently in the firm.[11] This may take the form of another firm's research and development capacity and managerial resources. It is often cheaper to acquire these technical resources through purchase of an existing firm than by competing for them in the open market.[12]

Fifth, diversification may also be an effective tool for breaking into new markets. Thus, diversification is often an effective method to enter international markets which the existing firm is unable to enter.[13]

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[8]Steiner, p. 633; D. E. Hussey, Corporate Planning: Theory and Practice (New York: Pergamon Press, 1974), p. 138.

[9]Steiner, p. 633.

[10]Ibid.

[11]Steiner, p. 633; Hussey, p. 139.

[12]Steiner, p. 633.

[13]Ibid., pp. 633-634.

Sixth, firms have pursued diversification opportunities to acquire tax write-offs which will maximize the profit potential of the overall firm or holding company.[14] The opposite case may also occur. Firms with either tax loss carry forwards or investment tax credits which are underutilized in the existing business may acquire profitable businesses. As a consequence, the profits of the new subsidiary and, hence, the holding company are sheltered from taxes.

Seventh, diversification often occurs because a firm finds it necessary to protect its competitive position.[15] Defensive diversification "is more properly defined as diversification to avoid adverse effects from developments taking place in the firm's traditional product market areas."[16] While defensive diversification does involve the stability issue addressed earlier, the primary motivations for such a strategy include:

1. Adverse growth developments;
2. Adverse competitive shifts; and
3. Technological obsolescence.[17]

What are the Methods of Diversification?

There are two basic methods of diversification--internal and external. Internal diversification is generally accomplished utilizing

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[14] Ibid., p. 634.

[15] Ibid.

[16] J. Fred Weston and Surrenda K. Mansingkha, "Test of the Efficiency Performance of Conglomerate Firms," Jounal of Finance, September 1979, pp. 919-936.

[17] Ibid., p. 928.

the internal resources of the firm. External diversification entails either acquiring another firm or arranging a merger between two firms.[18]

The processes of internal and external diversification are substantially different. Internal diversification requires a lengthy planning process which examines the technological capabilities of the firm and the external environment on a continuing basis. The fruits of such a planning process often take as long as a decade before they are readily apparent.[19] Internal diversification activities may also require a rather long period before the firm starts to recoup its investment.[20]

External diversification or diversification through acquisition is a process which requires more limited amounts of lead time in both the planning and implementation processes.[21] The corporate planning process is often successful in identifying industries which would prove compatible with traditional product lines. As a consequence, it is not unusual for the planning process to prove rather short with considerable emphasis on evaluating the acquisition. Acquisitions also tend to have a rather quick payback period since they are usually ongoing businesses. Of course, the investment required for external diversification can sometimes be larger than that for internal

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[18] Salter and Weinhold, p. 4.

[19] Ilan Kusiatin, "The Process and Capacity for Diversification through Internal Development," unpublished doctoral disseration, Graduate School of Business Administration, Harvard University, 1976.

[20] Ralph Biggadike, "Entry, Strategy and Performance" unpublished doctoral dissertation, Graduate School of Business Administration, Harvard University, 1976.

[21] Salter and Weinhold, p. 4.

diversification. The owners of the company being acquired demand a sales price which includes the capitalization of future earnings.

Mergers and acquisitions also facilitate the acquiring of new managerial resources for the firm. In the case of internal diversification, the parent company must identify and train and/or hire the necessary mangerial skills to organize and administer new product lines. The management of the acquired firm has already established a track record and has proven capabilities. While it is true that some new skills may be necessary and that replacements for some of the management may be required, the parent company has acquired an intangible resource.[22]

Acquisitions and mergers often seem to compare favorably with internal diversification from another perspective. Firms are often able to acquire another firm and, hence, its assets more cheaply than constructing those assets. Typically, a firm carries its assets on its balance sheet at original cost. With the impact of inflation over time, these assets, instead of depreciating in value, actually may increase in value. The astute acquiring firm can often recognize assets which would cost considerably more on a replacement cost basis.[23]

Acquisitions are also more favorable for many firms because they are easier to finance. Lending institutions respond more favorably to external diversification than to internal diversification because there are immediate tangible assets and earnings.[24]

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[22]Ibid.

[23]Steiner, p. 635.

[24]Ibid.

What are the Major Types of Diversification?

Although internal versus external diversification is one way of viewing the issue, it is also possible to assess diversification from the perspective of the new business in relation to the traditional business. For example, internal or external diversification which involves reaching back to the firm's source of supply or forward to its markets or both is referred to as vertical integration.[25] This type of diversification is often undertaken to ensure the firm's competitive position. It is considered a "natural" form of diversification and often is a defensive move.[26]

Another method of diversification is expansion by horizontal acquisitions and mergers.[27] Such diversification usually represents market extensions within the same industry rather than product extensions into other industries. Textbook publishers, for example, may acquire college textbook firms to add to their elementary and high school publishing efforts. Large food firms often acquire producers of other food products to extend their product lines to take advantage of marketing synergies.[28]

A third method of diversification is the concept of conglomeration. This approach suggests that the firm acquire businesses in fields which

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[25] McNichols, p. 154-155.

[26] Ibid.

[27] Ibid.

[28] Ibid.

are totally unrelated to the firm's existing business activities. Such a diversification strategy allows the firm to enter new markets to:

> . . . offset some deficiency in the firm or to exploit a great environmental opportunity. In either case, these product (markets) have no relationship to the company's current technology, products or markets.[29]

While it is convenient to view diversification in terms of vertical and horizontal integration and the conglomerate, the "real world" is more complicated than this. For example, how do we classify a firm which is not a pure vertical or horizontal integration? How do we judge the unrelatedness of the businesses in a conglomerate?

One approach views both vertical and horizontal diversification as a grouping called "related diversification strategies."[30] A related diversifier is a company that uses its skills in a specific functional activity or product market as a basis for diversification. In contrast, an unrelated diversifier is a company pursuing growth in product markets where the firm's past business experience is irrelevant and management skills and functional activities are of no special value.[31]

Figure II-1 depicts related diversification strategies. The horizontal axis measures the change in the product markets of the firm. The vertical axis measures the change in key functional activities.[32]

As indicated in the figure, related diversifiers can be divided into two basic types. Related supplementary diversification involves

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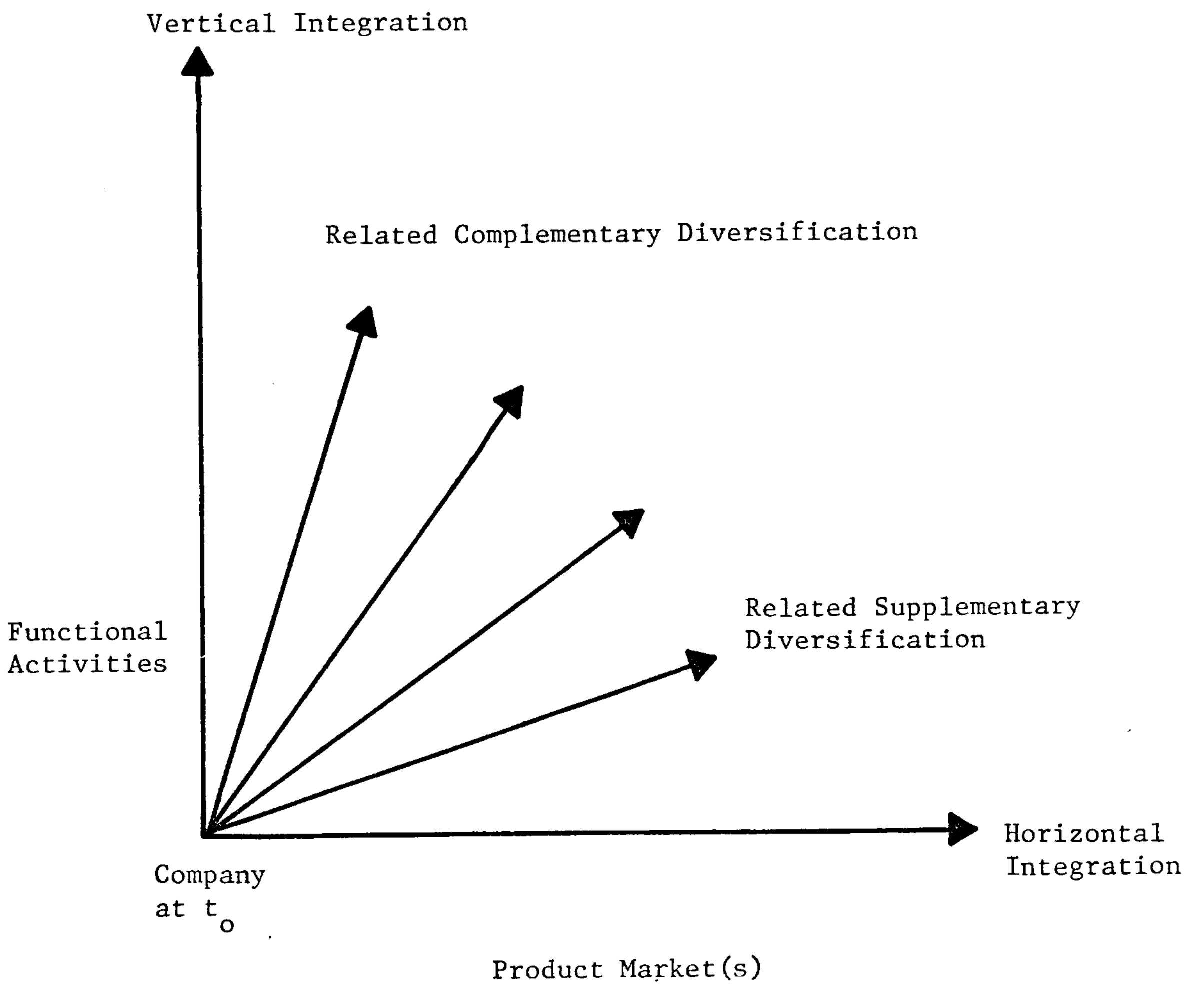
[29]Philip Kotler, Marketing Management: Analysis, Planning, and Control (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1976), p. 51.

[30]Rumelt.

[31]Salter and Weinhold, p. 7.

[32]Ibid., p. 8.



Source: Malcolm S. Salter and Wolf A. Weinhold, Diversification through Acquisition: Strategies for Creating Economic Value (New York: The Free Press, 1979).

FIGURE II-1

RELATED DIVERSIFICATION STRATEGIES

expanding a firm's business by entering product markets requiring similar functional skills to those already existing in the business. In the optimal representation of this strategy, horizontal diversification, the exact same functional skills are required. A perfect example of this diversification (horizontal) is Pan American World Airways' recent merger with National Airlines.

Related complementary diversification involves adding key functional activities and skills to the existing business base. In such diversification, the product market orientation remains the same while key functional skills are added.[33] A perfect example of related complementary diversification is the addition of a hotel chain to an airline since the additional functional skills require a minimal change in product market orientation.

Four elements characterize diversification into related businesses:

1. The servicing of similar markets and/or using similar distribution systems;
2. The employment of similar production technologies;
3. The exploitation of similar science-based research; and
4. The operation of both businesses at different stages of the same commercial chain.[34]

The first three characteristics are usually associated with related supplementary diversification, while the fourth is typical of related complementary diversification.[35]

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[33] Ibid.

[34] Ibid., pp. 133-152.

[35] Ibid.

What are the Benefits of Related Diversification?

The potential benefits of (related) diversification are achieved when the skills and resources of the acquiring firm or vice versa can lead to synergy or an increase in profitability for the combined firm greater than that achievable by the two firms operating as separate entities.[36] For example, a combined firm where no potential synergies existed might result in the following:

$$S_T = S_1 + S_2 + \dots + S_N$$
$$O_T = O_1 + O_2 + \dots + O_N$$
$$I_T = I_1 + I_2 + \dots + I_N$$

where:

S_T = Total sales

S_1 = Sales for company one

S_2 = Sales for company two

O_T = Total operating costs

O_1 = Operating costs for company one

O_2 = Operating costs for company two

I_T = Total investment

I_1 = Investment in company one

I_2 = Investment in company two

The return on investment for the combined firm would be:

$$ROI_T = \frac{S_T - O_T}{I_T}$$

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[36]H. Igor Ansoff, Corporate Strategy: An Analytic Approach to Business Policy for Growth and Expansion (New York: McGraw-Hill Book Company, 1965), pp. 75-80.

However, if potential synergies are realized, the effect is basically to make 2 + 2 = 5 or:

$$ROI_S > ROI_T$$

where:

S = Integrated firm which has realized potential synergies

Such synergies usually take the form of higher total revenues or lower total operating costs.[37]

Examples of potential synergy are rather numerous. For example, the products of two or more businesses may use common distribution channels, similar warehousing, or the same sales administration. It may also occur when the opportunity for tie-in sales increases the productivity of the sales force or where opportunities exist for common advertising and sales promotion. Synergy also occurs when common facilities can be utilized and overhead spread over larger volume and when there is research and development carry-over from one product to another.[38]

However, Salter and Weinhold contend that the real benefits of related diversification occur when the income stream for a combined company is greater than that which could be realized by an investor owning the shares of the two companies. Salter and Weinhold recognize the difficulties of translating "potential synergies" into reality and also the implications of the capital asset pricing model.[39]

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[37]Ibid.

[38]Ibid.

[39]Salter and Weinhold, p. 136.

As a consequence, they more rigidly qualify the potential operating synergies of related diversification. In their opinion, related diversification may produce operating synergies when such diversification enables a firm to attain a certain size or critical mass which gives it a competitive advantage. For example, an airline firm may achieve a competitive advantage over other airline firms through the purchase of a hotel chain and/or car rental firm. Essentially, the diversified firm, unlike competitors, is offering a complete package of travel services.

Related diversification can also produce benefits for a firm if the investment in the acquisition reduces the long run average costs of the acquiring firm. Such a reduction can occur from scale effects, rationalization of production and or management tasks, and new opportunities for technological innovation.[40]

What are the Disadvantages of Related Diversification?

There are two primary disadvantages of related diversification which deserve attention. First, the similarity of markets which allows the acquiring firm to utilize its resources and knowledge in the acquired firm, to attain a critical mass, and lastly, to obtain scale effects also increases a firm's vulnerability to economic downturns.[41] The firm's primary market and the markets of the acquired firm will generally endure slumps in sales during roughly the same stage of the

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[40] Ibid., pp. 135-139.

[41] George Eads, "The Relationship Between Diversification, Reduced Profit Variability and the Cost of Capital," rebuttal testimony in the Air Carrier Reorganization Investigation, Civil Aeronautics Board Docket 24283, Exhibit BOR-RT-1, November 20, 1972, pp. 1-3.

business cycle. Figure II-2 displays the impact of related diversification in a transportation holding company which owns an airline and a complementary business, e.g., a hotel chain. The income streams for both companies operate in roughly the same pattern, accentuating the troughs and peaks of the holding companies. However, in the real world, it would be highly unlikely that both earning streams would follow exactly the same pattern since downturns or peaks in the airline and hotel industries might lag each other by some months (Figure II-3).[42]

An interesting exception to Figure II-2 occurs in the automobile business.[43] The large automobile manufacturers not only produce automobiles but also spare parts. This diversification effort meets the criteria for the benefits of related diversification, but an income stream analysis reveals contradictory observations. The onset of a recession typically reduces new car sales and at the same time boosts the sales of spare parts as consumers retain their existing automobiles longer than normal.

As a second disadvantage, related diversification may well provide a greater return from two existing firms than an investor may obtain by owning a portfolio containing the stock of the two firms. However, it is important to note that the investment in the acquired firm or firms must be rather substantial before there is a noticeable effect on the holding company or total corporate entity.[44]

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[42]Ibid.

[43]Salter and Weinhold, p. 138.

[44]Eads.

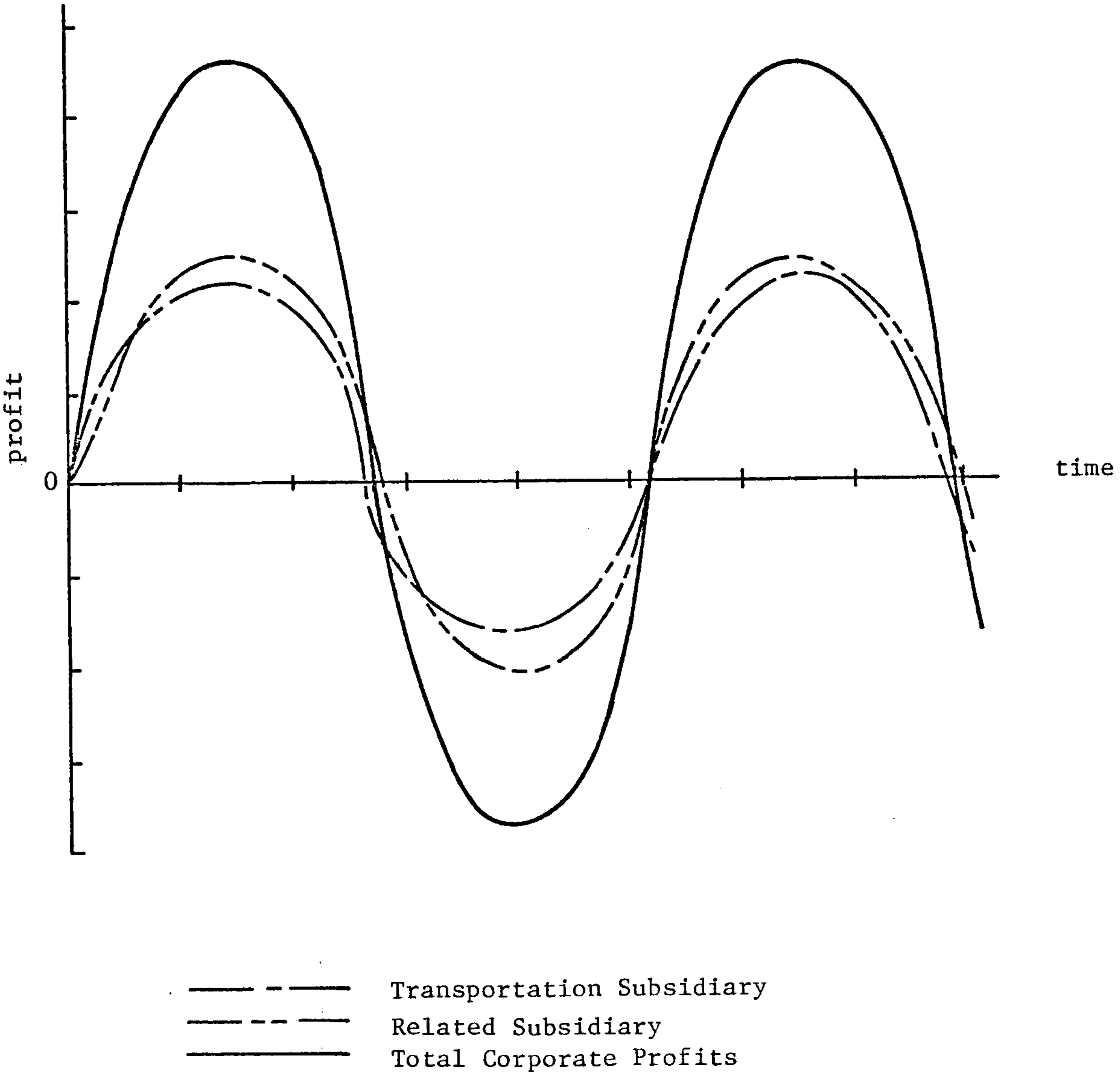

FIGURE II-2

HYPOTHETICAL EXAMPLE OF RELATED DIVERSIFICATION

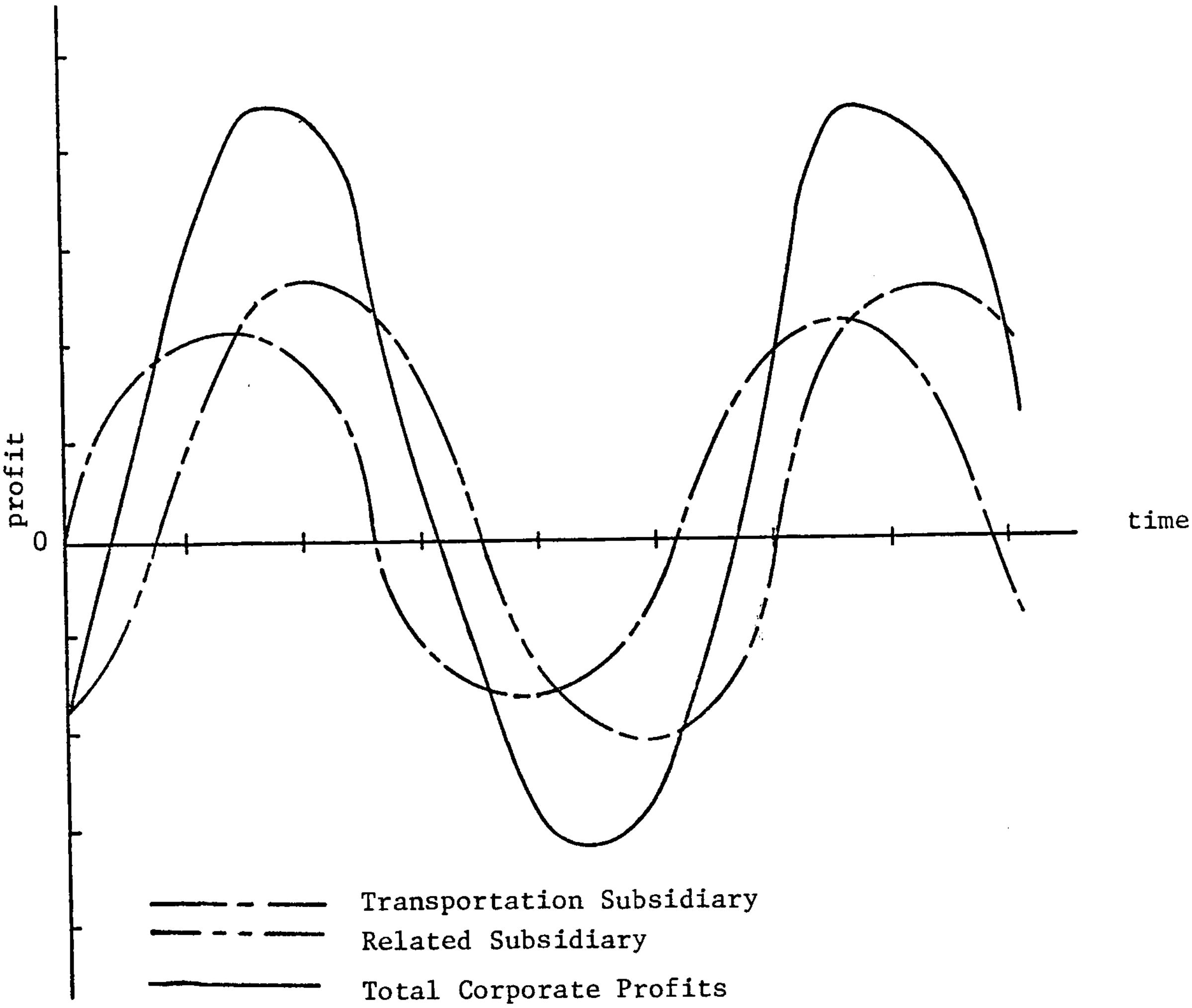

FIGURE II-3

HYPOTHETICAL EXAMPLE OF RELATED DIVERSIFICATION
WITH TIME LAGS

What are the Benefits and Disbenefits of Unrelated Diversification?

There are a number of "supposed" benefits associated with unrelated or conglomerate diversification. The primary benefit which is associated with unrelated diversification is that "it results in a reduction in the variability of the income (earnings) stream for the combined company greater than that which could be realized from a portfolio investment in the two companies.[45] Investors generally value a firm with a less variable income stream more than a firm with highly uncertain income streams (high cyclicality) because risk is reduced. Hence, the cost of capital to firms with less variable and profitable income streams is less than to the latter type of firm.[46]

Figures II-4 and II-5 provide examples of a transportation holding company with an airline subsidiary and an unrelated subsidiary. Figure II-4 demonstrates the impact of an unrelated subsidiary with an earnings stream which is countercyclical to that of the airline subsidiary. The impact of such a combination is to reduce the variability of the holding company's earning stream. Figure II-5 presents a somewhat similar situation, but in this case the subsidiary is a pre-energy crisis electrical utility firm. The earnings stream displays a slow but consistent pattern. This subsidiary also reduces the variability of the holding company's earning stream but in a less dramatic fashion than that of the countercyclical subsidiary.

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[45]Civil Aeronautics Board, "Overview of Economic Benefits and Disbenefits of Conglomerate Corporate Structures," Air Carrier Reorganization Investigation, Docket 24283, Exhibit DOT-DE-1, pp. 1-5.

[46]Ibid.

