Diversification strategy, financial performance and stability in the foodservice industry

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Diversification strategy, financial performance and stability in the foodservice industry

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DIVERSIFICATION STRATEGY, FINANCIAL PERFORMANCE AND STABILITY IN THE FOODSERVICE INDUSTRY

by

Amrik Singh

A thesis submitted in partial fulfillment of the requirements for the degree of

Master of Science

in

Hotel Administration

William F. Harrah College of Hotel Administration
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ABSTRACT

Diversification strategy and its relationship to performance has been shown to increase the profitability and stability of firms. An investigation was conducted to determine the relationship between diversification strategy and financial performance and stability of firms in the foodservice industry. Rumelt's (1974) diversification measure was utilized and modified to analyze the performance and stability of seventy-three foodservice firms from 1988-1991.

Statistical testing using non-parametric tests showed no significant differences between diversification strategy and financial performance and stability of foodservice firms over the entire period from 1988-1991. However, when the time-frame was reduced to 2 sub-periods; before and during recession, significant differences were found in the variability in return on assets and total stock returns. The results showed that the business cycle affects the market performance and stability of foodservice firms.
Table of Contents

Abstract ............................................... iii
List of Tables ........................................ vi
Acknowledgements ...................................... viii

Chapter I. Introduction

- Background and Purpose of Study .................. 1
- Research Questions ................................ 5
- Contributions of Study ............................ 6
- Delimitations of Study ............................ 7
- Organization of the Study ........................ 8
- Definition of Terms ............................... 8

Chapter II. Review of Literature

- Introduction ...................................... 11
- Trends in Diversification ....................... 12
- Definition of Diversification .................. 12
- Measurement of Diversification ................. 13
  - Degree of Diversification .................. 13
  - Mode of Diversification .................... 15
  - Type of Diversification .................... 15
- Relationship between Diversification and Performance ....................................... 16
  - Theoretical background on why firms diversify .......................... 17
  - Measures of Performance .................... 19
  - Degree of Diversification and Performance ... 23
  - Mode of Diversification and Performance .. 26
  - Type of Diversification Strategy and Performance ................................. 28
- Reasons for Diverse Findings .................... 33
- Business Cycle Effects .......................... 36
- Summary ............................................ 40

Chapter III. Data and Methodology

- Introduction ...................................... 41
- Research Hypotheses .............................. 41
- Selection of Foodservice Firms .................. 44
- Time-Frame of Study .............................. 45
- Measures of Performance and Stability .......... 46
- Classification of Diversification Strategy Groups ........................................... 47
- Statistical Testing Methods ..................... 55
- Summary ............................................ 57
List of Tables

Table 1: Purpose of Diversification.................................20
Table 2: Reasons Why Firms Diversify...............................22
Table 3: Rumelt's Diversification Measure.........................30
Table 4: Growth in Real Gross Domestic Product (GDP) (seasonally adjusted at annual rates)...........38
Table 5: Average Annual GDP Percent Change (1987 Dollars)..................................................39
Table 6: Percent Change in Real Disposable Income............39
Table 7: Foodservice Measure of Diversification Strategy.................................51
Table 8: List of Foodservice Firms.................................52
Table 9: Diversification Category.................................54
Table 10: Diversification Strategy of Foodservice Firms.................................54
Table 11: Descriptive Statistics of Performance Measures for all Foodservice Firms (1988-1991)....59
Table 12: Mean Performance Measures by Diversification Category (1988-1991).......................59
Table 13: Mean Performance Measures by Diversification Strategy.................................60
Table 14: Mean Performance Measures by Diversification Before (1988/89) and During Recession (1990/91).................................60
Table 15: Relationship between Diversification and Performance (1988-1991) Chi-Square Test.................................62
Table 16: Performance by Diversification (1988-1991) Mann-Whitney U Test.................................63
Table 17: Performance by Diversification Strategy (1988-1991) Kruskal Wallis H Test.................................64
Table 18: Performance of Diversified and Undiversified Firms Before (1988/89) and During Recession (1990/91)
Mann-Whitney U Test

Table 19: Performance of Diversified Firms Before (1988/89) and During Recession (1990/91)
Kruskal Wallis H Test
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Chapter I

INTRODUCTION

Background and Purpose of the Study

The increasing diversification of firms into different lines of businesses or product segments has been shown to increase the profitability of firms through economies of scale, new technology, lower purchasing costs, and the application of new marketing skills (Rumelt, 1974). Diversification has also been shown to increase the stability of earnings or reducing risk during periods of economic downturns. According to Berry (1975), firm profitability would be less likely without diversification. As a result, the relationship between diversification and performance has emerged as an important topic of research in the areas of finance, economics, strategic management and industrial organization literature.

Diversification occurs when a firm expands into markets of new products or services. Diversification strategy can be described as a participation in different product segments and the pattern of relationships among the product segments. A foodservice firm that expands into restaurants, hotels, bars, and nightclubs would thus be pursuing a diversification strategy. The firm will realize operating synergies between its various product segments. For
example, common distribution channels for marketing products will result in significant savings thereby increasing cash flow and shareholder returns (De, 1992).

Diversification has been a corporate strategy of foodservice firms for many years. Most of the foodservice firms diversify their products and services to facilitate expansion and to increase profitability. Foodservice firms diversify their product offerings by either expanding into new related or unrelated product segments or by expanding within the same product segment with new products. A choice is usually made to pursue either related or unrelated diversification. Related diversification refers to the existence of a pattern of similarities and common relationships between product segments. In unrelated diversification, there are no relationships or similarities between product segments. For example, Bob Evans Farms and Cracker Barrel Stores, two restaurant companies which operate restaurants, have diversified into a new unrelated segment, the retail business by operating retail stores. Furr's/Bishop's which owns and operates 146 cafeterias and restaurants has pursued related diversification by expanding into commercial food manufacturing in order to maximize resources and increase income (Ruggeless, 1993). On the other hand, Apple South Inc., which operates in the casual dining segment and fast food, has diversified within the same product segment by introducing an Italian theme concept.
As foodservice firms continue to pursue a diversification strategy, it is necessary to determine the success of such a strategy and its relationship to firm performance. Thus far, research on the relationship between diversification strategy and firm performance have yielded inconclusive results. Some studies (Rumelt, 1974; Montgomery, 1979; Bettis, 1981; Varadarajan and Ramanujam, 1987) show that related diversification leads to improved financial performance compared to unrelated diversification while some studies failed to discover significant differences between them (Bettis and Hall, 1982; Palepu, 1985). Other studies concluded that the diversification and performance relationship was affected by the business cycle (Hill, 1983; Amit and Livnat, 1988a). Still other researchers (Dubofsky and Varadarajan, 1987) found significant differences on market measures but no differences on accounting measures.

There are a number of problems inherent in previous diversification studies which may explain the inconclusive results. First, some studies (Bettis, 1981; Christensen & Montgomery, 1981) used multi-industry samples instead of investigating a single industry. Since industry-specific effects cannot be controlled for, comparisons between industries would be inconclusive. Second, most studies have used a single measure of performance, either accounting or
market measure (LeCraw, 1984; Palepu, 1985; Barton, 1988) instead of using both measures. Third, previous studies have not utilized the entire range (4 types of diversification strategies) of the diversification measure proposed by Rumelt (1974) (Hill, 1983; Palepu, 1985; Varadarajan and Ramanujam, 1987; Michel & Shaked, 1984).

The purpose of this study is therefore to reexamine the relationship between diversification strategy, financial performance and stability of firms in the foodservice industry. To date, no previous study on the diversification and performance relationship has been conducted in the foodservice industry. This study will utilize the methodology employed in the manufacturing industry and extend it to the hospitality industry. The results of this study will show if diversification leads to improved financial performance and stability. This study will be different from previous studies in the following ways. First, the focus of this study will be on a single industry, the foodservice industry in order to control for inter-industry effects. Second, this study will use both accounting and market measures of performance such as return on assets, total stock returns, and the variability in those returns to compare the results of different measures. Third, the major diversification strategy scheme proposed by Rumelt (1974) and commonly used in the manufacturing industry will be adopted for this study. Finally, this
study will determine the business cycle effect on the diversification and performance relationship by examining the foodservice firms in two sub-periods: before and during the recent recession.

Since no previous study on diversification and performance has been documented in the hospitality industry, a further study is needed to analyze its impact on financial performance and stability. This study attempts to extend previous research on diversification and performance into the foodservice industry. By choosing the foodservice industry to investigate the diversification and performance relationship, this study will enable researchers, stockholders and managers in the hospitality industry to determine if diversification is a viable strategy for foodservice firms to compete in a service industry that has matured and is fast reaching saturation. Pursuing a diversification strategy may be the key to the continued growth and expansion of the foodservice industry.

Research Questions

The purpose of this study is to investigate the relationship between diversification strategy, financial performance and stability of firms in the foodservice industry. Research questions related to the purpose include:

1. Is there a significant relationship between
diversification strategy and firm performance?

2. Is there a significant difference in financial performance and stability between diversified and undiversified foodservice firms?

3. Is there a significant difference in financial performance and stability between diversified foodservice firms pursuing different diversification strategies?

4. How did the recent recession of 1990/91 affect the relationship between diversification strategy and performance and stability of foodservice firms?

Specifically, this study will categorize firms into various diversification categories utilizing Rumelt's (1974) measure. Comparisons of performance and stability will be made between groups and within groups by utilizing both accounting and market measures.

Contribution of Study

The potential contributions of this study to hospitality and diversification research are:

1. Many restaurant companies have diversified products and services. Research on foodservice diversification, however, has not been documented. This study will extend previous research on product diversification into the foodservice industry.
2. Most of the previous studies of product diversification used either accounting or market data. This study will use both at the same time and compare the results. It will provide some additional evidence on the relationship between diversification strategy and performance.

3. This study will reveal if diversification is a viable strategy for foodservice firms to achieve higher firm profitability and greater wealth of their investors. Knowing which strategy to pursue can give foodservice firms a competitive advantage over other firms in the foodservice industry.

4. Knowing the impact of the business cycle on diversification and performance will enable foodservice firms and shareholders to make decisions concerning strategies to increase the stability of returns.

Delimitations of Study

This study will have the following limitations:

1. The generalization of the findings of this study will be limited to public foodservice firms whose financial data is available. Financial data on private companies are limited and difficult to obtain because such information is not disclosed.

