UNLV Retrospective Theses & Dissertations

1-1-2003

Cost management preferences of small restaurant firms

Hessun (Amy) Kim
University of Nevada, Las Vegas

COST MANAGEMENT PREFERENCES

OF SMALL RESTAURANT FIRMS

by

Heesun (Amy) Kim

Bachelor of Arts
Sogang University, Seoul, Korea
1997

A thesis submitted in partial fulfillment
of the requirements for the

Master of Science Degree
William F. Harrah College of Hotel Administration

Graduate College
University of Nevada, Las Vegas
May 2003

UMI Number: 1416224

Copyright 2003 by

Kim, Hessun (Amy)

All rights reserved.

UMI®

UNLV

Thesis Approval

The Graduate College
University of Nevada, Las Vegas

May _____ , 20 03

The Thesis prepared by

Heesun Amy Kim

Entitled

Cost Management Preferences of Small Restaurant Firms

is approved in partial fulfillment of the requirements for the degree of

Master of Science

_____
Examination Committee Chair

_____
Dean of the Graduate College

_____
Examination Committee Member

_____
Examination Committee Member

_____
Graduate College Faculty Representative

1017-53

ii

ABSTRACT

Cost Management Preferences
of Small Restaurant Firms

by

Heesun (Amy) Kim

Dr. Michael Dalbor, Examination Committee Chair
Processor of Hotel Administration
University of Nevada, Las Vegas

The purpose of this study is to test cost management preferences of small restaurant firms. It attempts to identify whether managers of small restaurant firms behave differently depending on the level of conflict as noted by agency theory and expense preference theory.

Data from 87 private small restaurant firms were used. Cost of doing business, size of staff and five accounting ratios (ROE, ROA, Profit Margin, Financial Leverage and Asset Utilization) were used as dependent variables. Three independent variables, type of management, family-owned factor and ownership percentage were used as the sources of variance. The results from the analysis of variance and linear regression show support for the research hypotheses that small restaurant firms are operated differently depending on the level of conflict.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

I would like to thank Dr. Michael Dalbor, chairman of my committee, who has inspired me not only throughout the process of my thesis but also during my entire academic development. I also appreciate my committee members, Dr. Robert Chatfield, Dr. Bernie Fried, and Dr. Karl Mayer for their valuable input on this study.

Special thanks to my two best friends, Heekyoung and Sungkyoung. My thanks and love reaches out to all of my family members, especially my sole mate Micah Adler. Finally I would like to dedicate this thesis to my mother Lee Kyoung-ja and my father Kim Chul.

CHAPTER 1

INTRODUCTION

Purpose of the Study

The major purpose of this paper is to test cost management preferences of restaurant firms using agency theory. It is expected that costs are controlled differently by managers depending on the degree of conflict between the agent (managers) and the principal(s) (owners).

Background of the study

The collapse of Enron (NYSE: ENE), once the seventh largest firm in America, is known as the largest corporate failure ever, throwing thousands of employees out of work and leaving their retirement accounts worthless. This incident not only caused investors to lose billions of dollars but also raised questions about business ethics, which will continue to affect overall investor confidence. Given the complexity of this case, many different issues and problems such as accounting practices, political influence, and business ethics have been raised and are currently being investigated. However, among the many core reasons that contribute to this chaos, it can be said that the "conflict of interest" issue between managers and owners played a major role in the company's failure.

1

The issue of conflict between managers and owners has been examined by numerous studies in previous literature based on what is called agency theory, discussed by Jensen and Meckling (1976). According to Jensen and Meckling (1976), an agency relationship is defined as a contractual relationship under which one or more persons (the principal) engages another person (the agent) to perform some service on their behalf, which involves delegating some decision-making authority to the agent. In this relationship the "conflict of interest" between managers and owners arises due to the fact that there is a separation between ownership and management. Under the behavioral assumption that all individuals are assumed to choose actions that maximize their own personal welfare, there is good reason to believe that the agent (manager) will not always act in the best interests of the principal (owner/shareholders).

Many ways have been proposed to mitigate the conflict that occurs in this relationship. One of the popular ways that has been suggested is to increase the proportions of stocks owned by managers. Hence, many studies (Rozeff, 1982; Kim & Sorensen, 1986; Morck et al., 1988; Kim et al., 1988; Hudson et al., 1992; Gu & Qian, 1999) relating managerial ownership and company performance have been completed with some studies finding a significant relationship and others not finding that result.

The idea of testing the relationship between managerial ownership (usually measured by the percentage of stock held by management) and company performances (usually measured by stock return, dividend policy, and accounting ratios) is to test the hypothesis that managerial ownership will have a positive relationship with company performance because increasing managerial ownership is expected to play a positive role in mitigating the conflict (mangers will act like owners). This ownership will therefore reduce agency

cost, which will, in turn, lower the degree of potential decrease in firm value. However, the majority of the literature, which focuses on the relationship between the level of monitoring (for example, number of board meetings) or incentives (for example, stock options, CEO compensation, performance plans and so forth.) and how this affects company performance (for example, dividend policy, profit ratios, stock prices) only provides indirect evidence of the existence of the relationship. These researchers mainly focused on examining the overall existence of the agency relationship between the agent and the owner, rather than focusing on which firm level variables are controlled differently by managers or how much the actual agency costs are. This is because there is no public company that is 100 percent owned and managed by one person. The use of these data limits the complete comparison between every level of ownership structure in which a firm is 100 percent owned and managed by a single individual (no agency cost occurs) and in which a firm is operated by a manager with no equity in the firm (manager's pay is completely independent of firm performance) and the performance of these firms. This explains why the actual measurement of the principal variable of interest and agency costs has lagged behind (Ang et al., 2000). As Jensen and Meckling (1976) noted in their paper, only in the case where a firm is 100 percent owned and managed by a person will there be no agency costs.

Different from previous research, this paper will attempt to identify the direct firm level cost variables, which are assumed to be controlled differently by managers depending on their ownership structure. The major intention of this paper is to identify the actual decision-making behavior of the managers of different ownership structures rather than testing the overall existence of the agency relationship. In order to carry this

out, this paper will use non-publicly traded small company data, which are provided by the Federal Reserve Board in their "1998 Survey of Small Business Finances," especially focusing on restaurant firms. These data provide different ownership structure companies from 100 percent owner-managed company to firms operated by mangers with no equity and various ownership cases in between; therefore it will make it possible to clearly discover which variables are treated differently by managers depending on the level of conflict. The variables tested will be based on financial statement information, which is the initial source of measuring company performance. The selection of the variables will be supported by past literature, which will be introduced in Chapter 2.

Contributions of the Study

Although many studies have empirically tested the relationship between managerial ownership and company performance, the results are inconclusive. Some studies (Kim et al., 1988; Hudson et al., 1992) have found a significant relationship, whereas others (Rozeff, 1982; Tsetsekos & DeFusco, 1990) have failed to identify this relationship. By providing additional empirical evidence, this study will also contribute to identifying the agency relationship focusing on the firm's manager and owner relationship.

As mentioned above, the majority of the existing literature has focused on testing agency theory by examining the effects of monitoring or incentives on the value of the firm and therefore, only implying the existence of the relationship rather than calculating the actual agency cost or identifying the actual variables that are controlled differently depending on the level of conflict between the agent and the principal. In this study, the attempt to identify the actual variables will not only provide more direct evidence of the

relationship but also, by using private small company data, it will contribute in identifying some of the firm level variables which are controlled differently depending on managerial ownership structure. Identifying these variables will help recognize the decision-making behavior of managers of different ownership structures.

Despite the expansion of the multi-unit chain restaurants, it is a well-known fact that the restaurant industry is still dominated by the mom-and-pop independent restaurants. According to the 1995 Department of Commerce's Census, single-establishment restaurants make up 62 percent of the total number of restaurants in the United States (U.S.). By using data of non-publicly traded small restaurant firms, this study will add empirical evidence to the agency theory literature for the majority of these small restaurant firms in the U.S.