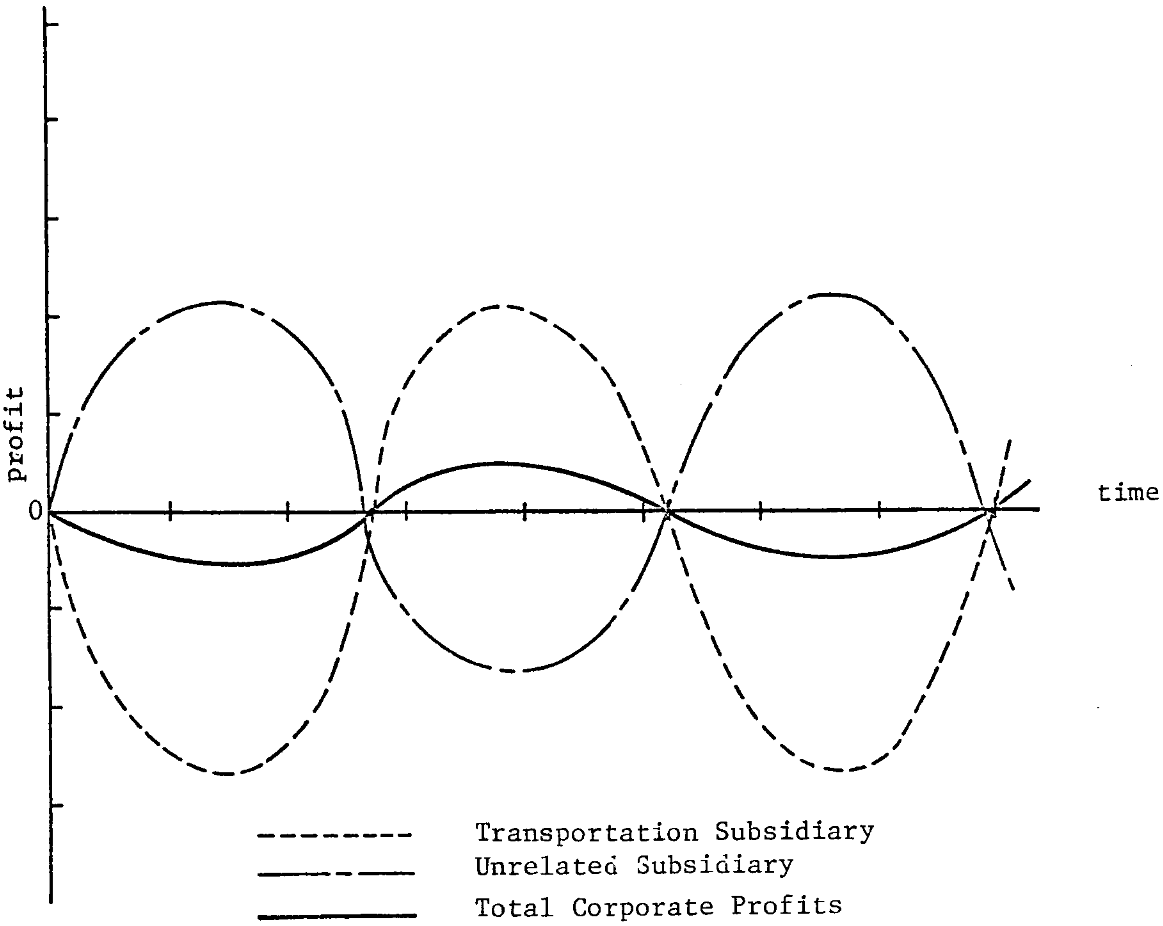

FIGURE II-4

HYPOTHETICAL EXAMPLE OF UNRELATED COUNTERCYCLICAL DIVERSIFICATION

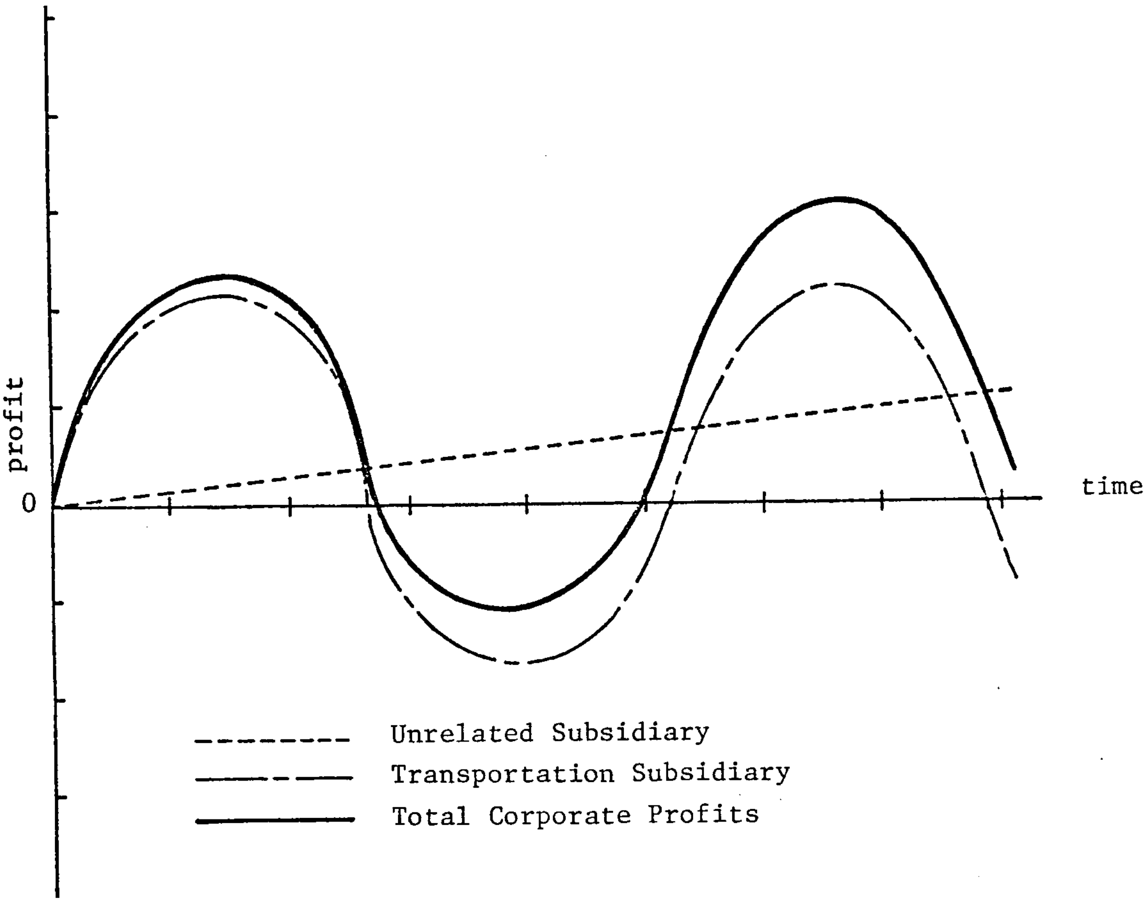

FIGURE II-5

HYPOTHETICAL EXAMPLE OF UNRELATED DIVERSIFICATION

The "financial synergies" available from unrelated diversification also entail enlarging the debt capacity of the new entity. It is suggested that the debt capacity of the combined firm will be greater than the sum of the debt capacities of the two individual entities. The debt capacity supposedly increases because the variance about the mean of two streams of income can be reduced by combining them. The debt capacity is supposedly increased because the probability of paying interest and principal is increased.[47]

As a consequence, conglomerate or unrelated diversification combines two imperfectly correlated or countercyclical earning streams which result in a less variable income stream for the combined firm. The impact is to lower risk from the perspective of the investor and lender. Such risk reduction lowers the cost of capital and increases debt capacity.

This perspective, of course, has been challenged from both logical and theoretical bases. First, some critics object to the logic of this argument. They suggest that it is really nothing more than the risk pooling concept which is used in insurance. They suggest that, in reality, it is extremely difficult to find countercyclical businesses. Industry cycles, at best, either lead or lag the general economy, thus producing an earning streams pattern which is a compromise between Figures II-4 and II-5.[48]

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[47]Wilbur G. Lewellen, "A Pure Financial Rationale for the Conglomerate Merger," Journal of Finance, May 1971, pp. 521-537.

[48]Salter and Weinhold, p. 139.

Perhaps, even more important is the objection from theoretical grounds. The capital asset pricing model, with its assumptions of perfect capital markets, no transaction and/or bankruptcy costs, no taxes, and perfect information, suggests that unrelated diversification is essentially meaningless.[49] Under the model, an unrelated diversified firm can do nothing for the investor that he cannot do for himself through diversifying his portfolio. In fact, the investor may even accomplish this more effectively because he deals in individual corporate shares rather than the "lumpy assets" which belong to a corporation.[50]

However, challenges to the conclusions of the capital asset pricing model have been made from two perspectives. First, it has been suggested that some "capital efficiencies" remain even if the assumptions of the capital asset pricing model are held true. Unrelated diversification, it is suggested, provides the firm with the opportunity to achieve savings through more efficient cash management. The firm can minimize its dependence on outside sources of working capital by exploiting the seasonal demands of its unrelated subsidiaries. Funds are utilized in different subsidiaries of the firm to support varying operating needs on a year-round basis.[51]

Second, the less variable income stream produced by unrelated diversification increases the holding company's ability to borrow

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[49] James C. Van Horne, Financial Management and Policy (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1977), p. 220.

[50] Ibid., p. 218.

[51] Salter and Weinhold, p. 140.

funds.[52] Lenders, noting the greater consistency of the holding company's earning stream, feel more confident of repayment and, hence, are more willing to tolerate high debt-to-equity ratios.[53] Of course, this advantage is primarily confined to firms which maintain high debt-to-equity ratios or which have several risky investments in their portfolios.[54]

Third, the assumptions of the capital asset pricing model may be a source of objection when viewed from a real world perspective. The possibility of imperfect capital markets, taxes, transaction fees, and bankruptcy costs are real world phenomena. Under such real world assumptions, unrelated diversification supposedly develops the capacity for self-financing.[55] Essentially, capital raised from investors is doubly taxed (dividends, corporate income taxes), while internally generated funds temporarily escape both taxes. Hence, the firm can make investments at a lower total cost than shareholders can do on their own. Another claimed benefit is that an unrelated diversification can facilitate the recycling of cash from mature businesses to young, cash starved entities which should enjoy excellent cash flows in the future.[56] Shareholders, on the other hand, experience taxation on dividends before they would have the opportunity to undertake a similar course of action. As

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[52]Ibid.

[53]Ibid.

[54]Ibid.

[55]Ibid.

[56]Ibid., p. 142.

a final note, unrelated diversification permits a firm to choose the most desirable investment projects within the risk/return characteristics of a number of businesses based upon internal industry information.[57] The individual or institutional investor does not have access to the same information and is, therefore, unable to avail himself of the same investment opportunities.

Haley and Schall suggest that both financial distress and tax losses under some circumstances may provide benefits in unrelated diversification. They state that even if bankruptcy is unlikely, the possibility that a firm will fail to earn its promised interest payments is increased as the amount of debt increases. Financial distress occurs in its mildest form when a firm's income before interest and taxes is less than the interest payments on the firm's debt.[58] Several costs arise from financial distress including lawyers' and accountants' fees, lost sales, higher costs of production, reduced output, foregone or delayed investments, higher financing costs, and general disruption of firm activities.[59]

Under such circumstances, the combination of a firm in financial distress with an unrelated business firm can reduce the total financial distress cost by reducing the uncertainty of total cash flow. Thus, for any given total debt of the combined firm, there is less chance of

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[57]Ibid., 144.

[58]Charles W. Haley and Lawrence D. Schall, The Theory of Financial Decisions, Second Edition (New York: McGraw-Hill Book Company, 1979), pp. 374-376.

[59]Ibid.

financial distress. The result is lower expected financial distress costs and a larger cash flow.[60]

Taxes, especially tax losses and carry forwards, also create a circumstance where unrelated diversification can be advantageous. Assuming tax losses and carry forwards are not salable, a firm must either carry a tax loss backward or forward or use it through the merging with or acquisition of another business.[61] By merging a firm with highly cyclical profits with a consistently profitable firm, the losses of the former each year:

> . . . are cancelled against that year's profits of the more profitable merger partners producing an immediate tax benefit: the benefit is the reduced taxes paid by the profitable firm.[62]

However, it should be noted that other tax relationships in the merger, acquisition, or combined firm may negate these benefits.[63]

Even capital asset pricing model advocates recognize that the possibility of bankruptcy costs switches the emphasis to the impact of diversification upon the total risk of the firm rather than the systematic risk of new acquisition to the systematic risk of the firm.[64] They also recognize that the impact of taxes creates market imperfections.[65] The concept of financial distress merely enlarges the definition of bankruptcy,

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[60]Ibid., pp. 446-447.

[61]Ibid., pp. 447-448.

[62]Ibid.

[63]Ibid.

[64]Van Horne, pp. 218-221.

[65]Ibid.

and the tax loss question examines the impact of taxes in a very specific manner.

In conclusion, several initial benefits were supposedly derived from unrelated or conglomerate diversification. Many of these benefits were rejected by the mid-1970s from both logical and theoretical bases. However, some theorists have claimed that, even with the acceptance of the assumptions and conclusions of the capital asset pricing model, there are still theoretically capital efficiencies. Other theorists have suggested that, in an imperfect world with financial distress and tax losses, unrelated diversification offers benefits.

Related Diversification--Empirical Evidence

Unfortunately, the empirical evidence regarding related diversification is extremely limited. This lack of empirical evidence reflects the absorption of financial theorists with the performance of conglomerate diversification.

However, one empirical study was conducted at Harvard in the mid-1970s.[66] The research compared the performance from 1950 to 1970 of single-business, dominant-business, related-business, and unrelated-business companies on the basis of five key criteria. The criteria were sales growth, earnings growth, earnings per share growth, return on investment, and return on equity. As shown in Table II-1, dominant-business firms underperformed the averages for the entire sample in all five categories. Single-business firms performed above average for

[66] Rumelt.

TABLE II-1

ANNUALIZED PERFORMANCE OF LISTED NYSE COMPANIES
(1950-1970)

	Sales Growth (%)	Earnings Growth (%)	EPS Growth (%)	ROI (%)	ROE (%)
Single-business companies	7.17	4.81	3.92	10.81	13.20
Dominant-business companies	8.03	7.95	5.99	9.64	11.64
Related-business companies	9.14	9.39	7.65	11.49	13.55
Unrelated-business companies	14.24	13.86	7.92	9.49	11.92
Average for all companies	9.01	8.72	6.57	10.52	12.64

Source: Richard P. Rumelt, Strategy, Structure and Economic Performance (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1974).

capital productivity measures but poorly in corporate growth measures. Unrelated-business firms performed above average in corporate growth but below average in terms of capital productivity. Related-business firms performed above average in all five categories.

Two limitations regarding the study were noted. First, the author was unable to prove the conclusions statistically. Second, the results were uncorrected for industry effects on corporate performance.

The same author later conducted a study of different types of business firms over the 1962-1971 period, adjusted for industry effect.[67] The actual average rate of return for the period was compared with the expected average rate of return on capital they would have achieved if they were average performers in their industry. The categories of firms which were used were slightly different than in the previous study. They were single business, dominant-constrained, related-constrained, related-linked, multibusiness, and unrelated portfolio. The dominant-constrained and related-constrained categories closely corresponded to related complementary diversification, while the related-linked category corresponded to related supplementary diversification.[68]

The results of the study, while still statistically untestable, indicated that companies which specialize in an industry tend to perform the best. It also concluded that performance was inversely correlated

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[67] Richard Rumelt, "Diversity and Profitability," University of California at Los Angeles, Working Paper MGL-51, 1977, p. 10.

[68] Ibid., p. 12.

TABLE II-2

PERFORMANCE DIFFERENCES AMONG RUMELT'S STRATEGIC CATEGORIES
(Weighted for Industry Affiliation)
(1962-1971)

Category	Actual ROC (%)	Expected ROC (%)	Residual (%)
Single Business	11.45	9.94	1.51
Dominant-constrained	12.09	11.01	1.08
Related-constrained	12.28	11.67	0.61
Related-linked	10.53	10.83	(0.30)
Multibusiness	8.30	10.13	(1.83)
Unrelated Portfolio	8.80	10.46	(1.66)
Average for All Companies	11.00	10.89	0.11

Source: Richard P. Rumelt, "Diversity and Profitability," University of California at Los Angeles Working Paper MGL-51, 1977.

with diversification. Related complementary and related supplementary firms performed the best of all diversified firms.[69]

Unrelated Diversification--Empirical Evidence

Unrelated or conglomerate diversification has received considerable attention from both members of the financial community and financial theorists. This interest was largely the result of the merger waves of unrelated businesses which occurred in American business during the late 1960s and early 1970s. During this period, many security analysts and business practitioners emphasized the benefits of such business combinations.

In the early and the mid-1970s, several studies were conducted to determine whether conglomerate diversification has led to higher corporate returns. These studies generally concluded that unrelated diversification does not lead to higher returns.[70] Perhaps, the only exception to this conclusion occurs in firms which were diversifying for primarily defensive reasons.[71] In such cases, several studies have indicated that rates have increased from below average to rates approaching the average

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[69]Ibid., p. 13.

[70]Samuel Reid, Mergers, Managers and Economy (New York: McGraw-Hill Book Company, 1968); Weston and Mansingkha; Ronald W. Melicher and David F. Rush, "The Performance of Conglomerate Firms: Recent Risk and Return Experience," Journal of Finance, May 1973, pp. 381-388; and Oscar J. Holzman, Ronald M. Copeland, and Jack Hayya, "Income Measures of Conglomerate Performance," Quarterly Review of Economics and Business, Summer 1975, pp. 67-78.

[71]Weston and Mansingkha, p. 934.

for the industry. However, it is even possible to find dissenting opinion to this conclusion.[72]

During this period several studies also addressed the question of whether unrelated diversification offered "superior risk-reduction capabilities." Several studies have concluded that conglomerates offer no real beneficial risk-reduction capabilities.[73]

In many cases, mutual firms were included in the study to assess relative performance in relation to the conglomerates. In virtually every case, the firms displayed superior performance to the conglomerates as well as superior risk-reduction capabilities.

An informal analysis of conglomerates for the period between 1973-1978, while not statistically accurate, indicated that an all-industry composite substantially outperformed the conglomerates in terms of both average return on equity and average price/earnings ratio.[74]

The stock market performance of conglomerates in relation to the general economy and various Standard and Poor's composite stock indices have not been particularly encouraging. Although stocks in general

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[72]Robert L. Conn, "The Failing Firm/Industry Doctrines in Conglomerate Mergers," Journal of Industrial Economics, March 1976, pp. 181-187.

[73]Keith V. Smith and John C. Schreiner, "A Portfolio Analysis of Conglomerate Diversification, Journal of Finance, June 1969, pp. 413-427; Randolph Westerfield, "A Note on the Measurement of Conglomerate Diversification," Journal of Finance, September 1970, pp. 909-914; J. Fred Weston, Keith V. Smith, and Ronald V. Shrieves, "Conglomerate Performance Using the Capital Asset Pricing Model," Review of Economics and Statistics, November 1972, pp. 357-363; and Baruch Lev and Gershon Mandelker, "The Micro-Economic Consequences of Corporate Mergers," Journal of Business, January 1972.

[74]Salter and Weinhold, p. 27.

have failed to grow at a rate comparable with the economy, conglomerate stock prices have fared even worse. A sample of conglomerate companies, although not randomized, indicates that conglomerates have declined in value by roughly 40 percent in relation to the general market (see Table II-3).

Conclusions

The degree of diversification in a firm is basically a function of how related the acquired business is to the traditional product line. This is often measured in terms of the elasticity of demand for two products. When the cross elasticity of demand is high, the products are substitutes. In such a case, the new business is very closely related to the traditional product line. When elasticity is low, the product markets are usually unrelated and low; hence, the new business is probably unrelated to the traditional product line. Between the two extremes in cross elasticities, there are two additional classifications of related businesses--supplementary and complementary.

There are many motivations for diversification including:

1. Earnings stability;
2. Competitive reasons;
3. Acquisition of "cheap" assets;
4. Acquisition of managerial and research and development resources;
5. Entry into otherwise "closed markets;" and
6. Growth.

The benefits of realted diversification are predominantly the result of synergies. Such synergies usually arise from revenues or cost

TABLE II-3

RELATIVE ECONOMIC AND STOCK PRICE PERFORMANCE
(1965-1978)

Year	Price Index	Fed. Res. Index of Ind. Prod.	S&P 400 Index of Ind. Co's.	S&P 500 Index of Major Co's.	S&P Index of 10 Congl.[1]
1965	94.5	89.8	93.6	95.4	36.7
1966	97.2	97.7	91.3	92.7	55.5
1967	100.0	100.0	100.0[2]	100.0[2]	100.0[2]
1968	104.2	106.3	108.4	107.4	122.1
1969	109.8	111.1	108.1	106.4	88.5
1970	121.3	109.6	109.3	106.9	65.7
1971	121.3	109.6	109.3	106.9	65.7
1972	125.3	119.7	122.8	118.8	67.2
1973	133.1	129.8	121.5	116.8	45.1
1974	147.7	129.3	93.7	90.1	32.7
1975	161.2	117.8	97.4	93.7	40.0
1976	170.5	129.8	115.5	110.9	58.0
1977	181.5	137.1	109.3	106.8	58.1
1978	195.8	145.0	107.1	104.5	57.6

[1]Companies included in the index are City Investing, Gulf and Western Industries, Walter Kidde, Litton Industries, Teledyne, Tenneco, Textron, U.S. Industries, and United Brands.

[2]Actual 1967 Standard and Poor's indexes for the S&P 400, 500, and 10 conglomerates were 99.18, 91.13, and 26.85, respectively. Index base for the S&P 400 and 500 are 1941-1943 = 10. Index base of the 10 conglomerates is 1965 = 10.

Source: Malcolm S. Salter and Wolf A. Weinhold, Diversification through Acquisition: Strategies for Creating Economic Value (New York: The Free Press, 1979), p. 25.

savings which would not normally result from combining two firms. While potential synergies are easily recognizable, the benefits are contingent upon translating these potential synergies into "real" synergies. Such benefits are also contingent upon the investment size being of sufficient magnitude to provide an opportunity for potential synergies.

Related diversification does seem to result in higher returns for firms. However, the evidence is neither strong nor is it conclusive.

The original benefits of unrelated or conglomerate diversification have been largely discounted from both logical and theoretical perspectives. However, even under the assumptions of the capital asset pricing model, it is claimed that there are some "capital efficiencies." If the assumptions of the model are relaxed in the context of the real world, unrelated diversification does supposedly provide some advantages, especially for the firm which is a poor performer or which is in an industry with less than average returns.

The empirical evidence regarding unrelated diversification indicates that it offers few benefits. Alternatively, it might be suggested that it has not been tested sufficiently to draw a definitive conclusion. Where unrelated diversification by poor performers has been tested, it has generally proven beneficial.

There are two major approaches which have not been utilized in regard to examining either related or unrelated diversification. First, theorists have concentrated on an experimental approach to evaluating the benefits of diversification, especially in the case of unrelated diversification. This approach is perfectly understandable since internal and external validity is being sought. However, the conclusions of such studies provide little guidance for senior management in specific industries. For example, if the senior management of the Burlington Northern, Santa Fe, and Union Pacific had followed the conclusions of such studies, it is questionable whether the railroad industry would have provided the returns that these companies enjoy today.

Secondly, the case approaches utilized in works on diversification generally fail to follow the diversification history of a particular firm or set of firms in a carefully documented fashion. While case histories are common, they are usually not presented in a strategic post-audit but rather in an anecdotal manner. Few case histories have tried to link the original objective of diversification to the results in an organized and coherent study. The potential for such an approach seems justified by many factors, including its novelty.

CHAPTER III

DIVERSIFICATION IN THE TRANSPORTATION INDUSTRY

Introduction

There are several important questions regarding diversification in the transportation industry and, specifically, the airline industry which require examination. These include:

1. What impact has regulation had upon diversification in the transportation industry?
2. What rationale have carriers of different modes given for diversification?
3. How successful has the transportation industry and, specifically, the airline industry been in its diversification efforts?

Although diversification is a relatively new development among domestic trunk airlines, there is substantial precedent for diversification in the transportation industries. During its expansionary period at the turn of the century, Canadian Pacific Railroad constructed a string of hotels along its railroad lines. In this country, the Santa Fe Railroad operated a chain of restaurants at its major stations under the name of Fred Harvey.[1]

Other transportation firms pursued different diversification opportunities. The Union Pacific, in 1936, opened Sun Valley, Idaho, the

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[1]Robert J. Joedicke, "A Report Card on the Success of Airline Diversification or the Airlines' Romance with the Hotel Industry," General Observations, a sporatic publication of Kuhn Loeb & Co., Inc., July 7, 1977, p. 2.

first ski resort in America. The New York Central built the Waldorf Astoria on Park Avenue in New York, while the Chesapeake and Ohio Railroad established the Greenbrier complex in West Virginia. Many of the original Florida resort hotels were established by the railroads along their rights-of-way, e.g., The Breakers in Palm Beach.[2]

Regulatory Impact

However, many avenues of diversification were essentially blocked by legislative fiat. The "commodities clause" of the Hepburn Act declared it unlawful:

> . . . for any railroad to transport [in interstate or foreign commerce] any article or commodity other than timber and the manufactured products thereof manufactured, mined, or produced by it or under its authority, or which it may own in whole or in part or in which it may have an interest, direct, or indirect, except such articles or commodities as may be necessary for its use in the conduct of its business as a common carrier.[3]

According to Eads, the clause was enacted:

> . . . because of fears that the railroads, having at that time a virtual monopoly over inexpensive transportation in some sections of the country, might utilize this power to favor the products produced by railroad-controlled firms, thereby extending their monopoly power.[4]

Eads concluded that the ultimate impact of the clause was to "restrict the ability of the railroads to diversify outside the transportation

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[2]Ibid.

[3]49 U.S.C.A., Section 1(8).

[4]George C. Eads, "Railroad Diversification: Where Lies the Public Interest?," Bell Journal of Economics and Management Science, Autumn 1974, pp. 595-613.

field and rendered the railroads unattractive as takeover targets by nontransportation firms."[5]

The commodities clause remained a barrier to nontransportation diversification until the ICC declared that it had no jurisdiction over the holding companies which presided over railroad subsidiaries.[6] The movement of railroads to take advantage of this "loophole" was widespread between 1962 and 1969, and approximately 50 percent of Class I railroad assets were moved into holding companies with the objective of diversification.[7] However, the railroads ultimately utilized their diversification strategy for differing purposes. While some railroads sought to strengthen either the railroad subsidiary or the entire corporation, other firms utilized the holding company for either an immediate or a phased withdrawal from the railroad industry.[8]

The formation of holding companies for purposes of diversification was severely questioned in the wake of the Penn Central bankruptcy.[9] During Congressional hearings, the diversification activities of the Penn Central were consistently blamed for the financial collapse of

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[5]Ibid, pp. 595-613.

[6]"ICC Clears Way for Kansas City Southern to Diversify Outside Transportation Field," Wall Street Journal, April 23, 1962, p. 22.

[7]Moody's Investors Service, Moody's Transportation Manual, 1972 Edition (New York: Author, 1972), p. 5.

[8]Burlington Northern and Union Pacific are excellent examples of the former, while Chicago and Northwestern and Western Pacific are excellent examples of the latter.

[9]Eads.

the railroad.[10] The result was a series of investigations by regulatory authorities into the diversification activities of carriers.

Rationale for and Public Interest Impact of Diversification

The investigations of the ICC, the CAB and the U.S. Department of Transportation produced some interesting conclusions regarding the impact of diversification as well as the motivations for pursuing such a strategy. The U.S. Department of Transportation, after studying five railroad holding companies, suggested that the primary motivation for their formation was to reduce shareholder vulnerability to low rates of return and the cyclicality of earnings which characterize the industry.[11] The U.S. Department of Transportation study concluded that:

> In none of the cases did publicly available information indicate that the formation of a holding company and its significant control of the railroad have any negative effects on the railroad's performance or on reinvestment in the railroad.[12]

An ICC study dealing with motor carriers specified several motivations for diversification including the need to lower vulnerability to business downturns, to improve access to capital markets, to achieve operating savings, and to attract better management than firms specializing in one industry are normally able to obtain.

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[10] United States Congress, "The Penn Central Failure and the Role of Financial Institutions," Staff Report of the Committee on Banking and Currency, House of Representatives, 92nd Congress, 1st Session, January 23, 1972.

[11] Russell F. Murphy, Chief, Industry Analysis Division, Office of Policy and Plans Development, U.S. Department of Transportation, testimony given in the Air Carrier Reorganization Investigation, Docket 24283, November 24, 1972, Exhibit DOT-T-1, p. 3.

[12] Ibid.

Additional ICC studies dealing with the railroad industry uncovered highly irregular asset transfer between railroad subsidies and holding company, disproportional dividend payments, and the borrowing of funds by the holding company at less than market interest rates.[13] As a consequence, the ICC staff recommended that the Commission request Congress to enlarge its authority to require prior approval of all transactions between a railroad and its affiliates.[14]

While the U.S. Department of Transportation never disputed that diversification by railroads has fostered the transfer of assets out of railroading into other lines of business, it did take the stance that:

> There is nothing intrisically evil, or illegal, in these types of transactions. The movement of assets within a diversified corporation is one of the primary tools available to management to maximize the return on shareholders' investment.[15]

The Air Carrier Reorganization Investigation was instituted by the CAB in the wake of the Penn Central bankruptcy.[16] The investigation focused on the need for regulating transactions between airline holding companies and the airline subsidiaries. During the voluminous testimony, airline executives suggested several reasons for diversification. The executives noted the high degree of cyclicality in airline earnings and suggested that unrelated diversification in more stable

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[13]Interstate Commerce Commission, Bureau of Accounts, "Review of Diversified Holding Company Relationships and Transactions of Bunta Punta Corporation," February 1971, pp. 1-2.

[14]Ibid.

[15]Murphy, p. 25.

[16]Civil Aeronautics Board, <u>Air Carrier Reorganization Investigation</u>, Docket 24283.

businesses or industries which were countercyclical to the airlines would lower their overall cost of capital.[17] They also noted that related diversification or diversification into related lines of business, e.g., hotels, would produce operating savings.[18] A further reason for diversification, in their opinion, was the opportunity to utilize investment tax credits and tax loss carry forwards.[19]

The Air Carrier Reorganization Investigation culminated in the establishment of reporting requirements for transactions between an airline subsidiary and other corporate entities in the holding company, including the holding company.[20] UAL, Inc. filed a motion to set aside this CAB order with the federal courts. Ultimately, the courts held that the order was discriminatory and hence void, since it merely imposed reporting requirements on holding companies.[21] Airline firms in which the parent company was the airline were exempt from the reporting requirements. Since U.S. Senate hearings on the airline deregulation bill were already underway at the time of the court decision, the CAB did not appeal the decision and did not seek to formulate nondiscriminatory reporting requirements.

In late 1978, the CAB officially concluded the Investigation by suggesting that close supervision of intracorporate transactions

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[17] A. M. deVoursney, Senior Vice President, Corporate Planning, United Airlines, testimony given in the Air Carrier Reorganization Investigation, Docket 24283, Exhibit U-T-5, pp. 11-12.

[18] Ibid.

[19] Ibid.