2. The foodservice firms in this study is limited to
the list of foodservice firms available in the COMPUSTAT financial database published by Standard & Poors'.

3. Since the list of firms is not selected through a randomized sampling process, any biases that could have resulted could not be avoided.

Organization of Study

This study is composed of five chapters. Chapter I provides a background of the study, including the problem statement and objectives of this study. Specific research questions were presented and terms defined. Chapter II reviews the literature on the relationship between diversification and performance. Chapter III is a discussion of the research methodology. Chapter IV analyzes the data and the statistical results of hypotheses testing. Finally, Chapter V concludes the studies and provides recommendations for the foodservice industry. Implications for further research are also discussed.

Definition of Terms

The following terms used in this research study are to be defined as follows:

**Diversification**: The entry of a firm or business into new lines of activities, businesses or product segments.
Diversification strategy: A firm's use of its strengths, skills and know-how to operate simultaneously in two or more product segments that may or may not be related to one another.

**Diversified Firms:** Firms that engage in more than one line of business or product segments.

**Undiversified Firms:** Firms that are active in only one line of business or product segment.

**Financial Performance:** It refers to a firm's accounting profitability such as Return on Assets (ROA), and Return on Equity (ROE), as well as a firm's market performance or stock return.

**Stability:** It refers to the variability in profits and stock returns as measured by the standard deviation.

**Single Business:** Undiversified firms that specialize or are committed to a single business or product segment.

**Dominant Business:** Firms that have diversified to some extent but still obtain a large share of revenue from a single product or segment.

**Related Business:** Firms that have diversified into different product or business segments but these products or segments are related to the skills and strengths possessed originally by the firm.

**Unrelated Business:** Firms that have diversified into areas that are not related to the original skills and
strengths of the firm.

_Foodservice Industry:_ Group of firms that includes retail establishments selling prepared foods and drinks for consumption on the premises. It also includes lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption.
Chapter II

REVIEW OF LITERATURE

Introduction

The previous chapter briefly discussed the importance of diversification as a potential profitable strategy. Research questions were formulated and terms defined. This chapter provides a detailed review of the literature on firm diversification and performance. Specifically, this chapter is structured as follows:

1. Trends in diversification.
2. Definition of diversification.
4. Relationship between diversification and performance.
   a. Theoretical background on why firms diversify.
   b. Measures of Performance.
   c. Empirical studies on the degree, mode and type of diversification and performance.
   d. Reasons for diverse findings.
   e. Business cycle effects.
4. Summary
Trends in Diversification

The increasing diversification and movement of firms into new lines of businesses and activities started right after the Second World War. The rapid pace of diversification was primarily facilitated by the growth of the stock market and a healthy business environment (Markide, 1991). Research by Rumelt (1974, 1982) found that diversification by Fortune 500 companies in 1974 had increased to 63% from 30.1% in 1950. Throughout the 1970s, firms continued to pursue diversification primarily through mergers and acquisitions (Porter, 1987). The trend towards diversification is expected to continue throughout the 1990s (Bennett, 1989).

Definition of Diversification

Though there is not a generally accepted definition of diversification, however, there are no major differences in various definitions proposed by researchers (Rumelt, 1974; Gort, 1962; Berry, 1975; Kamien and Schwartz, 1975; Pitts and Hopkins, 1982; Ansoff, 1965; Booz, Allen and Hamilton, 1985). To Berry (1975), diversification reflects an increase in the number of industries in which firms are active while Ansoff (1965) defined it as the entry of firms into new markets with new products. According to Pitts and Hopkins (1982), firms are considered as diversified if they are simultaneously active in more than one business. This
study will define diversification as the entry and simultaneous operation of two or more product segments with new or existing products and services by a foodservice firm.

**Measurement of Diversification**

Based on the definition of diversification, product diversification has been conceptualized and measured in three different ways, namely, the degree of diversification, mode of diversification and type of diversification. While studies in industrial organization literature have utilized product count measures and indices to measure the degree of diversification, studies in strategic management studies have resorted to categorical measures for the type of diversification strategy. Strategic management studies have generally employed Rumelt's (1974) subjective diversification measure.

**Degree of Diversification**

The degree of diversification has been measured either as a business/product count or continuous measure (Pitts and Hopkins, 1982). The business count approach is used to measure the degree of diversity by counting the number of businesses a firm is active in. Business count measures typically use the Standard Industrial Classification (SIC) codes and U.S. Census Bureau information to identify individual businesses that a firm is active in. The number
of product segments is then used as a measure of firm diversity. A variation of this measure is to measure the share of the largest business in the firm's portfolio or specialization ratio (share of the largest business sales to the firm's total sales). However, the limitation of this measure is that it exclusively focuses on the size of only the largest business relative to the whole. This measure does not take into account the extent to which the remainder of a firm's products are diversified (Pitts and Hopkins, 1982).

On the other hand, the continuous measure of diversification has been the use of indices. Indices employed by researchers to measure the degree of diversification include the Hirschmann Index (Hirshmann, 1964) and the entropy index proposed by Jacquemin and Berry, (1979). The Hirschmann (1964) index weighs each business share relative to the firm as a whole. The entropy index is similar to the Hirschmann index but weighs each share of a business by its logarithm thus giving proportionally less weight to large businesses. The use of business count measures for the degree of diversification will lead to inconclusive results because such measures are inappropriate for investigating differences within groups of diversified firms. These measures are SIC-based and do not include the nature of relationships between other product segments in a firm's portfolio. Instead, product count measures should be
utilized to measure differences between diversified and undiversified groups (Pitts and Hopkins, 1982).

**Mode of Diversification**

The mode of diversification refers to the approach used by a firm to diversify into different product markets. The two most common modes of diversification are: the internal development of products and services; and mergers and acquisitions. Some researchers (Berg, 1973; Lamont and Anderson, 1985; Pitts, 1976) argue that internal diversification tends to generate businesses that are more closely related and therefore less diversified than acquisitive diversification which results in unrelated firms being added to the business profile. Internal development exploits the internal resources of a firm and is used as a basis for establishing a new business through innovation. Diversification through mergers and acquisitions involve strategy assessments of target firms in terms of their strengths and weaknesses, and value to the acquiring firm (Berg and Pitts, 1979). In previous studies, using the mode of diversification has been limited to comparisons between industry groups and not within groups.

**Type of Diversification**

The type of diversification is also measured using the specialization ratio. However, unlike the degree of
diversification, the measure used in the type of diversification builds on the nature of relationships among the various product segments in a firm's portfolio. The relationships among product segments or relatedness is used to differentiate between the related and unrelated categories. Categorical schemes have been used to define the type of diversification strategies. The most common categorical scheme used was Wrigley's (1970) typology consisting of four major strategy types (single, dominant, related and unrelated) and Rumelt's (1974) extension of the four categories. Several other researchers subsequent to Rumelt have adopted this type of classification (Caves et al., 1980; Montgomery, 1979; Vancil, 1978). Other researchers have sought to restrict the categories into two or three categories depending on the research questions.

Rumelt's (1974) strategic measure has been shown to be more reliable and enable the measurement of not only between but also within group differences (Pitts and Hopkins, 1982). Unlike the degree of diversification, the relationships among businesses can be more accurately determined by using Rumelt's measure because it includes all the product segments in a firm's portfolio.

Relationship Between Diversification and Performance

Research analyzing the relationship between diversification strategy and performance has primarily
originated in the area of strategic management (Bettis, 1981; Bettis and Hall, 1982; Christensen and Montgomery, 1981; Rumelt, 1974, 1982). The primary research in strategic management has been the examination of the hypothesis that firms adopting a strategy of related diversification should outperform those pursuing unrelated diversification because it allows the transferability of core skills and the benefits of economies of scale (Salter and Weinhold, 1979; Teece, 1980).

Theoretical Background on why Firms Diversify

A number of arguments have been provided on the pursuit of diversification to increase profitability. Beattie (1980) argues that it may be due to the pursuit of monopoly power, reduction of risk and taking advantage of cost opportunities. One argument is based on the economic theory that assumes market perfection with firms having a single product focus and homogeneous factor markets (Scherer, 1980). In such cases, only limited diversification takes place with no effect on firm performance.

A second argument suggests that market imperfection may encourage diversification through incentives external and internal to the firm. External incentives such as public anti-trust policy, tax laws, and high transaction costs may compromise the assumption of market perfection leading firms to pursue diversification. Internal incentives could be low
firm performance, uncertainty of future cash flows and a desire for risk reduction (Rumelt, 1974).

A third argument assumes managerial motives for increased diversification. It is based on the agency theory (Jensen and Meckling, 1976) which assumes that managers are agents of owners with personal motives for diversifying the firm to reduce risk and increase executive compensation. Corporate managers may diversify the firm in order to diversify their employment risk as long as the firm is profitable (Hoskisson and Turk, 1990). Another argument from the portfolio theory in finance suggests that since not all shareholders are well diversified in their portfolio of investments, a firm's stability can be further increased through diversification.

Whichever argument one might accept, nevertheless, the concept of employing a diversification strategy requires that a firm acquires or develops new functional skills in marketing, operations, finance, and research and development in order to compete successfully in the market it enters (Dory, 1978). Diversification is generally shaped by the external environment, the industry's competitive environment, specific characteristics of the firm and the firm performance (Miles, 1982). In addition, the reputation of the firm to its owners, employees, investors and the community is essential (Dory, 1978). The various reasons suggested by Straudt (1954) for pursuing a strategy of
diversification are listed in Table 1. Since not all the reasons may hold, an updated list of why firms diversify in the 1990s is presented in Table 2.

**Measures of Performance**

Performance has generally been measured in terms of profitability and/or risk. Research on diversification has primarily used either accounting measures such as return on assets (ROA), return on sales (ROS), return on equity (ROE), or net profit margin (NPM); or market measures such as stock returns and the variability in stock returns.

Early studies in industrial organization and economics were primarily concerned with the anti-competitive effects of diversification and thus focused their attention on market structure variables such as industry concentration, growth rates and barriers to entry (Ramanujam and Varadarajan, 1989). The finance literature has been chiefly concerned with risk reduction from the investor's point of view using various market measures of return and risk such as stock returns, beta coefficients and variability in stock returns. Although the primary focus on the literature in strategic management has been the use of accounting measures, market measures have also been used by some researchers (Amit and Livnat, 1988a, 1988b; Dubofsky and Varadarajan, 1987; Hitt and Ireland, 1987). Market measures used for measuring performance include Sharpe's index or
Table 1  Purpose of Diversification

1. **Survival**
   
   To offset a declining or vanishing market.
   To compensate for technological obsolescence.
   To offset obsolete facilities.
   To offset declining profit margins.
   To offset an unfavorable geographic location brought about by changing economic factors.