Limitations of the Study

The following are some of the major limitations associated with this study:

1. Accuracy of this study is limited by the use of secondary data;

2. Due to the size of the available samples, important factors such as type of organization, capital structure, and/or method of accounting, and so forth are not considered in this study;

3. Only privately held companies are included in the study and therefore, results may not be applicable to publicly traded companies;

4. The variables tested are also limited by the availability of the data provided;

5. The source of measurement error can occur due to the poor record-keeping typical of small business and the tendency of small-business owners to

exercise flexibility with respect to certain cost items (for example, raising/lowering expenses) (Ang et al., 2000); and,

6. The variables tested in the study only focus on firm level variables, which are assumed to be directly controlled by managers.

Definition of Terms

The terms used in this study are listed below.

1. Agency Relationship:

   A contract under which one or more persons (the principal[s]) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent.

2. Interaction:

   In analysis-of-variance, a joint effect of the independent variables on the dependent variable.

3. Main Effect:

   In analysis-of-variance, this is the effect of each of the individual factors, ignoring the other factors.

4. Other Income:

   This term refers to any other business income the firm may have had that was not included in sales or gross receipts, such as federal or state gasoline tax refunds or fuel tax credit or refunds.

5. Outside-manager firm:

   A firm in which an outside paid manager is responsible for day-to-day operation of the firm.

6. Owner-manager firm:

   A firm in which the primary owner is responsible for day-to-day operation of the firm.

7. Primary owner:

   The owner who has the largest ownership share and full financial decision-making authority.

8. Return on Assets (ROA):

   Indicator of profitability that is determined by dividing net income for the past 12 months by total average assets. The result is shown as a percentage. ROA can be decomposed into return on sales (net income/sales) multiplied by asset utilization (sales/assets).

9. Return on Equity (ROE):

   This indicator of profitability is determined by dividing net income for the past 12 months by common stockholder equity (adjusted for stock splits). The result is shown as a percentage. Investors use ROE as a measure of how a company is using its money.

   ROE may be decomposed into ROA multiplied by financial leverage (total assets/total equity).

10. Small Restaurant Firms:

A group of firms defined by primary SIC code 58 as commercial establishments primarily engaged in the retail sales of prepared food and drinks for on-premise or immediate consumption, which have fewer than 500 employees.

11. Total Cost of Doing Business:

This cost is the sum of "cost of goods sold" and "selling and administrative expenses." The cost of goods sold is the cost of purchasing materials and the costs associated with preparing goods for sale during the last accounting year. These costs include direct labor costs, cost of materials used to make the goods or provide service and overhead costs (such as supervisory costs, supplies, indirect labor costs). Selling and administrative expenses are additional expenses that can be incurred in operating a business. Examples of these expenses are rent or property tax, insurance and depreciation of facilities, and interest paid on bonds, notes and other loans.

12. Total Sales:

The amount is referred to as total sales less amount of returned merchandise.

Chapter Summary

This chapter introduced the purpose of the study along with limitations and contributions of the study. Terminologies used in the study were also introduced. In the next chapter, two major theories, agency theory and expense preference theory will be introduced.

CHAPTER 2

LITERATURE REVIEW

Introduction

As mentioned in chapter one, much of the relevant literature identifies the existence

of agency relationships by examining the relationship between monitoring/incentives and

company performance. In chapter two, the literature examining the initial conflict

between the agent and the owner will be discussed. Two theories will be introduced.

First, overall agency theory will be examined. Second, expense-preference theory, which

will be used to support the selection of cost variables, will be discussed. Finally, studies

of agency theory and issues in the restaurant industry will be introduced.

The Firm and Agency Theory

In order to understand the agency theory, it is necessary to first study the basic

concept of the firm, since it serves as the basic setting for many agency relationships. In

this section agency theory will be examined by discussing the following matters: 1) the

definition of the firm; 2) agency theory and contracting; 3) the potential agency problems

and the cost that occurs from agency relationship; and, 4) ways to mitigate the conflict

and past empirical evidence.

9

The Concept of the Firm

Defining the concept of the firm plays a large role in the study of agency relationship because this concept serves as the nexus of the agency relationships among the various participants within the firm. One of the earliest efforts in defining the concept of a firm was done by Coase (1937). In his paper called "The Nature of the Firm," the idea of a firm was based on the economic idea of "substitution at the margin." It was asserted by the author that firms exist because there is a related cost, using the price mechanism, by which resources are allocated in the economic system. In other words, some of the costs that occur in a separate contract for each exchange transaction, which takes place on a market, can be saved by forming an organization (a firm) and allowing some authority to direct the resources (Coase, 1937).

Building on this work, a paper by Alchian and Demsetz (1972) defines a firm as a contractual structure with joint input(s) or team production. It was noted in their paper that contractual structure arises as a means of enhancing efficient organization, joint input(s), or team production. Because it is possible to increase productivity through team-oriented production and it is economical to estimate marginal productivity, this possibility leads to the contractual organization of inputs, known as classical capitalist firms (Alchian & Demsetz, 1972).

Similar to the definition of Alchian and Demsetz (1972), Jensen and Meckling (1976) also defined a firm based on the contracting relationship. The difference was that Jensen and Meckling (1976) broadened their definition by expanding this relationship beyond the joint production or team production to contracting relationships among individuals (employees, suppliers, customers, creditors, and so on.). It is noted in their paper that

most organizations are simply legal fictions, which serve as a nexus for a set of contracting relationships among individuals. These relationships include firms, non-profit institutions and foundations, mutual organizations and insurance companies and co-operatives, some private clubs, and even governmental bodies (Jensen & Meckling, 1976).

It is clear from these definitions that a "firm" (organization) is a complex set of contractual relationships between individuals, mainly to decrease transactional costs or increase productivity, thereby maximizing profit. From this contractual relationship arises the relationship and conflict between the principal (owner) and the agent (manager).

Agency Theory and Contracting

Before examining agency relationships in detail, there is a need to examine the prior reason why the principal (owner) does not manage the firm alone but instead hires individuals (agents). In other words, why are all firms not owner-managed? According to Jensen and Meckling (1976) if a wholly owned firm is managed by the owner, he will make operating decisions that maximize his utility. However, if the owner-manager sells equity claims on the corporations, which are identical to his own, agency costs will be generated by the divergence between his interest and those of the outside shareholders, since he will then bear only a fraction of the costs of any non-pecuniary benefits he takes out in maximizing his own utility (Jensen & Meckling, 1976). The price the shareholders pay for shares will reflect the monitoring costs and the effect of the divergence between the manager's interest and theirs. Nevertheless, the owner will find it desirable to bear these costs, as long as the welfare benefit he experiences from converting his claim on the

firm into general purchasing power is large enough to offset the cost (Jensen & Meckling, 1976).

This relationship exists in all organizations between managers and owners, shareholders and bondholders, between suppliers, employees, customers, and in all cooperative efforts at every level of management in firms. Additionally, the relationship exists in universities, mutual companies, cooperatives, governmental authorities and bureaus, unions, and relationships normally classified as agency relationships such as those common in the performing arts and the market for real estate (Jensen and Meckling, 1976).

The basic conflict between the two parties exists because as utility maximizers, there is good reason to believe that the agent will not always act in the best interests of the principal (Jensen & Meckling, 1976). The conflict that arises in this contractual relationship is based upon the assumption that all individuals are assumed to choose actions that maximize their own personal welfare (Barnea et al., 1985). An example of this conflict may be that of debtholders (principal) and the stockholders (agent). A firm that has debt outstanding may have the incentive to undertake relatively high-risk capital investment projects, even though such projects may reduce the overall market value of the firms. This situation is defined as the problem of "asset substitution" where the stockholders of a corporation will prefer projects that enhance their own wealth and they may select projects adverse to the interests of the firm's debtholders (Emery & Finnerty, 1991).