[20] Civil Aeronautics Board, Order 76-1-121, January 30, 1976.

[21] U.A.L., Inc. V. C.A.B., 569 F 2d 640 (D. C. Wi. 1978).

violated the philosophical premises of the 1978 Airline Deregulation Act.[22] Essentially, the Act encouraged greater reliance on market forces and individual management of airline asset deployment.

Success of Diversification

While financial analysts and reporters have focused both positive and negative attention on the issue of diversification in the transportation industry, there are few assessments of recent vintage dealing with the success of diversification in airline firms. In 1977, Robert Joedicke of Kuhn Loeb & Co. conducted an analysis of airline diversification. He concluded:

> . . . stated rationale for such actions has varied. Some airlines have stressed their diversification efforts as being an attempt to offset the cyclicality of airline profitability, while some have indicated their thrust to be a move to expand beyond regulatory control. Still others have highlighted the potential profit and other advantages from synergistic expansion beyond pure airline operation.
>
> In retrospect, it would appear that any potential advantage of synergism is rather nebulous, particularly between airlines and hotels. No hotel chain can afford to favor its airline partner, as it must depend on all airlines and other sources for its clientele if it is to be financially successful.
>
> Verbiage aside, it is clear from the record that the major diversification steps within the airline industry by TWA and Pan American have been financially successful, both in use of assigned assets and application of mangerial talents. The overall report cards for the financial results of both United and American in this area have been less impressive to date. It might be characterized that the remaining two participants (Braniff and Continental) have merely dabbled with diversification so far, based on either perceived need or seizure of a specific opportunity.[23]

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[22] Civil Aeronautics Board, "Air Carrier Reorganization Investigation: Order Terminating Investigation," Docket 24283, Order 78-10; 123, October 26, 1978.

[23] Joedicke, p. 40.

A more wide ranging study of diversification among the Fortune Top Fifty Transportation Firms was conducted in April 1979 at the University of Tennessee and presented at the Transportation Research Forum Meetings in Chicago during October 1979.[24] The study concluded that:

1. Transportation firms tend to diversify into nontransportation industries that serve the same markets as do their transportation operations.
2. Diversification is generally profitable and produces a disproportionate share of company profits considering the assets and sales involved.
3. The reliance upon nontransportation activity differs between modes and company size.
4. The percentage of nontransportation activity decreases in the modal order of water, rail, air, and motor, while the rate of return on assets occurs in a reverse modal sequence. Thus, firms in the less profitable modes are more diversified. However, diversified transportation firms across all modes tend to have higher rates of return than their nondiversified counterparts.[25]

Conclusions

The railroads in the United States were primarily prevented from diversifying because of the commodities clause of the Hepburn Act.

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[24] Frank W. Davis, Lawrence F. Cunningham, Allington P. Wishart, and Wallace R. Wood, "Diversification in Major U.S. Transportation Firms," in Proceedings of the Transportation Research Forum, Chicago, Illinois, October 23, 1979, pp. 1-16.

[25] Ibid.

However, the ICC ruled that while the restriction of the commodities clause were applicable to railroads, they were not germane to railroad holding companies.

The Penn Central bankruptcy generated regulatory interest and subsequent investigation in holding companies and diversification. While these investigations resulted in few permanent restrictions on diversification by transport firms, they did identify the major reasons for such a business strategy in transportation firms. These reasons included:

1. Low earnings;
2. High cyclicality of earnings;
3. Operating and financial synergies; and
4. Investment tax credits and loss carry forwards.

Although few studies have dealt with diversification from a managerial perspective, the one existing study of airline diversification cites three basic reasons for this development:

1. Cyclicality of airline earnings;
2. "Escape" from regulatory control; and
3. Higher profitability from synergies.

The study indicates that the rationale of synergy is dubious and that the airline track record for diversification is mixed.

A more wide-ranging study of diversification among fifty of the largest transportation firms indicated that diversified transportation firms are characterized by:

1. Large size;
2. Higher returns;
3. Lower returns in their primary business; and

4. Related diversification as a general tendency, i.e., horizontal diversification.

While the record of diversification in the airline industry is mixed, diversification does seem to have proved profitable in the transportation industry as a whole based on the results of the Davis study. This mixed record in the airline industry does raise the question of why some airlines have been successful while others have been less successful.

Unfortunately, no studies in the literature have focused on the evolution of diversification objectives over time for the industry as a whole or specific modes of transportation. In addition, the literature contains no examples of strategic post-audits of transportation diversification in any modes of transportation conducted from a thorough research perspective. The question still remains, "Do transportation firms actually achieve their stated objectives in diversification efforts?"

CHAPTER IV

METHODOLOGY

Introduction

In Chapter I, three basic hypotheses were suggested regarding the diversification efforts of United Airlines, TWA, and Pan Am. The hypotheses were applied to only three carriers because of data constraints. These three carriers have long histories of diversification, descriptive financial data bases and at least some management objectives for their diversification programs. In addition, these three carriers are among the more diversified of the major airline firms.

As indicated in Chapter I, the three hypotheses were:

1. In initial diversification activities reported as business segments among TWA, Pan Am and United Airlines, the stated objective was to achieve operating synergies, i.e., related diversification, through the acquisition or establishment of subsidiaries in the travel industry.
2. In all subsequent successful diversification activities reported as business segments among the selected domestic trunk airlines, the stated objective was the pursuit of financial synergies, i.e., conglomerate diversification, through the acquisition or establishment of subsidiaries unrelated to the travel industry.
3. The diversified subsidiaries of the selected domestic trunk airlines have enabled these carriers to enjoy a

less variable income stream than they would receive solely from their airline operations.

The purpose of this chapter is to describe the methods which were utilized in testing these hypotheses. While it is not possible to prove the above hypotheses, it is feasible to design a methodology which will result in discarding these hypotheses or providing direction to future research which will further support their validity.

Hypotheses One and Two

The central theme of hypotheses one and two was to determine the stated objectives of initial and subsequent diversification activities among the three airlines. The first step in the analysis was to establish a list of acquisitions for each company, the basic function of each acquisition, and the date of purchase. Perhaps the easiest method to identify existing nonairline subsidiaries was to consult the latest annual report and 10-K report for the firm. However, these reports often provided little information on the date of initial purchase or a description of activities of nonairline subsidiaries which were acquired in the past and were subsequently divested. As a consequence, it was necessary to consult annual reports and 10-K reports (started in 1974) for many prior years. This technique usually resulted in detailed information regarding all existing airline subsidiaries and discontinued acquisitions.

The establishment of an airline's stated objective in acquiring a nonairline subsidiary was a more difficult and subjective task. After identification of the date of purchase of each airline subsidiary, a review was made of the annual report and 10-K report which reflected the year's activities in the firm. Management often supplied a stated rationale for the acquisition when introducing the new subsidiary. When making acquisitions, firms also often provided press releases which described management's rationale for purchase of the new company. Executive speeches and press interviews with chief executive officers and/or other members of management were another source of determining the objective of the acquisition from the perspective of management.

However, the publicly stated diversification objective of management was not always discernible through corporate reports. It was sometimes necessary to consult alternatives. Two excellent sources for this purpose were trade magazines and journals and the reports of security analysts who followed the industry. The former, while susceptible to management propaganda, often offered insights into management's objective. The latter, while subject to their own prejudices, had access to industry financial information, gossip, and inside information from the management of the airline.

One of the difficulties of such an approach was that management often did not state an objective when making an acquisition either in company documents or in interviews with the press. As a consequence, it was necessary to devise a surrogate measure for management's stated objective. The procedure followed was to identify management's overall corporate objective regarding diversification in the period just prior to diversification. It was assumed that the stated objective for a subsequent acquisition was a manifestation of this corporate objective; as a consequence, the corporate objective regarding diversification was accepted as the stated objective of the diversification effort.

In cases where the corporate objective was utilized, an extensive effort was made to verify its acceptability as the stated objective for the diversification activity. Senior members of management who participated in the diversification decision but who had subsequently left the firm as well as those still with the firm were contacted to ascertain the rationale for the diversification. This included former and existing chief executive officers, senior vice presidents of finance and corporate planning, and the initial heads of the nonairline subsidiaries. Former members of the Boards of Directors also constituted an informed source of opinion.

The contact method for former and existing management members at UAL, Inc., TWC, and Pan Am was basically a letter which varied slightly with each respondent (see the Appendix for example). Instead of an in-depth interview, the general purpose of the study was briefly explained, and the respondent was assured anonymity. The respondent was asked the reasons for the acquisition as commonly understood by all concerned senior management.

The most difficult part of this task, however, was reaching a conclusion regarding the objective. While this was not a problem in cases of concurrence from all sources, it became more subjective when disagreement existed. The determinants of such a situation were objectivity, informed opinion, and plausibility. The establishment of the stated objective remained a subjective process conducted by the analyst based on the above criteria. However, there was generally very little disagreement regarding the objective of the diversification effort.

The acceptance or rejection of both hypotheses was based on universal acceptability of its contents where applicable. In the case of hypothesis one, acceptance was the result of all three carriers supporting the hypothesis. Since hypothesis two was applicable to only two carriers, support from both carriers was necessary.

Hypothesis Three

Hypothesis three, which dealt with the variability of earning streams for the entire corporation, required the development of a rather extensive financial data base. The initial step in this testing process involved the development of financial data for nonairline subsidiaries, the airline subsidiary, and the overall corporate entity. The basic data included the sales for subsidiaries and holding company, an appropriate measure of the income streams, total assets employed, and various financial measures such as the rate of return on assets and sales retained as operating and net income.

The selection of a measure for income streams was complicated by two factors. First, the measure had to reflect as closely as possible the net cash flow of the business. Operating income does not reflect cash disbursements for extraordinary items and taxes and, therefore, tends to distort the measurement of a business' earning stream. Perhaps the best available measure is net income (after adding back depreciation).[1]

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[1]Eldon S. Henriksen, Accounting Theory (Homewood, Illinois: Richard D. Irwin, Inc., 1977), pp. 139-175.

Second, the primary sources of financial data, annual and 10-K reports, often presented only selected financial data for subsidiaries. In some cases, the financial data for either the airline or the non-transportation subsidiary contained only an income figure before taxes or provided an inadequate description of adjustments to the net income figure. Therefore, the actual measurement figure was developed based on the availability of data for each firm.

For example, the senior management of Intercontinental Hotels Corporation (IHC) were willing to supply operating income (from operations) data from 1963 to the present. As a consequence, the operating income of Pan Am was used in order to ensure compatibility between the subsidiary and parent firms. Because of the availability of subsidiary balance sheets and income statements in the 10-K reports in 1974, cash flows or operating income plus depreciation and amortization were calculated for Pan Am and its chief subsidiary, IHC.

In the case of UAL, Inc., the measure utilized in the study was income before taxes since it was available for subsidiaries, the airline, and the holding company. Cash flows (income before income taxes plus depreciation and amortization) were calculated from the business segmentation data provided from UAL, Inc., annual reports for later years (1975-1979).

The measure used in TWC's case was income before income taxes since it was the only relevant comparable measure between the TWC subsidiaries, the airline, and the holding company. As in other cases, cash flows based upon business segment data were calculated.

Since firms frequently restate their financial data at various intervals, restated versions of income data were also developed. However, the return on assets and historical financial analyses presented in Chapter VI were developed from the original annual reports and not from restated numbers.

After establishing sales and income measurements of each holding company and its airline and nonairline subsidiaries, the next step was to determine whether the nontransportation diversification had lessened the variability of the income stream of the holding company. The most highly regarded method of conducting such an analysis is via the capital asset pricing model.[2] The model basically says that the overall variability of returns for the firm is unimportant and that management should concentrate on the risk/return characteristics of new projects (systematic risk) in relation to the overall risk/return of all investment opportunities.[3] The higher the systematic risk of a project, the higher the relative risk of a project and, consequently, the higher the return necessary to justify the investment. In theory, the model provides a framework for establishing whether the returns derived from the nonairline subsidiaries were warranted in the first place. Unfortunately, the assumptions of the capital asset pricing model suggest that when the probability of financial distress or bankruptcy is high, analysts must concentrate on the total risk of the firm rather than on the systematic risk of new projects.[4]

The method utilized to test hypothesis three was to measure whether the diversification activities reduced the overall risk of the airline

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[2] James C. Van Horne, Financial Management and Policy (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1977), pp. 166-188.

[3] Ibid.

[4] Ibid.

firms, i.e., reduced the variability of their income streams. The financial data base for each firm provided an opportunity to evaluate the variability of income measures for the airline subsidiary, nontransportation subsidiaries, and the entire corporation since the initial diversification efforts. If the alternative hypothesis was supported in all three cases, the overall hypothesis was accepted:

H_0: The variability of the income measure for the airline is equal to the variability of the nonairline subsidiaries' income measure.

H_1: The variability of the income measure of the airline is more than the variability of the nonairline subsidiaries' income measure.

The variability for both the airline subsidiary and the airline were calculated separately using regression analysis. The dependent variable was the airline's income measure and the independent variables were "year" and the nonairline subsidiaries income measure. Three basic income measures were used for each company--the basic income number, restated income numbers, and cash flows. The first model (01) which was used was the following:

$$\hat{Y}_A = B_0 + b_1 X + b_2 Y_{NA}$$

where:

$\hat{Y}_A$ = Predicted total income/cash flow of the firm minus the income or cash flow of the nonairline subsidiaries

X = Year of the income or cash flow data

Y_{NA} = Nonairline subsidiary income or cash flow

The output of the model essentially tested whether or not nondiversified subsidiaries reduced the variability of total income. If b_2

was positive by "enough," then total income was more variable. On the other hand, if b_2 was negative by "enough," total income was less variable. Linear chance over time was measured by b_1, which was used to remove that possible source of variation before examining Y_{NA} and $\hat{Y}_A$. Mean square error merely measured remaining variation after accounting for all other variables. Statistical significance was analyzed at .05 level.

The results of the regression model indicate that the airlines had experienced a curious economic pattern. Basically, the plots resulting from the model indicated that there were two distinct trends of growth for the three firms. One occurred before the energy crisis, and the other appeared after the energy crisis. This pattern was the result of the severe economic conditions which occurred during the 1973-1974 Arab oil embargo and the dramatic increase in the price of aviation fuel. Both factors had a severe impact upon overall industry profitability and upon the financial results of individual carriers. As a consequence of these patterns, the regression model was modified in the following fashion and is designated as model 02:

$$\hat{Y}_{A/B} = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_1 X_2$$

Y_A = Predicted total income/cash flow of the total corporation

Y_B = Predicted total income/cash flow of the airline

X_1 = Year of the income or cash flow data

X_2 = Years prior to 1975 and years after 1975

The plan was then to establish whether or not the variables in the regression model were significant for the airline and the total corporate model for the three data bases (income before taxes, restated income, and cash flow). If any of the variables (intercept, year, year 2, and the product of the years) were significant, the mean square errors for the airline and total corporate model were compared. If the mean square error for the corporate model was less than that for the airline model, the variability for the total corporate model was less than that for the airline alone.

When the variable proved nonsignificant, the variance of raw Y-data was used as a basis of comparison. The comparison involved comparing the variance of the total corporate model with that of the airline model.

While the analysis of variability presented above provided ample evidence for either the rejection or acceptance of the hypothesis, it provided little information regarding the financial performance of the nontransportation subsidiaries in relation to the airline subsidiary or the entire corporation. It was entirely possible that the nontransportation subsidiaries display less variability than the airline subsidiary but, at the same time, were only marginally profitable over the entire time period.

Therefore, it was necessary to assess the return on assets and the percentage of sales retained as operating income for all subsidiaries and the entire corporation for each of the three cases. The return on assets provided a basis of comparison for measuring the efficiency of asset utilization among businesses in each firm.[5] The percentage of

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[5]Harry Simons and Jay M. Smith, Intermediate Accounting (Cincinnati: South-Western Publishing Co., 1972), pp. 906-927.

sales retained as operating income essentially measured relative profitability.[6]

Another important measure of performance of nonairline subsidiaries was their magnitude of contribution to the holding company. While the nonairline subsidiaries may have reduced the variability, there is little impact on the overall firm if their operating income contribution is negligible. Therefore, the analysis included an examination of the nonairline subsidiaries' contribution to the holding company at various intervals.

An important aspect of hypothesis three was to facilitate a post-audit assessment of the firm's original objectives in diversification efforts. For example, if the analysis for UAL, Inc. indicated that the original objective was operating synergies, the earning stream for its first acquisition should follow a highly cyclical pattern. A graphical analysis of the data developed in hypothesis three was valuable in determining whether the company achieved its original objective. In those cases where the pattern coincided with the objectives, further analysis was probably unwarranted. However, divergence from the anticipated earning stream pattern invited further investigation. This comparison is important regardless of whether the first two hypotheses are accepted or rejected.

From a methodological viewpoint, one additional point is worth noting. The analysis was presented on a case-by-case basis. The facts for each of the three airlines were presented, and then conclusions were drawn regarding the three hypotheses for each of the three airlines.

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[6]Ibid.

It was then necessary to assess, at the conclusion of the three cases, whether the hypotheses were valid on a universal basis for all three firms. If all three cases supported a hypothesis, the hypothesis was accepted. However, if any of the three cases failed to support a hypothesis, it was rejected.

Methodological Limitations

Like all research efforts, the methodology in this report has suffered from limitations and weaknesses at both macro and micro levels. From the macro perspective, the methodology deal exclusively with three firms in the industry. However, there were approximately seven other carriers of roughly the same aggregate size and structure. Four of these seven firms had nonairline subsidiaries or investments. As a consequence, the results of the study do not possess substantial external validity.

The study also has limitations from a micro perspective. Many compromises were made in both defining and selecting data bases for inclusion in the study. For example, cash flow was defined as merely the selected income measure, plus depreciation and amortization. This definition was selected because, in many cases, detailed balance sheets and income statements were not available for use. If a modified measure was selected for a subsidiary or subsidiaries, the same measure was required for the holding company and airline despite the presence of detailed balance sheets and income statement numbers. The same type of problem characterized the selection of income measures. The basic rule of thumb was to take not the best measure but the best available measure. Hopefully, the increased sophistication of 10-K reports will mitigate this problem for future researchers in this area.

Another fundamental weakness of the study was the quantitative technique utilized in the study. Regression analysis was not the optimal tool for measuring the variability of income streams. The best technique is time series analysis which would help reduce the influence of cyclicality and trends from the earning streams. However, the minimum number of observations for such an analysis is forty. While it is theoretically possible to generate this number of observations using quarterly data, the quality of quarterly data for nonairline subsidiaries precluded such a strategy.

CHAPTER V

AN ANALYSIS OF DIVERSIFICATION HISTORY AND OBJECTIVES

This chapter addressed hypotheses one and two of this research effort. The two hypotheses were:

1. In initial diversification activities reported as business segments among TWA, Pan Am and United Airlines, the stated objective was to achieve operating synergies, i.e., related diversification, through the merger, acquisition, or establishment of subsidiaries in the travel industry.
2. In all subsequent successful diversification activities reported as business segments among the selected domestic trunk airlines, the stated objective was the pursuit of financial synergies, i.e., conglomerate diversification, through the merger, acquisition, or establishment of subsidiaries unrelated to the travel industry.

The analysis involved evaluating the diversification activities of each of the following airline firms: Pan Am, TWC, and UAL, Inc. The procedure entailed evaluating support for the two hypotheses on a case-by-case basis. At the conclusion of the chapter the conclusions of all applicable cases were used in formulating the validity of both hypotheses.

Pan American World Airways, Inc.

To a large extent, Pan Am has led the airline industry in innovation and variation of diversification. In fact, it has been suggested that not only has Pan Am led the airline industry in diversification, but it also has developed the model for successful international hotel chains.[1]

Business Description

Pan Am's principal business is the transportation of persons, property, and mail between points in the United States and its territories and possessions and foreign countries.[2] The air transport operations of Pan Am principally consist of services:

1. Across the Atlantic Ocean between points in the United States and Europe, the Near and Middle East, Asia, and Africa;
2. Across the Pacific Ocean between the United States and the Philippines, other islands in the Pacific, other points in Asia, New Zealand, and Australia; and
3. Between points in the United States and points in Central America, Venezuela, Brazil, Argentina, and other parts of Latin America.[3]

Diversification Activities

Pan Am pursued a number of diversification activities in the post-World War II period (Table V-1). IHC was organized as a Delaware

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[1]Joedicke, Robert J. "A Report Card on the Success of Airline Diversification or the Airlines' Romance with the Hotel Industry," General Observations, a sporatic publication of Kuhn Loeb & Co., Inc., July 7, 1977, p. 21.

[2]Pan American World Airways, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1978 (Washington, D.C.: Securities and Exchange Commission, 1979), p. 2.

[3]Ibid.

TABLE V-1

PAN AMERICAN WORLD AIRWAYS, INC. DIVERSIFICATION HISTORY

Name of Activity	Year Formed	Activity	Ownership	Reportable Business Segment
International Hotels Corporation	1946	International hotel chain which has recently moved into domestic hotel business	100 Percent	Separate business segment reported as unconsolidated subsidiary
Aerospace Services Division	1953	Division provides maintenance, opertions engineering, medical environmental health and other support to U.S. Government agencies and foreign governments	--	Consolidated with Pan American World Airways, Inc. Financial Statement
Airline Services Division	--	Division provides technical services training and other services to foreign carriers and airport authorities	--	(Same as above)
Metropolitan Airport Facilities Division	1970	Division manages several air facilities in New York metropolitan area under contract from public authorities	--	(Same as above)

TABLE V-1 (Continued)

Name of Activity	Year Formed	Activity	Ownership	Reportable Business Segment
New York Airways	--	Affiliate provides helicopter service between Manhattan and the three New York airport facilities	41% of the outstanding common stock and 68% of the outstanding preferred	Consolidated with Pan American World Airways, Inc. Financial Statements
Falcon Jet Corporation	1963	Affiliate markets and provides backup service for French executive jet built by Dassualt.	50%	(Same as above)
Grand Central Building, Inc.	--	Subsidiary rents Pan Am building and surrounding premises.	100%	(Same as above)

corporation with a headquarters office in New York in 1946.[4] Pan Am's Aerospace Services Division was established in 1953 and furnishes maintenance, operation, engineering, medical, environmental health, and other support to U.S. agencies and foreign governments on a cost plus or fixed fee contract basis.[5] The Airline Services Division provides teams of specialists, under management and technical assistance contracts, experienced in airline and airport management to assist and teach operational skills to local national personnel.[6]

The Metropolitan Air Facilities Division was formed in 1970 as a result of Pan Am's agreement with the Port Authority of New York and New Jersey to manage Teterboro Airport.[7] The contract was for a thirty-year period and was the first of several agreements. Pan Am and the County of Westchester, New York, entered into an agreement for the division to manage Westchester County Airport for a period of five years which commenced April 1, 1977.[8] The division also manages, under a lease arrangement with the City of New York, the East River Waterfront Airport.[9] On September 5, 1979, the Aerospace Services Division, Airline Services Division, and Metropolitan Air Facilities Division were

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[4] Ibid., p. 16.

[5] Ibid.

[6] Ibid.

[7] Ibid.

[8] Ibid.

[9] Ibid.

consolidated into a new wholly-owned subsidiary, Pan Am World Services, Inc.[10]

Pan Am also has a number of other investments. These include 100 percent ownership of Grand Central Properties, Inc., which owns the Pan Am building, and 50 percent of Falcon Jet Corporation. The latter engages in the marketing and servicing of Falcon Jet Aircraft, while the former was recently sold for $400 million.[11]

Intercontinental Hotels Corporation

Although Pan Am was actually involved in the lodging industry in conjunction with its Flying Boat Service in the 1930s, the formation of IHC as an unconsolidated subsidiary in 1946 marked the formal entry of Pan Am into the hotel business.[12]

It is alleged that the concept of an international hotel chain evolved from a breakfast meeting between Juan Trippe, the founder of the airline, and then President, Franklin Roosevelt. At the meeting, Roosevelt asked Trippe to help ease Latin America's then-looming dollar shortage by supplying better hotels to lure U.S. travelers. Although Trippe recognized that this would boost Pan Am's business, he entered into hotels abroad "very grudgingly" and only after finding that no U.S. hotel chains would take such a risk.[13]

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[10]Pan American World Airways, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1979 (Washington, D.C.: Securities and Exchange Commission, 1980), p. 15.

[11]Ibid.

[12]Joedicke, p. 21.

[13]"Hotels," Time, February 3, 1967, p. 74.

Pan Am in-house publications suggest that the airline originally entered the business because various locations were unable, in the immediate post-World War II period, to offer accommodations which the American traveler desired. In its early years, according to Pan Am sources, IHC was also viewed as an organization designed to foster economic development and tourism in emerging nations.[14]

The first Intercontinental Hotel was established in Belem, Brazil, in 1946. Early expansion concentrated in Latin America and the Caribbean. Its primary clientele was Americans and foreign businessmen.[15]

The corporate objectives of IHC changed in the early 1960s. Instead of performing as an adjunct to Pan Am's flight services, money-losing IHC sought to pursue profit-making opportunities within and beyond the Western Hemisphere.[16] This reversal in corporate philosophy became readily apparent after 1963 when IHC posted its last annual loss ($345,000).[17]

Since the early 1970s, management has acted almost independently of the airline, although there has been some cross utilization of reservation facilities. The shift in strategic philosophy, while negating any potential operating synergies, has paid fairly significant financial dividends to Pan Am.[18]

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[14] William T. Seawell, Chairman, The First 50 Years of Pan Am (New York: Pan American World Airways, Inc., 1977).

[15] Joedicke, p. 22.

[16] Seawell.

[17] Joedicke, p. 22.

[18] Interview with Paul Sheeline, President, Intercontinental Hotels Corporation, June 12, 1980.

Since the early 1960s, IHC has expanded dramatically. It presently operates 70 hotels in 48 countries located in Europe, the Middle East, the Orient, the Pacific, Africa, the Caribbean, Latin America, and North America. Of the 79 properties, 57 are operated by IHC under direct ownership, leases, or management contract; six operate under the Forum Division of IHC (economy-type facilities); and an additional 16 hotels are operated by others under franchises granted by IHC.[19]

Conclusion

Pan Am has, perhaps, the longest history of diversification in the airline industry. While Pan Am has several nonairline activities, IHC is the only nonairline and nontransportation activity which is reported as a separate business segment. As a consequence, the testing of Pan Am's diversification objective is limited to its initial diversification activities or hypothesis one.

The pursuit of operating synergies implies that an airline made an investment which would generate savings in operating expenses, additional revenue, and/or profit beyond that which would have occurred to the airline and diversified entity. While it is not possible to establish the savings, revenues, or profits which Pan Am derives from the establishment of IHC, the stated objective does seem to speak for itself. Since Pan Am desired to expand the traffic to South America and throughout the Western Hemisphere, the provision of American style accommodations was imperative. The evidence further supports the hypothesis since hotels are an integral part of the travel industry.

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[19] Ibid.

While it is impossible to establish whether Pan Am actually achieved any operating synergies, the stated objective was clearly to stimulate traffic on international routes in the Western Hemisphere. However, it is important to recognize one important caveat. Pan Am clearly considered itself an "arm" of the State Department throughout the post-World War II period. It is not totally beyond the realm of possibility that Juan Trippe considered the establishment of IHC as a public service necessary to facilitate American business abroad while still stimulating traffic.

Trans World Corporation

Perhaps, the most diversified trunk carrier is TWC, formerly known by its airline subsidiary's name, TWA.[20] While starting its diversification program later than Pan Am, TWC has probably the greatest number of nonairline subsidiaries engaged in a wide variety of businesses.

Business Description

TWA has been engaged in air transportation since its organization in 1934. While passenger business is its chief source of revenues, the airline also carries mail and freight on both its domestic and international routes. It also operates military and commercial charter flights.[21]

TWA serves many metropolitan areas within the continental U.S. as well as flights to Hawaii. TWA is authorized to serve many cities in

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[20]Trans World Corporation, News Release, January 22, 1979.

[21]Trans World Airlines, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1977 (Washington, D.C.: Securities and Exchange Commission, 1978), p. 13.

Europe, Africa, and Asia. However, transpacific service as well as transatlantic service to Africa and Asia is currently suspended.