2. **Stability**
   
   To eliminate or offset seasonal slumps.
   To offset cyclical fluctuations.
   To maintain employment of the labor force.
   To provide balance between high-margin and low-margin products.
   To provide balance between old and new products.
   To maintain share of market.
   To meet new products of competitors.
   To tie customers to the firm.
   To distribute risk by serving several markets.
   To maintain an assured source of supply.
   To assure an outlet for the sale of the product.
   To develop a strong competitive supply position by offering several close substitute products.

3. **Productive Utilization of Resources**
   
   To utilize waste or by-products.
   To maintain balance in vertical integration.
   To make use of basic raw material.
   To utilize excess productive capacity.
   To make use of product innovation from internal technical research.
   To capitalize distinctive know-how.
   To make full use of management resources.
   To utilize excess marketing capacity.
   To exploit the value of an established market position trade name or prestige.
   To keep pace with an ever-increasing rate of technology.
   To capitalize on company research and existing techniques as well as its advances in technology.
   To capitalize on a firm's market contacts.
continued

4. Adaptation to Changing Customer Needs

To meet the demands or convenience of diversified dealers.
To meet specific requests of important individuals and/or group of customers.
To meet government requests for national security.
To improve performance of existing products (equipment) through adding accessories or complementary products.

5. Growth

To counter market saturation on present products.
To reinvest earnings.
To take advantage of unusually attractive mergers or acquisition opportunities.
To stimulate the sale of basic products.
To encourage growth for its own sake or to satisfy the ambition of management or owners.

6. Miscellaneous

To realize maximum advantage from the tax structure.
To salvage or make the best of previously acquired companies or products.
To maintain a reputation for industrial leadership.
To comply with the desires (whims) of owners or executives.
To strengthen the firm by obtaining new management and abilities.

Table 2  Reasons Why Firms Diversify

1. To increase market power.
2. To reduce variance of a firm's profits.
3. To stabilize profits through foreign investment.
4. To improve profit performance.
5. To improve shareholder wealth.
6. To reinvest profits.
7. To maximize a firm's economic value.
8. To lower the overall risk of the firm.
9. To avoid adverse competitive or industry conditions.
10. To achieve external growth through acquisitions.
11. To develop multiple distinctive competencies through mergers.
12. To overcome and control for weaknesses in existing products.
13. To achieve synergy by combining complementary skills.
14. To deploy assets and transfer skills more effectively.
15. To reduce bankruptcy probability.
16. To exploit technical and managerial skills.
17. To modulate risk in a highly cyclical industry.
18. To realize operating synergies between product segments.
19. To overcome barriers to entry.
20. To exploit cost opportunities.
21. To achieve internal growth through development of new products and services.
22. To increase managerial compensation.
23. To reduce employment risk.
24. To overcome uncertainty of expected future cash flows.
25. To utilize excess capacity.
26. To take advantage of changes in tax laws and anti-trust policies.

Sources: Hoskisson and Hitt (1990), Datta et al. (1991), Beattie (1980), Salter and Weinhold (1979), Rumelt (1982), Montgomery (1985)
Treynor's index and Jensen's alpha. These measures are commonly used to assess firm performance relative to the stock market (Jobson and Korkie, 1981; Alexander and Francis, 1986; Hoskisson et al., 1993). 

Previous studies on diversification (LeCraw, 1984; Palepu, 1985) have used a single measure of performance or stability instead of using both accounting and market measures. Accounting measures have been more commonly used by researchers for investigating the diversification and performance relationship. The use of accounting measures have been defended by Bromiley (1986); Jacobsen (1987); and Long and Ravenscraft (1984). Rather than exclusively using a single measure, Amit and Livnat (1988b) advocate using multiple measures of performance to foster the accumulation of knowledge and to help sort the relationship. Multiple measures are justified because no one measure is capable of capturing multiple performance objectives. Measures that include both market and accounting variables will offer an improvement over previous studies because the risk-return tradeoff can be better determined by the inclusion of measures that represent both aspects of performance.

Degree of Diversification and Performance

Studies that examine the relationship between the degree of diversification and performance have yielded mixed results. These studies originated in industrial
organization literature (Gort, 1962; Arnould, 1969) and employed simple product count indices to measure the degree of diversification. Gort (1962) was one of the first to investigate the diversification and performance relationship. Gort analyzed 111 large U.S. corporations between 1947 to 1957 using 3 measures of diversification, namely, the number of businesses in which firms were active in, the specialization ratio (ratio of a firm's primary business sales to total firm sales), and data on manufacturing and unemployment. Return on Investment (ROI) was the accounting measure used to assess firm performance. Gort concluded that there was no significant relationship between diversification and performance. Similarly, Arnould (1969) studied 104 U.S. food processing firms and supported Gort's conclusions of a lack of any significant relationship between the degree of diversification and performance. In a further study, Ravenscraft (1983), using a comprehensive index (Herfindahl-Hirschmann index) to measure diversity, also supported the findings of no significant relationship between diversification and performance. In another study, Montgomery (1985) using a sample of 128 Fortune 500 firms between 1972 and 1977, found no relationship between diversification and performance when industry factors were controlled for. Montgomery used an SIC-based product count measure for diversification and a single measure of performance (ROI) to arrive at his conclusions.
Despite findings of no relationship between diversification and performance, a number of studies have yielded a positive relationship (Rhoades, 1973; Carter, 1977; Grant et al., 1988; Page et al., 1988) as well as a negative relationship (Imel and Helmburger, 1971; Markham, 1973; Rhoades, 1974; Jahera et al., 1987; Amit and Livnat, 1988b). The primary measures of degree of diversification used in these studies have been the specialization ratio, product counts and indices, while accounting measures such as ROA, ROE, and ROI were used for measuring performance. Rhoades (1973), Carter (1977) and Grant et al. (1988) used a single accounting measure of performance in their studies while Page et al. (1988) used market measures (Sharpe's, and Treynor's indices and Jensen's alpha). Page et al. (1988) found that the degree of diversification was related to performance when the accounting measures were used but found no relationship with the market measures of performance. Grant et al. (1988) found that diversification was positively related to profitability up to a certain point. After the point, product diversity was associated with declining profitability. Their findings suggest that firms probably used the high profits from their core businesses to diversify because the high profits were earned on the core activities rather than on the diversified operations. The hypothesis that the degree of diversification and performance are related have been inconclusive (Datta et
al., 1991). The reason lies in the failure of these studies to differentiate between related and unrelated diversification (Palepu, 1985).

**Mode of Diversification and Performance**

Studies investigating the diversification mode and performance relationship are limited to comparisons between conglomerates and non-conglomerates and other groups. Performance measures used in these studies have included both accounting (ROA, ROS, ROE,) and market (Sharpe's and Treynor's indices, and Jensen's alpha) as well as risk measures (beta coefficients and variability in ROA and ROE).

Weston and Mansinghka (1971) found that conglomerate diversification helped improve profitability. Beattie (1980) found that conglomerate diversification resulted in risk reduction but found no relationship between diversification and profitability.

In contrast, Prosper and Smith (1971) in a study of manufacturing firms in the 1968 Fortune 500, concluded that conglomerates were less profitable than non-conglomerates. Both researchers employed ROA as the single performance measure. Holzmann et al. (1975), in a further study using multiple measures of accounting performance (ROA, ROC) and risk (variability in ROA, ROE), concluded that conglomerates have lower returns than non-conglomerates. Mason and Goudzwaard's (1976) study also found that conglomerates had
Studies employing the internal and external modes of diversification have been limited. The majority of these studies examined the external mode of diversification through acquisitions (Prosper and Smith, 1971; Weston and Mansingkha, 1971; Weston et al., 1972; Melicher and Rush, 1973; Johnk and Nielson, 1974; Holzmann et al., 1975; Mason and Goudzwaard, 1976; Beattie, 1980; Beedles et al., 1981; Lamont and Anderson, 1985). On the other hand, Biggadike (1979) investigated the internal mode of diversification while Lamont and Anderson (1985) integrated both modes of diversification. Again, the findings have been diverse with no conclusive results. Biggadike (1979) in his internal diversification study, found that new ventures suffered losses through the first four years. Positive cash flow was only achieved after an average of eight years. Lamont and Anderson (1985) studied 50 Fortune 500 firms from 1977 to 1981 and concluded that internal diversifiers had a higher ROA than acquisitive diversifiers but found no difference on the ROI or ROE measure of profitability.

Studies on the diversification mode and performance relationship have focused primarily on the differences between diversified groups and excluded undiversified firms. In addition, studies focusing on the performance differences between alternative modes of diversification and the
relationship between the internal mode and performance are also limited (Datta et al., 1991)

**Type of Diversification Strategy and Performance**

Studies investigating the relationship between the type of diversification strategy and performance hypothesize that related firms perform better than unrelated firms because of the opportunities that permit the exploitation and transfer of core skills to the various businesses of a firm, thus leading to efficiencies in resource allocation, and better utilization of technical and managerial skills (Rumelt, 1982; Salter and Weinhold, 1979). Firms that pursue related diversification will also realize economic benefits from marketing, research and development, production and purchasing as a result of the interrelationships that exist between the various businesses of the firm (Porter, 1985; Teece, 1982). Unrelated firms can also realize economic benefits through the exploitation of an efficient capital market (Hill, 1988; Teece, 1982). However, unrelated diversification is a more appropriate strategy to use especially when maturing or aging markets result in profit erosion, or to modulate risk in a highly cyclical industry (Leontiades, 1986).