Another example of this basic conflict can be the relationship of stockholders (principals) and managers (agents). As mentioned in the work of Alchian and Demsetz

(1972), some employees want to get paid without having to put forth effort. This problem of an agent putting forth less than full effort is referred to as "shirking." The problems that occur from this relationship are further examined below. However, although there are many agency relationships, it should be noted that this paper focuses mainly on the problems that occur between the manager (agent) and the owner (principal) of a company. The reason is that the delegation of decision-making authority is an essential feature of the modern corporation (Barnea et al., 1985) and the relationship between the stockholders (owners) and the managers (agents) of a corporation fits the definition of a pure agency relationship (Jensen & Meckling, 1976).

<u>Problems That Occur from Agency Relationship and Its Costs</u>

Several problems can occur in the relationship between the agent and the principal. As mentioned earlier, the basic assumption is that the agent will not always act to maximize the welfare of the principal. One of the major problems is called the moral hazard problem. The problem of moral hazard arises whenever the agent has the ability to take unobserved self-interested actions that are costly to the principal. These actions include direct benefits, such as the personal use of a company car or personal side trips on company travel, and indirect benefits such as an up-to-date office décor. Thus, the stockholders will suffer a loss in their residual claim from these actions. Another problem that arises from this relationship is information asymmetry. This problem arises because one party possesses more information than the other due to their position. For example, because managers control the firm on a day-to-day performance, they are the ones who posses the most information concerning the firm's performance (accounting information/audit). Most of this information is not given to the investors. Therefore, a

conflict arises between the new investors and existing stockholders. Other potential agency problems include the impact of bankruptcy on stockholders as opposed to employees and under-investment.

In most of these agency relationships a cost is incurred due to the divergence between the agent's decisions and those decisions that benefit the principal. Jensen and Meckling (1976) defined this cost as the dollar equivalent of the reduction in welfare experienced by the principal as a result of this divergence and refer to this as the "residual loss." Monitoring costs are also incurred to limit the activities of the agent. In addition, bonding costs are needed to guarantee that the agent will not take certain actions that would harm the principal. Overall, the authors define the agency cost as the sum of: 1) the monitoring expenditures by the principals; 2) the bonding expenditures by the agent; and 3) the residual loss. These costs will eventually lead to the decrease in firm value.

<u>Ways to Mitigate This Conflict and Past Empirical Evidence</u>

Many studies have proposed ways to mitigate the conflict between the agent (manager) and the principal (owner). Alchian and Demsetz (1972) asserted that the contractual structure arises as a means of enhancing efficient organization of team production. Thus, the ability to detect shirking among owners of jointly used inputs in team production is enhanced by this arrangement (detection costs are reduced) and the discipline (by revision of contracts) of input owners (Alchian & Demsetz, 1972).

Another simple way to mitigate this conflict is to strengthen monitoring and bonding activities. This process may include auditing, formal control systems, budget restrictions, and incentive compensation systems (Kim, 1998). A major method proposed by Jensen and Meckling (1976) included increasing managerial stock ownership or the proportions

of stocks owned by the management. This method of mitigating agency problems has been examined by researchers (Rozeff, 1982; Kim & Sorensen, 1986; Morck et al., 1988; Kim et al., 1988; Hudson et al., 1992; Gu and Qian, 1999) in different industries and by using different company performance measurements.

Since Jensen and Meckling (1976) first discussed the relationship between agency costs and the degree of insider ownership, many studies have examined how managerial behavior differs with the degree of inside ownership. Some researchers (Rozeff, 1982; Kim & Sorensen, 1986) examined insider ownership and corporate policy regarding debt and dividends and found that low insider ownership firms are managed differently from high insider ownership firms (Kim et al., 1988). Others (Kim et al., 1988; Hudson et al., 1992) researched the relationship between insider ownership and security/stock returns and found that, on average, stock issued by corporations with high insider ownership tends to outperform that of low insider ownership firms (Kim et al., 1988). Also using the Earnings/Price ratio and considering the size effect, it was found that firms with higher inside ownership had higher return, but there was an inverse relationship between size and return (Hudson et al., 1992).

In the hospitality literature Gu and Qian (1998) examined the relationship between managerial ownership and firm performance in the U.S. hotel industry using five accounting ratios (return on assets, return on investment, return on equity, profit margin, and operating return) and stock return. For both casino and regular hotels combined, managerial ownership was statistically significant for profit margin, operating return, and return on equity.

A previous thesis (Kim, 1998) also measured performance of U.S. restaurants using seven accounting ratios (total asset turnover, operating efficiency ratio, net profit margin, operating return, return on assets, return on equity, and return on investment). Examining whether the impact of managerial ownership on firm performance is different in one group than others, the author found that the significance level declined as the managerial ownership level increased (Kim, 1998).

As can be seen from the above studies, the majority of the literature that attempts to test the agency theory has focused on how monitoring and/or incentives mitigate this conflict, which, in turn, will decrease agency cost, and therefore, reduce the extent of the decrease of firm value. Until recently, not much research has been done to identify which variables are actually controlled differently by managers of different ownership share and how much the actual agency cost is. However, Ang et al. (2000) provided evidence to measure the actual agency cost using 1,708 small non-publicly traded corporations from the NSSBF data base and found that agency costs are significantly higher when an outsider rather than an insider manages the firms and are inversely related to the manager's ownership share. In addition, the authors found that agency costs increase with the number of nonmanager shareholders. The authors mentioned in their paper that the above findings were possible because of the information about the sole owner-manager firms, where the firm is 100 percent owned and managed with no outside equity obtained through the database.

In the following section, expense preference theory, which will be used as evidence in selecting the variables controlled differently based on different ownership share, will be examined. These variables will be later used to determine the significant variables. The

remaining section of chapter two is organized as follows: 1) Expense preference theory and past literature will be introduced; 2) the variables suggested by expense preference theory will be analyzed; and 3) some characteristics about small restaurant businesses will be analyzed.

Expense Preference Theory

The basic behavioral assumption that underlies the agency theory is that all individuals are assumed to choose actions that maximize their own personal welfare and that agency relationship occurs when there is a separation between ownership and control (Jensen & Meckling, 1976). These two assumptions are the same for a theory called the expense preference theory, where management does not have a neutral attitude towards costs, as developed by Williamson (1963). Expense preference theory is one of the postclassical substitute theories that attack the standard assumption of profit maximization (Hannan & Mavinga, 1980). It is commonly described in the industrial organization literature maintaining that management in which ownership is separate from control will employ an input mix that deviates from the cost-minimizing input mix (Dor et al, 1997). In other words, "expense preference" refers to the tendency of managers to spend more on perquisites than profit maximizing would dictate (Carter, 1991). Williamson (1963), in his paper, "Managerial discretion and business behavior," explains that management does not have a neutral attitude towards costs. He asserts that directly or indirectly, certain classes of expenditure have positive values associated with them, such as staff expense, expenditure for emoluments, and funds available for discretionary investment. Therefore, managers of firms, where ownership is separate from control, will

spend more than the cost-minimizing amount on certain inputs for which they have a preference (Dor et al, 1997).

Research in expense preference theory has focused particularly on regulated firms and commercial banks, because the non-profit-maximizing actions are most likely to be manifest under imperfect product market structure (Scott et al, 1988). For example, in the electric utilities industry, CEOs (managers) often maximize their own expected utility: this utility function contains a variety of goals such as health, security, power, prestige, influence, and the welfare of others (Mixon, 2001). Thus, utility-maximizing CEOs (managers) have incentives to increase the size and duration of all job-related pecuniary and non-pecuniary sources of income/utility (DeAlessi, 1974).