TWC owns four nonairline subsidiaries: Hilton International, Canteen Corporation, Spartan Food Systems, Inc., and Century 21 Real Estate (Table V-2). Hilton International operates 70 hotels in 41 foreign countries, Hawaii, Guam, and Puerto Rico.[22] Canteen is primarily engaged in the food and vending service business and conducts, directly and through its subsidiaries and 71 independent franchised distributors, vending and manual food service operations in 48 states, Washington, D.C., Canada, and several foreign countries.[23]

Spartan Food Systems and Century 21 Real Estate are the two latest additions to TWC. Both subsidiaries were acquired in 1979. Spartan Food Systems, Inc. operates 257 family menu restaurants in nine Southeastern states. Century 21 Real Estate is the largest national real estate brokerage firm.

Hilton International

TWC's first diversification effort occurred in 1967 when TWA acquired Hilton International.[24] The international segment of Hilton Hotels Corporation was purchased from its shareholders with TWA stock.[25]

Hilton International was originally created when Hilton Hotels placed its international hotels under a separate corporation. Shares

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[22]Ibid.

[23]Ibid., p. 10.

[24]Joedicke, p. 12.

[25]Ibid.

TABLE V-2

TRANS WORLD CORPORATION DIVERSIFICATION HISTORY

Name of Activity	Year Formed	Activity	Ownership	How Reported
Hilton International	1967	International Hotel Chain	100 Percent	Separate Business Segment
Canteen Corporation	1974	Food and Vending Service Business	100 Percent	Separate Business Segment
Spartan Food Systems	1979	Food Service Business	100 Percent	Separate Business Segment
Century 21	1979	Single family residence sales	100 Percent	Separate Business Segment

in the new corporation (38 hotels in 24 foreign countries) were given to Hilton shareholders.[26]

The purchase price of Hilton International was approximately $88.7 million. A price of $82.50 per share was paid for 511,668 shares of common stock as well as 930,305 shares of $2.00 preferred stock at $50.00 per share. The ultimate purchase price was modified slightly by the exercise of warrants of Hilton Hotels which existed prior to the purchase.[27]

The purchase was the result of a top-level committee chaired by TWA Chairman, Charles C. Tillinghast, to study diversification. In reflecting on the committee and the (at that time) proposed purchase of Hilton International by TWA, he said "We want related business . . . businesses directly associated with the airline industry or ones utilizing talents we use."[28] Further he stated:

> Look down the road at those traffic forecasts. Where are you going to put these people? They're not going to sleep in the streets. The hotel business abroad is in for fast growth.
>
> But there has been one problem something like which came first, the chicken or the egg. . . . We are reluctant to fly to areas where there are no good hotels, but conversely good hotels aren't built unless there is a certainty airlines are willing to fly there and bring in the customers.
>
> Working together, we and Hilton can do a more effective job developing these opportunities.[29]

At the time of the proposed acquisition, it was anticipated that TWA ticket agents would book reservations at Hilton International, using

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[26] "Manage More, Own Less," Business Week, April 28, 1975, pp. 76-78.

[27] Joedicke.

[28] "Why Limit Yourself?," Forbes, May 15, 1967, p. 25.

[29] Ibid.

the TWA computer system. TWA management also indicated that the hotel chain would probably begin to accept the TWA credit card.[30]

However, the actual purchase agreement evolved somewhat differently. Hilton Hotels (the parent firm) and TWA established a jointly-owned reservations firm which processed reservation requests between Hilton and Hilton International. This firm was owned 51 percent by Hilton and 49 percent by TWA.[31]

The subsequent acquisition of Hilton International was, in reality, merely a first step in an overall TWA expansion plan. TWA also envisioned either a partnership or the acquisition of a rent-a-car company which would provide customers with an additional convenience through a "pooled" reservation system. TWA was also quite interested in continuing and enlarging its support services to the National Aeronautics and Space Administration at the Kennedy Space Center. The basic thrust of TWA strategy at this particular point in time was to become a full-line travel company.[32]

Canteen Corporation

The second major nonairline subsidiary of TWC is the Canteen Corporation. Canteen was founded in 1929 and originally entered in the food services business in 1931.[33] Prior to acquisition by TWC, it was a wholly owned subsidiary of the International Telephone and Telegraph

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[30] Ibid.

[31] "Manage More, Own Less."

[32] "Why Limit Yourself?"

[33] Trans World Airlines, Inc., 1974 Annual Report, p. 12.

Corporation (ITT).[34] ITT originally decided to divest Canteen as a result of antitrust decrees reached between ITT and the Department of Justice.[35] Although ITT originally intended to sell Canteen to the general public through a stock offering, the stock offering was canceled because of "poor conditions of the new-issue market."[36] In reality, the offering fared poorly among both institutional investors and the general public. Both types of investors felt that Canteen had been exceedingly slow in recovering from the 1971 recession and had drawn much of its profitability growth from "accounting changes and tax credits."[37]

The total purchase price of Canteen was approximately $128.5 million which was comprised of $88 million in 5 percent notes issued to ITT and $40.5 million in cash paid to Canteen stockholders in exchange for their shares.[38]

TWC, then TWA, expressed several reasons for the purchase of Canteen Corp. In late 1973, or approximately six months prior to the purchase, TWA announced that it was pursuing major acquisitions, in part to take advantage of substantial tax credits it was not able to utilize from its own current airline and hotel operations. In discussing the

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[34] Joedicke, p. 13.

[35] Scott R. Schmedel, "View of Less Successful ITT Acquisition is Provided by Canteen Corp. Registration," Wall Street Journal, June 26, 1972, p. 6.

[36] Scott R. Schmedel, "Heard on the Street," Wall Street Journal, July 25, 1972, p. 37.

[37] Ibid.

[38] Joedicke, p. 13.

Canteen acquisition, TWA Chairman Tillinghast said that TWA's income is "so susceptible to changes in the economy and so seasonal that a first quarter loss of $14 million is encouraging."[39] He further stated that the carrier:

> . . . has a strong incentive to diversify into fields that will broaden its income base, compensate at least partially for its cyclical peaks and valleys and lent more stability. . . . The Canteen purchase will permit TWA to use its substantial tax-loss carry-forward and investment tax credits, appreciably increasing Canteen's after tax profit.[40]

Post-Canteen Diversification Strategy

At a recent conference with airline analysts on April 18, 1979, L. E. Smart, Chairman and Chief Executive Officer of TWC, reviewed the current status and future direction of TWC. He stated that although TWC's revenues were largely derived from the airline subsidiary, the nonairline subsidiaries had, in recent years, contributed over two-thirds of corporate profit. He suggested that this factor was a strong motivating force in the formation of the holding company. Further, he indicated that TWC would diversify further into consumer-oriented businesses.[41]

On April 30, 1979, TWC and Spartan Food Systems, Inc. agreed in principle to the purchase of the latter.[42] Spartan operates 257 family

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[39] "TWA Gets $153 Million Order for Boeing 727's; Has Options for More," Wall Street Journal, April 26, 1973, p. 12.

[40] Ibid.

[41] Smart, L. E., Chairman of TWC Corporation, Remarks at Institutional Investors Dinner, April 18, 1979.

[42] "Trans World Corp. Set to Buy Restaurant Chain," Wall Street Journal, May 1, 1979, p. 14.

menu restaurants in nine Southeastern states.[43] Spartan is characterized as a highly profitable company with an excellent long-term growth record.[44] Under the agreement reached, the stockholders of Spartan will receive $39.6 million in cash and $40 million in preferred stock.[45]

Financial analysts who have closely followed the acquisition suggest that in addition to reducing its vulnerability to cyclical and seasonal downturns, TWC will be able to offset the cash tax obligations of Spartan via the airline's large accelerated depreciation and investment tax credits.[46]

Although this purchase is a modest step in further diversification, it does seem, from an analysis of Spartan's growth record, to meet TWC corporate objective of mitigating the cyclical and seasonal nature of airline earnings.[47] However, the purchase of Spartan seems to be merely a first step in TWC's objectives of "the friendly acquisition of additional consumer-oriented operations that will produce annual nonairline pre-tax profits above the $100 million level."[48]

Century 21 Real Estate Corporation was acquired by TWC on October 31, 1979, for a total purchase price of $90.5 million. TWC paid approximately $43.6 million in cash and the remaining amount in preferred

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[43]Ibid.

[44]Derchin, Michael, Company Report: Trans World Corp. and Spartan Food Systems Agree to Merge. Oppenheimer & Co., Inc., May 7, 1979, p. 1.

[45]"Trans World Corp. Set to Buy."

[46]Derchin, p. 1.

[47]Smart.

[48]Ibid.

stock.[49] The objective of the Century 21 acquisition was similar to that of Spartan--to offset the cyclicality of the airline subsidiary.[50]

Century 21, which originated operations in Orange County, California, is the largest real estate franchise sales organization in the world.[51] The principal business of Century 21 is commissions received on the sale of existing single-family residences. Each Century 21 franchise pays a service fee to the corporation which equals 6 percent of its gross revenues from real estate transactions.[52]

Conclusions

TWC is the most diversified of the domestic trunk air carriers. The financial difficulties of TWC, the need to resort for financing on a regular basis, and its generally good relations with security analysts and financial press have supplied a highly documentable record of its diversification activities.

At the same time, this exposure also has provided business writers with a rich opportunity to assess the overall performance of TWC and its diversification record. First, the TWC program has led to the suggestion that the firm is in the process of withdrawing from the airline industry in the same manner that several firms have left the railroad industry.[53] In such cases, the transportation subsidiary was

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[49] Trans World Corporation, 1979 Annual Report, p. 33.

[50] Ibid.

[51] Ibid., p. 10.

[52] Ibid.

[53] "Trans World Corp.: The Strategy Squeeze on the Airline," Business Week, May 19, 1980, pp. 104-115.

used as the base for diversifying the firm and subsequently leaving the industry.

Second, TWC has also been cited as a classic case of a firm which has diversified to bolster profits from the traditional product line only to find that it has inadequate capital for both the basic and new businesses. As a consequence, it is unable either to meet the needs of the basic business or to exploit the opportunities in the hotel, food, and the real estate business.[54]

TWC's diversification experience does tend to support the hypothesis regarding initial diversification activities as well as the hypothesis dealing with subsequent diversification efforts. At the time of the Hilton acquisition, it was fairly clear that management envisioned operating synergies between the hotel chain and the airline. The rationale given for acquisition is very similar to Pan Am's. The hotel acquisition was presented as a natural corollary to air transportation. TWA statements during this period also seem to have envisioned Hilton as a natural first step in the development of a travel company.

The Canteen acquisition might, at first glance, also appear to represent an attempt to secure operating synergies. An airline does engage in institutional food activities. However, the statements of TWA executives and the clear involvement of Canteen with institutional food activities mainly in industrial concerns would seem to support an objective of financial synergies and tax benefits. TWA was essentially seeking to reduce the cyclicality of airline earnings and to utilize

[54]Ibid.

investment tax credits and tax loss carry forwards. In addition, it would be difficult to label Canteen as even a travel-related firm. However, an important attraction of the Canteen acquisition may have been the caliber of management which was available with the acquisition.

UAL, Inc.

UAL, Inc. was a relative latecomer to diversification. While Pan Am and TWA had already diversified into hotels by the late 1960s, UAL, Inc. did not join "the club" until 1970. Pan Am's diversification program was virtually complete and TWA had already made its second acquisition before UAL, Inc. attempted to acquire a nonairline business.

Business Description

The principal subsidiary of UAL, Inc., United Airlines, has been engaged in the air transportation of people, property, and mail since 1934. Certain of its predecessor companies entered the air transportation business as early as 1926.[55]

United Airlines' route system covers many points within the continental United States as well as Hawaii.[56] It covers many of the major metropolitan areas within the United States. The airline is frequently billed as the largest airline in the Free World with Aerofloat, the Russian carrier, occupying the top position in the World.

UAL, Inc. has two principal nonairline subsidiaries, Western International Hotels (WIH) and GAB Business Services (Table V-3). WIH

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[55] UAL, Inc., Annual Report 1977, p. 13.

[56] Ibid.

TABLE V-3

UAL, INC. DIVERSIFICATION HISTORY

Name of Activity	Year Formed	Activity	Ownership	How Reported
Western International Hotels	1970	Domestic and International Hotels	100 Percent	Separate Business Segment
GAB Business Services	1975	Insurance Claim Service	100 Percent	Separate Business Segment

operates or is affiliated with 50 hotels in the United States, Canada, Mexico, and other countries. GAB Business Services is the nation's largest independent insurance claims adjusting organization in terms of revenues. The only other subsidiary of any significance is the Mauna Kea Land Corporation which was organized in January 1978 for the purpose of acquiring the Mauna Kea Beach Hotel. However, this subsidiary is not reported as a business segment.[57]

Prelude to Diversification

On August 1, 1969, United Airlines, Inc., became a subsidiary of UAL, Inc., the new holding company. The purpose of the holding company was to facilitate the diversification of the firm. As an initial move, both the holding company and United Airlines, Inc. acquired a 39 percent interest in a planned hotel facility on San Francisco's Nob Hill, The Stanford Court. UAL, Inc. also entered into a joint venture with AMFAC, Inc. to own and operate the 500 room Waikiki Beach-Comber Hotel which was under construction in Honolulu.[58]

The UAL, Inc. annual report for 1970 indicated a continuing interest in diversification. It stated:

> Evaluation of other enterprises for possible addition to the holding company is continuing. Potential acquisitions will be carefully considered on the basis of profit contribution and the effect of overall earnings stability.[59]

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[57]Ibid.

[58]UAL, Inc., Annual Report 1970.

[59]Ibid.

Western International Hotels

WIH was originally merged with UAL, Inc. in July of 1970 on a pooling-of-interests basis. The stockholders of WIH received preferred stock of UAL, Inc. in the exchange. The cost of WIH was approximately $113 million.[60] WIH facilities are generally located in downtown areas, are transient in nature, and possess restaurants and banquet and convention facilities. The Mexican affiliate, however, is composed basically of resort properties.[61]

At the time of the merger, WIH was operating 60 hotels with 16,044 rooms. These properties were operated under a combination of fee ownership, leasehold interest, management contract, or representative agreement.[62] As of 1976, the chain had reduced the number of hotel properties under its control to 31 while increasing the number of its rooms controlled directly or through subsidiaries to 17,255.[63] Of the 40 hotels operated, nine were operated under management contract.[64]

The reduction of the number of hotels operated is largely the result of WIH's corporate objectives. The goal as stated by management is "to create not the largest hotel chain but a rather highly profitable

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[60] Joedicke, p. 16.

[61] UAL, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1974 (Washington, D.C.: Securities and Exchange Commission, 1975).

[62] Joedicke, p. 13.

[63] UAL, Inc, Annual Report 1976.

[64] Ibid.

first class hotel firm."[65] Another goal is to also increase market share in the quality hotel market. In line with this objective, management has sought to restrict the growth of the chain and to eliminate properties which are not under direct management.[66]

Although UAL, Inc. never directly commented on its objective in purchasing WIH, several comments did appear in business journals during the period. Several important points were made. First, WIH, as part of the purchase agreement, was to operate independently. Second, the chief advantage of the merger for WIH was "a broader financial base for its expansion ambition."[67] This support was especially critical since WIH's profits were being squeezed by the start-up costs of new projects.[68]

In commenting upon the WIH purchase, Business Week made the following observations:

> The (airline) moves (into the hotel business) not only reflect the high expectations for travel in the 1970's, but also a quest for profits on the ground which bolster earnings that have been sagging for companies in the air. . . . It is clear that hotels are becoming more than a sideline to flying operations: airlines no longer confine their hotel activities to the areas they serve. UAL's interest in Western International is not dimmed, for instance, by the location of many of the newest hotels in places like Singapore, Bangkok, and Johannesburg, far from United's essentially domestic air routes.[69]

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[65] UAL, Inc., Annual Report 1977, p. 8.

[66] Joedicke, p. 16.

[67] "Another Airline Turns Innkeeper," Business Week, March 28, 1970, p. 50.

[68] Ibid.

[69] Ibid.

Post-Western International Hotels Diversification Philosophy

On September 7, 1972, Edward Carlson addressed the Investment Analysts Society of Chicago. Carlson, while dealing with many issues of the airline, also addressed the issue of diversification. He stated:

> Although the strong growth trend we expect to continue for United Airlines will necessarily maintain the airline system as the backbone and major enterprise of UAL, Inc., we are definitely interested in pursuing further diversification. Our aim is to enhance the system's earning potential and financial strength, without in any manner weakening the financial support of existing operations of either the airline or hotel systems. We will be looking outside the field of regulated industries. We will not necessarily confine our search to the travel industry. A company with healthy earnings and a strong management team not only will contribute to the total earnings of UAL, Inc., but might also have the beneficial effect of enhancing the earnings stability of the combined system.
>
> We ended up 1971 with a loss carry forward of $13 million and $97 million of unused investment credits. We have other substantial tax shelter potential available to us in future years. Our ability to utilize these tax benefits would be materially enhanced with the acquisition of companies with healthy earnings. As the part of earnings recovery for UAL, Inc., improves, we expect our acquisition program to move forward with more vigor.[70]

Avis, Inc

In early November of 1974, UAL, Inc. made several surprise announcements. Edward Carlson, then President and Chief Executive Officer, said that UAL, Inc. had offered to pay $23.9 million for the 2.9 million publicly held shares of Avis, Inc., a major car rental firm. At the same time, the firm offered to repurchase two series of its subordinated debentures for approximately $33 million. Both actions were

[70] Edward E. Carlson, President and Chief Executive Officer of UAL, Inc., remarks before the Investment Analysts Society of Chicago, September 7, 1972.

facilitated by a $61.5 million tax refund which the firm had recently received.[71]

The refund, in addition to the strong cash position of the airline, gave UAL, Inc. an opportunity to look for acquisitions in the travel field. At the time, Carlson stated:

> The airline and hotel businesses are having a good year and it seemed appropriate to intensify our search. The timing seemed right on Avis and it brings a good mix into the company.[72]

UAL, Inc. was, according to Carlson, in the business of selling "perishable" space hotel beds and airplane seats.[73]

Under the terms of the transaction, the owner of Avis, ITT, was to receive $25.6 million in UAL, Inc. senior notes for 52 percent of the outstanding common stock. In addition, UAL, Inc. was to pay $5 million in cash for the outstanding preferred stock owned by ITT. The purchase of the publicly traded Avis stock brought the total purchase price to approximately $54 million.[74] Unfortunately, the UAL, Inc. bid was unsuccessful.

GAB Business Services

The second major subsidiary, GAB Business Services, is a firm which provides independent adjusting and other services to the insurance

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[71] "Ed Carlson Keeps a Lid on UAL's Debt," Business Week, November 16, 1974, p. 60.

[72] Carlson, remarks.

[73] Ibid.

[74] Ibid.

industry.[75] The firm, a private company prior to purchase, cost approximately $40 million in cash.[76]

Although the firm has primarily engaged services related to catastrophe insurance, it has sought to explore new markets such as claim-handling services for self-insured firms in the private sector and computerized systems designed to lower the administrative cost of employee benefit programs.[77] Also, GAB recently established an intermodal transportation services division designed to provide independent and objective appraisals of in-transit damage to freight transporters. The division also counsels clients on methods of preventing damage and minimizing losses.[78]

Post-GAB Diversification Strategy

In addressing the New York Society of Security Analysts on September 28, 1976, Edward Carlson dealt with a wide variety of issues. However, one of his major points was regarding diversification. In particular, he cited the implications of the recent CAB order on October 17, 1975, which regulated a wide variety of transactions between a holding company and its airline subsidiary as a result of the Air Carrier Reorganization Investigation. He suggested that under the order, UAL, Inc. was required to submit a report with the CAB before acquiring another company. He stated that under certain circumstances that the CAB was able to order a divestiture. Perhaps, Carlson's prophetic skills were

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[75] Joedicke, p. 19.

[76] Ibid.

[77] UAL, Inc., Annual Report 1977, p. 10.

[78] Ibid.

at their best when he suggested that "it may take two years or more for the courts to agree" that the CAB had exceeded its statutory authority.[79]

Carlson also observed during his commentary that UAL, Inc. had $155 million in tax credits that must be used between 1976 and 1982 and that $124 million of these credits would expire by the end of 1981.[80]

However, he noted that even with the CAB order, UAL, Inc. was still interested in diversification:

> We don't rule out further diversification by UAL in the meantime. Our diversification objectives, after all, remain--to improve and stabilize our earnings. But we're not going to avidly pursue further diversification until the reach of the airline regulators is more clearly and authoritatively defined.[81]

In late 1977, a favorable court decision reversed the CAB order stemming from the Air Carrier Reorganizaton Investigation. UAL, Inc. best summarized its views of the court decision in the following statement from its 1977 annual report:

> Following implementation of the 1975 CAB orders, UAL, Inc. had adopted a self-imposed restraint on further diversification until the reach of the airline regulators was more clearly and authoritatively defined. The Court's findings are a welcome step toward resolving this important issue.[82]

However, further diversification was still uninhibited by a managerial constraint. Carlson had resolved to let his successor assume

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[79]Edward E. Carlson, Chairman and Chief Executive Officer, remarks before The New York Society of Security Analysts, September 28, 1976.

[80]Ibid.

[81]Ibid.

[82]UAL, Inc., Annual Report 1977.

the reigns of power before embarking on new courses of corporate strategy.[83]

Conclusions

UAL, Inc. entered the diversification field approximately 24 years after Pan Am and three years after TWA. However, the nature of UAL, Inc.'s initial diversification effort was similar to the other two carriers--an international hotel chain. While the nature of the acquisition was similar, the diversification objective was, in all probability, different. The 1969 annual report emphasizes that UAL, Inc. was seeking acquisition opportunities which would make a financial contribution and smooth the earning pattern of the holding company.

Perhaps, this objective was not surprising given the trend of UAL, Inc.'s profitability. The holding company and the airline had experienced decreasing profits in the period from 1966.[84] Obviously, financial cyclicality issues at UAL, Inc. were occupying an increasing proportion of senior management's time.

As a consequence, it is difficult to support hypothesis one, a diversification objective of operating synergies in the travel industry. This rejection is further supported by the terms of the merger which specified that WIH would operate independently. Perhaps, a more reasonable explanation would be that UAL, Inc. was seeking to obtain a significant financial contribution and that financial synergies (smoothing the income stream) played an important role.

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[83] Joedicke, p. 21.

[84] UAL, Inc., Annual Report 1970.

UAL, Inc.'s diversification philosophy remained relatively consistent in the post-WIH acquisition period. However, in late 1974, UAL, Inc. sought to acquire a travel-related company, Avis, Inc. While an initial assessment of this proposed investment would seem to indicate that UAL, Inc. was contradicting its investment philosophy, a more detailed analysis indicates that the investment was within UAL, Inc.'s criteria. First, UAL, Inc. had given no indication that an investment in a travel-related firm was contrary to its philosophy. Second, the opportunity for operating synergies was limited by the fact that Avis was an international car rental firm while UAL, Inc. was primarily operated as a domestic airline. Consequently, the opportunity for potential financial synergies was probably stronger than for operating synergies. Third, a substantial portion of Avis's business was derived not from airport rentals but rather from fleet rentals and truck rentals. UAL, Inc. was probably more interested in the financial contribution of Avis and the opportunity for financial synergies. Avis was also attractive because the firm had a visible management team. In fact, Avis was available for purchase only because of an antitrust suit against ITT. While UAL, Inc. was interested in Avis from a financial perspective, it is also obvious that Edward Carlson, having substantial experience in the hotel industry, would more easily understand the problems of a firm in the travel field. As a final note, the proposed Avis acquisition does not invalidate hypothesis two, a diversification objective of financial synergies in a nontravel industry, because the purchase was never consummated.

GAB Business Services seems to support the second hypothesis. First, it is difficult to imagine how this acquisition would provide any operating synergies for UAL, Inc. On the other hand, the prospect for financial synergies at the time of purchase was fairly obvious. As a claim processing firm, GAB was service-oriented but a low asset business. The cash flow of the firm was rather large. At the same time, the firm already possessed substantial management resources. GAB was, prior to purchase, a privately held firm organized by several insurance firms to handle claim processing activities when their staffs were overwhelmed by natural disasters.

While the GAB purchase does not support the hypothesis, there is some question as to the degree of support. GAB was a rather small investment. If the $40 million investment was capitalized at ten times present earnings or the price-to-earnings ratio of the Dow Jones average in October 1975, estimated annual earnings would be in the range of $4 million. It is difficult to see how UAL, Inc. would receive financial synergies of any magnitude. However, the presence of investment tax credits indicate that UAL, Inc. may have felt that GAB offered an opportunity to shelter some of its income from tax.

General Conclusion--Hypothesis One

Pan Am, TWC, and UAL, Inc. entered the hotel industry at decidely different periods. Pan Am used the hotel business as a method to stimulate traffic growth in a developing area of the world--Central and South America. When the price of stimulating traffic became exorbitant, Pan Am allowed IHC to pursue profitable opportunities regardless of whether or not they were on Pan Am's route structure. Sensing the international travel boom of the 1960s, TWC pursued a similar strategy. While the motivations were the same, the method of entry was quite different. While

Pan Am essentially was forced to enter the business on a de novo basis, TWC purchased a preexisting firm. TWC, in purchasing a preexisting chain, also expected some financial contribution.

UAL, Inc. entered the hotel industry at a decidely different period. Airline earnings were declining rapidly. The airline stocks which were a glamour issue of the 1960s were rapidly losing their Wall Street following. As a consequence, UAL, Inc. invested in an area where they had expertise, the travel industry. However, their principal objective was to promote earnings stablility or financial synergies. It is doubtful that UAL, Inc. could have achieved any operating synergies even if that was the objective of the WIH purchase. Unlike TWA and Pan Am, United Airlines was purely a domestic carrier. While the possibility of operating synergies with an international hotel chain in the cases of TWA and Pan Am existed, the feasibility of such benefits between a domestic carrier and international hotel chain was limited.

Hypothesis one is difficult to support given the above evidence. While two of the three carriers support the hypothesis, UAL, Inc. fails to render any support. However, a hypothesis of a similar nature based on the 1946-1967 period might enjoy better support. The eonomic downturn of the late 1960s and early 1970s seems to have been the catalyst for a change in carrier diversification objectives.

General Conclusion--Hypothesis Two

The evidence for the second hypothesis is based primarily on the diversification experiences of TWC and UAL, Inc. Both firms followed different paths yet at the same time have similar diversification objectives--earnings stability. However, in subsequent diversiication activities, the utilization of investment tax credits and tax loss carry forwards were also motivating forces. It is also interesting to note that all of the diversification efforts of the firms were concentrated in service oriented industries. Although the fields in many cases, were unrelated to air transportation, their service natures may have facilitated an understanding by airline executives of the mangerial problems facing the diversified subsidiary.

The subsequent diversification activities of TWC and UAL, Inc. support the second hypothesis--financial synergies in nontravel businesses. However, there are a number of secondary factors which seem to play have played an important role in both companies' acquisitions. After the financial problems of the early 1970s and the simultaneous reequipment cycle, the management of both airlines recognized and sought to exploit both tax loss carry forwards and investment tax credits. Profitable nonairline enterprizes seem to offer the best investment vehicles for utilizing these benefits. The investment vehicles chosen by these carriers also seem to be predominantly service industries.

TWC purchased Canteen Corp., Spartan Food Services, and Century 21 Real Estate Corp. primarily for earnings stability or financial synergies. However, it is also obvious that the utilization of investment tax credits and loss carry forwards were major secondary factors in the acquisitions. It is also interesting to note that TWC essentially purchased entities where management was an integral part of each acquisition.

While earning's stability, investment tax credits and tax loss carry forwards were important, the subsequent acquisitions of TWC were concentrated in consumer oriented service businesses. Two interesting questions arise from such a diversification strategy. What operating synergies, if any, have arisen from acquisitions of consumer-oriented businesses? Does management of an airline firm, a consumer-oriented business, have special skills which are transferrable to other consumer businesses?