Rumelt's (1974) study has been one of the most important studies in the strategic management studies that examined the diversification and performance relationship.
Discarding the product count measure typically used in industrial organization studies, Rumelt employed a categorical measure of diversification that is shown in Table 3. Rumelt used a set of quantitative and subjective criteria to assess the extent and nature of relationships among the various businesses of diversified firms by analyzing the characteristics of their product segments. Rumelt categorized firms by four strategy types: (1) single business, (2) dominant business, (3) related business, and (4) unrelated business. As part of his study, Rumelt evaluated a random sample of 246 Fortune 500 companies over 20 years from 1949 to 1969 by their annualized rate of return on capital (ROC), return on equity (ROE), and earnings per share (EPS) among other measures. Rumelt's findings indicated that firms pursuing a strategy of related diversification outperformed unrelated diversified firms. Two subsequent studies extended Rumelt's work and supported his findings. Christensen and Montgomery (1981) analyzed a subsample of 128 firms from Rumelt's original sample. The study was conducted from 1972 to 1977 and Rumelt's findings that related diversifiers outperformed unrelated diversifiers was reaffirmed. Further support was provided in other studies by Bettis (1981), LeCraw (1984), Palepu (1985), and Varadarajan and Ramanujam (1987). Bettis (1981) analyzed 80 Fortune 500 firms and employed three diversification categories (dominant, related, unrelated).
Table 3  Rumelt's Diversification Measure

1. **Single Business**: Firms that are basically committed to a single business with a specialization ratio of 0.95 or more. Among vertically integrated firms, those that have an end-product business that contributes 95 per cent or more of total revenue are classified as single business.

2. **Dominant Business**: Firms that have diversified to some extent but still obtain the preponderance of their revenues from a single business. Among nonvertically integrated firms, those with SR greater than or equal to 0.7 but less than 0.95 are dominant business firms. Among vertically integrated firms, those that do not qualify as single business companies fall into the dominant category.

   a. **Dominant-Vertical**: Vertically integrated firms that produce and sell a variety of end products, no one of which contributes more than 95 percent of total revenues.

   b. **Dominant-Constrained**: Non-vertical firms that have diversified by building on some particular strength, skills or resource associated with the original dominant activity. In such firms the preponderance of the diversified activities are all related to one another and to the dominant business.

   c. **Dominant-Linked**: Non-vertical firms that have diversified by building several different strengths, skills or resources as they are acquired. In such firms the preponderance of the diversified activities are not directly related to the dominant business but each is somehow related to some other of the firm's activities.

   d. **Dominant-Unrelated**: Non-vertical firms in which the preponderance of the diversified activities are unrelated to the dominant business.
3. **Related Business**: Non-vertically integrated firms that are diversified, having specialization ratios less than 0.7, and in which diversification has been primarily accomplished by relating new activities to old, so that the related ratio is 0.7 or more.

   a. **Related-Constrained**: Related firms that have diversified chiefly by relating new businesses to a specific central skill or resource and in which, therefore, each business activity is related to almost all of the other business activities.

   b. **Related-Linked**: Related firms that have diversified by relating new businesses to some strength or skill already possessed, but not always the same strength or skill. By diversifying in several directions and exploiting new skills as they are acquired, such firms have become active in widely disparate businesses.

4. **Unrelated Business**: Non-vertical firms that have diversified chiefly without regard to relationships between new businesses and current activities. Such firms are defined by a related ratio of less than 0.7.

   a. **Unrelated-Passive**: Unrelated firms that do not qualify as acquisitive conglomerates.

   b. **Acquisitive Conglomerates**: Unrelated firms that have aggressive programs for the acquisitions of new unrelated businesses. More specifically, such firms are defined as having had, over the past five years, (1) an average growth rate in earnings per share of at least 10 percent per year; (2) made at least five acquisitions, at least three of which took the firm into businesses unrelated to past activities; and (3) issued new equity shares whose total value (using market prices at the time of issue) was at least as great as the total amount of common dividends paid during the same period.

and a single measure of performance (ROA) to confirm that related diversifiers outperformed unrelated diversifiers. Similarly, LeCraw (1984) used four diversification types and ROE as the performance measure to show that related diversification improved firm performance.

There have also been studies that reported no differences in the type of diversification strategy and performance relationship. Hill (1983) found that, while unrelated firms exhibited greater variability in earnings across economic cycles, there were no differences in profitability between related and unrelated firms. His findings were supported by Amit and Livnat (1988b) who also found that while unrelated firms had lower risk, there were no significant performance differences between related and unrelated firms. Further, Grant et al. (1988) concluded that differences in profitability were more closely associated with the overall diversity of the firm rather than the relatedness between businesses.

In contrast, there have also been studies that have found that unrelated diversifiers performed better than related diversifiers. The two prominent studies are those of Michel and Shaked (1984) and Luffman and Reed (1984). Michel and Shaked (1984) focused only on related and unrelated businesses while excluding single and dominant firms from their measure. They used the Sharpe, Treynor and Jensen index as the performance measures. From a sample of
51 firms over a five year period from 1976 to 1980, both researchers computed the performance measures and an operational measure of the degree of relatedness of business segments for each firm. Their results suggested that unrelated diversification generated superior risk-return profiles in comparison to related diversification. The results also indicated that related diversification generated lower returns than unrelated diversification. While Michel and Shaked used market measures, Luffman and Reed (1984) used Return on Capital (ROC) to compute performance. However, the results were similar in supporting the Michel and Shaked's finding that unrelated diversifiers outperformed related diversifiers.

Studies investigating the type of diversification and performance have primarily been between related and unrelated diversification. Most of these studies used a restricted range of Rumelt's diversification measure and excluded dominant and undiversified firms. Comparisons were also made to investigate differences within diversified groups but not between group differences of diversified and undiversified firms (Pitts and Hopkins, 1982).

Reasons for Diverse Findings

These numerous studies on the diversification and performance relationship clearly show the increased interest that researchers have focused in this area of research. The
findings and conclusions reached have thus far been mixed, inconsistent and inconclusive. A number of problems have contributed to the variations in findings.

First, diversification studies have focused on a restricted range of categories in the measure of diversification. The categorical measure proposed by Rumelt (1974) classifies firms into four major categories of single, dominant, related and unrelated firms. However, a number of researchers (Bettis, 1981; Bettis and Hall, 1983; Hill, 1983; Palepu, 1985; Bettis and Mahajan, 1985; Michel and Shaked, 1984; and Dubofsky and Varadarajan, 1987), among others, all excluded single business firms in their categorical measure. Thus, their conclusions may reflect incomplete information.

Second, some studies have relied on a single accounting measure to assess the performance of firms. The work of Keats (1988), Dubofsky and Varadarajan (1987), Bettis (1981), LeCraw (1984), and Luffman and Reed (1984) rely on a single construct for measuring performance. A single measure or construct is again likely to reflect incomplete information (Keats 1990). Since few studies utilized both measures simultaneously, this study will use both measures of performance so the results can be compared.

Third, the samples for the majority of diversification studies were drawn primarily from the Fortune 500, which is made up of large and highly diversified firms from different
industry groups for which industry-specific effects cannot be controlled. As such, comparisons between industry groups would be inconclusive.

Fourth, according to Ramanujam and Varadarajan (1989), some studies have measured diversification in one year while computing performance for the previous five years without taking into account changes in diversity profiles over the five years. Studies need to be consistent and concurrent in their measures. While Rumelt (1974) ensured that the diversity profiles of firms did not change over the time-frame of study, studies need to exclude firms whose diversity profile change as a result of acquisitions, mergers and divestments. Otherwise there is an overlap in categories and the findings will be distorted. This study will make sure that foodservice firms with incomplete or ambiguous information and those with changes in their diversity profiles will be excluded for a more accurate measurement.

Finally, research studies that directly compare the performance of diversified and undiversified firms using Rumelt's measure is limited with the exception of McDougal and Round (1984). Two studies (Rumelt, 1974; Caves et al., 1980) compared performance among four groups of firms, one of which was undiversified. However, these studies made no attempt to combine the other three groups into a single diversified category to investigate differences between the
diversified and undiversified firms. As such, these studies provide no basis for statistical inference about the differences even though the studies permitted comparisons based on mean values (Pitts and Hopkins, 1982). Diversification studies using Rumelt's measure need to include both diversified and undiversified firms to avoid bias and to clarify the diversification and performance relationship.

**Business Cycle Effects**

Some diversification studies tested the diversification and performance relationship over the business cycle and found the relationship to vary over the cycle. Hill (1983) investigated the performance of firms from 1970 to 1976 and found that the profitability of conglomerates improved more than non-conglomerates during the upswing but deteriorated rapidly during the downturn. While Hill (1983) used a categorical scheme for his diversification measure, Ciscel and Evans (1984) used a business count approach to study the relationship over two recessionary periods (1969-1970 and 1974-1975) and two expansionary periods (1971-1973 and 1976-1978). The researchers concluded that moderate levels of diversification improved performance in the expansionary periods, while high levels of diversification generally hurt performance in recessionary periods.

The implication of the business cycle effects in
investigating the diversification and performance relationship is important. Empirical studies need to specify and describe the time-frames of the studies, for example, inflationary or recessionary. A failure of most studies is the failure of specifying business cycle effects (Ramanunjam and Varadarajan, 1987).

The purpose of analyzing the business cycle effects for this study is to determine if the recent recession had any effect on the stability of performance of foodservice firms. Economic factors play a critical role in determining the performance of the foodservice industry. The foodservice industry had experienced real annual sales decline only two other times within the past two decades, in 1974 and 1980 when the national economy was also in a recession (NRA, 1992). As shown in Tables 4 and 5, the recession of 1990-1991 ended years of continued economic growth for the country. The recession began in July 1990 and continued unabated throughout 1991. During the recession, consumers restricted their spending on meals away from home in the face of declining disposable incomes. Real disposable personal income decreased to 0.2 percent in 1991 as shown in Table 6. With high levels of unemployment and no job growth, and dwindling personal incomes, consumers cut back on their spending to cover their indebtedness (NRA, 1992). Consequently spending in restaurants slowed. The declines in both, the growth of the foodservice industry and the
Table 4
Growth in Real Gross Domestic Product (GDP) (seasonally adjusted at annual rates)

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>1</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3.9</td>
</tr>
<tr>
<td>1989</td>
<td>1</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.0</td>
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<tr>
<td></td>
<td>4</td>
<td>1.5</td>
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<tr>
<td>1990</td>
<td>1</td>
<td>2.8</td>
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<tr>
<td></td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-1.6</td>
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<tr>
<td></td>
<td>4</td>
<td>-3.9</td>
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<tr>
<td>1991</td>
<td>1</td>
<td>-3.0</td>
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<tr>
<td></td>
<td>2</td>
<td>1.7</td>
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<td></td>
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<td>1.2</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.6</td>
</tr>
<tr>
<td>1992</td>
<td>1</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Commerce
Table 5