Evidence from Past Literature

Many studies have been conducted to test the expense preference theory, especially in the banking industry and savings and loan industry. Hannan and Mavinga (1980) tested a model by using more detailed information on the dispersion of ownership and on other characteristics of a large number of individual banking firms. Consistent with the implications of expense preference behavior, their study showed that manger-controlled banks spend more on items likely to be preferred by mangers than do owner-controlled banks in similar situations. Another study done by Carter and Stove (1991) examined the relationship between management ownership and compensation for a sample of saving and loan associations, which had recently converted to stock organizations. While their study confirmed the other previous studies, which supported the convergence of interests hypothesis (management acts in the interests of the owners) and the entrenchment

hypothesis (management acts in its own interest), the authors found that it is conditional on the magnitude of management ownership in the firm.

Outside the banking industry, Dor et al (1997) gathered evidence from the hospital industry. Somewhat different from the owner-manager relationship, the authors examined the relationship between contract managers and salaried managers. The authors explained that because contract managers must strive to improve financial performance under threat that the board of trustees will terminate their contract, they have every incentive to employ the inputs at cost-minimizing levels. In other words, these managers are not likely to exhibit expense preference behavior, or at least, are less likely to exhibit such behavior than managers having more conventional incentives (Dor et al, 1997). Although their test results showed that contract managers do not appear to be cost minimizers, they tend to exhibit lower expense preference behavior than salaried managers.

Finally, a study done by Achampong and Zemedkun (1995) examined the role of managerial self-interest in the merger market. The authors hypothesized that managers are apt to increase their own discretionary spending and reduce risk to their career, often at the expense of the firm's shareholders. Therefore, by testing a total of 800 firms over the decade of the 1980s and selecting manager-preferred cost variables (insider ownership ratio, retained earnings ratio, excess staffing), the authors found that self-interest is a significant motivating factor in corporate managers' merger decisions (Achampong and Zemedkun, 1995).

As demonstrated in the literature, agency theory and expense preference theory are similar in that the separation of ownership and management serves as the base of the

conflict and that all individuals are assumed to choose actions that maximize their own personal welfare. While agency theory focuses more on the external structure of the relationship between the agent and the principal, expense preference theory focuses more on the internal behavior and the actual decision making of the agent. The following section will provide some expense-preferred variables, which have been used in the previous studies.

Manager-preferred Cost Items

In order to capture the expense preference behavior, different measurements were used in past literature. Following are some of the expenditure categories used in previous literature. The first element of the preferred expenditure category is related to labor.

Expansion of staff This is an activity that offers positive rewards, since promotional opportunities within a fixed-sized firm are limited. The incentive to expand staff not only is an indirect means to the attainment of salary, but it is a source of security, power, status, prestige, and professional achievements. (Williamson, 1963, p. 1034)

Many studies have measured this expenditure differently. For example, Williamson (1963) used estimated costs of general administrative and selling expenses as the measurement. In the manufacturing industry, Ferris et al (1998) examined the effect of long-term performance plans on managerial decision making and use labor costs, which can be significantly controlled by management as one of the variables. Due to the lack of labor cost data the authors used the number of employees standardized by the value of the firm's total assets. As discussed in the study, management that adopts long-term performance plans seeks to lower the labor costs associated with production through a reduction in the size of its workforce, hence increasing net income and higher profit margin. Another study by Achampong and Zemedkun (1995) examined the role of

managerial self-interest in the merger market. The authors used excess staffing as one of the manager-preferred cost items and calculated it as the ratio of salary expenditures to total assets. Finally, Dor et al (1997) defined labor costs (wages) as total labor expenses on hospital staff divided by full-time-equivalent employees.

The second element of the preferred expenditure category is related to perquisites. Williamson (1963) used the term "emoluments," which is a broader concept than perquisites, defined as the following:

> *Emoluments*   This refers to the fraction of managerial salaries and perquisites that are discretionary. That is, emoluments represent rewards, which, if removed, would not cause the manager to seek other employment. The management would normally prefer to take these emoluments as salary rather than as perquisites of office since, taken as salary there are no restrictions on the way in which they are spent, while, if withdrawn as corporate personal consumption (such as expense accounts, executive services, office suites, etc.), there are specific limitations on the ways these can be enjoyed. However, there are two considerations that make perquisites attractive. First, for tax purposes it may be advantageous to withdraw some part of discretionary funds as perquisites rather than salary. Second, perquisites are much less visible rewards to the management than salary and hence are less likely to provoke stockholder or labor dissatisfaction. (Williamson, 1963, p. 1035).

In order to measure emoluments, Williamson (1963) in his model disclosed that the firm will absorb some amount of actual profits as emoluments. The author indicated "profits" as a source of discretion and defined discretionary profits as the difference between actual profits and minimum profits demanded. Although it was noted in the study that the findings and the evidence presented were clearly suggestive rather than definitive, the study does suggest that reported profits are reduced by absorbing some

fraction of actual profits in executive salaries and possibly in perquisites of a variety of sorts.

Other than expansion of staff and emoluments, mentioned by Williams, Ferris et al (1998), suggested that selling and general and administrative expenses are directly controllable by management, and therefore any profitability can be driven by a reduction in these expenses. The authors, however, failed to observe any evidence of improvement in total sales, total asset turnover or the management of long-term debt but did find that management seeks to enhance the firm's profit margin by reducing the cost of goods sold. Also research & development and/or advertising expenses were examined as essential discretionary expenses by the authors, although they found no evidence that managers reduced these expenses.

The following section will discuss agency theory research in the restaurant industry, will be introduced. In addition, some characteristics and agency relationships related to the small firms will be discussed.

Agency Theory literature in the Restaurant Industry

Most of the initial research done in the restaurant industry concerning agency theory focused on the franchisor (the principal) and the franchisee (the agent) relationship. As opposed to the resource scarcity argument that suggests that growth is the primary reason that firms begin to franchise, some researchers (Brickley & Dark 1987; Lafontaine, 1992) posited that franchising eases agency problems and the associated monitoring costs of multi-unit operations (Castrogiovanni & Justis, 2002). As noted by Combs and Ketchner (1999), the advantage of franchising is that by transforming outlet managers into owners,

franchising induces franchisees to maximize outlet profits and greatly reduces the need for direct monitoring by the franchisor.

This research trend focusing on the issue of agency theory and franchising also applies to the relationship between the owner and the manager in the unit level. As previously suggested, the relationship between managerial ownership as a form of incentive and company performance of the restaurant has been one of the major issues that have been examined. For example, Kim (1998) examined the relationship of managerial ownership and firm performance using 224 observations from 146 restaurant firms between the period of 1995 and 1996. Controlling for firm size and Price/Earnings ratio and using various performance measures from asset utilization to stock return, the study found a significant positive association between managerial ownership and all of the profitability and operating efficiency measures (Kim, 1998).

Despite the awareness of publicly traded multi-chain restaurants, it is a generally accepted fact that the restaurant industry is still dominated by the small mom and pop restaurant firms. However, mainly due to the lack of available data, the amount of research is limited. In defining a "small firm," there can be many definitions, but the U.S. Government Printing Office's (USGPO) designation for a small firms is one with fewer than 500 employees. These firms provide 53% of employment in the U.S., produce 47% of total sales revenues, comprise over 95% of the total number of firms, and are responsible for most of the employment growth in recent years (USGPO, 1996).

One of the distinct characteristics of small firms is that most of these firms are family businesses (Handler, 1989) and as Fama and Jensen (1983) proposed, family- controlled businesses are expected to be more efficient than professionally run firms because the

costs of monitoring are less in a family-controlled firm. However, on the other hand, as Ang et al (2000) discussed, owners of small firms typically lack financial sophistication and may not be capable of performing efficient monitoring. In either case, it is obvious that this feature affects the company's performance and therefore will also be considered in this study.

Chapter Summary

This chapter examined the literature regarding the organization of the firm and the basic agency relationships therein. Additionally, the behavior of managers was examined in the context of expense preference theory. Expense preference theory states that when there is a conflict between the manager and the owner, managers (depending on their ownership share) will behave in a way (making manager-preferred decisions) that will increase their utility; this, in turn, will lead to a decrease in firm value, as stated by agency theory.