The subsequent diversification activities of UAL, Inc. were also primarily motivated by earnings stability or financial synergies. The proposed Avis acquisition, although travel-oriented, was basically an effort to smooth the earnings stream of UAL, Inc. The GAB Business Services acquisition was basically nontravel in nature while having the same objective. UAL, Inc., like TWC, was also concerned about the utilization of investment tax credits.

CHAPTER VI

POST-ACQUISITION STRATEGY, FINANCIAL PERFORMANCE AND IMPACT OF NONAIRLINE INVESTMENTS

Introduction

The purpose of this chapter is to examine the nonairline investments of Pan Am, TWC, and UAL, Inc. and to determine their impact upon their respective holding or parent company. The post-acquisition strategy of each holding or parent company's nonairline investments are analyzed to ascertain the consistency of the subsidiary's effort with the original objective as well as the quality of management performance under airline ownership. Its financial performance is examined to render a judgment on its effectiveness in the post-investment period.

An essential element of this chapter is also to determine the validity of hypothesis three--that the diversified subsidiaries of the selected domestic trunk airlines have enabled these carriers to enjoy a less variable income stream than they would receive solely from their airline operations. Using financial data developed in reporting the financial performance of each nonairline investment and other financial data, an analysis is made of the combined impact of these investments on the overall holding or parent company. This analysis is performed on a case-by-case basis. The latter portion of this chapter is reserved for reaching conclusions regarding the support or rejection of hypothesis three. The conclusions to the chapter, of course, deal with the overall strategy, financial performance, and earning stream analysis.

Pan American World Airways, Inc.

Pan Am, ~~as indicated~~ in Chapter V, has several nonairline investments. However, IHC is the only nonairline investment which Pan Am reports as a separate business segment (unconsolidated subsidiary). The remaining activities are consolidated within the Pan Am financial results. Numerous comments regarding these activities are made in Pan Am annual reports and, in some cases, selected financial data is supplied. However, given the focus of this research effort on reportable business segments, the analysis will concentrate on IHC.

Intercontinental Hotels Corporation

Strategy. As noted in Chapter V, the mission of IHC at its inception in 1946 was to stimulate traffic for Pan Am through the provision of American style accommodations overseas.[1] The early activities of IHC were directed at the Western Hemisphere and, particularly, Latin America.

It is extremely difficult to make meaningful comments regarding IHC's strategy during this period. Pan Am annual reports during the period offer little real information, the financial press had developed little analytical expertise for reporting on subsidiary activities and, lastly, virtually no senior officers of that period are presently with IHC. The strategy of IHC was, undoubtedly, a continuation of its original objectives.

[1]Seawell, William T., The First 50 Years of Pan Am (New York: Pan American World Airways, Inc., 1977).

IHC first displayed a shift in philosophy in 1959. During that year plans were unveiled indicating that the hotel chain planned to expand beyond the Western Hemisphere.[2] The first venture outside the Western Hemisphere, the Phoenicia Inter-Continental in Beirut, was opened in 1961.[3] This property was later to become an extremely important profit center in the chain until its destruction in 1975 during the Lebanese Civil War.[4] It is difficult to determine the precise reasons for IHC's expansion. However, it is important to note that IHC was severely hurt by the expropriation of its property in Cuba during 1960.[5]

The 1968 Pan Am annual report noted that the role of IHC had changed in the years since its founding. It stated:

> Intercontinental concentrated on emerging areas where the need was critical. Today, Intercontinental also is engaged in hotel development in major cities where the growth of tourism has outdistanced existing hotel space.[6]

The report also reflected IHC's new emphasis on management contracts, perhaps, an outgrowth of its Havana experience. It noted that most members of the IHC chain were owned by host country corporations,

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[2]Pan American World Airways, Inc., Annual Report 1968.

[3]Joedicke, Robert J. "A Report Card on the Success of Airline Diversification or the Airlines' Romance with the Hotel Industry," General Observations, a sporatic publication of Kuhn Loeb & Co., Inc., July 7, 1977, p. 22.

[4]Ibid.

[5]Interview with Paul Sheeline, President, Intercontinental Hotels Corporation, June 12, 1980.

[6]Pan American World Airways, Inc., Annual Report 1968, p. 10.

while the company operated these establishments under management contract and maintained a minority equity position.[7]

The report also noted another interesting development. IHC had started to work closely and autonomously with other airlines in many parts of the world on hotel development programs. These airlines included Aerolinas Argentinas, Air Congo, Air New Zealand, Air Nicaragua, Ariana Afghan, BOAC, Tennair, Irish International, Lufthansa, Pakistan International, and Swissair.[8]

During 1969, new hotels came on line and the chain had 67 hotels in operation, in design, or under construction. Future plans of that period called for over 100 properties in operation by 1973.[9]

By February 1972, the chain had 63 hotels in operation in 43 countries and a payroll of 21,000. However, this time period was important for other more strategic reasons. First, it marked the first entry of IHC into the domestic market. IHC announced plans for hotels at two locations in Hawaii, on the islands of Hawaii and Molokai. Second, the chain announced the formation of an economy hotel division, Forum, which was designed to offer facilities at 30 percent less than first class hotels.[10]

These themes became even more apparent during 1972. The chain was obviously undergoing a rethinking of its strategy and was selectively expanding, diversifying, and contracting. IHC sold three hotels

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[7] Ibid.

[8] Ibid.

[9] Pan American World Airways, Inc., Annual Report 1969.

[10] Pan American World Airways, Inc., Annual Report 1972, pp. 9-10.

during 1972 and terminated a franchise agreement with a fourth during early 1973. IHC began operating its first hotel in the continental United States in 1972, the Mark Hopkins in San Francisco. The Forum division began operating its first hotels in 1972. These hotels were primarily international in nature.[11]

Perhaps, the most notable item regarding IHC's 1973 activities was its entry into the South Pacific market to tap the travel market for nontraditional vacations. The chain opened three properties in Fiji, the New Hebrides, and Japan. Interestingly, IHC minimized its asset exposure by operating two properties under management contract and a third under franchise.[12] IHC also indicated that development of hotels in the United States would continue, with emphasis being given to gateway city locations.[13]

During this time period, IHC also established a wholly-owned subsidiary, Tourism Education Corporation, with the objective of developing and marketing a worldwide educational program for the tourist industry in hotel, motel, and restaurant skills for individual or group administrators.[14]

By early 1975, IHC was operating 54 hotels on six continents. The Forum division expanded to five properties. In addition, IHC had seriously entered the airline catering business. While having performed such

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[11] Ibid., pp. 10-11.

[12] Pan American World Airways, Inc., Annual Report 1973, pp. 16-17.

[13] Ibid.

[14] Ibid.

services on a selected basis in previous years, the firm now acquired prime or exclusive food facilities at several international airports.[15]

During 1976, IHC displayed an increasing and well-founded interest in hotels located in the Middle East. The need for first class accommodations in this area of the world was becoming increasingly apparent as businessmen from around the world sought business opportunities created by Arab petrodollars.[16]

Many of the strategies which IHC initiated in the early 1970s were continued and paid rich dividends during 1977. Very favorable results were linked to stronger economies in Europe which resulted in more business and leisure travel and the addition of properties in the Middle East.[17] The underlying theme of contraction was also mentioned as the chain divested itself of several properties which were operating at suboptimal levels.[18] The theme of diversification was also continued in 1977 as the chain expanded its functions in airline and institutional catering.[19]

The year 1978 represented a further affirmation of IHC's strategy with some new twists. The chain sold minority positions in hotels

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[15]Pan American World Airways, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1974 (Washington, D.C.: Securities and Exchange Commission, 1975), p. 17.

[16]Pan American World Airways, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1975 (Washington, D.C.: Securities and Exchange Commission, 1976), pp. 15-17.

[17]Pan American World Airways, Inc., Annual Report 1977, p. 22.

[18]Ibid.

[19]Ibid.

located in the Ivory Coast contracts. At the same time, it substantially increased its investments in the United States with the purchase of a hotel in Miami and the Barclay Hotel in New York. With these purchases, investments in the United States constituted approximately 19 percent of IHC's total assets.[20]

At the same time, IHC indicated that the Middle East and the Forum division were also important investment priorities.[21] The Middle East investments would continue to tap the petrodollar market, while the Forum division would give the chain access to the new mass travel market.

One new item in IHC's strategic policy was probably a haphazard opportunity rather than a planned venture. The chain contracted with the People's Republic of China for construction and operation of several hotels in major Chinese cities.[22] The value of the package was placed at approximately $500 million.[23]

IHC's strategic policies remained unchanged during 1979. While certain leases and contracts were canceled due to political unrest and financial restrictions, the IHC continued a modest expansion abroad. Particular emphasis was placed on the Forum division. However, the chain was also investing more heavily in gateway cities in the United States and particularly in the renovation of existing IHC properties.[24]

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[20]Pan American World Airways, Inc., Annual Report 1978, pp. 24-25.

[21]Ibid.

[22]Ibid.

[23]Ibid.

[24]Ibid.

Financial Analysis. IHC evolved, especially in more recent years, as an exceptionally profitable hotel chain. Sales grew rapidly at a compounded annual growth rate of 16.5 percent between 1971 and 1979, while operating and net income grew at respective rates of 18.9 percent and 36.5 percent (see Tables VI-1 and VI-2). Both the rate of return on assets employed and percentage of sales retained as income were at the upper levels of the historical range for the chain.

Three points regarding IHC are particularly worth noting. First, IHC's expansion program of the early 1960s was extremely slow in producing profits. The first major discernible impact on IHC's profitability occurred in the late 1960s. However, IHC's switch in corporate objectives was undoubtedly encumbered with money-losing properties from its long-time function as a conduit for Pan Am traffic. Second, the growth from 1971-1979 was exceptional, particularly in the later years. It is interesting to note that a key management change was made in 1971 with the addition of Paul Sheeline as the Chief Executive Officer of the chain. Third, while the chain did experience some decline in profitability during the energy crisis, the geographical balance of the firm and its involvement in the Middle East prevented earning declines which characterized other firms.

Overall Nonairline Subsidiary Impact

Graphical representation of earning stream performance. Figure VI-1 provides an informative perspective on the earning streams of Pan Am, IHC, and the artificially created Pan Am-IHC holding company for the period from 1963 to 1979. The earnings of Pan Am are, of course, highly cyclical. The principal nonairline subsidiary is represented by the

TABLE VI-1

EARLY INTERCONTINENTAL HOTELS CORPORATION FINANCIAL STATISTICS

	1963	1964	1965	1966	1967	1968	1969	1970	Compounded Annual Growth Rate % 1963-1970
Sales[2] (Million Dollars)	10.8	22.3	24.2	30.8	39.5	43.6	57.0	62.9	28.6
Operating Income (Million Dollars)	0.1	0.9	2.1	2.0	2.2	2.7	5.1	6.4	81.1
Net Income (Million Dollars)	(0.4)	0.5	1.5	1.1	1.0	1.6	1.8	3.1	--
Total Assets (Million Dollars)	27.9	30.1	33.6	35.5	48.3	55.1	74.9	89.3	18.1
% Return on Assets (Operating Income)	0.1	3.0	6.3	5.6	4.6	4.9	6.8	7.2	--
% Return on Assets (Net Income)	(1.4)	1.7	4.5	2.8	2.1	2.9	2.4	3.5	--
Operating Income as Percent of Sales	0.4	4.0	8.7	6.5	5.6	6.2	8.9	10.2	--
Net Income as Percent of Sales	(3.7)	2.2	6.2	3.2	2.5	3.7	3.2	4.9	--

[1] The financial statistics, supplied by IHC, are indicative of the results for the years stated. While representative, they are not necessarily precise accounting numbers. The impacts of FASB No. 8 (Foreign Exchange Currency Gains and Losses) and FASB No. 13 (Leasing) for 1978 and 1979 are included.

[2] Represents consolidated gross sales from owned and leased facilities.

TABLE VI-2

LATER INTERCONTINENTAL HOTELS CORPORATION FINANCIAL STATISTICS[1]

										Compounded Annual Growth Rate %	
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1971-79	1963-1979
Sales[2] (Million Dollar)	73.5	86.1	100.6	111.5	125.6	152.9	179.3	214.0	248.6	16.5	11.6
Operating Income (Million Dollar)	8.5	9.8	12.1	11.6	10.5	12.7	29.0	30.6	34.0	18.9	44.0
Net Income (Million Dollar)	1.5	2.2	1.0	2.6	2.6	6.1	11.4	19.5	18.4	36.5	--
Total Assets (Million Dollar)	122.9	133.2	145.0	155.4	151.5	155.6	179.7	225.7	272.8	10.5	15.3
% Return on Assets (Operating Income)	6.9	7.4	8.3	7.5	7.0	8.2	16.1	13.6	12.5	--	--
% Return on Assets (Net Income)	1.2	1.7	0.7	1.7	1.7	3.9	6.3	8.6	6.7	--	--
Operating Income as Percent of Sales	11.6	11.4	12.0	10.4	8.4	8.3	16.2	14.3	13.7	--	--
Net Income as Percent of Sales	2.0	2.6	1.0	2.3	2.1	4.0	6.4	9.1	7.4	--	--

[1]The financial statistics, supplied by IHC, are indicative of the results for the years stated. While representative, they are not necessarily precise accounting numbers. The impacts of FASB No. 8 (Foreign Exchange Currency Gains and Losses) and FASB No. 13 (Leasing) for 1978 and 1979 are included.

[2]Represents consolidated gross sales from owned and leased facilities.

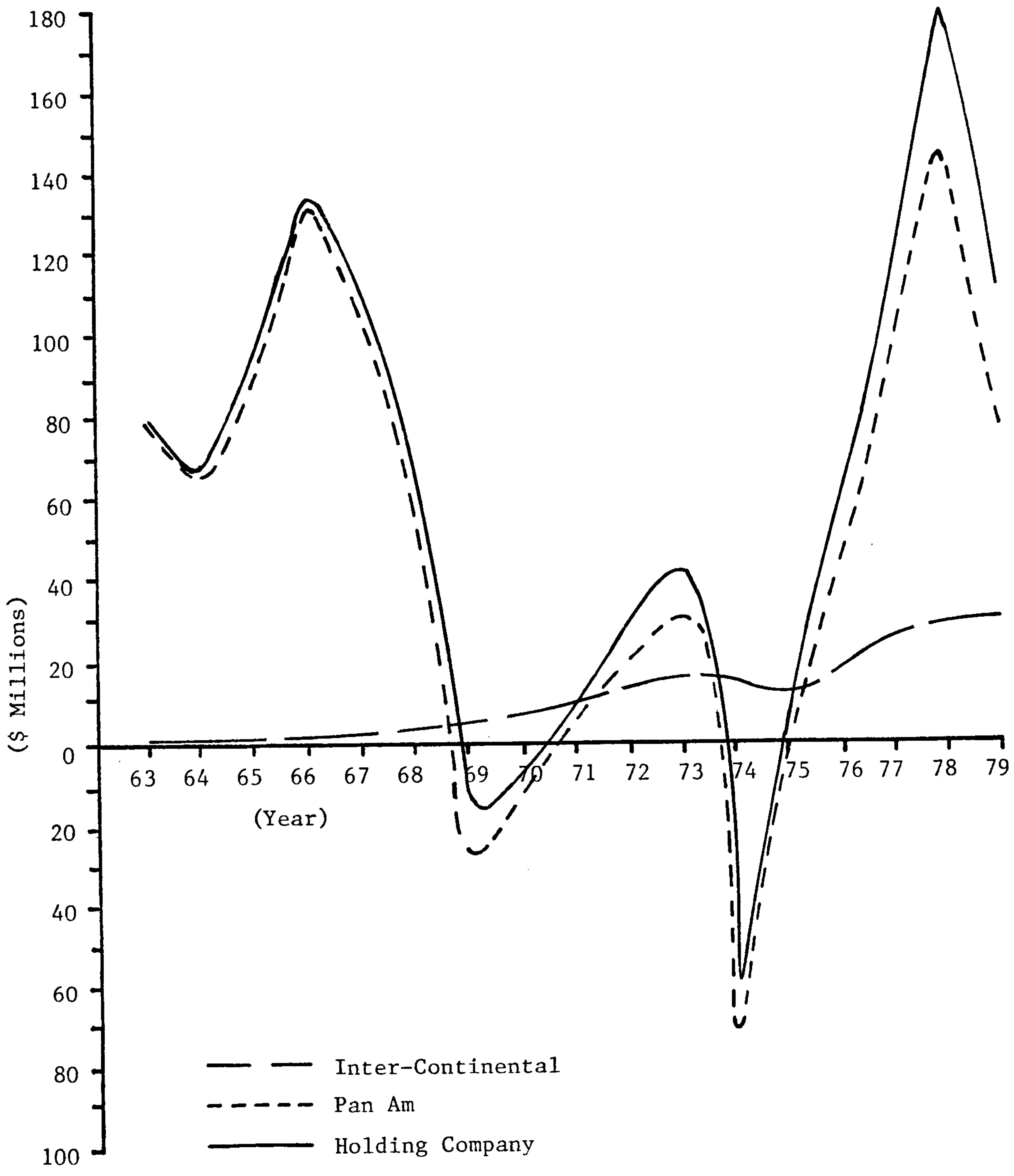

FIGURE VI-1

PAN AM OPERATING INCOME FROM OPERATIONS

rather consistent earning stream pattern. As shown in Figure VI-2, the ability of IHC to smooth the holding company's earning stream has increased dramatically in recent years. IHC is accounting for an increasingly larger percentage of Pan Am's operating income. Further, the earning stream of IHC was not severely affected by economic recession.

The cash flow of the three entities is depicted in Figure VI-2. The cash flow of the airline is, as expected, very high but cyclical. As a consequence, the cash flow of the holding company is also extremely high. The contribution of IHC in this diagram is not fully realized because it depicts only a relatively short period (1974-1979).

Earning stream analysis. As indicated in Chapter IV, a regression model was developed for testing whether the nonairline subsidiaries had created a less variable income stream for the holding company. Two versions of measures were used in the model: historical operating income from operations and cash flows.

The results of the first model (01) for the operating income measure were coefficients of -3.21 for year and 3.29 for the nonairline subsidiary. The T tests for these coefficients were significant at the .006 and .005 levels, respectively. However, the positive direction of the coefficient for the nonairline subsidiary indicated that the subsidiary did not increase the predictability of the model; consequently, no reduction in variability in earning streams resulted. If anything, the positive coefficient value for nonairline subsidiary indicated that it increased the variability of overall corporate earnings.

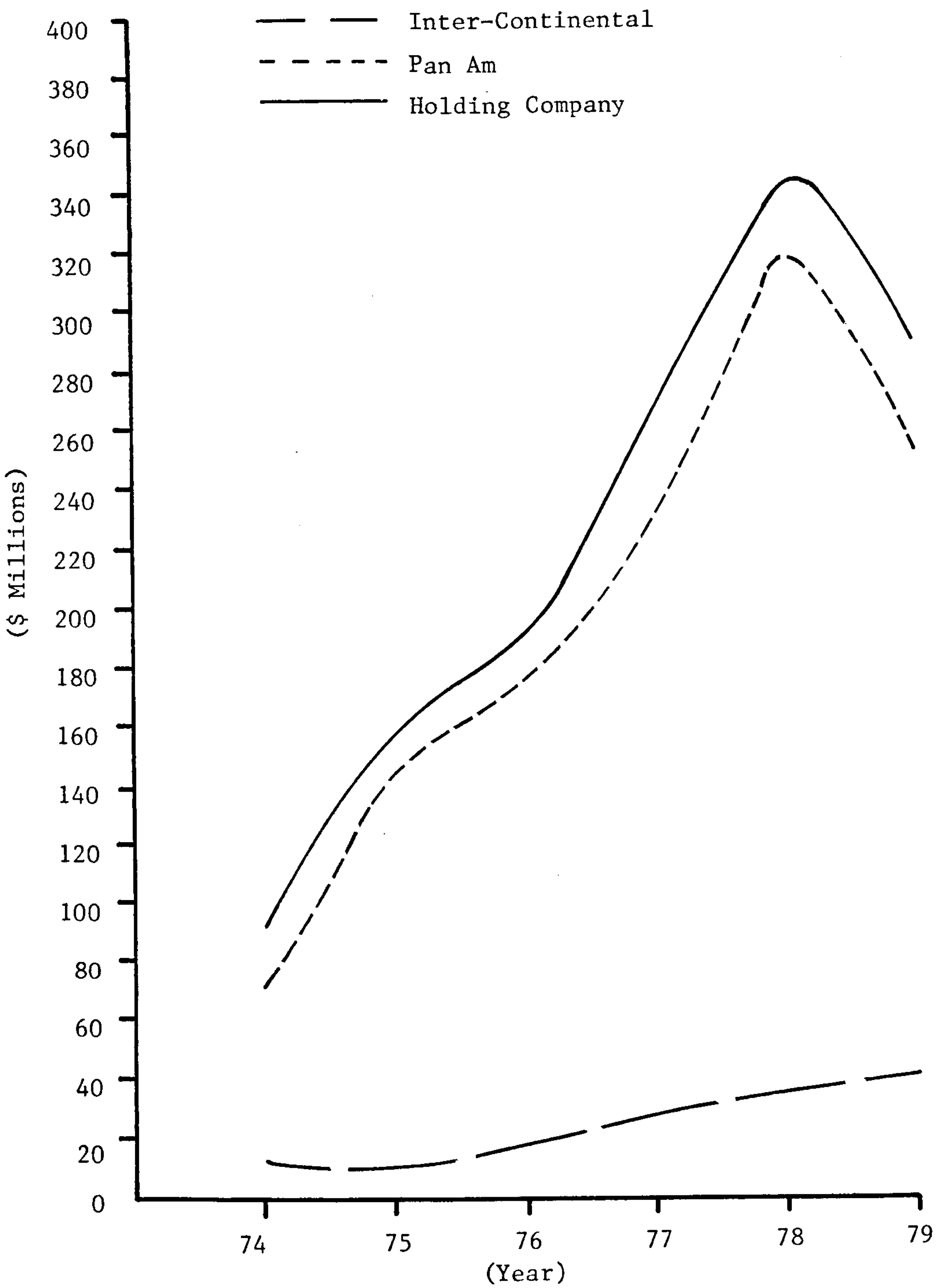

FIGURE VI-2

PAN AM CASH FLOW ANALYSIS

The results of the regression model 01 for cash flows also were discouraging. The coefficients values for cash flows were 1.01 for year and .11 for the nonairline subsidiary. The T tests indicated that the results were nonsignificant at the .38 and .91 levels, respectively.

The results of the regression model (02) which reflected the divergence between stream characteristics in the pre- and post-energy crisis periods also were discouraging. While all variables (pre-energy crisis years, post-energy crisis years, and the product of the years) were significant for both the airline and total income before taxes models, the mean square error for both models was unfavorable. When the airline subsidiary was used as the dependent variable, the mean square error of 12595.0233 was actually lower than the mean square error (13657.5557) produced by the model designed to predict the total corporate income before taxes. As a consequence, it can be concluded that the nonairline subsidiaries actually increase (although not significantly) the income before taxes of the overall corporation.

A similar result was obtained when the results of the airline and total corporate models were used to analyze the limited cash flow data base. However, in the case of cash flows, the models produced significant results for some of the variables. However, the variance of each model was used as a basis of comparison. The variance of the model used to predict airline cash flows was less (17410.832) than that predictng overall corporate cash flow (20887.633).

The null hypothesis for the hypothetical Pan Am-IHC holding company was accepted. The variability of the holding company is reduced by the nonairline subsidiary.

Earnings contribution analysis. The earnings contribution of Pan Am's chief nonairline investment, IHC, also can be analyzed from a nonstatistical perspective. Table VI-3 provides an interesting analysis of the earnings contribution of IHC to the overall total of Pan Am's and IHC's earnings over a long historical period. At the conclusion of 1963, the earnings contribution of IHC was negligible. However, by the late 1970s, the hotel chain was making a rather large contribution to the overall earnings pattern.

Two important factors are worth noting regarding this analysis. First, the contribution of IHC varies greatly depending on the highly cyclical earnings pattern of the airline. For example, IHC literally supplied the entire profit of the two corporations in 1975. Second, even in years of relatively profitable airline earnings, IHC still makes a rather large contribution. Third, the operating income of IHC is growing at a much faster rate than that of Pan Am itself. As a consequence, the percentage contribution of IHC should continue to grow rapidly in the future unless overshadowed by the recent Pan Am-National merger.

Summary. From an overall perspective, IHC has demonstrated an ability to develop logical and coherent corporate objectives. More importantly, it has developed the ability to implement plans in support of these objectives. These objectives have had a most favorable impact upon the chain's financial performance.

IHC effectively switched from an international oriented hotel chain to exploiting domestic opportunities. The chain also proved extremely successful at maintaining a geographical distribution of properties

TABLE VI-3

PAN AMERCAN WORLD AIRWAYS, INC. EARNINGS CONTRIBUTION ANALYSIS OPERATING INCOME

	1963	Percent of Total	1967	Percent of Total	1971	Percent of Total	1975	Percent of Total	1979	Percent of Total
Intercontinental Hotels[1]	< 0.1	0.0	2.2	2.0	8.5	81.7	10.5	100	34.0	30.2
Pan American[2]	79.0	100	106.4	98.0	1.9	18.3	(1.9)	0.0	78.4	69.8
Total	79.0	100	108.6	100	10.4	100	8.6	100	112.4	100

[1] Intercontinental Hotels Corporation is an unconsolidated subsidiary of Pan Am. Therefore, Intercontinental numbers are added to Pan Am's results to create an artificial holding company. Data was supplied by the management of Intercontinental Hotels Corporation.

[2] Reflects airline results as well as consolidated subsidiaries.

which would balance earnings during economic downturns. This policy was particularly evidenced by IHC's early and effective involvement in the Middle East.

IHC was also extremely effective in tapping new and diversified markets at an early date. Such activities included the establishment of an economy hotel division (Forum), the entry in the U.S. domestic market, and the expansion into institutional feeding services.

It is difficult to find many deficiencies in either IHC's strategy or financial performance.

The graphical analysis for Pan Am demonstrated the apparent smooth and consistent earnings for IHC in relation to Pan Am and the artificially created holding company. The regression model indicated that IHC did not smooth the variability of the holding company's income stream. As a consequence, the null hypothesis was accepted. The analysis indicated that IHC did not decrease the variability of the income streams and cash flows. If anything, the nonairline subsidiary increased the variability of all three measures.

From an earnings contribution perspective, IHC has played an increasing role in the overall Pan Am-IHC earnings picture. This was especially true in years when Pan Am suffered financial reverses.

Trans World Corporation

Hilton International Hotels

Strategy. Hilton International was acquired by TWA, the predecessor of TWC, in 1967 as a first step in a wide-ranging diversification program.[25] At the time of the acquisition, TWA was able to retain the services of an Austrian-born, Cornell-educated senior vice president of the firm, Curt Strand.[26] Strand has presided over Hilton International since that date.

If the measure of a successful acquisition is continued market interest in a firm, TWA was indeed fortunate in the acquisition choice. Perhaps, the most interesting offer for purchase has come from the original owner, Conrad Hilton. Hilton tried on several occasions to repurchase the firm. On such occasions, TWA firmly but politely refused the offers.[27]

Hilton International strategy is particularly interesting because it differs in at least some respects from IHC and Pan Am. Yet, the firm has also demonstrated a capability to prove successful in its industry. The key factors in the strategy include rapid expansion, selected contraction, geographic and market diversification, mode of operation, and lastly, product diversification. The limited material available regarding the company, unfortunately, precludes firm conclusions regarding the importance of each factor.

The rapid expansion policy of Hilton International is demonstrated by the growth in the number of hotels operated, the rooms operated, and the increase in profitability. In the 13 years since its acquisition, the chain has expanded from 42 hotels in foreign countries to 66

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[25] Joedicke, p. 12.

[26] Trans World Airlines, Inc., <u>1976 Annual Report</u>, p. 21.