Average Annual GDP Percent Change (1987 Dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Constant $</th>
<th>Current $</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>3.9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>1989</td>
<td>2.5%</td>
<td>7.2%</td>
</tr>
<tr>
<td>1990</td>
<td>0.8%</td>
<td>5.2%</td>
</tr>
<tr>
<td>1991</td>
<td>-1.2%</td>
<td>2.8%</td>
</tr>
<tr>
<td>1992</td>
<td>2.1%</td>
<td>4.8%</td>
</tr>
</tbody>
</table>

Source: U.S. Department of Commerce

Table 6

Percent Change in Real Disposable Income

<table>
<thead>
<tr>
<th>Year</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>3.5</td>
</tr>
<tr>
<td>1989</td>
<td>1.8</td>
</tr>
<tr>
<td>1990</td>
<td>1.5</td>
</tr>
<tr>
<td>1991</td>
<td>-0.2</td>
</tr>
<tr>
<td>1992</td>
<td>2.1</td>
</tr>
<tr>
<td>1993*</td>
<td>2.3</td>
</tr>
</tbody>
</table>

* 1993 figures are projected

Source: U.S. Department of Commerce
nation's economy, indicates that the foodservice industry is sensitive to the nation's business cycle and overall economic climate. Diversification would therefore seem to be an attractive option to pursue in increasing profitability and facilitating expansion, and increasing the stability of firms as well as minimizing losses during periods of recession. For example, encouraged by its retail business, Starbucks Coffee which operates 165 retail shops and restaurants on the West Coast has started up a mail order and restaurant wholesale business. Revenues in 1992 grew to $90 million from $8 million in 1988 (Rona, 1993).

Summary

The majority of studies in the diversification and performance relationship have focused on the degree, mode and type of diversification. Results from previous studies on the diversification and performance relationship have been mixed, inconclusive and inconsistent. Most of the previous studies have used a limited range, rather than the entire range of the diversification scheme proposed by Rumelt (1974). Market and accounting measures have been alternately used, rather than being used together consistently. Further research with complete categorization of diversification groups and both market and accounting performance measures is therefore needed.
Chapter III

DATA AND METHODOLOGY

Introduction

The objective of this study is to investigate the relationship between diversification strategy, financial performance and stability of firms in the foodservice industry. This study will enable foodservice chains and operators to determine if diversification is a viable strategy to achieve higher profitability and to maximize the shareholder wealth. In order to investigate the relationship, this chapter will discuss the methodology used in this study. In particular, this chapter is organized as follows: (1) research hypotheses, (2) selection of foodservice firms, (3) time-frame of study, (4) measures of financial performance and stability, (5) classification of diversification strategy groups, and (6) statistical testing methods.

Research Hypotheses

Specific research null hypotheses related to the research questions of this study are presented as follows:

Hypothesis 1:

There is no relationship between diversification
strategy, financial performance and stability of foodservice firms.

This hypothesis is related to the first research question raised in Chapter I. To test the relationship between diversification and performance, diversified and undiversified foodservice firms will be compared on each measure of accounting and market performance. Accounting measures of performance include return on assets (ROA), return on equity (ROE), and net profit margin (NPM). Market measures are the total stock returns. The stability is measured by the standard deviation. Firms will be classified as high, low, and medium performers based on percentiles. The relationship between diversification and performance will then be tested for independence.

**Hypothesis 2:**

There are no differences in financial performance and stability between diversified and undiversified foodservice firms.

This hypothesis is derived from the second research question. Previous studies on diversification failed to investigate the differences between the diversified and undiversified groups. To investigate this hypothesis, two groups of foodservice firms will be analyzed, namely,
undiversified and diversified firms. Undiversified foodservice firms consist of single business foodservice firms while the diversified category is made up of dominant, related, and unrelated foodservice firms. This study attempts to discover if any significant differences exist between diversified and undiversified foodservice firms on the accounting and market measures.

Hypothesis 3:
There are no differences in financial performance and stability of foodservice firms pursuing different diversification strategies.

This hypothesis is related to the third research question. To test this hypothesis, only the diversified group of firms pursuing different diversification strategies will be analyzed. Previous studies used product count measures instead of Rumelt's strategic measure. The various foodservice firms will be classified into 3 groups of dominant, related, and unrelated foodservice firms. The financial performance and stability of firms pursuing different diversification strategies will be compared to determine if any significant differences exist.

Hypothesis 4:
There are no significant differences in financial
performance and stability between the diversified and undiversified firms, and between diversified firms pursuing different diversification strategies in two sub-periods: before and during the recession.

This hypothesis was derived from the final research question. To test this hypothesis, financial performance of foodservice firms will be calculated for two sub-periods, the 1988/89 before recession period and during the 1990/91 recession period. This hypothesis will analyze the differences in performance and stability between the undiversified firms and diversified firms. Performance and stability will also be analyzed between diversified firms pursuing different diversification strategies. If the null hypothesis is accepted or rejected consistently over periods, then the recession has no impact on the diversification and performance relationship. Otherwise, the economic cycle affects the diversification and performance relationship.

Selection of Foodservice Firms

The firms for this study was drawn from only the foodservice industry rather than from all hospitality industries to control for industry-specific effects (Palepu, 1985). The choice of the foodservice industry was not only
because of an interest, but also the growing importance of it as a service industry and its status as the largest retail industry in the U.S. Firms were restricted to a list of foodservice firms in the Standard and Poor's COMPUSTAT II Business database with the foodservice industry code 58. The data file provides up to seven years' of financial information for each company on its sales and the breakdown of its various product segments. All firms in the foodservice industry that met the data requirements for computing the diversification and financial measures during the years from 1988 to 1991 were included in the study. Firms were selected based on two requirements: (1) availability of financial performance information from 1988 to 1991, and (2) no change in diversification strategy from 1988 to 1991. The second criteria was to ensure that the diversity profile of firms in the sample remain unchanged throughout the time period. Diversification profiles may change as a result of acquisitions and divestitures.

Time-Frame of Study

The study was carried out from 1988 to 1991 with two sub-periods: before and during recession. The short-time frame for this study was adopted because the most recent data on the recession was only available for 2 years instead of three from 1990 through 1992. To ensure consistency with the during recession period, a two year before
recession period was chosen. Ciscel and Evans (1984) also used two year periods to study the downswing of the business cycle (1969-1970, 1974-1975). Furthermore, since foodservice firm profiles change due to acquisitions and mergers over time, it was appropriate to use a short time-frame.

The purpose of dividing the four-year time-frame into two sub-periods was to make a comparison between periods to determine if the diversification and performance relationship was affected by the business cycle.

Measures of Performance and Stability

This study included both accounting and market measures of performance and stability. The accounting measures were ROA, ROE, NPM and the variability in these measures as measured by the standard deviation (VROA, VROE, VNPM). The market measure is the total stock returns (TSR) and the variability in the monthly stock returns as measured by the standard deviation (VSR). Since these performance and stability measures have been consistently used in previous diversification studies (Rumelt, 1974; Hill, 1983; Amit and Livnat, 1988a; Dubofsky and Varadarajan, 1987), a comparison can be made with previous studies.

For each firm, the overall accounting performance over the four-year period was measured using the annual figures. The variability in the accounting measures were derived from
the quarterly returns to reflect more accurately the stability in performance. To measure the stock returns, monthly stock returns were derived by taking the total percentage change in the monthly closing price of stock plus dividends for the relevant month. The variability of stock returns was measured by the standard deviation of monthly stock returns over the same period. The results will be reported for the entire four-year period from 1988-1991 and the two sub-periods.

Classification of Diversification Strategy Groups

Firm diversification strategy for this study will be operationalized using Rumelt's (1974) four major diversification categories of single, dominant, related and unrelated firms. Rumelt's measure has used and validated by other researchers (Dubofsky and Varadarajan, 1987; Grant and Jammne, 1988; Grant et al., 1988; Hoskisson, 1987; Montgomery, 1979, 1982). Support for validity and reliability for Rumelt's (1974) diversification category scheme was affirmed by Hoskisson et al. (1993).

Since the foodservice industry is dominated mostly by small businesses unlike the manufacturing industry or Fortune 500 which comprise of large diversified firms with a strong multi-product focus (Galbraith and Kazanjian, 1986), it was found that utilizing Rumelt's measure would bias the diversification groups by including most of the foodservice
firms in the single and dominant category with no foodservice firms in the related or unrelated categories. As such, it was necessary to modify Rumelt's diversification measure to control for size effects and to reflect the less diversified nature of the foodservice industry. It has been generally accepted that the lower the sales contribution of the largest product segment, the more diverse is the business, but the cut-off point is subjective. Rumelt (1974) used 70 percent as a cut-off point for related and unrelated firms while Pitts (1974) was more restrictive by specifying that unrelated diversifiers had to operate in at least six different businesses with the largest accounting for less than 60 percent of total sales. Simmonds (1990) used 40 percent for his measure to neutralize size effects. The cut-off point for the diversified foodservice firms adopted in this study is arbitrarily chosen but is more conservative and restrictive in defining the diversified categories because food and beverage sales accounts for over 80 percent of total sales. Since the specialization ratio (largest business segment in sales divided by total sales) and relationships among businesses is being used to classify firms, it is hereby proposed that dominant firms will be firms with a specialization ratio of over 85 percent but less than 95 percent. Related and unrelated firms will be foodservice firms with specialization ratios of less than 85 percent. The difference between related and unrelated firms
will be made using information from Moody's Industrial Manual and company data to determine a pattern of relationships among businesses (Rumelt, 1974). The process of determining if two business segments are related or not is open to subjective consideration. To guard against it, care was taken to exclude firms with ambiguous or incomplete information. The single or undiversified firm category will be the same as defined by Rumelt (1974). Undiversified or single foodservice firms will be those with food and beverage specialization ratios equal to or greater than 95 percent.

Financial and market data of foodservice firms from 1988 through 1991 were obtained from the COMPUSTAT Financial Database. Foodservice firms were classified into the single, dominant, related and unrelated categories according to their food and beverage specialization ratios and pattern of relationships among product segments. The dominant, related and unrelated foodservice firms comprise the diversified group while only the single foodservice firms comprise the undiversified group. Table 7 shows the foodservice diversification strategy measure used for this study. Out of 121 foodservice firms listed in the database, 37 firms were excluded due to incomplete financial information. These firms were new entrants in the foodservice industry while other firms were acquired by companies outside the foodservice industry. Further, 11
firms were excluded because of their changes in the diversification profile from one diversification category to another. Inclusion of such firms could cause a potential overlap of the data and distort the findings. The final list of foodservice firms for this study consists of 73 foodservice firms, 60% of the original list. Table 8 is a listing of the 73 foodservice firms included in this study.