Utilizing the agency theory and expense preference theory discussed in chapter two, chapter three will discuss the hypotheses to be tested and the variables used in those tests. Additionally, the next chapter will detail the data sample and methodology employed.

CHAPTER 3

METHODOLOGY AND DATA

Introduction

Based upon the agency theory literature discussed in the previous chapter, this chapter will explain the data used and methodology employed to test the cost management preference of small restaurant firms. The first part of the chapter will discuss the hypotheses to be tested. The next section will describe in detail the methodology to be employed. The data set used in this study will then be discussed, followed by an explanation of the variables used in the statistical tests.

Hypotheses Testing

The alternative hypotheses shown below will be tested. The results and hypotheses tested will provide insights as to whether the ownership level of primary owner, family-owned factor, and management type affect the size of staff, cost of doing business and overall profitability of a firm.

H_1: The profitability of a firm is different among the groups depending on type of management, level of ownership by primary owner, and family-owned factor.

H_{2A}: Size of staff is different among the groups depending on the type of management, level of ownership by primary owner and family-owned factor.

H_{2B}: Cost of doing business is different among the groups depending on the type of management, level of ownership by primary owner and family-owned factor.

First, the above hypotheses will be tested for a three-way interaction effect. If such an effect is found, the two-way interaction or individual main effects will not be tested separately. However, if there is no three-way interaction effect, two way interaction and main effects will be tested. H_1 hypothesis will be tested using multiple analysis of variance (MANOVA), which will be discussed in the next section. H_{2A} and H_{2B} will be tested using three-way analysis of variance. As mentioned in the previous chapters, it is expected that cost of doing business and size of staff are smallest for firms which are 100 percent owned by primary single-family owners and when the manager is also the owner of the firm.

The third and forth hypotheses to be tested are the relationship between the dependent variables and the independent variables. This test will be conducted using multiple regression, and the hypotheses are summarized as below:

H_{3A}: There is a negative linear relationship between size of staff and the percentage of primary owner, management type and family-owned factor;

H_{3B}: There is a negative linear relationship between cost of doing business and the percentage of primary owner, management type and family-owned factor;

H_4: There is a positive linear relationship between the dependent variables (ROE, ROA, ROS, financial leverage, asset utilization) and the independent variables (percentage of primary owner, management type and family-owned factor).

Statistical Methods Used

In order to examine the relationship of ownership structure and the variables discussed in the previous chapters, this study will use two different statistical procedures. The multiple analysis of variance test and ordinary least squares regression models are discussed in the following sections.

Analysis of Variance Tests

The analysis of variance test is used to examine the mean differences among the groups studied. Two different kinds of multiple analysis of variance tests, the three-way ANOVA test and the multivariate analysis of variance (MANOVA) will be used in this study. These tests will be used to determine whether type of management, family-owned factor and ownership of primary owner of the firm will have an effect on the dependent variable(s). This design will make it possible to determine whether all three factors jointly affect the dependent variable(s) in some way. Compared to using a one-way ANOVA test and an independent t-test separately, this test will make it possible to examine the interaction between all the factors that are to be considered. For example, according to agency theory and expense-preference theory, it is expected that the cost of doing business will be the lowest for firms when the primary owner owns 100 percent of the ownership, when the firm is owned by a single family and also when the firm is operated by the owner. However, running an independent t-test and a one-way ANOVA

test will only examine these three factors separately. Conducting a multiple analysis of variance (three-way ANOVA / MANOVA) makes it possible to examine whether the relationship between the cost of doing business and ownership percentage is affected by the type of management and family-owned factor. The three factors to considered in the test are management type (owner-manager firm/outside manager firm), family-owned factor (single family owns more than 50 percent of firm/less than 50 percent of firm) and ownership percentage (primary owner owns 100 percent of firm/more than 50 percent/owns 50 percent/less than 50 percent).

Figure 1 shows the research model used in this study. In addition, the number of sources of variance in the variance test is eight, and the eight sources of variations are shown in Figure 2.

Cost of Doing Business	Management Type
Size of Staff	Ownership Percent by Primary Owner
Five Accounting Ratios	Family-owned Factor
Dependent Variables	Independent Variables
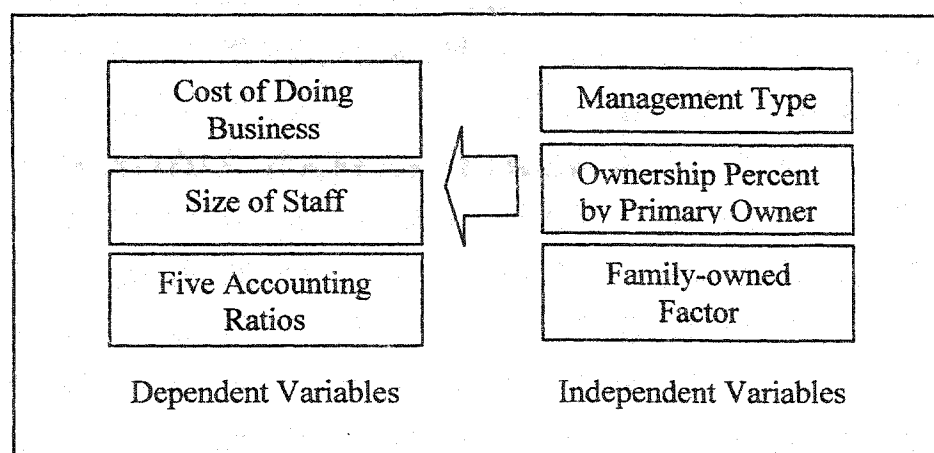
Figure 1. Relationship of dependent variables and independent variables.

MANAGEMENT TYPE   (A)

FAMILY OWNERSHIP   (B)   ◄ Main Effects

OWNERSHIP PERCENTAGE (C)   First Order Interactions

MANAGEMENT TYPE×FAMILY OWNERSHIP

MANAGEMENT TYPE×OWNERSHIP PERCENTAGE

FAMILY OWNERSHIP×OWNERSHIP PERCENTAGE

MANAGEMENT TYPE×FAMILY OWNERSHIP×OWNERSHIP PERCENTAGE

WITHIN CELLS (ERROR)
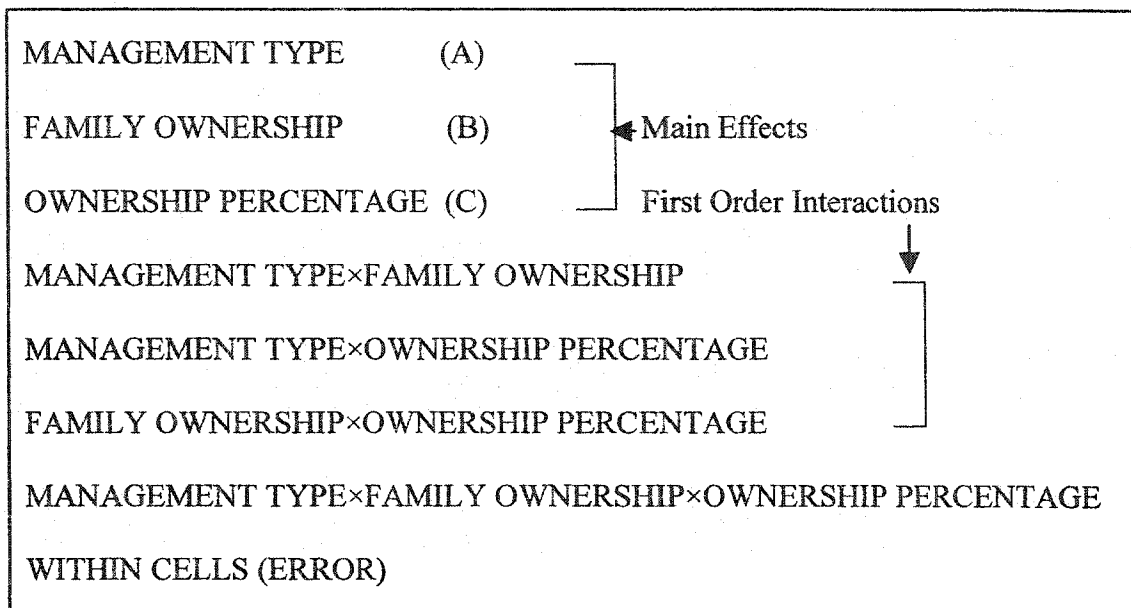
Figure 2. Sources of variance.