[27] Joedicke, p. 18.

hotels in 40 countries. In 1966, the chain had pre-tax earnings of $6.5 million. By 1979, pre-tax profits were $55.5 million.[28]

Like IHC and WIH, Hilton International also pursued a policy of selective contraction. For example, in 1973 Hilton International did not renew the lease for a property in Madrid and terminated operating agreements for two properties in Mexico.[29] In 1975, the chain suspended operation of the Martinique Hilton because the owners were encountering financial difficulties.[30]

In the 1970s, Hilton International developed and pursued a corporate objective which involved both geographical and market diversification. Hotels were developed at many different locations around the world to take advantage of regional lags in the world economy.[31] It also decided to operate a mixture of business and resort-type properties.[32] While geographical diversification is not unusual in an international hotel chain, a mixture of properties usually is deemed undesirable because it precludes standardization of operating policies and complicates the management task. However, Hilton International has enjoyed considerable success with both policies.

The chain also has pursued other market mixes besides the business/resort combination. In a similar vein to IHC's Forum division, Hilton

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[28]Trans World Corporation, <u>1979 Annual Report</u>.

[29]Trans World Airlines, Inc., <u>1973 Annual Report</u>, p. 13.

[30]Trans World Airlines, Inc., <u>1975 Annual Report</u>, p. 21.

[31]Trans World Airlines, Inc., <u>1978 Annual Report</u>, p. 16.

[32]Trans World Airlines, Inc., <u>1971 Annual Report</u>, p. 8.

International established a joint venture with several Brazilian companies with the objective of providing economy style accommodations in Brazil. The firm's trade name is Brasilton.[33]

Hilton International also pursued an interesting investment philosophy. Historically, the firm viewed itself as an operating company rather than a hotel investment firm. The main vehicle for this philosophy was hotel leases or management contracts. The chain, as a matter of policy, refused to enter any franchise agreements because it would be difficult to ensure the quality of services. The decision generally to forego equity participation basically was designed to defend against expropriation of the chain's assets in foreign lands or lack of control in minority participations.[34]

However, this policy took an abrupt turn in 1974. Hilton International entered into an agreement with Canadian National Railways, Air Canada, and Trizec Corporation to acquire ownership or long-term leasehold interests in several European hotels and five hotels in Canada. In addition to equity participation, Hilton International received management contracts from the joint venture to operate the acquired properties. The acquired properties, with approximately $100 million in assets, were to be used as a financing base for further expansion on an equity or leasehold basis both in and outside of Canada. Hilton International was to receive the management contracts from such future acquisitions.[35]

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[33] William H. Carey, "TWA's Hotel Unit Seeks to Accelerate Its Building in Brazil," Wall Street Journal.

[34] Trans World Airlines, Inc., 1973 Annual Report, p. 11.

[35] Trans World Airlines, Inc., 1974 Annual Report, p. 16.

It is most interest to examine the motivation for departing from the traditional philosophy. First, the chain never completely ruled out equity participation but indicated that it was acceptable only as an exception. Second, equity participation with several joint venture partners substantially reduced the risk of ownership for the chain. Third, the new joint venture was investing in hotels located in countries where the risk of expropriation was relatively low, e.g., Canada and Western Europe.

Hilton International also pursued a policy of product diversification. While the chain had operated approximately 20 bars and restaurants in the Place Ville Marie Complex in Montreal,[36] it reached agreement with the Port Authority of New York and New Jersey to operate all public food and beverage facilities in New York World Trade Center. These facilities ultimately included the famed restaurant located on the top of the World Trade Center, Windows of the World.[37] In 1978, the chain began operation of all restaurants in connection with a trade and exhibition center located at the Hilton hotel complex in Dubai, United Arab Emirates.[38]

Product diversification at Hilton International also has included the operation of convention facilities at several different locations, e.g., Toronto, Geneva, and San Juan. Hilton International's management has indicated a strong interest in applying their expertise to this area on a continuing basis.[39]

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[36]Trans World Airlines, Inc., 1973 Annual Report, p. 10.

[37]Ibid.

[38]Trans World Airlines, Inc., 1978 Annual Report, p. 20.

[39]Ibid.

Financial Performance. The financial performance of Hilton International has proved outstanding, especially in both the pre- and post-energy crisis periods. As indicated in Tables VI-4 and VI-5, the operating income of the chain has grown at a rapid rate, with a compounded annual growth rate of 12.9 percent. The rate of return on assets employed in the business has sharply accelerated in recent years. However, it is somewhat disappointing to note that operating income as a percentage of sales has not increased significantly beyond its pre-energy crisis levels.

Hilton International displayed substantial susceptibility to the energy crisis. All key financial measures declined during this period. While most businesses were hurt severely by the energy crisis, many hotels survived this period and posted profit increases. However, the decline must also be interpreted in light of factors inherent to Hilton International. First, unlike other chains, Hilton has a mixture of business and resort properties. Second, the chain has been extremely dependent on the earnings of several key properties for the major source of earnings. For example, five hotel properties in London, Teheran, Paris, Hong Kong, and Tokyo produced 43.2 percent of Hilton International's pre-tax profits in 1976.[40] Third, Hilton International was greatly affected during this period by the start-up costs of new hotels in Australia.[41] Fourth, while Hilton International was diversified geographically, it was not prepositioned like IHC to take advantage of the huge flow of petrodollars to the Middle East.

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[40] Joedicke, p. 16.

[41] Ibid.

TABLE VI-4

EARLY HILTON INTERNATIONAL SELECTED FINANCIAL STATISTICS

	1967	1968	1969	1970	1971	1972	Compounded Annual Growth Rate (%) 1967-1972
Sales (Million Dollars)	131.8	150.2	161.8	178.7	185.9	214.9	10.3
Operating Income (Million Dollars)	8.6	12.2	15.0	15.9	16.1	17.8	15.7
Total Assets (Million Dollars)	75.4	80.8	86.7	89.8	115.8	148.3	14.5
% Return on Assets (Operating Income)	11.4	15.5	17.3	17.7	13.9	12.0	--
Operating Income as Percent of Sales	6.5	8.1	9.3	8.9	8.7	8.3	--

TABLE VI-5

LATER HILTON INTERNATIONAL SELECTED FINANCIAL STATISTICS

								Compounded Annual Growth Rate (%)	
	1973	1974	1975	1976	1977	1978	1979	1971-79	1963-1979
Sales (Million Dollars)	248.1	261.9	307.8	348.3	402.9	503.5	556.3	14.4	12.7
Operating Income (Million Dollars)	26.8	18.8	12.5	21.5	36.6	44.4	55.5	12.9	16.8
Total Assets (Million Dollars)	160.5	174.1	183.8	195.5	221.8	326.3	329.4	12.7	13.1
% Return on Assets (Operating Income)	16.7	10.8	6.8	11.0	16.5	13.6	16.8	--	--
Operating Income as Percent of Sales	10.8	7.2	4.1	6.2	9.1	8.8	9.8	--	--

Canteen Corporation

Strategy. Canteen Corporation was purchased from ITT in August 1973.[42] At the time of acquisition, Canteen was engaged in the operation of dining rooms, cafeterias, and other manual food operations for businesses, institutions, and the public. Canteen was also involved in the operation of vending machines as well as in leasing such equipment to other operators. Such leased equipment and other Canteen services were extremely important in the operation of a network of independent franchised distributors who provided food services. The firm also operated restaurants in the Chicago area and food facilities at concession sites. Canteen also owned a subsidiary firm, Commercial Discount Corporation, which specialized in the provision of credit. The subsidiary made working capital loans and installment loans for office equipment and machinery.[43]

Canteen Corporation has pursued an interesting strategy since its purchase in 1973. Several implicit corporate objectives can be seen from management's analysis of operations and their actions during the 1973-1979 period. However, the most important themes are a commitment to the food service industry and a constant search for the most profitable market niches in a highly competitive industry. Other themes include the constant struggle to cope with ensuring the quality of the product, constant and wide variation in raw food prices, and the ever present labor productivity problem.

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[42] Joedicke, p. 13.

[43] Trans World Airlines, Inc., 1974 Annual Report.

Canteen's commitment to the food service industry is easily demonstrated. The only nonfood service operation, the Commercial Discount Corporation, was sold approximately two years after the acquisition.[44] Canteen has made only a token effort to expand outside the food service industry, e.g., the purchase of Dunhill Personnel Systems.

The energy crisis and the inflationary economy drastically affected the strategic positioning of Canteen's operations from several perspectives. First, the secondary impact of the energy crisis was to close or curtail operations at many of the industrial plants where Canteen's operations were centered.[45] Second, the increases in the cost of petroleum affected the price of many Canteen supply inputs ranging from delivery services to plastic dinnerware.[46] Petroleum price increases also generated accelerating raw food prices which seriously affected Canteen's ability to maintain profit margins for contracted food services.[47] The inflationary tendencies of the economy resulted in significant wage demands from Canteen's semiskilled labor in an industry where productivity improvements were difficult to achieve.[48]

The response of Canteen's management to these threats from the macro-environment was expansion. The firm sought new market niches in

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[44]Trans World Airlines, Inc., 1975 Annual Report, p. 19.

[45]Trans World Airlines, Inc., 1974 Annual Report, p. 12.

[46]Ibid.

[47]Ibid.

[48]Trans World Airlines, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1974 (Washington, D.C.: Securities and Exchange Commission, 1975), p. 12.

the food service industry. The first step in the market niche strategy was the acquisition on July 1, 1974, of the Milnot Company.[49] The firm basically specializes in a canned low cholestrol filled milk product distributed in the Midwest and South and in a line of chili products.[50]

Canteen also emphasized three other promising expansion areas. Management sought to explore opportunities in the growing concessions market, although Canteen already operated some concessions at national parks, sports stadiums, and the National Aeronautics and Space Administration Center at Cape Kennedy.[51] Two notable examples of this approach were Canteen's contract to operate the historic City Tavern in Philadelphia during bicentennial celebrations and the contract to run concessions in the refurbished Yankee Stadium.

The firm also expanded its international operations through the use of franchise agreements and joint venture arrangements. As a last avenue of expansion, Canteen also vertically integrated some of its operations by preparing its own food for distribution on a selective basis. This step allowed the chain to avoid some dependence on large wholesale food processors while gaining greater control over the quality of its product. The restaurant division business was also expanded. For example, Canteen initiated operations at the Kennedy Center in Washington and the Opera House in New York.[52]

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[49] Ibid.

[50] Trans World Airlines, Inc., <u>1975 Annual Report</u>, p. 18.

[51] Ibid.

[52] Trans World Airlines, Inc., <u>1978 Annual Report</u>, p. 10.

Canteen has also sought to expand its relations with franchised distributors who rent Canteen vending equipment.[53] This approach allows Canteen to extend drastically its market breadth and depth. Such operations have proven successful because they also transfer the risk of asset ownership (vending machines) to the distributor.

Canteen's familiarity with this concept led to the purchase of Dunhill Personnel Systems, a middle management placement firm which utilizes franchise operations.[54] However, the exact motivation for this purchase is difficult to understand since it is the only acquisition of the firm outside the food industry. Canteen recently has indicated a desire to establish a chain of "concept" restaurants catering to a youthful clientele. However, capital problems within TWC may make such a strategic expansion difficult.[55]

Financial performance. The performance of Canteen Corporation since its acquisition in 1973 has proven somewhat disappointing. As noted in Table VI-6, the rate of return on assets improved marginally between 1974 and 1979 both on a reported and restated basis, but operating income as a percentage of sales has remained relatively constant for the period. Revenues have increased significantly, although a major portion of this increase is due to the inflationary increase in the price of food. While Canteen's profits posted approximately a 20 percent increase between 1978 and 1979, operating income between 1974 (the

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[53] Trans World Airlines, Inc., 1977 Annual Report, p. 13.

[54] Ibid.

[55] "Trans World Corporation: The Strategy Squeeze on the Airline," Business Week, May 19, 1980, pp. 104-115.

TABLE VI-6

CANTEEN CORPORATION SELECTED FINANCIAL STATISTICS

	1973	1974	1975	1976	1977	1978	1979	Compounded Annual Growth Rate % 1974-79
Sales (Million Dollars)	181.1	472.6	490.7	539.3	616.4	651.3	716.4	8.7
Operating Income (Million Dollars)	9.5	16.9	17.3	20.3	23.1	21.7	26.9	9.7
Total Assets (Million Dollars)	139.7	176.0	176.5	189.7	21.0	251.1	251.1	7.4
% Return on Assets (Operating Income)	6.8	9.6	9.8	10.7	11.0	8.6	10.7	--
Operating Income as Percent of Sales	5.2	3.6	3.5	3.8	3.7	--	--	--

first full year after acquisition) and 1979 grew at a compounded annual rate of 9.7 percent.

While both return on assets and operating income have grown at a reasonable rate, they represent pre-tax financial results. Even under an assumption of a significant tax loss carry forwards and investment tax credits from the airline, these results are certainly not exceptional. Evaluated on their own merits, they are somewhat disappointing.

Overall Nonairline Subsidiary Impact

Graphical representation of earning stream analysis. Figures VI-3 and VI-4 depict TWC historical income before taxes as well as restated income before taxes. The earning pattern for TWC's airline subsidiary is extremely cyclical. Although cyclicality normally characterizes airline earnings, TWC's operation has displayed heavy losses as well as high cyclicality. To a certain extent this high cyclicality is offset by a fairly large amount of nonairline subsidiary earnings. The amount of these earnings are growing rather quickly and seem to be exerting a considerable impact on the holding company's performance.

The differences between the historical and the restated members are really not particularly large from a graphical perspective. The major difference in the depiction is the time scale, with the historical numbers covering the period from 1967 to 1979 and the restated members covering the period from 1970 to 1979.

Figure VI-5 presents the cash flows for the stated nonairline subsidiaries, the airline, and the holding company. As is indicated in the figure, nonairline subsidiaries are beginning to make a rather important contribution to the cash flow of the holding company.

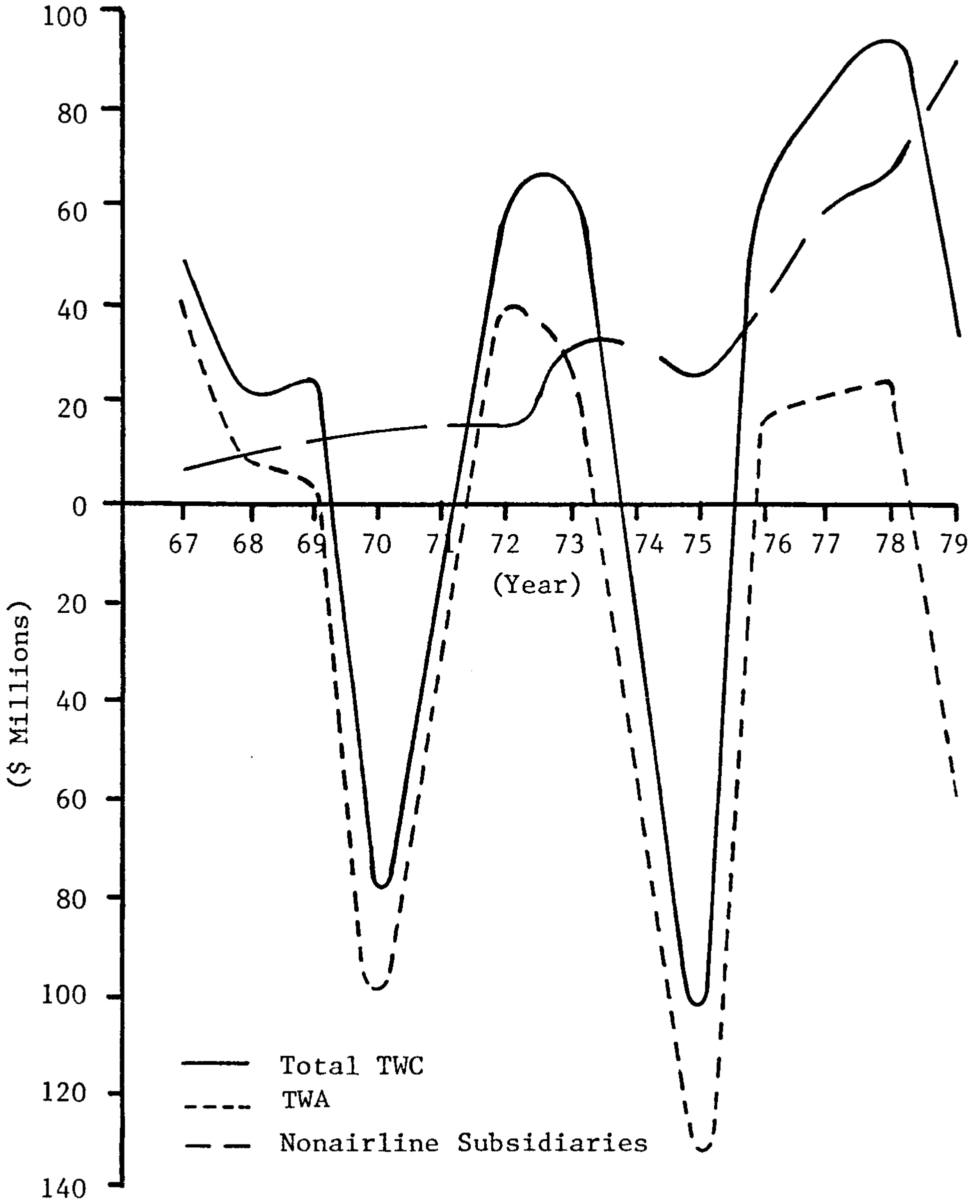

FIGURE VI-3

TWC INCOME (LOSS) BEFORE TAXES

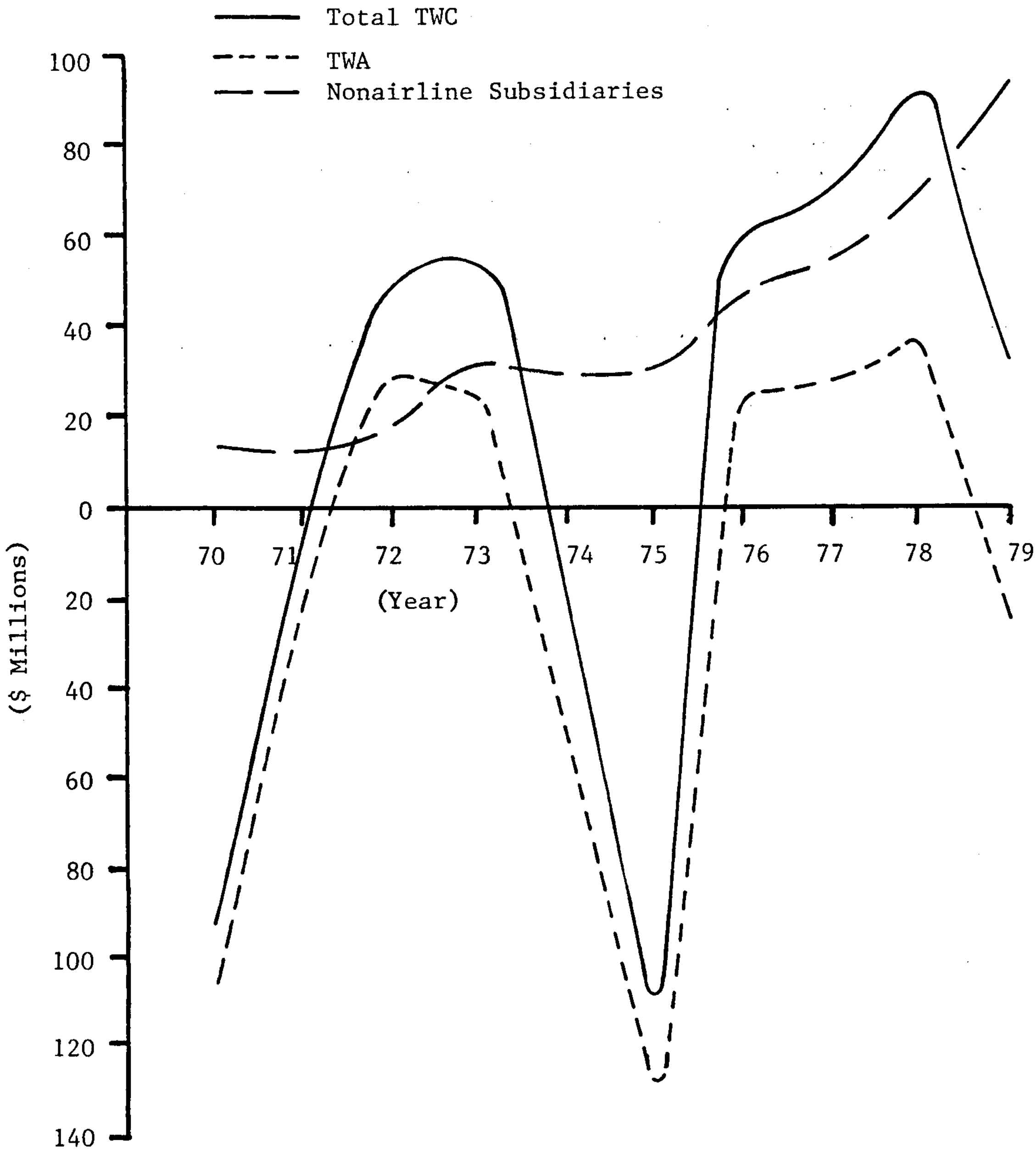

FIGURE VI-4

TWC RESTATED INCOME (LOSS) BEFORE TAXES

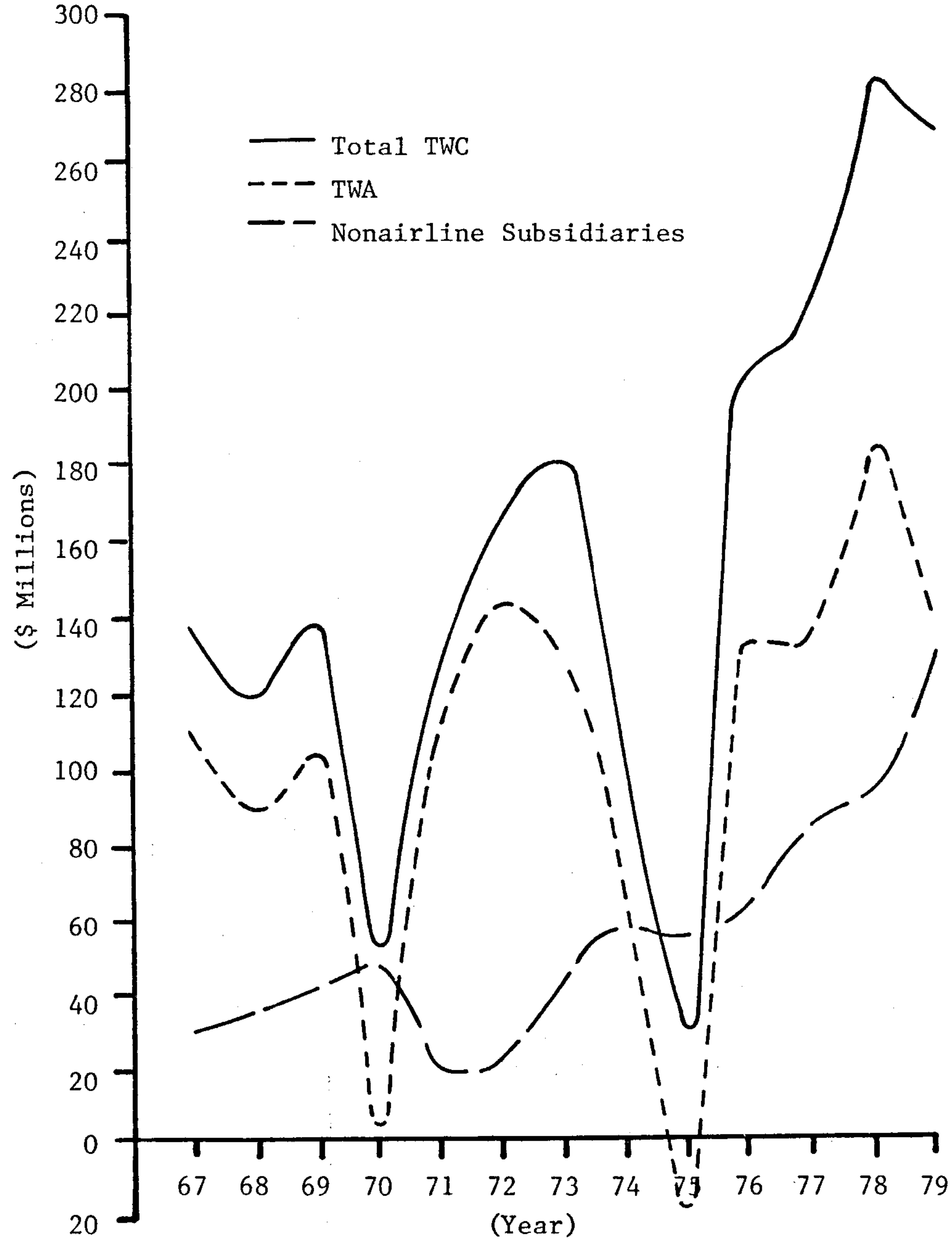

FIGURE VI-5

TWC CASH FLOW ANALYSIS

<u>Earning stream analysis</u>. The earning stream analysis for TWC utilized the first regression model (01) which historical income before income taxes, restated income before income taxes, and cash flows in three versions of the model. The results of the analysis were generally disappointing.

The first regression analysis (model 01) for historical income before income taxes produced coefficients of -.73 for year and .56 for nonairline subsidiaries. The coefficients were nonsignificant at the .47 and .59 level for year and nonairline subsidiaries, respectively. The restated income before taxes analysis produced coefficients of .38 for year and -.23 for nonairline subsidiaries. Coefficients were nonsignificant at the .71 and .85 levels, respectively. The model utilizing cash flows produced coefficients of .31 and .25 for year and nonairline subsidiaries, respectively. The coefficients were nonsignificant at the .76 and .81 levels.

The second regression model (02) which tried to incorporate the diversions between the pre- and post-energy crisis earning stream patterns of TWC also proved disappointing. The models utilizing airline results and total corporate results were compared using three different data bases--income before taxes, restated income before taxes, and cash flows. Variables in both the income before taxes model and the cash flow model were significant; therefore, the mean square error was used for camparison. The variance was used to evaluate the restated earnings model.

The mean square error of the airline model was greater than in the corporate model for income before taxes and cash flow. The variance for the airline model was greatest in the case of restated earnings.

It can be concluded that the diversification efforts of TWC, at least over the period of the analysis, probably had increased (although not significantly) the overall fluctuations in TWC income before taxes and cash flow. As a consequence, the null hypothesis was accepted for TWC. The nonairline subsidiaries had no significant effect in creating less variable earning streams for the holding company.

Earnings contribution analysis. The nonairline subsidiaries of TWC have played an important role in the overall earnings picture of the firm for an extensive period of time. As indicated in Table VI-7, Hilton International Hotels made a rather large contribution (17.2 percent) to TWC, then TWA, in 1965 during its first year of operation under TWA control. Since then the contributions of Hilton International as well as other nonairline subsidiaries have generated substantial earnings for TWC. Since at least 1977, these earnings have comprised a majority portion of TWC earnings. This pattern was further reinforced by the acquisition of Spartan Food Systems and Century 21 Real Estate (which made only partial year contributions in 1979).

Since the prospects for TWA resurgence in the airline business is not especially promising, these nonairline investments will continue to make very large contributions to TWC. Perhaps, the only inhibiting factor on the horizon is the combined need for capital to modernize the fleet as well as to expand the operations of the nonairline subsidiaries.

Summary. Hilton International has compiled an outstanding record of expansion and profitability. While such performance is enviable, there are weaknesses in the chain's strategy which have prevented it

TABLE VI-7

TRANS WORLD CORPORATION EARNINGS CONTRIBUTION ANALYSIS
INCOME BEFORE INCOME TAXES

	1967	Percent of Total	1974[1]	Percent of Total[2]	1977	Percent Total	1979[3]
Hilton	8.6	17.2	18.8	52.7	36.6	39.7	55.5
Canteen	--	--	16.9	47.3	23.1	25.1	26.0
Spartan	--	--	--	--	--	--	9.9
Century 21	--	--	--	--	--	--	1.9
Subtotal	8.6	17.2	35.7	100	59.7	64.8	93.3
TWA	41.4	82.8	(45.9)	--	32.4	35.2	(27.2)
Other	--	--	(12.6)	--	(9.2)	--	(31.9)
Total	50.0	100	(22.8)	--	82.9	100	34.2

[1]First full year of Canteen operation under TWC ownership.