The 73 firms were first classified into diversified and undiversified groups as shown in Table 9. Firms that generated more than 95% of their sales from food and beverage were classified as undiversified while all others were grouped as diversified. Foodservice firms in the undiversified category were primarily small business or independent foodservice firms that were either owned or managed as franchisees of name brand concepts. The major source of revenue came from food and beverage sales. The diversified group consists of larger foodservice firms. This category was further broken down according to the firms' food and beverage specialization ratios as discussed in a previous section. The classification of foodservice firms by their diversification strategy is presented in Table 10. The single foodservice firms or the undiversified firms comprised two-thirds of the total (67%), followed by dominant (15%), related (14%) and unrelated (4%). Dominant foodservice firms generated over 85% but less than 95% of their sales from food and beverage. Other sources included
Table 7  Foodservice Measure of Diversification Strategy

1. Single Foodservice Business: Firms that are basically committed to a single food and beverage business. Their food and beverage specialization ratio is 95% or more. Specialization ratio is defined as the proportion of a firm's foodservice revenues that is attributable to its largest product market activity. Such firms are also classified as undiversified.

2. Dominant Foodservice Business: Firms that are slightly diversified but still obtain a large portion of the revenue from a single food and beverage business. Dominant business firms have food and beverage specialization ratios greater than or equal to 85% but less than 95%.

3. Related Foodservice Business: Diversified firms whose food and beverage specialization ratios are less than 85% in which diversification has been primarily accomplished by relating new businesses to old. Relatedness is determined by the underlying pattern of relationships between product segments. If food and beverage plus any related business is greater than 85%, the firm is classified as related.

4. Unrelated Foodservice Business: Firms that have diversified into other areas without regard to relationships between new businesses and current activities. Unrelated business firms are those with food and beverage specialization ratios less than 85%. If food and beverage plus any related business is less than 85%, the firm is classified as unrelated. Even if food and beverage plus any unrelated business is greater than 85%, the firm is still classified as unrelated.
<table>
<thead>
<tr>
<th></th>
<th>Name of Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>American Restaurant L.P.</td>
</tr>
<tr>
<td>2</td>
<td>ARA Group Inc.</td>
</tr>
<tr>
<td>3</td>
<td>Ark Restaurants Corp.</td>
</tr>
<tr>
<td>4</td>
<td>Atlantic Restaurant Ventures.</td>
</tr>
<tr>
<td>5</td>
<td>Bayport Restaurant Group.</td>
</tr>
<tr>
<td>6</td>
<td>Benihana National Corp.</td>
</tr>
<tr>
<td>7</td>
<td>Bob Evans Farms.</td>
</tr>
<tr>
<td>8</td>
<td>Brinker International Inc.</td>
</tr>
<tr>
<td>9</td>
<td>Buffets Inc.</td>
</tr>
<tr>
<td>10</td>
<td>California Beach Restaurants.</td>
</tr>
<tr>
<td>11</td>
<td>Chart House Enterprises Inc.</td>
</tr>
<tr>
<td>12</td>
<td>Chefs International Inc.</td>
</tr>
<tr>
<td>13</td>
<td>Ciatti's Inc.</td>
</tr>
<tr>
<td>14</td>
<td>Consolidated Products Inc.</td>
</tr>
<tr>
<td>15</td>
<td>Consul Restaurant Corp.</td>
</tr>
<tr>
<td>16</td>
<td>Cooker Restaurants.</td>
</tr>
<tr>
<td>17</td>
<td>Cracker Barrel Old Country Stores.</td>
</tr>
<tr>
<td>18</td>
<td>Cucos Inc.</td>
</tr>
<tr>
<td>19</td>
<td>Daka International Inc.</td>
</tr>
<tr>
<td>20</td>
<td>Discus Corp.</td>
</tr>
<tr>
<td>21</td>
<td>Eateries Inc.</td>
</tr>
<tr>
<td>22</td>
<td>El Chico Restaurants Inc.</td>
</tr>
<tr>
<td>23</td>
<td>Family Steak Houses of Florida.</td>
</tr>
<tr>
<td>24</td>
<td>Famous Restaurants Inc.</td>
</tr>
<tr>
<td>25</td>
<td>Fast Food Operators Inc.</td>
</tr>
<tr>
<td>26</td>
<td>Foodmaker Inc.</td>
</tr>
<tr>
<td>27</td>
<td>Frisch's Restaurants Inc.</td>
</tr>
<tr>
<td>28</td>
<td>Furr's/Bishop's Inc.</td>
</tr>
<tr>
<td>29</td>
<td>Golden Corral Restaurants.</td>
</tr>
<tr>
<td>30</td>
<td>Homestyle Buffets Inc.</td>
</tr>
<tr>
<td>31</td>
<td>Hudsons Grill American.</td>
</tr>
<tr>
<td>32</td>
<td>Jamco Ltd.</td>
</tr>
<tr>
<td>33</td>
<td>JB's Restaurants Inc.</td>
</tr>
<tr>
<td>34</td>
<td>Karchner (Carl) Enterprises.</td>
</tr>
<tr>
<td>35</td>
<td>Kettle Restaurants.</td>
</tr>
<tr>
<td>36</td>
<td>LDB Corp.</td>
</tr>
<tr>
<td>37</td>
<td>Luby's Cafeterias Inc.</td>
</tr>
<tr>
<td>38</td>
<td>Magnolia Foods Inc.</td>
</tr>
<tr>
<td>39</td>
<td>Marriott Corp.</td>
</tr>
<tr>
<td>40</td>
<td>Maverick Restaurants.</td>
</tr>
<tr>
<td>41</td>
<td>Max &amp; Erma's Restaurants.</td>
</tr>
<tr>
<td>42</td>
<td>McDonalds Corp.</td>
</tr>
<tr>
<td>43</td>
<td>Miami Subs Corp.</td>
</tr>
<tr>
<td>44</td>
<td>Morgan Foods Inc.</td>
</tr>
<tr>
<td>45</td>
<td>Morrison Restaurants Inc.</td>
</tr>
<tr>
<td>46</td>
<td>National Pizza Co.</td>
</tr>
<tr>
<td>47</td>
<td>Noble Romans Inc.</td>
</tr>
<tr>
<td>48</td>
<td>Panchos Mexican Buffets Inc.</td>
</tr>
<tr>
<td>49</td>
<td>Perkins Family Restaurants L.P.</td>
</tr>
<tr>
<td>50</td>
<td>Piccadilly Cafeterias Inc.</td>
</tr>
</tbody>
</table>
continued

51. Rudy's Restaurant Group Inc.
52. Ryan's Family Steak Houses Inc.
53. Sbarro Inc.
54. Sea Gallery Stores Inc.
55. Servam Corp.
56. Shoney's Inc.
57. Showbiz Pizza Time Inc.
58. SIS Corp.
59. Sizzler International Inc.
60. Southern Hospitality.
61. Spaghetti Warehouse Inc.
62. Stratamerica Corp.
63. TPI Enterprises Inc.
64. TPI Restaurant Inc.
65. TW Services Inc.
66. Two Pesos Inc.
67. Uno Restaurant Corp.
68. Vicorp Restaurants Inc.
69. Volunteer Cap Corp.
70. Wall St Deli Inc.
71. Wendy's International.
72. Westwood Group Inc.
73. WSMP Inc.
Table 9  Diversification Category

<table>
<thead>
<tr>
<th>Type of Firm</th>
<th>Number of Firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undiversified</td>
<td>49</td>
<td>67.1%</td>
</tr>
<tr>
<td>Diversified</td>
<td>24</td>
<td>32.9%</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 10  Diversification Strategy of Foodservice Firms

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>49</td>
<td>67.1%</td>
</tr>
<tr>
<td>Dominant</td>
<td>11</td>
<td>15.1%</td>
</tr>
<tr>
<td>Related</td>
<td>10</td>
<td>13.7%</td>
</tr>
<tr>
<td>Unrelated</td>
<td>3</td>
<td>4.1%</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
interest income, royalties, and franchise fees. The related and unrelated foodservice firms generated less than 85 percent of revenues from food and beverage. Other sources of income for related firms included food processing, bakeries, franchisee fees, royalties, lodging, and vending. Other sources of sales for unrelated firms were generated from gift shops, dog track operations, manufacturing, and textiles. Foodservice firms in the dominant and related category included both parent companies and franchisees of major foodservice brands while those in the unrelated category were owned and/or operated by parent companies.

Statistical Testing Methods

The primary objective of this study was to investigate the relationship between diversification strategy, financial performance and stability of firms in the foodservice industry. The SPSS statistical software package was used to test the hypotheses in this study. The level of significance, alpha value, for all tests in the study was set at .05. Alpha is the probability of rejecting the null hypothesis when it is true.

A testing of the performance variables was first examined through a normal probability plot but failed to show any normal distribution of the data. A further statistical test (Lilliefors test for sample size >50) showed a very small observed significance level (<.01) which
indicated that the data was not from a normal distribution. Because parametric tests require assumptions of normality, such tests were not used. As the data were not normally distributed and were unequal in group size, non-parametric testing was utilized for testing the hypotheses. For the purpose of this study, the following non-parametric tests were used for the testing the hypotheses:

1. Chi-Square Test.
2. Mann-Whitney U Test.

The chi-square test was used to test the relationship between diversification strategy and financial performance and stability since both variables, diversification strategy and performance were categorical. Diversified and undiversified foodservice firms were grouped according to high, medium, and low performers on each performance measure. The high performers were firms above the 75th percentile, low performers below the 25th percentile and medium performers in between.

The Mann-Whitney which is a non-parametric substitute for the parametric t-test was used to test the differences between two groups. The Mann-Whitney U test in this study was utilized for two-cell comparisons to test the differences in the mean rankings between diversified and undiversified foodservice firms on each performance measure. The Kruskal-Wallis test is similar to the Mann-Whitney test.
but is used for comparisons of three or more groups. In this study, the Kruskal-Wallis H test was used to compare the differences in more than two groups. The Mann-Whitney and Kruskal-Wallis tests were also used to determine if significant differences exist in the performance and stability of foodservice firms before and during the recession that could be attributed to the effects of the business cycle. Both non-parametric tests rank scores on the performance variables from highest to lowest regardless of grouping, then determine the statistical significance of the ranking differences between groups.