As discussed earlier, the main effects, which are management type, family and ownership, will be tested to determine if the underlying population level means are different for the factors under consideration. The interaction effect, defined as a joint effect of the independent variables, is assessed by examining the pattern of means for the two factors combined. Finally, the three-way interaction examines whether the patterns of means for any two factors differs across the levels of the third factor (Stevens, 1999).

The major difference between three-way ANOVA and MANOVA depends on the number of dependent variables and their correlation. Compared to using a univariate test (in this case, three-way ANOVA) for each individual dependent variable, this test will make it possible to examine the interaction between all the independent factors which need to be considered and will also reflect any correlations among the dependent

variables. The reason that MANOVA is preferable to such separate univariate analysis was summarized by Stevens (1999) as follows:

1) The univariate analyses, especially for a moderate or large number of dependent variables, allow the overall type one error rate to go completely out of control;

2) The univariate ANOVA ignores important information, such as the correlations among the dependent measures, whereas the multivariate tests incorporate these correlations into the test;

3) The univariate tests many not show the groups to be significantly different on any of the variables, because of small unreliable differences on each of the variables. However, if measures are considered jointly (as in MANOVA), there may be significant differences; and,

4) If treatment affects the dependent variables in different ways, and the dependent variables are at least moderately correlated within groups, the multivariate approach will be quite powerful and can detect differences that the univariate tests cannot.

In order to determine whether there is a significant correlation among the dependent variables, Bartelett's test for sphericity will be used. As noted by Hair, Anderson, Tatham and Black (1995), this test is the most widely used test to examine the correlation among all dependent variables and make it possible to detect any significant correlation among the variables. However, a common problem encountered in using MANOVA is the tendency of including all dependent variables without a sound conceptual or theoretical basis (Hair et al., 1995). This indicates the problem of including one of the dependent variables without a solid rationale and then drawing incorrect conclusions about the set as a whole. It is for this reason that two variance tests (three-way ANOVA and MANOVA) are conducted separately in this research. The dependent variables (size of staff and cost of doing business) will be tested by the three-way ANOVA test. The

remainder of the five dependent variables, which mainly represent the profitability of the firm, will be tested by using MANOVA.

Ordinary Least Squares Regression

In order to identify the degree of impact of ownership structure, a multiple regression model will be employed. For each dependent variable, independent variable(s), which are ownership percentage of primary owner, management type and family-owned factor, will be used to examine the relationship. Management type and family-owned factor will be recoded into 0 or 1 for use in the regression model. By employing a regression model, the significance and the signs of the independent variables can be tested.

Data Source and Sample Collection

The financial data used in this study were obtained from The 1998 Survey of Small Business Finances (SSBF), formerly known as the National Survey of Small Business Finances (NSSBF), which is conducted by the Board of Governors of the Federal Reserve System (FRS) with the help of the National Opinion Research Center (NORC) at the University of Chicago. The 1998 survey is the third time that financial information for businesses with fewer than 500 employees has been collected by the FRS and are the most recently available data. The survey method was a 40-minute telephone interview conducted from November 1998 through January 2001. The initial sample includes 3,561 firms that represent approximately 5 million small nonfarm, nonfinancial business operating in the U.S. with completed interviews (response rate 33%) of the survey.

Among these samples, this study will use the data of the eating and drinking firms classified by primary SIC code 58 (Eating and Drinking places), which results in 171 firms. The sample includes financial data for these non-publicly-traded companies for fiscal year 1998.

Among these 171 firms, 56 firms which are sole proprietorships and 25 firms which are partnerships, LLPs, or LLCs were excluded from the data set. This exclusion is due to the fact that most sole proprietorships and partnerships differ in terms of tax issues and/or liabilities compared to corporations. In addition, three samples that did not have a value for the tested variables were eliminated. Thus, the final data set totaled 87 firms.

Measurement of Variables

Expansion of Staff

As examined in the expense-preference theory and agency theory, excess use of staff is one of the most important variables over which managers have direct control. According to the data, when the primary owner owns 100 percent of the firm, sales per employee ratio shows that firms operated by owner-manger firms are higher than firms managed by outside-manager firms are. In addition, as the level of ownership decreased, sales per employee ratio decreased. This result agrees with agency theory and expense preference theory, as discussed in chapter two. Although many ways have been suggested to measure this variable in the literature, due to the availability of the data, this study will use the number of employees standardized by the value of the firm's total assets.

Cost of Doing Business

Operating expenses, selling, and general and administrative expenses have been mentioned in previous studies as directly controllable by management. As noted earlier, excessive expense on perquisites and other nonessentials incurred by managers should be reflected in this variable. In Figure 3, it can be seen that the average expense-to-sales ratio for the samples are much higher for the sample firms operated by outside-managers compared to owner-managers. Also, the ratio is higher for firms when the primary owner has less than 100 percent of the ownership. These two figures in Figure 3 indicate that there is a relationship between the type of ownership and the level of ownership with the cost of doing business. Due to the availability of the data, the total cost of doing business to the annual sales ratio will be used. As mentioned in Chapter 1, the total cost of doing business is the sum of "cost of goods sold" and "selling and administrative expenses."
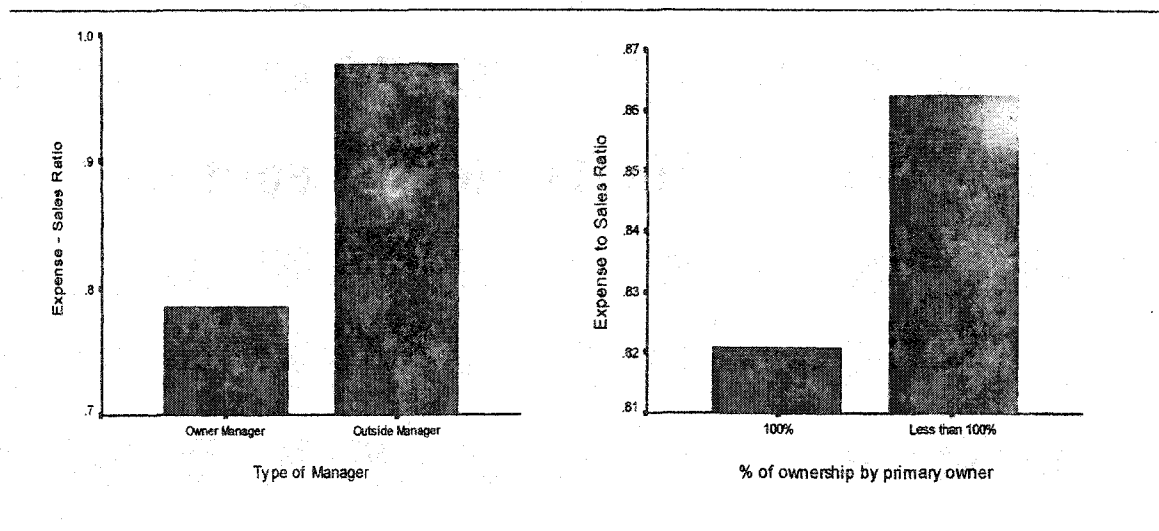

Figure 3. Cost of doing business to sales ratio by ownership structure for a sample of 87 small corporations.