[2]1978 and 1979 financial results include impact of FASB No. 13 regarding lease arrangements. Therefore, results are not directly comparable with previous years.

[3]Nonairline earnings exceed total overall earnings of TWC. Therefore, calculations for percentage of total TWC profits are meaningless.

from reaching its full potential. There also are questions regarding future performance. First, the chain was severely hurt during the Arab oil embargo and the accompanying recession. Mixture of properties, lack of geographical dispersion in the Middle East, and overdependence on certain key properties accented these difficulties. While the chain has solved some of these problems, it is difficult to say that it will not encounter similar difficulties again. Second, the chain generally refrained from equity participation until its joint venture in Canada. This operation generally has proven unsuccessful, with large losses occurring at several Canadian properties.[56] In the meantime, other airline-related hotel chains have exploited exceptional increases in property values through equity participation. Lastly, Hilton International has failed to explore quickly opportunities for hotel investment and/or operations in the United States. While some hesitancy is explainable through the holding company's present lack of capital, this factor does not explain the chain's failure to consider this strategic alternative at an earlier date.

While the financial results of Canteen are somewhat disappointing, management's ability to develop a coherent and effective strategy is, perhaps, more deficient. Several examples are worthy of discussion. First, Canteen's profitability was crippled by the Arab oil embargo in 1973-1974.[57] The firm was heavily dependent on industrial plant food

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[56] Trans World Airlines, Inc., Form 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1978 (Washington, D.C.: Securities and Exchange Commission, 1979), pp. 40-41.

[57] Trans World Airlines, Inc., 1974 Annual Report, p. 12.

operations. Unfortunately, management learned little from this valuable lesson. As the economy plunged in early 1980, Canteen was still highly dependent on automobile and other industrial plants which account for 85 percent of its vending machine business and 70 percent of its cafeterias.[58] While there was expansion into new "market niches" with strategically important additions, management essentially failed to diversify the business base significantly between 1974 and 1979.

Dunhill Personnel Systems is a somewhat confusing business acquisition. The contention that Dunhill was an extension of Canteen's expertise in franchising is analogous to saying that a company in sports equipment is capable of franchising travel bureaus. More importantly, it represented a departure from Canteen's commitment to the food service industry before problems in this basic industry were solved.

The graphic analysis provided an excellent depiction of the extreme cyclicality of TWC income streams and cash flows. The nonairline subsidiaries, as explained in the earning stream analysis section, did not significantly reduce the variability of the earning streams.

The earnings contribution of the nonairline subsidiaries in the TWC case is huge. The contribution is greatly magnified by the inability of the airline to generate profits consistently.

UAL, Inc.

The two primary subsidiaries of UAL, Inc. are WIH and GAB Business Services.

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[58]"Trans World Corporation: The Strategy Squeeze."

Western International Hotels

Strategy. WIH was acquired by UAL, Inc. in July 1970 on a pooling-of-interest basis.[59] The head of WIH, Edward Carlson, assumed the presidency of UAL, Inc. when George Keck was ousted by a dissident group of UAL, Inc. stockholders from the Seattle area.[60]

Unlike IHC, WIH, although operating a large number of international properties, also operated some domestic properties. As a consequence, WIH continued the policies from the pre-merger period of opening both domestic and international properties. WIH had already developed a policy of divesting itself of unprofitable properties, especially as the economy entered periods of recession.[61]

The chain seemed particularly vulnerable to economic downturns during the 1970s. The most notable exposures were in Seattle, where the aerospace industry had dramatically declined, and in Hawaii.[62]

While WIH continued its international expansion in 1971, it acquired minority interests in a subsidiary which developed, owned, and operated the Canadian properties of WIH. It also bought ownership in a hotel company which operated a major Alaskan property. Emphasis was also placed on expanding, acquiring, and operating other properties in the United States and resort complexes in Mexico.[63]

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[59] Joedicke, p. 16.

[60] "A New Boss at United: Into the Black?" Newsweek, January 4, 1971, pp. 50-51.

[61] UAL, Inc., Annual Report 1970, p. 17.

[62] Ibid.

[63] UAL, Inc., Annual Report 1971.

WIH began a major expansion program in 1973. Expansion plans called for construction of 9,000 new guest rooms by 1976 or 1977. Although giving lip service to international expansion, the primary thrust of the chain was domestic expansion. Statements to the contrary either were designed to mislead potential competitors or reflected management's inability to clarify its strategic thinking. Another theme which was only briefly mentioned in 1972 came to the forefront in 1973. The chain was increasingly concentrating on maintaining a quality image in the provision of first class accommodations. Essentially, WIH was seeking to place itself in the same market niche as IHC has abroad. This was, of course, first class accommodations, given the realities of a much more expensive labor market in the United States. As a final note regarding this period, WIH's strategy, unlike that of IHC, was not strictly confined to management contracts.[64] Rather, it sought to combine a management contract approach with capital investment or equity interest as a strategy.[65]

During 1975, WIH continued its North American strategy. The chain succeeded in penetrating the New York City market with the purchase of the Plaza. The primary thrust of development programs remained on North America with particular attention to resort properties in Mexico, business hotels in Eastern Canada, and the domestic market.[66]

Several observations are worthy of note regarding WIH's accomplishments and strategy in 1978. First, WIH started to reemphasize quality

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[64]Ibid., p. 13

[65]Ibid.

[66]UAL, Inc., Annual Report 1975.

hotel properties with the purchase of the Mauna Lea Beach Hotel in Hawaii and the opening of another property on Maui.[67] Second, many of the development projects from the early 1970s started to display profitable performances.[68] Third, some hotel properties which WIH had expected to take longer to make a solid contribution to the chain had matured quickly.[69] Fourth, WIH had taken an initial step towards diversifying its product line by managing the Space Needle Restaurant in Seattle.[70]

From a strategic viewpoint, WIH's emphasis remained on quality hotel accommodations. Its commitment to a combination of investment and management contracts was reaffirmed by rising property values and favorable sale conditions which WIH enjoyed when disposing of hotel properties.[71] According to WIH's management, these favorable conditions argued strongly for the continuation of this policy. In addition, WIH was opting for a blend of resort properties and hotels in major commercial cities in the future.[72] The chain also was paying greater attention to the importance of amenities in general. Greater emphasis was being placed on theme restaurants, lounges, discotheques, and athletic facilities.[73]

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[67] UAL, Inc., Annual Report 1978, p. 13.

[68] Ibid., p. 12.

[69] Ibid.

[70] Ibid.

[71] Ibid., pp. 12-13.

[72] Ibid., p. 13.

[73] Ibid., p. 17.

During 1979, WIH enjoyed tremendous success because of a strong travel market and increased food and beverage sales. The chain had expanded to 46 hotels in 10 countries and had equity interests in 31 of these properties.[74]

Several strategic themes were readily apparent by this point in time. First, the chain considered itself not only a hotel management company but also a hotel investment company. It was strongly committed to investing in hotels as well as being responsible for their operation. Second, while the basic thrust of the chain's investments remained in North American, WIH was exploring business properties in South Korea from both an operations and investment perspective.[75] However, the emphasis on growth at WIH was not slowing. Plans cited in the 1979 UAL, Inc. annual report indicated that the chain was involved actively in negotiations for 15 hotel projects which would come on line in the next five years.[76]

Financial performance. WIH has compiled a good financial record. Sales, fueled by inflation, have grown at a 17.7 percent compounded annual growth rate, while generating income and net income have grown at 33.4 percent and 17.5 percent, respectively (see Table VI-8). The rates of return on assets and also percentage of sales retained as income are at the heights of the historical range.

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[74]UAL, Inc., Annual Report 1979, p. 3.

[75]Ibid., pp. 14-16.

[76]Ibid.

TABLE VI-8

WESTERN INTERNATIONAL HOTELS SELECTED FINANCIAL STATISTICS

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	Compounded Annual Growth Rate (%) 1971-79
Sales (Million Dollar)	88.4	90.5	102.0	114.6	145.8	201.4	239.4	262.5	330.2	383.7	17.7
Operating Income (Million Dollar)	N/A	4.5	4.9	7.2	9.1	6.4	7.2	25.6	28.3	45.1	33.4
Net Income (Million Dollar)	5.3	2.0	6.7	3.1	3.9	2.5	3.1	16.4	14.5	22.6	17.5
Total Assets (Million Dollar)	N/A	N/A	N/A	182.8	264.7	318.3	327.3	327.6	419.1	495.1	72.5
% Return on Assets (Operating Income)	N/A	N/A	N/A	3.9	3.4	2.0	2.2	7.8	6.8	9.1	--
% Return on Assets (Net Income)	N/A	N/A	N/A	1.7	1.5	0.8	0.9	5.0	3.5	4.6	--
Operating Income as Percent of Sales	N/A	5.0	4.8	6.3	6.2	3.2	3.0	9.7	8.6	11.8	--
Net Income as Percent of Sales	6.0	2.2	6.6	2.7	2.7	1.2	1.3	6.2	4.4	5.9	--

N/A = Data not available.

However, it is worth noting two factors regarding the performance of WIH. First, the chain was severely affected by the recession of 1970-1971 and by the energy crisis of 1973-1974. Table VI-8 indicates that the operating income of WIH suffered up to a 30 percent decline during the energy crisis. Unlike other chains, WIH did not have the geograhical dispersion in properties since a high percentage of its operations are concentrated in the United States.

Secondly, WIH had embarked upon an ambitious expansion program in the early 1970s. As a consequence, earnings were negatively affected by the start-up costs of many properties. However, according to UAL, Inc., this expansion plan was one of the major reasons for the excellent growth of the chain from 1977-1979.

GAB Business Services

Strategy. GAB Business Services was acquired by UAL, Inc. on October 31, 1975.[77] GAB was the nation's oldest and largest independent insurance adjusting organization.[78] Prior to its purchase, it was privately owned by several insurance firms.

At the time of acquisition, the principal service of the firm was to "assist insurance companies, brokers, agents, and self-insured companies in reaching fast, fair claim settlements with clients who had experienced losses."[79] While the company had 650 branch offices in

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[77] UAL, Inc., Annual Report 1975, p. 10.

[78] Ibid.

[79] Ibid.

the United States, it also operated in the Caribbean, the United Kingdom, Belgium, Spain, and Canada. There were 4,800 employees including 3,300 skilled adjustors and 50 professional experts in specialized fields.[80]

GAB derived a major portion of its revenue from "the adjustment of claims arising from fires, accidents of all types, wind storms, and other natural and man-made occurrences."[81] Usually, the service was requested by an insurance company, broker, or agent.

The firm basically was utilized by these sources to handle peak workloads which were beyond the client's capabilities. GAB offered a full line of adjustment services plus a staff of specialists which normally were available in most insurance firms. GAB also was often called upon to adjust claims which were insured by more than one insurance firm since it could provide impartial adjustment services. Such services were extremely valuable in cases of catastrophic losses.[82]

At the time of acquisition, the firm was also involved in the automobile and casualty fields. However, in the relatively short time from UAL, Inc. purchase in late October until the publication of the 1975 UAL, Inc. annual report, GAB introduced or was on the verge of introducing several new services. These included claim adjusting services for the self-insured, value appraisal services for property owners, inspection of homes and adjustment of claims for home protection policies of major insurance policies, and inspection of cargoes while

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[80]Ibid.

[81]Ibid.

[82]Ibid.

in transit to fix responsibility for losses. This last service was offered to shippers and transportation firms.[83]

The UAL, Inc. leadership began trying to diversify GAB away from its traditional product lines almost immediately after acquisition. In many ways, this strategy was well conceived because the special nature of GAB had essentially made it a "captive" of its former owners. The very nature of these circumstances would seem to have argued for not purchasing GAB in the first place. UAL, Inc. could have had other acquisitions which were not "captives" and where management would not have been forced to concentrate its attention on diversifying its acquisition's product line so soon after acquisition.

Unfortunately, UAL, Inc. was unsuccessful in diversifying GAB's product lines fast enough to avoid disappointing financial results. UAL, Inc. blamed the results on the lack of catastrophic events which produced a need for GAB services. However, it is interesting to note that the top officers of GAB who had many years of service retired from the firm. While their retirement was not unusual, UAL, Inc. did depart from its usual practice of placing these senior officers on the GAB Board of Directors. (This practice was followed in the case of WIH.) It would be difficult, considering this occurrence, to support that UAL, Inc. acquired GAB for its management prowess.

By 1977, GAB was pursuing two major strategic themes previously identified in the UAL, Inc. 1975 annual report as well as a new growth area. Management was devoting significant efforts to developing GAB's claims-handling services for self-insured risks as well as the provision

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[83]Ibid., p. 11.

of intermodal transportation services.[84] The new strategic theme was the development of computerized employee benefits administration for large corporations. These systems were designed to lower the cost for customers of claims handling.[85]

These three growth areas were also pursued in 1978, with particular emphasis on the self-insured market.[86] Management expected this to be one of the key growth areas for the firm as more companies self-insured their own activities or formed not-for-profit insurance associations.[87]

While GAB continued to emphasize the new strategic themes in 1979, the firm actually enjoyed a considerable resurgence from its catastrophic claims services.[88] UAL, Inc., in commenting on GAB's performance, admitted quite openly that GAB was starting to perform at the level that was intended when GAB was purchased.[89]

In 1979, GAB started to invest quite heavily in training programs for its employees.[90] Such an investment, $1.9 million, was particularly interesting since one of the unique qualities of the firm at the time of its acquisition was its professional and highly specialized expertise.

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[84] UAL, Inc., Annual Report 1977, p. 10.

[85] Ibid.

[86] UAL, Inc., Annual Report 1978, p. 18.

[87] Ibid.

[88] UAL, Inc., Annual Report 1979, pp. 18-19.

[89] Ibid.

[90] Ibid.

The strategy for the 1980s is quite clear. GAB will continue to concentrate on nontraditional lines of business which are recession resistance.[91]

Financial performance. The financial performance of GAB Business Services has generally proven less than exceptional. While sales have continued to increase during its brief tenure as a UAL, Inc. subsidiary, GAB reached marginal profitability only after slightly over two years of UAL, Inc. ownership. However financial results in 1978 and 1979 improved dramatically. Unfortunately, as indicated by rate of return on assets employed and percentage of sales retained, GAB has failed to perform in an above average fashion (see Table VI-9).

As has been noted previously, the principal reasons for GAB poor profitability has been the overdependence on catastrophic events and the failure of previous customers to continue their patronage after the acquisition. However, the relatively short period of UAL, Inc. ownership precludes a more meaningful analysis.

Overall Nonairline Subsidiary Impact

Graphical representation of earning stream performance. Figure VI-6 provides a graphical representation of UAL, Inc. earnings stream in the 1971-1979 period based on operating income before taxes. While the earnings of both UAL, Inc. and the airline subsidiary are highly cyclical in nature, the earnings of nonairline subsidiaries display a rather consistent upward pattern. Perhaps, the most interesting points

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[91] Ibid.

TABLE VI-9

GAB BUSINESS SERVICES SELECTED FINANCIAL STATISTICS

	1975	1976	1977	1978	1979	Compunded Annual Growth Rate (%) 1975-1979
Sales (Million Dollar)	16.7	104.8	113.5	136.1	152.5	73.8
Operating Income (Million Dollar)	(0.3)	(2.3)	0.7	8.6	8.8	--
Net Income (Million Dollars)	(0.1)	(1.4)	*	3.5	4.2	--
Total Assets (Million Dollar)	57.1	64.7	69.7	80.8	94.5	13.4
Percent Return on Assets (Operating Income)	(0.5)	(3.6)	1.0	10.6	9.3	--
Percent Return on Assets (Net Income)	(0.1)	(2.2)	*	4.3	4.4	--
Operating Income as Percent of Sales	(1.8)	(2.2)	0.6	6.3	5.8	--
Net Income as Percent of Sales	(0.3)	(1.3)	*	2.6	2.8	--

*Less than 0.1.

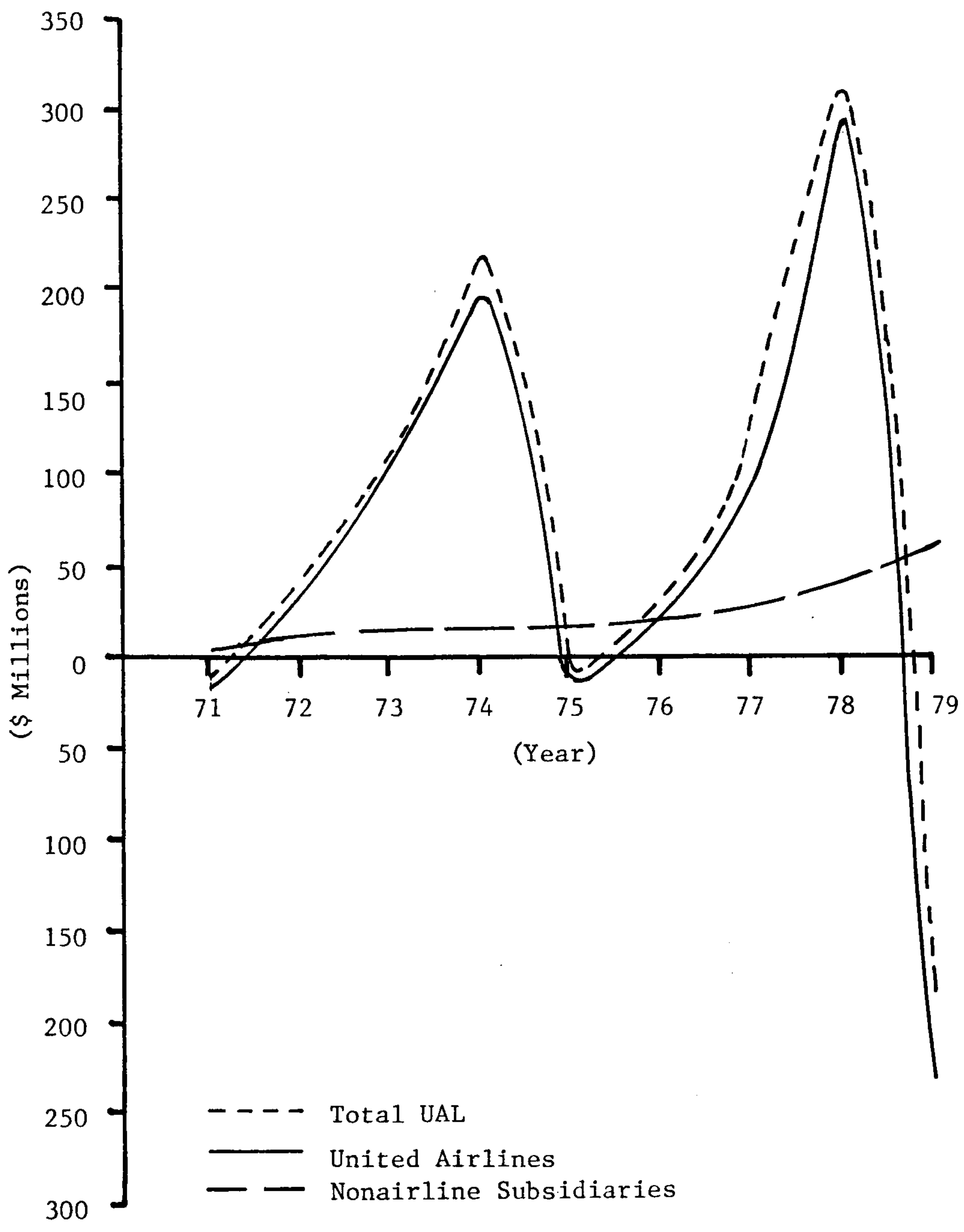

FIGURE VI-6

UAL INCOME (LOSS) BEFORE TAXES

regarding this figure are that the hotel chain has not had a large impact on overall corporate earnings and that the earning stream of nonairline subsidiaries, primarily WIH, does not follow the same cyclical pattern as that of the airline.

Figure VI-7 provides an interesting comparison of cash flows for the holding company, airline, and nonairline subsidiaries for a much shorter period. The impact of airline cash flows are obvious. However, these flows are also highly cyclical. The nonairline subsidiaries, primarily WIH, have much lower but more consistent flows.

Earning stream analysis. The earning stream analysis for UAL, Inc. was performed using the initial regression model (01) described in Chapter IV. The model was run twice (01 and 02) using historical income before taxes and cash flows for the dependent and independent variables.

The results of the first regression analysis (01) for UAL, Inc. were disappointing. Using historical income before income tax measures, the coefficient for nonairline subsidiaries was -.73 which was nonsignificant at the .49 level, while the independent variable year produced a coefficient of .46 which was nonsignificant at the .49 level. The second model utilized cash flows and coefficients of .14 and -.15 for the variables year and the nonairline subsidiaries, respectively. The T test produced nonsignificant results at .91 and .90 levels.

The subsequent regression model (02) which sought to incorporate the pre- and post-energy crisis earning patterns of the airline industry produced unfavorable results. The model used to predict airline and total corporate financial results was utilized to analyze three

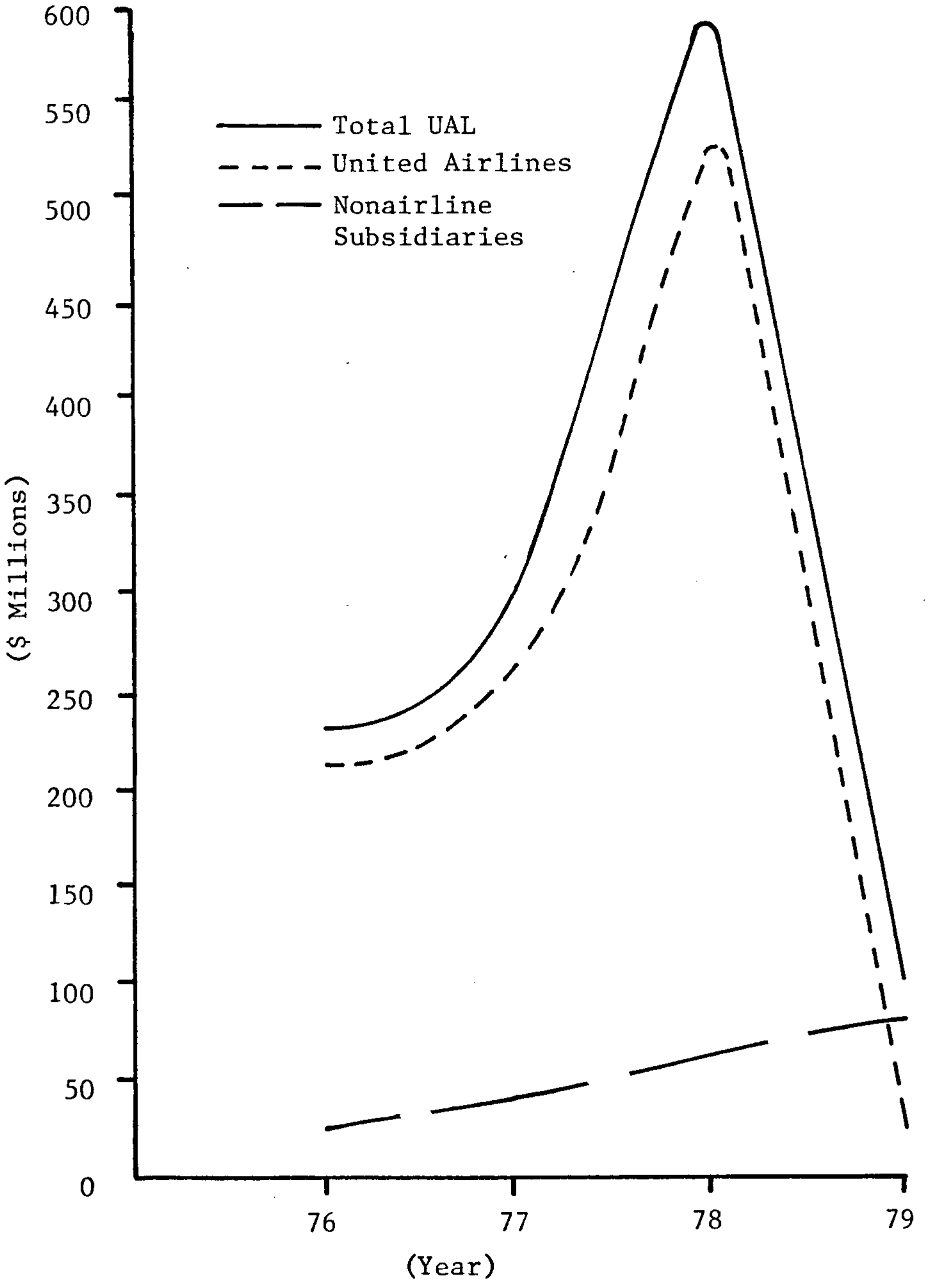

FIGURE VI-7

UAL CASH FLOW ANALYSIS

data base--income before taxes, restated income before taxes, and cash flow. Because the models for all three data bases failed to yield significant results, the variances for the airline and the corporate models were used to analyze each data base.

In all three cases, the variances for the airline model exceeded the variances for the total corporate model. As a consequence, the comparison between models for each data base indicated that the addition of nonairline business increased the volatility of earnings.

In all cases the nonsignificant results indicate that the nonairline subsidiaries do little to smooth the variability of the total holding company income. As a consequence, the null hypothesis was accepted.

<u>Earnings contribution analysis</u>. The contributions of WIH and GAB Business Services to the overall profitability of UAL, Inc. has proven extremely valuable. Table VI-10 indicates that both WIH and GAB have rapidly increased their contributions to UAL, Inc. during the latter half of the 1970s.

The percentage contribution of these nonairline investments have varied greatly depending on the cyclicality of airline earnings. However, even in relatively profitable airline years like 1978, these subsidiaries have contributed 100 percent of total income before taxes. In relatively normal years such as 1977, the contribution has hovered around 25 percent of UAL, Inc. income before taxes. The "cushion effect" of these earnings become very noticeable in a year like 1979 when the grounding of United's DC-10's inflected a tremendous loss on the airline subsidiary. During this time period, the nonairline subsidiaries were at least marginally able to offset the airline losses.

TABLE VI-10

UAL, INC. EARNINGS CONTRIBUTION ANALYSIS
OF INCOME BEFORE INCOME TAXES

	1971[1]	Percent of Total	1976[2]	Percent of Total	1977	Percent of Total	1978	Percent of Total	1979[3]	Percent of Total
Western International	4.5	100	7.2	23.8	25.6	25.9	28.3	8.4	45.1	83.7
GAB	--		(2.3)	--	0.7	0.7	8.6	2.5	8.8	16.3
Subtotal	4.5	100	4.9	16.2	26.3	26.6	36.9	10.9	53.9	100
United Airlines	(10.4)		23.1	76.2	72.7	73.5	300.8	89.1	(239.6)	--
Total	(5.9)		28.0	100	98.9	100	337.7	100	(185.7)	--

[1]First full year UAL, Inc. owned Western International Hotels.

[2]First full year UAL, Inc. owned GAB Business Services.

[3]Grounding of DC-10s by the Federal Aviation Administration had severe negative impact on United Airlines earnings.

The earnings of the nonairline investments have grown quite rapidly, with WIH leading the way. There is every reason to expect these nonairline investments to become increasingly important in the overall UAL, Inc. earnings picture in the future.

Summary. The strategic themes of WIH have produced an exceptionally strong financial performance, especially during recent years. These themes include the provision of first class hotel accommodations, primary expansion in the United States, a strong emphasis on equity participation, a mixture of resort and business traffic, and lastly, provision of amenities.

WIH has experienced its greatest financial difficulties in coping with economic recessions and energy related crises. It also has suffered in the past from the start-up costs associated with new properties. While the chain will suffer again from the latter problem as it pursues ambitious expansion plans in the 1980s, there is little reason to believe that it has achieved the geographical balance or customer mix which will lessen its vulnerability to economic downturns.

Although GAB Business Services is a fairly recent UAL, Inc. acquisition, it has had a troubling strategic and financial performance history. The chief strategic problem has been the overdependence on both catastrophic insurance claims and the insurance firms which formerly owned the company. The financial performance of the company reflects these strategic problems. UAL, Inc. has sought to diversify the business base by introducing a number of new services. However, the recent resurgence of the firm is chiefly due to catastrophic events and not to the successes of UAL, Inc. leadership.