Summary

In this chapter, the data and research methodology for the study were discussed. The selection of the sample, classification of firms, performance measures, and statistical methods were presented. The results of statistical testing will be presented in Chapter IV.
Chapter IV

RESULTS AND FINDINGS

Introduction

In chapter III, the methodology and procedures for data analysis was discussed. In this chapter, an overview of the mean financial performance and stability of foodservice firms is first presented before the results of the statistical testing are discussed.

Overview of Performance and Stability

Before applying the statistical tests for testing the hypotheses, the financial performance and stability of foodservice firms based on descriptive statistics is shown in Tables 11-14. The purpose was to profile and summarize the performance of foodservice firms over the four-year period. Table 11 shows the overall performance of all foodservice firms based only on descriptive statistics. Table 12 shows that diversified firms outperformed undiversified firms on all performance measures based only on the descriptive mean differences and variability. A further breakdown of foodservice firms by diversification strategy in Table 13 shows that unrelated firms performed better than all other firms on almost all descriptive measures of performance except on total stock returns
Table 11: Descriptive Statistics of Performance Measures For all Foodservice Firms (1988-1991)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Median</th>
<th>Std Dev</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA%</td>
<td>0.05</td>
<td>1.84</td>
<td>10.99</td>
<td>-1.39</td>
</tr>
<tr>
<td>ROE%</td>
<td>-4.86</td>
<td>5.65</td>
<td>54.18</td>
<td>-1.32</td>
</tr>
<tr>
<td>NPM%</td>
<td>-0.11</td>
<td>0.90</td>
<td>9.58</td>
<td>-4.95</td>
</tr>
<tr>
<td>TSR%*</td>
<td>63.27</td>
<td>57.70</td>
<td>124.08</td>
<td>1.00</td>
</tr>
<tr>
<td>VSR%</td>
<td>16.15</td>
<td>13.47</td>
<td>10.05</td>
<td>2.50</td>
</tr>
<tr>
<td>VROA%</td>
<td>6.94</td>
<td>2.56</td>
<td>9.84</td>
<td>2.78</td>
</tr>
<tr>
<td>VROE%</td>
<td>67.75</td>
<td>9.60</td>
<td>169.42</td>
<td>4.71</td>
</tr>
<tr>
<td>VNPM%</td>
<td>8.49</td>
<td>2.85</td>
<td>23.26</td>
<td>7.69</td>
</tr>
</tbody>
</table>

* Total stock returns are cumulative

Table 12: Mean Performance Measures by Diversification Category (1988-1991)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Diversified</th>
<th>Undiversified</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA%</td>
<td>2.10</td>
<td>-1.02</td>
</tr>
<tr>
<td>ROE%</td>
<td>0.52</td>
<td>-7.55</td>
</tr>
<tr>
<td>NPM%</td>
<td>1.01</td>
<td>-0.66</td>
</tr>
<tr>
<td>TSR%*</td>
<td>105.50</td>
<td>45.32</td>
</tr>
<tr>
<td>VSR%</td>
<td>15.74</td>
<td>16.31</td>
</tr>
<tr>
<td>VROA%</td>
<td>4.31</td>
<td>8.22</td>
</tr>
<tr>
<td>VROE%</td>
<td>51.90</td>
<td>75.67</td>
</tr>
<tr>
<td>VNPM%</td>
<td>4.95</td>
<td>10.22</td>
</tr>
</tbody>
</table>

* Total stock returns are cumulative
Table 13: Mean Performance Measure by Diversification Strategy (1988-1991)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Single</th>
<th>Dominant</th>
<th>Related</th>
<th>Unrelated</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA%</td>
<td>-1.02</td>
<td>1.59</td>
<td>2.41</td>
<td>2.98</td>
</tr>
<tr>
<td>ROE%</td>
<td>-7.55</td>
<td>-9.65</td>
<td>-7.10</td>
<td>63.24</td>
</tr>
<tr>
<td>NPM%</td>
<td>-0.66</td>
<td>1.01</td>
<td>0.82</td>
<td>1.68</td>
</tr>
<tr>
<td>TSR%*</td>
<td>45.32</td>
<td>69.99</td>
<td>122.73</td>
<td>161.20</td>
</tr>
<tr>
<td>VSR%</td>
<td>16.31</td>
<td>16.45</td>
<td>15.70</td>
<td>10.39</td>
</tr>
<tr>
<td>VROA%</td>
<td>8.22</td>
<td>3.45</td>
<td>5.99</td>
<td>1.87</td>
</tr>
<tr>
<td>VROE%</td>
<td>75.67</td>
<td>29.63</td>
<td>48.39</td>
<td>145.28</td>
</tr>
<tr>
<td>VNPM%</td>
<td>10.22</td>
<td>4.65</td>
<td>5.78</td>
<td>3.26</td>
</tr>
</tbody>
</table>

* Total stock returns are cumulative

Table 14: Mean Performance Measures by Diversification Before (1988/89) and During Recession (1990/91)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Diversified</td>
<td>Undiversified</td>
<td>Diversified</td>
<td>Undiversified</td>
</tr>
<tr>
<td>ROA%</td>
<td>3.62</td>
<td>-1.10</td>
<td>0.57</td>
<td>-0.41</td>
</tr>
<tr>
<td>ROE%</td>
<td>1.56</td>
<td>-16.33</td>
<td>0.86</td>
<td>3.31</td>
</tr>
<tr>
<td>NPM%</td>
<td>1.25</td>
<td>0.35</td>
<td>0.63</td>
<td>-3.65</td>
</tr>
<tr>
<td><em>TSR%</em></td>
<td>63.91</td>
<td>36.46</td>
<td>54.50</td>
<td>13.80</td>
</tr>
<tr>
<td>VSR%</td>
<td>14.45</td>
<td>14.37</td>
<td>17.07</td>
<td>17.80</td>
</tr>
<tr>
<td>VROA%</td>
<td>1.75</td>
<td>6.16</td>
<td>3.51</td>
<td>5.07</td>
</tr>
<tr>
<td>VROE%</td>
<td>52.10</td>
<td>78.51</td>
<td>24.68</td>
<td>29.89</td>
</tr>
<tr>
<td>VNPM%</td>
<td>3.09</td>
<td>5.22</td>
<td>5.12</td>
<td>10.97</td>
</tr>
</tbody>
</table>

* Total stock returns are cumulative over 2 years
and stability in return on equity. Related firms generated higher stock return over the four years while dominant firms were more stable than other firms on the variability in return on equity. Table 14 shows that diversified firms outperformed undiversified firms in almost all the descriptive mean and variability performance measures before and during the recession. An observation of the descriptive statistics show that diversification may be a better strategy than non-diversification. However, only by testing the differences for statistical significance can it be determined if diversification is a viable strategy for foodservice firms.

Test Results

Hypothesis 1

The purpose of this hypothesis was to examine the relationship between diversification, financial performance and stability. Results from the chi-square test on the four-year data shows that there is no significant relationship between a firm's diversification and its financial performance (Table 15). None of the chi-square values for each performance and stability measure was significant at the .05 level. Diversification strategy and performance are independent of each other. The null hypothesis that there is no relationship between
diversification strategy and performance is accepted.

Table 15: Relationship between Diversification and Performance (1988-1991)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Chi-Square</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>2.36</td>
<td>.51</td>
</tr>
<tr>
<td>ROE</td>
<td>5.20</td>
<td>.16</td>
</tr>
<tr>
<td>NPM</td>
<td>0.30</td>
<td>.96</td>
</tr>
<tr>
<td>TSR</td>
<td>4.14</td>
<td>.25</td>
</tr>
<tr>
<td>VSR</td>
<td>0.65</td>
<td>.85</td>
</tr>
<tr>
<td>VROA</td>
<td>3.05</td>
<td>.38</td>
</tr>
<tr>
<td>VROE</td>
<td>0.61</td>
<td>.84</td>
</tr>
<tr>
<td>VNPM</td>
<td>0.62</td>
<td>.84</td>
</tr>
</tbody>
</table>

Hypothesis 2

This hypothesis was developed to examine the difference between the financial performance of diversified and undiversified foodservice firms on each performance and stability measure. Foodservice firms were grouped into diversified and undiversified groups. Transforming the ranked scores into z values, the Mann-Whitney test produced the results in Table 16 that show no significant differences (at the .05 level) in the financial performance and stability between diversified and undiversified firms on both accounting and market measures. The probability of the z values were greater than .05. As no test was significant at the .05 level, the null hypothesis of no significant
differences on performance and stability between diversified and undiversified firms is accepted. The Mann-Whitney test results of the four-year data are consistent with the previous chi-square test results. However, it should be pointed out that the variability in ROA was significant at the .10 level and the differences in TSR was significant at a level close to the .10 level. There is weak evidence that the two variables differed for the groups.

Table 16: Performance by Diversified and Undiversified Firms (1988-1991)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Z Value</th>
<th>2-tailed P</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>-0.851</td>
<td>.3946</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.227</td>
<td>.8205</td>
</tr>
<tr>
<td>NPM</td>
<td>-0.393</td>
<td>.6940</td>
</tr>
<tr>
<td>TSR</td>
<td>-1.500</td>
<td>.1336</td>
</tr>
<tr>
<td>VSR</td>
<td>-0.837</td>
<td>.4024</td>
</tr>
<tr>
<td>VROA</td>
<td>-1.750</td>
<td>.0802*</td>
</tr>
<tr>
<td>VROE</td>
<td>-0.113</td>
<td>.9096</td>
</tr>
<tr>
<td>VNPM</td>
<td>-0.933</td>
<td>.3505</td>
</tr>
</tbody>
</table>

* Significant at .10 level

Hypothesis 3

The testing of this hypothesis involved investigating the differences in the mean rankings of firms within the diversified category pursuing different diversification
strategies. The results of this hypothesis are provided in Table 17. The results showed no statistical significant differences in the mean rankings of diversified firms pursuing different diversification strategies. The null hypothesis is accepted.