<u>Accounting Ratios</u>

Some of the previously used accounting ratios, such as return on equity (ROE) and return on assets (ROA), will also be used to compare the profitability of the sample companies. However, this use raise the question of whether or not these ratios directly reflect the managerial spending behavior associated with agency theory. For example, an increase in ROE can result from either a singular or a combined increase in the ROA, earnings leverage or capital structure leverage (Ingram, 1994). Also, profit margin is net income divided by revenue, which means that either increasing sales, or reducing costs, or a combination of these two will have an effect on the ratio. It cannot be assumed that this ratio itself directly reflects the underlying behavioral assumption involved in the agency theory. Therefore, in order to test the decision-making process, these ratios will be decomposed as follows:

Return on assets (ROA). ROA is an indicator of profitability, which is determined by dividing net income for the past 12 months by total average assets. The result is shown as a percentage. ROA can be decomposed into return on sales (net income/sales) multiplied by asset utilization (sales/assets).

Return on equity (ROE). ROE is an indicator of profitability, which is determined by dividing net income for the past 12 months by common stockholder equity (adjusted for stock splits). The result is shown as a percentage. Investors use ROE as a measure of how a company is using its money. ROE may be decomposed into ROA multiplied by financial leverage (total assets/total equity).

Chapter Summary

This chapter has presented the hypotheses to be tested in this study and the sources of data. This research uses a sample of 87 small restaurant firms and utilizes MANOVA and regression models to test the foregoing hypotheses. The chapter also explained how the key variables were to be rationalized. The next chapter will discuss the results of the statistical tests.

CHAPTER 4

RESULTS AND ANALYSIS

This chapter will present the results of the statistical methods employed and analyze

them. This chapter is organized as follows. The first section presents descriptive

statistics for the sample. The next sections will present the results of the three way

ANOVA, MANOVA and multiple regression models. Conclusions are discussed at the

end of the chapter.

Descriptive Analysis

In order to better assess the data, a descriptive analysis of the 87 firms was conducted.

The descriptive statistics were based on attributes related to the firm, size of staff and

operation variables such as revenues and expenses.

Firm-related

According to Table 1 and the frequency test for the samples, the distribution of the

samples regarding the firm's age were normal, ranging from one year to 55 years.

Although over 60 percent of the firms in the study have been in business for 15 years or

less, 16 of the firms had been in business over 25 years. Among these 16 firms, 14 firms

are family-owned businesses, indicating one of the major characteristics of successful

small companies. As mentioned in previous chapters, the majority of the firms (67 firms) in this study are owned and managed by the same person (owner-manager firms) while 20 firms are managed by a paid manager (outside-manager firm).

Table 1   Firm-related Descriptive Statistics for 87 Small Restaurant Firms

	No. Firms	Minimum	Maximum	Mean	Std. Deviation
Owner experience	87	2.00	54.00	20.9655	11.51384
Age of firm in years	87	1.00	55.00	15.3563	11.18655
Ownership share of principal owner	87	10.00	100.00	67.2414	27.04603

Staff-related

As shown in Table 2, the number of working owners ranged from 0 to 5, compared to the range of the actual owners which ranged from 1 to 60. It should be noted, however, that the number of working owners does not necessarily indicate the number of working *primary* owners. As mentioned in chapter one, the primary owner is defined as an owner who has the largest ownership share and full financial decision-making authority. Therefore, it should be noted that the type of management (owner-manager or outside-manager) used throughout this research is based on primary owners and not actual owners or working owners. Finally, the number of non-owner employees ranged from 0 to 450, where the mean value was approximately 55.

Table 2 Staff-related Descriptive Statistics for 87 Small Restaurant Firms

	No. Firms	Minimum	Maximum	Mean	Std. Deviation
Number of working owners	87	.00	5.00	1.4253	.78699
Number of non-owner Employees	87	.00	450.00	55.2184	73.48254
Number of owners	87	1.00	60.00	2.8621	6.49181

Operation-related

The variables were distributed normally except for two outliers. As can be seen from Table 3, total sales for the current year ranged from approximately $40,000 to $32 million. However, one firm had more than $32 million in sales and the remainders were all below $10 million. This firm also reported an approximate $32 million in the cost of doing business, while the rest of the firms ranged from $40,000 to $9 million. The discussion of outliers that were eliminated will be described in the next section. The reported profit variable ranged from negative one million dollars through approximately 1.9 million dollars. Among the 87 firms examined, 12 firms had reported a negative profit and only one firm reported a 1.9 million dollar profit. The majority of the firms reported profits of less than one million. Also, it was found that among the 13 firms which reported a negative profit for the current fiscal year, six firms were start-up businesses in just their first or second year of business.

Table 3   Operation-related Descriptive Statistics for 87 Small Restaurant Firms

	N	Minimum	Maximum	Mean	Std. Deviation
Reported equity	87	-2,556,996	8,283,072	274,266	1,137,593
Total sales	87	40,857	32,811,262	1,949,004	3,810,328
Total cost of doing Business	87	40,000	32,197,013	1,775,556	3,763,617
Reported profit	87	-1,578,199	1,965,604	191,137	358,527
Total assets	87	11,500	11,736,077	659,970	1,407,075
Total liabilities	87	0	3,870,179	385,704	633,161

Note: Amounts presented in dollars.

Analysis and Implications

Agency Cost and Ownership Structure

After conducting an assumption check for the samples, an ANOVA test was conducted. As mentioned in chapter three, the three factors which were considered in the test were type of management (MGMT), percentage of ownership (OWNERSHIP) and family-owned factor (FAMILY). A total of 87 firms were examined. The test was conducted twice including and excluding the outlier mentioned in the previous section. Although the outlier influenced the mean value, it did not change the result of the significance tests. Therefore, the outliers are included in the final result. It should be noted that the major focus is the case where the primary owner (single family) owns 100 percent of the firm and also operates the firm. As discussed earlier, the true existence of agency costs can be detected compared to this case, where there is theoretically no agency cost.

In order to determine whether the dependent variables were correlated, Bartelett's test for sphericity was used. According to the test, five dependent variables ROE, ROA, ROS, financial leverage, and asset utilization, which mainly represents profitability, did show a significant degree of intercorrelation (p<0.001), as expected. Therefore, it is reasonable to conclude that these five dependent variables can be examined using MANOVA.

Table 4 shows the results of the MANOVA test for profitability. The interaction effect should be tested before examining the main effect. As can be seen from Table 4 there is a significant interaction effect between MGMT and OWNERSHIP and between FAMILY and OWNERSHIP.

FAMILY and MGMT According to Table 4, although there is no overall significant interaction between the FAMILY and MGMT factor, ROE does show a significant difference between these two factors. This result means that although these two factors do not affect the overall profitability measurements which were tested, it does have an effect on ROE. Figure 4 confirms this conclusion. Whether the firm was an owner-manager firm or an outside-manager firm, ROE was higher for single-family-owned firms than for non-single-family owned firms. A question arises, that when examining within the single-family firms only, outside-manager firms had a higher ROE than owner-manager firms, which is an opposite finding to what was predicted. This result might be due to sampling error or the fact that measurement of equity could be problematic. The sample included negative equity numbers, which could be significantly different from positive ROE figures.