The graphic analysis for UAL provided a good overall description of the nature of the nonairline subsidiaries, airline, and holding company earning streams and cash flows. There is little empirical evidence to suggest UAL's earning streams are significantly less variable because of nonairline subsidiaries.

The earning contribution of UAL nonairline subsidiaries have greatly increased in recent years. Although varying depending on airline earnings, these subsidiaries usually contribute between 10 percent and 30 percent of UAL income before income taxes.

Conclusions

Perhaps, the most pertinent conclusion that can be made from Chapter VI regarding strategies and financial performance of nonairline subsidiaries is that generally diversification has proven successful. Airline firms were fairly successful in either building or purchasing hotel chains. Further, the management of these chains were adept at shifting the strategic objectives of the chains when the macro environment changed. The subsequent diversification efforts of the airline or holding companies produced some mixed results. In several cases, however, the "jury is still out."

The earning stream analyses indicated that in all three cases nonairline subsidiaries failed to lessen the variability of the earning streams for the holding companies. However, the earnings contributions of these subsidiaries are quite large in all three cases. TWC receives the largest contribution from these subsidiaries, with Pan Am and UAL, Inc. also receiving large minority contributions.

VII. SUMMARY AND IMPLICATIONS

Conclusions

Alternative corporate strategies are receiving increasing attention in the airline industry for a number of reasons. First, deregulation has created a new environment where market forces will play a paramount role in determining the financial fortune of an airline firm. Second, the airline industry is beset with a number of financial ills including inability to raise capital and rapidly increasing fuel prices.

The stategic response of airline firms is basically composed of three options:

1. Market penetration or contraction in the airline industry;
2. Merger with other carriers for financial or marketing reasons; and
3. Diversification into related or unrelated industries.

While market opportunities and mergers will play a role in the future, it also seems likely that diversification will be an important element in the future strategy of some airline firms. This seems especially true in the case of marginally competitive and noncompetitive airline firms.

While the airline industry may use diversification as an alternative growth strategy, the knowledge base regarding diversification in both the academic and business communities is limited. Diversification is usually defined as entry into a business which has less-than-perfect homogeneity in relation to the product markets of the traditional business. In those cases where the elasticity of demand in product markets is high but not perfect, the diversified firm has pursued a policy of related diversifications. Where the elasticity of demand is relatively low between product markets, the firm has pursued a policy of unrelated diversification. Between the two extremes there are two additional classifications of related business--supplementary and complementary.

Firms diversify for many reasons including:

1. Earnings stability;
2. Competitive reasons;
3. Acquisition of cheap assets;
4. Acquisition of managerial and research and development resources;
5. Entry into otherwise "closed" markets; and
6. Growth.

Related and unrelated diversification strategies have both advantages and disadvantages. Related diversification enables a firm to achieve higher revenues or profits or to reduce expenses through synergies. However, it is often difficult actually to achieve such synergies because of management's failure or inability to exploit opportunities. The empirical evidence regarding related diversification is not conclusive, but it does seem to support the provision of favorable returns for firms.

Unrelated diversification, when stripped of conventional wisdom, does seem to offer some benefits to firms. This is especially true in a world of transaction costs and taxes. It is also true in circumstances where the firm is a poor performer in an industry which enjoys less-than-average returns. The empirical evidence regarding unrelated diversification indicates that it offers few benefits, although it has not been tested sufficiently to make a definite conclusion. However, the evidence seems to support the conclusion that unrelated diversification helps poor performers.

The empirical evidence regarding diversification suffers from two basic weaknesses. First, few studies have examined specific industries. Second, little work has been completed on a case basis comparing the original objective with the subsequent result or performance of the diversified entity.

Specific studies of diversification in the transportation industry are limited in quantity from a public policy perspective and virtually nonexistent from a managerial perspective. However, from the studies which have been undertaken, several conclusions are worth noting. First, regulation inhibited diversification in the transporation industry until holding companies were ruled exempt from prohibitions regarding such activities. Second, the major reasons for diversification have included:

1. Low earnings;
2. High cyclicality of earnings;
3. Operating and financial synergies; and
4. Investment tax credits and loss carry forwards.

Only two studies have considered diversification in the industry from a managerial perspective. The study which concentrated on the airline industry suggested that diversification in the airline industry occured because of:

1. Cyclicality of airline earnings;
2. The desire to "escape" from regulatory control; and
3. The possibility of higher profitability from synergies.

The study concluded that the rationale of synergy is dubious and the airline track record in diversification is mixed. A more wide-ranging study indicated that diversified transporation firms are characterized by:

1. Large size;
2. Higher returns;
3. Lower returns in their primary business (transportation); and
4. Related diversification as a general tendency, i.e., horizontal diversification.

Two fundamental questions result from an analysis of these studies. First, why have some airlines enjoyed successful diversification programs while others have not? Second, why have no strategic post-audits of airline diversification appeared in the literature?

The diversification activities of the three airlines examined in this study indicate that two of the carriers (Pan Am and TWC) were seeking to achieve operating synergies. The third carrier (UAL) was pursuing financial synergies or earnings stability. As a consequence, the first hypothesis was rejected. However, several additional points are worth noting. First, TWC and Pan Am diversified during a period of tremendous growth for the airline industry. As a consequence, they pursued a policy which would allow them to extend their activities further in the travel industry. By the time that UAL began its initial diversification activities, the economic growth pattern in the industry had changed drastically. As a result, UAL placed emphasis on acquiring an initial diversified entity which would provide some earnings stability. Second, all three airlines picked a related business for their first diversification effort--hotels. Despite the divergence in objective, the common theme was a travel-related business. As a last point, it is interesting to observe that the method of entry differed with the carriers. Pan Am, because of the early date of entry, entered the hotel industry on a de novo basis. TWC and UAL, however, bought existing hotel chains which already were characterized by strong and successful management teams.

The second hypothesis regarding subsequent diversification activities was universally supported by the firms which had undertaken second and subsequent acquisitions. The objective of these subsequent diversification activities was financial synergies in nontravel industries. However, an examination of the diversification activities also indicates that many firms were seeking to utilize their investment tax credits and tax loss carry forwards. Both TWC and UAL also sought, in their subsequent diversification efforts, to acquire firms with fairly strong management teams. Basically, acquisitions were confined to those firms with a rather strong track record and the appearance of a competent management.

The third hypothesis in the study basically sought to determine whether diversification had lowered the overall variability of the earning streams of the firms. The hypothesis was rejected because an analysis of the firms failed to offer any support. In all three cases, the regression analysis indicated that there was actually an increase in variability in total corporate earnings and cash flows with the addition of diversified entities to each firm. However, it is important to note several additional points. First, while the regression model provided little support regarding the benefits of airline diversification efforts, the earnings of the nondiversified subsidiaries in many cases did support the total corporation in trough years. While the airline earnings of the three firms posted large negative results in some years, the nonairline subsidiaries facilitate a break-even or small profit result for the overall corporation. Second, while initial diversification efforts generally were quite profitable, subsequent diversification efforts of the carriers offered a mixed result. Some carriers were successful in subsequent diversification (TWC), while others (UAL) were somewhat less successful. In the case of some acquisitions, it is difficult to render an informed opinion because the acquisitions are still relatively new.

Implications

At the initial stage of the study, several key issues were identified regarding airline diversification. These issues basically fell into three broad categories:

1. The consistency and coherence of airline diversification objectives;
2. The nature and pattern of diversified opportunities which were pursued; and
3. The financial impact of diversification activities.

The analysis of the nature and coherence of diversification objectives involved determining whether airlines formulate rational objectives and whether diversification policies and objectives change over time. More importantly, it is essential to determine the primary factors which precipitate changes in diversification policies. From a long-term perspective, it is also critical to determine if objectives of diversification will change in the future and what factors are likely to precipitate such change.

While the sample in this study is relatively small, it does permit some tentative statements regarding the rationality of diversification objectives. From an overall perspective, the rationality of these objectives is somewhat suspect. For example, Pan Am decided to release IHC from its traditional role as a stimulant for its airline traffic and allow IHC to exploit the most profitable worldwide opportunities prior to TWC's entrance into the hotel field. In view of Pan Am's longer experience in operating an airline/hotel company, TWC's subsequent decision, seven years later, to use Hilton International properties as a springboard to a full service travel company was somewhat questionable. While each company undoubtedly had its own inherent advantage, the TWC decision did not reflect a careful examination of the Pan Am experience. In addition, the TWC decision also reflected a naivete regarding the prospects for continued economic growth. While we do have the benefit of 20/20 hindsight today, it would seem that TWC's commitment to the travel industry in 1967 represented unabiding faith in an industry plagued by economic cycles and low profit margins.

The UAL experience also offers little reason to support the rationality of diversification objectives in the airline industry. For example, UAL decided to pursue the goal of earnings stability through the purchase of a travel-oriented firm, WIH. However, the objective in retrospect seems to have been dual purpose. UAL actually seemed to desire an industry which they understood, but this industry was subject to many of the same fluctations as was the airline industry. At the same time, the goal of earnings stability was probably more achievable through the purchase of a business like an electrical utility firm. While the WIH acquisition did turn out well, the actual acquisition choice would seem to conflict with UAL's diversification objective.

Several additional points regarding the formulation of diversification objectives deserve attention. The objectives have been characterized by a hardy pursuit of "synergies," particularly of an operating nature. However, in several cases, this concept seems to lack a sound basis in day-to-day operations. The industry seems to have an inability to recognize the difficulty of attaining such benefits despite historical evidence and early airline experience with this concept (Pan Am-IHC). TWC pursued diversification in consumer-oriented business without recognizing that such businesses would probably increase fluctuations in the earning streams of the overall company. Such an effort seems in conflict with a goal of earnings stability. It also fails to recognize that the capital needs of such businesses may conflict with capital requirements for another consumer industry--air transportation.

The problem of attaining potential operating synergies and the conflict of objectives in several acquisitions reflect poorly on airline corporate planning activity. In general, it seems that the airline industry has done a rather poor job of determing what problems acquisitions will face in their primary businesses and what impact they will have on the total corporate structure.

Diversification objectives in the airline industry seem to change both from a perspective of post-acquisition corporate strategy for a subsidiary and from a total corporate perspective. For example, TWC and Pan Am rapidly recognized the difficulties of attaining operating synergies between their airline and hotel operations. As a consequence, they allowed their chains to pursue the most profitable opportunities whether or not they were located on the airline route structure. In a similar way, UAL quickly changed the strategic thrust of GAB Business Services when it recognized the GAB's primary business was encountering severe difficulties.

From an overall perspective, the thrust of diversification, at least among the carriers in the study, has changed drastically in the last 15 years. From the original concept of operating synergies, the airlines have switched their objective to the pursuit of financial synergies in unrelated businesses. They also looked for unrelated businesses sufficiently profitable to absorb their tax loss carry forwards and investment tax credits. The reason for this change in investment strategy really emanated from the economic environment. As long as the travel industry was displaying somewhat consistent and high growth, diversification in this sector was attractive.

With the economic recession of 1970-1971 and 1973-1975, a chain of events was initiated which changed the external economic environment for travel and the internal financial characteristics of airline firms. First, management realized that inflationary tendencies in the economy constrainted the amount of disposable personal income which was available for travel. At the same time, these tendencies were increasing operating costs in the airline and travel industries. The future for travel-oriented enterprises no longer looked as promising as it had during the 1960s. Second, the recessionary periods had brought about fundamental changes in airline financial statements. The financial losses resulting from these economic downturns produced numerous tax loss carry forwards and underutilization of rather substantial investment tax credits. These factors, the fluctations in earnings, and the strong cash positions of the carriers driving the height of brief economic expansions suggested diversification in profitable unrelated businesses. The idea of a travel conglomerate was decidely unattractive.

The airline industry's obsession with smoothing its earning streams and investment tax credits evolved principally from the high variability of earnings. This variability theoretically lessened investor confidence and produced tax loss carry forwards. At the same time, the new equipment purchases at inflationary prices created a logjam of investment tax credits in the early and mid-1970s.

One of the easy methods for predicting whether such financial motivations will continue to play a role in the future is to determine if the same conditions will exist in the immediate future. The current economic decline produced massive losses in the airline industry in the first quarter of 1980. Analysts expect these losses to continue for the remainder of 1980. As a consequence, it is highly likely that the airlines will continue to experience high variability in airline earnings along with rather substantial tax loss carry forwards.

Given these circumstances, the smoothing of earning streams, tax loss carry forwards, and investment tax credits will continue to be motivating factors for diversification. However, it is also important to note that two airlines have invested in petroleum reserve firms in recent years. In addition to making a contribution to overall corporate profits, these reserves give the carriers a potential bargaining power against oil shortages. For example, the carriers can barter production for aviation fuel. Perhaps, such investments are a harbinger of future airline investment since they satisfy all of the above motivations and, at the same time, solve a critical airline problem--the availability of fuel.

Although this research effort was basically a post-audit of airline diversification, it has many implications for the future diversification efforts of the airline industry. However, it is unlikely that there will be the consistent degree of homogeneity in diversification objectives in the long-term future as has characterized the industry in the past. The major reason for this increasing divergence in diversification objectives and strategies will be the variation financial health of individual carriers under deregulation.

The primary purpose of regulatory reform in the airline industry was to increase the degree of competition in the industry over an approximate six-year time horizon. This infusion of competition was to be achieved by permitting airline management the same prerogatives regarding pricing, market entry and exit, and asset employment as enjoyed in other industries. By 1985, the airline industry will be free from virtually all economic regulations at the federal level.

The implications of regulatory reform for individual air carriers are enormous. There already has been a sharp diversion of profitability in individual firms as carriers have added and dropped route authorities. For example, Delta airlines, which has pursued an extremely selective expansionary policy, has enjoyed fairly good success during the recent economic downturn. Braniff and Continental airlines, however, have encountered severe losses as they have substantially expanded their operations. The regional airlines have suffered less severe financial reverses as they have entered medium size markets vacated by the domestic trunk airlines.

The provisions of the 1978 Airline Deregulation Act also greatly facilitate the entry of new competitors. These new entrants have enjoyed some success in penetrating the markets of the domestic trunk airlines. For example, Air Florida, formerly a local service carrier, has launched a highly successful new service between New York and Florida. In addition, Capital International and World Airways, former charter airline operators, have sought to enter the domestic trunk markets, although with more limited success.

If regulatory reform will result in a more divergence of air carrier earnings in the future, the key question becomes what characteristics will separate the successful carriers from marginally profitable and unprofitable carriers. Some of the most important characteristics could be:

1. Cash position;
2. Operating costs;
3. Debt-to-equity ratio;
4. Market strategic capability; and
5. Aggressiveness of management.

The cash position and operating costs of the airline firm will play an important role in offering the lowest price in a market and providing the staying power to weather losses during economic downturns and competitive battles. Such competition battles are exemplified by the New York-West Coast price war which is occurring between United, American, TWA, Pan Am, Eastern, and World Airways.

Debt-to-equity ratios are extremely important. With regulatory reform, the airlines will be evaluated on how well they conform to the standard 1:1 debt-to-equity ratio which lenders require. Those carriers with higher ratios will pay higher interest costs, and extreme cases will be unable to arrange adequate financing.

This factor is particularly important since capital requirements of the airlines will total approximately $90 billion by 1990. The airlines are entering a period of huge capital requirements at precisely the time that their ability to pay interest payments is declining because of the economic recession.

The airline industry, having matured in a regulatory environment, does not possess great expertise in strategic market planning. However, the very flux of market entry and exit after the signing of the 1978 airline deregulation legislation indicates that few carriers have a firm grasp of the type of markets in which they have an inherent advantage. Pan Am, when encountering severe financial difficulties in the early 1970s, required several years to revamp their operations and tailor their services to their unique capabilities. A similar process may now be occurring as several airlines build the corporate planning expertise necessary to match markets with their capabilities.

In prior years, the airline industry was not the type of business which required great risk taking on the part of management. Management prerogatives were extremely limited and basically were confined to the relationship between frequency of flights and market share considerations. However, under regulatory reform, the nature of management prerogatives has changed, permitting greater aggressiveness.

Diversification strategies will have significant value to evolving carrier profitability. The highly successful firm may find little reason to diversify unless technological obsolescence of the airline industry occurs because of breakthroughs in communications. However, marginally profitable and unprofitable carriers may gain benefits through diversification. For example, marginally profitable firms may increase their overall corporate profits by undertaking a program of defensive diversification. As the future environment unfolds, such a firm may find that it can systematically withdraw from the airline business using its nonairline earnings for its financial base. The unprofitable carrier may well find that rapid withdrawal from the airline industry is a better strategic solution to its problems than defensive diversification. Potential lenders may prove more receptive to financing an acquisition in another business line and to rapid exit from the industry.

While there are many conceivable scenarios regarding the future of the airline industry, it is obvious that diversification will continue to play a major role in coming years. Even if the pace of diversification were to come to a halt, several firms have already transformed themselves from airline-dominated companies to diversified entities. It is doubtful that this trend will be reversed in coming years.

Nature and Pattern of Diversified Growth

While the analysis of diversification objectives briefly addressed the nature and pattern of diversified growth, there are three basic points which warrant further investigation:

1. What are the major types of businesses into which airlines diversify?
2. Are airlines more successful in operating certain types of businesses than others?

3. What factors ensure the success of airline diversification efforts?

As stated in previous sections of this chapter, the initial diversification efforts of airline firms were concentrated primarily in the hotel industry. This trend was noticeable not only among the three case studies in this research effort but also in the initial diversification efforts of other airline firms. For example, Braniff, Continental, and Eastern airlines entered the hotel industry as the first steps in their diversification programs.

There are probably three logical explanations for airline concentration in the hotel field. First, the hotel field is one which airline management can understand easily. As Robert Joedecke of Kuhn Loeb & Co. has suggested, both businesses essentially sell perishable space. Joedicke also suggests that the hotel industry requires the same large and lumpy investments as air transportation. Second, the move into hotels was envisioned by at least several of the airlines as a step in becoming a travel comglomerate. Third, the airline industry has suffered from a severe decrease in its airline operations service initiatives. Traditionally, the firms were unable to compete on the basis of price so service became the only basis of discrimination between carriers. When TWC acquired a hotel chain, this strategic move may have caused a wave of service competition in the industry to prevent competitors from achieving a service advantage.

The subsequent diversification efforts of the carriers fail to display the same consistency as the initial diversification activities. While initial diversification efforts were concentrated almost totally in the hotel industry, subsequent diversification involved entry into a wide variety of consumer service industries. TWC was the first of the three carriers in the study to start a program of subsequent diversification with the purchase of several consumer-oriented enterprises such as Canteen Corporation. UAL quickly followed with its purchase of GAB Business Services.

The diversification activities of TWC, UAL, and other carriers were characterized by several themes during the mid-1970s. First, the diversification activities were concentrated in unrelated service oriented businesses. Despite the fact that UAL entered the insurance industry and TWC entered the food business, the accent was on service-oriented diversification. In retrospect, it is almost as if the airlines had passed through evolutionary stages from a travel-oriented service acquisition strategy to a more general service acquisition strategy.

However, the pattern of diversification had started to change almost as quickly as it was initiated. Western and American airlines, two companies not included in the study, extended diversification activities into the oil industry. Both acquisitions involved the purchase of proven oil reserves. While it is difficult to determine the motivations for such investments, it is clear that such properties give the carriers additional leverage in acquiring aviation fuel in times of petroleum shortages. In essence, these acquisitions represent a sharp departure from a service orientation to a form of vertical integration.

Both the research effort and the general diversification experiences of the airline industry provide some interesting conclusions regarding airlines ability to operate successfully. The airlines' largest and most successful diversified operations are in the hotel industry. The three carriers included in this study have obtained exceptional performances from their hotel chains. On the other hand, Braniff and Contintal have not fared as well with their hotel operations.

The industry, at least in the case of TWC, has displayed a capacity to operate consumer service industries with a modest degree of success. TWC, in fact, has demonstrated a better ability to operate its consumer service subsidiaries than the airline operation itself. Even UAL displayed an ability to reposition its insurance service subsidiary after its auspicious debut.

There are probably three reasons for the airline industry's relative success in the hotel industry and consumer service industries. First, the airlines generally have entered these businesses by acquiring existing organizations; de novo ventures were the exception rather than the rule. Second, the investments usually were of sufficient size to be self-supporting under normal circumstances. For example, both Continental's and Braniff's efforts in the hotel industry have failed to prosper not only because they were de novo ventures but also because the investments failed to achieve a critical mass. Third, the airline industry has had a good understanding of the travel market and consequently of the consumer services market.

Financial Impact of Diversified Growth

Given the results of the study, one of the key questions deserving consideration is why diversification has not reduced the variability of income or cash flow streams in the airline industry. There are two possible explanations for this phenomenon. First, the investment size of diversified activities traditionally has been relatively small, especially at the time of purchase. Consequently, it will take a number of years before these investments will exert a significant impact on the stability of earning streams. Second, a great deal of airline diversification has occurred in consumer service industries. In many cases, these industries are subject to some of the same economic fluctuations that confront the airline industry. The airlines probably would enjoy greater earnings stability if they undertook large investments which produced relatively consistent and growing profits or which were countercyclical to the economy.

While diversified subsidiaries have not proven unsuccessful in smoothing the earning streams of airline corporations, they have provided a "cushion effect" during years of poor airline profitability. More importantly, the diversified subsidiaries have provided an alternative investment path with higher returns that the corporation would have generated by investing funds in the airline industry.

Future Research Areas

There are several areas of potentially fruitful research related to diversification in the airline industry. Perhaps, the most obvious avenue of inquiry involves extending the methodology employed in this research effort to the remaining domestic trunk airlines which have pursued diversification strategies. This approach would result in more generalizable observations than those produced in this research effort. Of course, one of the serious obstacles to such an expanded study is the data deficiencies which characterize the nonairline activities of some domestic trunk airlines.

The regional airlnes have also diversified to some degree. It would be most interesting to determine whether there were substantial differences in stated objectives or motivations for diversification between regional and domestic trunk carriers. Perhaps, the most notable examples of this at the regional level are Pacific Southwest Airlines and Piedmont Aviation.

Another potential research area is a similar type study within different modes of transportation. For example, a similar study on selected firms within either the trucking or railroad industries might prove useful. The ultimate aim of such studies is, of course, to identify the objectives and motivations for diversification as well as the success of diversification efforts. Such an effort would facilitate an understanding of how diversification objectives vary across modes and what ingredients determine the success of managing nontransportation entities.

Such research might also yield answers to other important answers to other important questions. For example, Robert Joedicke of Kuhn Loeb & Co. suggests that companies which diversified on a de novo basis, e.g., Braniff Airlines and Continental Airlines, were unsuccessful while other airlines diversifed successfully because they bought existing firms. While this hypothesis certainly requires further support, the contention has deep implications for airline management. It may suggest that management skills in the airline industry may not be readily transferrable to other industries. Further, it may also suggest that airline management, after years of regulation, has little or no corporate planning or venture analysis capability. An interesting corollary to Joedicke's hypothesis is that management skills in the transportation industry in general are not readily transferrable to other industries.

Research regarding diversification in the airline industry and the transportation industry in general should not confine its scope to a post-audit perspective. Rather an attempt must also be made to determine the potential benefits of diversification to carriers in a deregulated environment. For example, what are the benefits of related and unrelated diversification for highly profitable, marginally profitable, and unprofitable carriers in this new regulatory environment? These questions certainly require research, and the answers may prove of immense benefit to corporate management in a very short time.

Final Perspectives

This research effort primarily has addressed the issue of diversification from a managerial perspective. Therefore, it is only fitting that some thought be given to the ways in which management can improve its diversification efforts in the future. The following are some of the ways in which this objective may be accomplished.

Corporate planning typically involves management addressing rather simple questions such as "What type of company do we wish to be five years from now?" or "Can we become the type of company we wish to be in the future?" While the questions are rather simple, the formulation of answers requires a long and detailed analysis of alternative strategies and their consequences. Often, the chosen strategy for a firm involves diversification activity. Thus, the diversification effort supports the overall conception of senior management regarding the future composition of the firm.

As a consequence, problems in the diversification process indicate difficulty in the acquisition planning process itself, the overall corporate planning process, and/or the committment of management to initiating a diversification program. The diversification history of the three airlines analyzed in this study certainly indicate that at least one of these elements and sometimes all three have been missing from diversification programs.

There are three ways in which these problems can be resolved. First, senior management must stop trying to define the companies as air transporation firms. They must instead view the companies as business organizations with certain inherent advantages in management skills and resources. If these inherent advantages dictate a lessening of commitment to air transportation, the course for a new beginning is apparent. Rather than merely answering the question of "What kind of company would we like to be five years from now?," senior management must address the question of "What kind of company can we be five years from now given our inherent advantages?"

In addition to the lack of clarity in senior management's conceptualization of the future of their airline firms, the mixed record of airlines in diversification also indicates a failure of the corporate planning process. This failure is somewhat understandable. Corporate planning in the airline industry traditionally has focused on airline planning rather than on overall corporate planning. This function usually has resided in the hands of the most senior executives. To a large extent, corporate planning staffs have been unable or unwilling to force strong, entrepreneurial chief executive officers to address the issue of strategic directions.

One of the best methods of solving this particular dilemma is to recruit corporate planning directors form outside the transportation industry. Such individuals would bring a fresh perspective to the airlines which are involved more with selecting the best possible strategic directions rather than with overwhelming identification with one particular business.

This same argument can be applied to the overall acquisition process. There is a desperate need in the airline industry for acquisition specialists. Perhaps, airline firms have been resistant to having such specialists because they view their acquisitions as targets of opportunity resulting from a coincidence of strong cash position and the appearance of an investment vehicle. While cash position is a variable which is difficult to control, it would seem that the commitment to a diversificaton program and its accompanying expenses are not.

In summary, the success of diversification as a corporate strategy will hinge upon three factors in the future. First, senior management must analyze more carefully the inherent advantages of their firms in order to properly position themselves in future years. Second, the corporate planning function must be broadened to include identifying strategic directions for the firm. Third, there is an urgent need in the airline industry for specialists with acquisition expertise. While the implementation of these suggestions will not protect an airline totally against problems in future diversification programs, it will set the stage for dramatic improvements.

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APPENDIX

July 3, 1980

Mr. Irvin E. Williamson
Chairman
G.A.B. Business Services
123 William Street
New York, New York 10038

Dear Mr. Williamson:

I am currently completing my doctoral dissertation regarding diversification in the airline industry (see enclosure). Since you held a senior management position with U.A.L. and were involved in the purchase of G.A.B. Business Services in 1975, I was wondering if you would share some of your recollections with me.

Specifically, I am trying to determine the diversification objectives of Pan Am, T.W.C. and U.A.L. in each of their acquisitions. Unfortunately, U.A.L. made few public statements regarding its acquisition of G.A.B. From what I have read, I have arrived at the conclusion that the acquisition was primarily for financial synergies e.g., cash flow and to utilize investment tax credits. The establishment of an investment management function at U.A.L. prior to the purchase and the firm's preoccupation with smoothing the cyclical fluctuations of airline earnings add some circumstantial evidence to this perspective. However, during the same period, U.A.L. also expressed an interest in Avis, a travel related firm.

I would appreciate any thoughts you might care to share with me regarding the G.A.B. purchase or management philosophy in general.

Thank you.

Sincerely,

Lawrence F. Cunningham
Assistant Professor

VITA

Lawrence Francis Cunningham received a B.S. (Cum Laude) in Transportation and Tourism from Niagara University in 1970. He received an M.S. in Transportation from Northwestern University in 1973 and an MBA in marketing from The University of Tennessee in 1980. From 1972 to 1974 he served as Senior Analyst in the Corporate Development Department of Eastern Air Lines, Inc. From 1974 to 1976 he served as Assistant Treasurer for Chase Manhattan Bank. From late 1976 through late 1977 he served as Assistant Vice President of Chase Manhattan Overseas Corporation in Johannesburg, South Africa. He presently is an Assistant Professor of Transportation in the Department of Tourism and Travel Administration, Graduate School of Management and Urban Professions, New School for Social Research in New York City.