Table 17: Performance by Diversification Strategy (1988-1991)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Chi-Square</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.402</td>
<td>.818</td>
</tr>
<tr>
<td>ROE</td>
<td>0.740</td>
<td>.690</td>
</tr>
<tr>
<td>NPM</td>
<td>0.008</td>
<td>.995</td>
</tr>
<tr>
<td>TSR</td>
<td>2.102</td>
<td>.349</td>
</tr>
<tr>
<td>VSR</td>
<td>1.671</td>
<td>.433</td>
</tr>
<tr>
<td>VROA</td>
<td>1.560</td>
<td>.458</td>
</tr>
<tr>
<td>VROE</td>
<td>0.231</td>
<td>.890</td>
</tr>
<tr>
<td>VNPM</td>
<td>0.603</td>
<td>.739</td>
</tr>
</tbody>
</table>

Hypothesis 4

To test this hypothesis, the Mann-Whitney and Kruskal-Wallis tests were performed between diversified and undiversified firms, and between firms pursuing different diversification strategies. The non-parametric tests were performed for the two sub-periods: before and during the recession. The results of the statistical tests are shown
in Tables 18 and 19. For the sub-periods, the hypothesis that there are no significant differences in performance between diversified and undiversified firms is partially supported. The Mann-Whitney test results in Table 18 show no significant differences between diversified and undiversified firms on most performance measures before and during the recession. However, significant differences in performance were found in the measure of total stock returns (TSR) during the recession and variability in accounting profit (VROA). Diversified firms had higher stock returns than undiversified firms during the recession but not before the recession. Diversified firms were also more stable or exhibited significantly lower variability in earnings measured by ROA than undiversified firms before the recession. The lower ROA of the diversified group, however, became less significant during the recession. On the other hand, the Kruskal-Wallis test results in Table 19 showed no significant differences in performance between diversified firms pursuing different diversification strategies, either before or during the recession.

Summary of Test Results

The results of the statistical tests were reported in this chapter. No significant differences were found between diversification strategy and the performance and stability of foodservice firms over the entire period from 1988-1991.
Table 18: Performance of Diversified and Undiversified Firms Before (1988/89) and During Recession (1990/91)

Mann-Whitney Test

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>-1.1273</td>
<td>-0.3112</td>
<td>.2596</td>
<td>.7557</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.2270</td>
<td>-0.0597</td>
<td>.8205</td>
<td>.9524</td>
</tr>
<tr>
<td>NPM</td>
<td>-0.4404</td>
<td>-0.5226</td>
<td>.6597</td>
<td>.6013</td>
</tr>
<tr>
<td>TSR</td>
<td>-0.9070</td>
<td>-2.0127</td>
<td>.3644</td>
<td>.0441*</td>
</tr>
<tr>
<td>VSR</td>
<td>-1.1360</td>
<td>-0.7849</td>
<td>.2560</td>
<td>.4325</td>
</tr>
<tr>
<td>VROA</td>
<td>-2.3898</td>
<td>-1.6205</td>
<td>.0169*</td>
<td>.1051</td>
</tr>
<tr>
<td>VROE</td>
<td>-0.2390</td>
<td>-0.0717</td>
<td>.9809</td>
<td>.9429</td>
</tr>
<tr>
<td>VNPM</td>
<td>-0.9101</td>
<td>-0.3393</td>
<td>.3628</td>
<td>.6897</td>
</tr>
</tbody>
</table>

* Significant at .05 level

Table 19: Performance of Diversified Firms Before (1988/89) and During Recession (1990/91)

Kruskal-Wallis Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>1988/89 Chi-Square</th>
<th>1990/91 Chi-Square</th>
<th>1988/89 P Value</th>
<th>1990/91 P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.3439</td>
<td>0.0659</td>
<td>.8420</td>
<td>.9676</td>
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<tr>
<td>ROE</td>
<td>1.7059</td>
<td>1.6078</td>
<td>.4261</td>
<td>.4476</td>
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<tr>
<td>NPM</td>
<td>0.1067</td>
<td>0.1039</td>
<td>.9481</td>
<td>.9494</td>
</tr>
<tr>
<td>TSR</td>
<td>1.5882</td>
<td>3.4341</td>
<td>.4520</td>
<td>.1796</td>
</tr>
<tr>
<td>VSR</td>
<td>2.3264</td>
<td>1.8235</td>
<td>.3125</td>
<td>.4018</td>
</tr>
<tr>
<td>VROA</td>
<td>0.3401</td>
<td>1.1171</td>
<td>.8436</td>
<td>.5720</td>
</tr>
<tr>
<td>VROE</td>
<td>0.7401</td>
<td>0.3585</td>
<td>.6907</td>
<td>.8359</td>
</tr>
<tr>
<td>VNPM</td>
<td>0.0235</td>
<td>0.6247</td>
<td>.9983</td>
<td>.7317</td>
</tr>
</tbody>
</table>
Significant differences were found between diversified and undiversified firms in total stock returns during the recession, and in variability of return on assets before the recession. For the firms pursuing different diversification strategies, no significant differences were found for all the variables either in the four-year period, or in the two-year sub-periods.
Chapter V

SUMMARY AND CONCLUSIONS

Introduction

Firms in the manufacturing industry that generally diversify into profitable lines of businesses in which they have experience have been shown to be generally more likely to be successful than firms that do not. Studies by researchers (Rumelt, 1974; Salter and Weinhold, 1979; Hill, 1988; McDougal and Round, 1984; LeCraw, 1984; Christensen and Montgomery, 1981;) showed that diversification can lead to improved financial performance. When the relationship between diversification strategy, financial performance and stability was investigated in the foodservice industry, no significant relationships were found over the four-year period from 1988-1991. However, significant differences were found when the time-frame was reduced to two sub-periods: before (1988/1989) and during the recession (1990/1991). Significant differences in total stock returns and variability in return on assets were the result of the effects of the business cycle.

Summary of Findings

Based on the descriptive mean accounting measures from 1988-1991, diversified firms performed better in performance...
and stability than undiversified firms in general, but not at statistically significant levels. The weak statistical significance of the difference in stability as measured by ROA (0.08) is due to the significant difference in variability of accounting profits before the recession. No statistically significant differences in performance or stability were found among the diversified firms pursuing different diversification strategies. The results show that pursuing different diversification strategies will not bring about differences in performance or stability.

On the descriptive mean market measures for the period from 1988-1991, diversified firms had better market performance and stability in general, but not at statistically significant levels. No statistically significant differences were found for diversified firms pursuing different diversification strategies. The results show that the pursuit of different diversification strategies will not have an impact on market performance or stability.

In investigating the effects of the business cycle, the results showed that the recession made the difference in the stability of accounting profit (VROA) less significant between diversified and undiversified firms. Accounting profits of diversified firms were significantly more stable at the .05 level than undiversified firms before the recession. However, during the recession, the significance
level was reduced (.10). The findings suggest that diversified firms were able to spread their risk through diversification during the foodservice expansion period before the recession. This was accomplished by expanding into related foodservice segments via acquisitions or the introduction of new products and services through franchising. However, stability in accounting profit was less obvious during the recession when uncertain economic conditions in the foodservice industry increased the volatility of earnings or increased the risk of lower profits.

Significant differences were also found in the total stock returns of foodservice firms. Diversification made the market performance of diversified firms significantly better than undiversified firms at the .05 level during the recession but not before the recession. The results show that the benefits of diversification are more obvious during the economic downturn. Diversification resulted in higher stock returns for diversified firms in comparison with undiversified firms. Shareholders of restaurant companies could select diversified foodservice companies diversifying their portfolios during the recession to improve or maintain market performance.

The results of this study over the entire period from 1988-1991 were generally consistent with findings in the industrial organization literature that found no significant
relationship between diversification and performance (Gort, 1962; Arnould, 1969; Markham, 1973). The results of this study are also consistent with findings in strategic management of no significant differences between diversification strategy and performance (Grinyer et al., 1980; Bettis and Hall, 1982; Keats and Hitt, 1988; Amit and Livnat, 1988a; Page et al., 1988). The findings of this study support the conclusions of Amit and Livnat (1988b) who found that while diversified firms had a higher stability, however, there were no significant differences in performance.

When the time-frame of the study was reduced to two sub-periods: before and during the recession, the results were consistent with those of McDougal and Round (1984) who found that diversified firms had lower variability in accounting profits over one time period (1975-1981) compared to the other (1968-1975), but no significant differences over the entire period of study (1968-1981).

Conclusions

The conclusions of this study are as follows:

1. There is no relationship between diversification strategy, performance and stability of foodservice firms. Pursuing different diversification strategies makes no differences in performance and stability.
2. As compared with non-diversification, diversification will not improve accounting performance during the economic downturn but may improve stability during the upswing of the business cycle. However, the improvement in stability may dwindle during the economic downturn.

3. As compared with non-diversification, diversification may improve stock returns, particularly during the economic downturn. This may be a good opportunity for shareholders of restaurant company stocks who do not have a diversified portfolio.

4. The business cycle does have some impact on the market performance and stability of accounting profit.

Recommendations for Future Research

Since foodservice companies tend to report consolidated results on total restaurant sales, the measurement of diversification could be further improved if internal data was available that not only provides a breakdown in sales by product segments but also by types such as casual dining, fast food, and steakhouses. Externally available data is limited and does not provide the breakdown in sales by foodservice product types.
The diversification and performance relationship investigated in this study is also based on potential relationships. Ideally, measures of diversification should reflect actual relationships between product segments. An external examination of a firm's products permits only an assessment of potential relationships between product segments. This raises the possibility that several researchers studying the same firms may arrive at different firm classifications.

Further, the period over which this study was carried out is not sufficiently long enough to observe differences. Rumelt's (1974) study used ten year period and discovered significant differences. With changing diversity profiles through mergers and acquisitions, it is unreasonable to expect the acquiring firm to achieve improvements within a short time period.

It is recommended that a further study be carried out using both, internal data and external data to measure diversification strategy types. Primary and secondary data can be obtained and matched to measure the actual diversification of firms. Primary data minimizes the wrong classification of foodservice firms based on internal and external data. Actual diversification efforts and relationships among product segments can be more accurately assessed and their performance determined for significance.

A smaller study is also recommended to study the
diversification and performance relationship. A small study should focus on studying the diversifying firm's individual diversification project. Firms that are profitable through previous diversification efforts should be compared with those that were unsuccessful so the profit differences and other factors of success can be identified. Additionally, since accounting and market measures have inherent weaknesses, other measures of performance that combine both financial and accounting variables may offer an improvement. Such studies will enable a better understanding of the complex issues surrounding the diversification and performance relationship.
Bibliography