Table 4 MANOVA Summary Table: Interaction Effect

Source of variation	Value	Approx. F		Degrees of freedom		Sig.
		Multivariate	Univariate	Between group	Within group	
FAMILY / MGMT	0.121	1.928		5	70	0.101
ROE			5.763			0.019**
ROA			0.232			0.632
ROS			2.051			0.156
Financial leverage			0.300			0.585
Asset utilization			2.025			0.159
MGMT / OWNERSHIP	0.227	3.271		5	72	0.010***
ROE			2.153			0.101
ROA			1.064			0.370
ROS			2.471			0.000***
Financial leverage			0.277			0.842
Asset utilization			1.194			0.318
FAMILY / OWNERSHIP	0.455	4.179		10	142	0.000***
ROE			0.610			0.546
ROA			0.120			0.887
ROS			2.112			0.128
Financial leverage			14.062			0.000***
Asset utilization			0.593			0.555

Note. The test is based on Pillai's Trace, which is generally used when sample size decreases, unequal cell size appears, or homogeneity of covariance is violated (Hair et al., 1995).
MGMT = Type of management factor; FAMLY = Owned by single family factor; OWNERSHIP = Percentage of ownership factor.
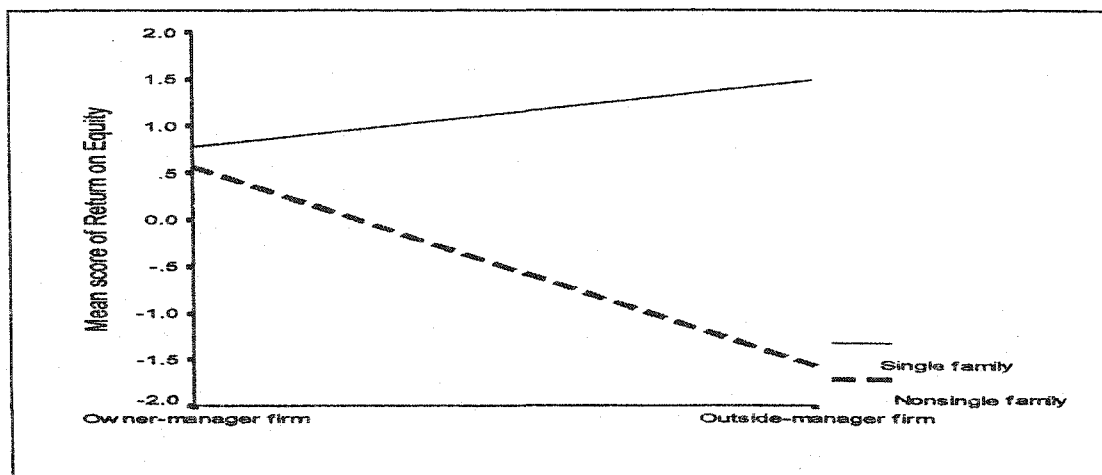**Significant at 95%; ***Significant at 99%.

Figure 4 Mean score of ROE by management type and family-owned factor.

MGMT and OWNERSHIP   The first significant interaction effect found among the

three factors discussed in this study was between MGMT and OWNERSHIP. Table 4

shows that there is a significant difference in profit margin, depending on the level of

ownership percentage and management type; Figure 5 shows this relationship. As can be

seen from the Figure 5, the profit margin decreases as the level of ownership decreases

with owner-manager firms. However, this finding is not same for outside-manager firms.

Comparing only the case where primary owner owns 100 percent of the firm, ROS is

higher for owner-manager firms than for outside-manager firms and the opposite when

ownership is less than 50 percent.

FAMILY and OWNERSHIP   The second interaction effect found was between

FAMILY and OWNERSHIP factors, which significantly affect financial leverage. As

mentioned in chapter three, this variable is measured by total assets divided by total

equity. Results indicate that financial leverage for single-family firms and non-single-

family firms is different depending on the level of ownership. As it can be seen from

figure 6, there were no firms that were 100 percent owned by primary owner which were non-single-family-owned firms. When focusing only on the single-family-owned case, it can be seen that as the ownership percentage decreases, financial leverage also decreases.
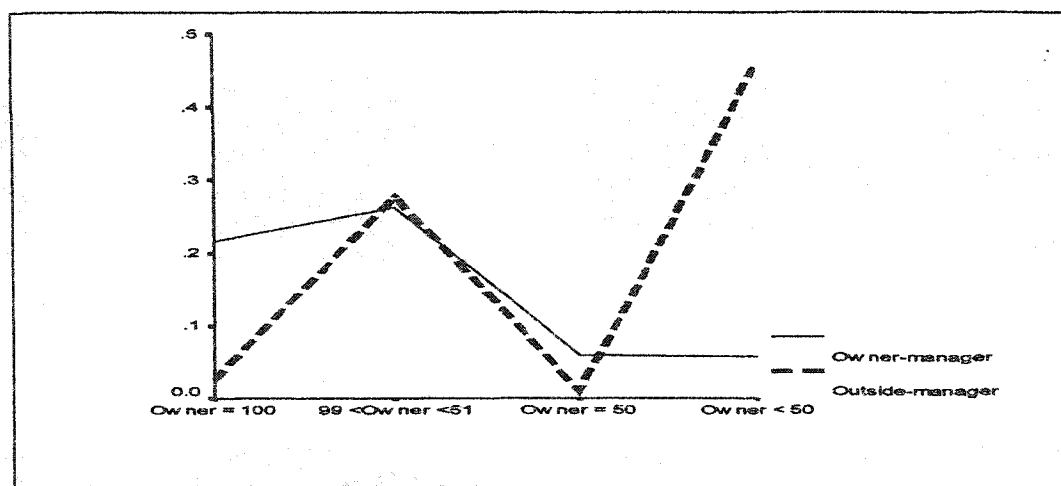

Figure 5 Mean score of ROS by management type and ownership percentage.
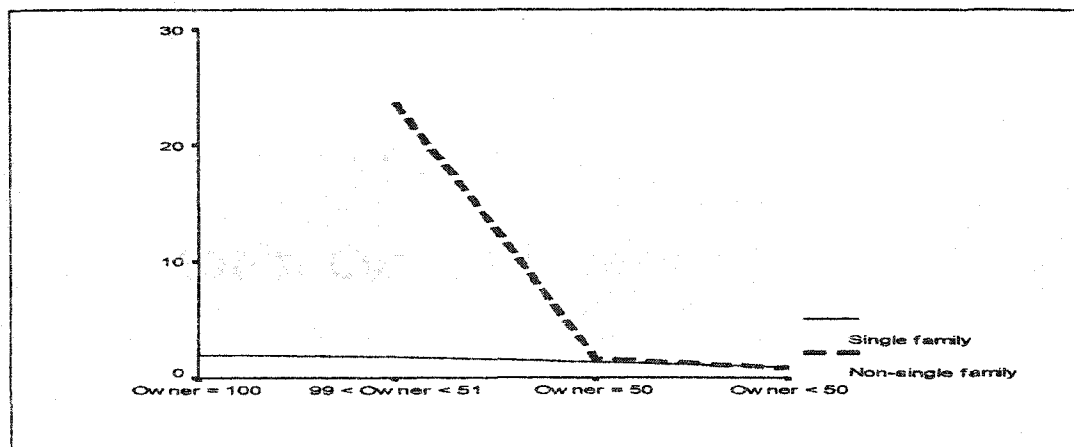

Figure 6 Mean score of financial leverage by family-owned factor and ownership percentage.

Table 5 shows the results of the three-way ANOVA test. The first item that should be examined is whether an interaction exists among the three factors discussed. As discussed in chapter three, one cannot effectively assess the individual factors, unless it can be confirmed that there is no interaction among the factors being discussed.

Table 5 Results of Three-way ANOVA Test

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Dependent Variable: Cost of Doing Business					
FAMILY OWNERSHIP	1.021	1	1.021	9.947	.002***
OWNERSHIP PERCENTAGE	.985	3	.328	3.202	.028**
MANAGEMENT TYPE / OWNERSHIP PERCENTAGE	.848	3	.283	2.754	.048**
Dependent Variable: Size of Staff					
MANAGEMENT TYPE / OWNERSHIP PERCENTAGE	2.219E-07	3	7.398E-08	3.267	.026**

Notes: FAMLY = Owned by single family factor; OWNERSHIP = Percentage of ownership factor; MGMT = Type of management factor;
Significant at 95%, * Significant at 99%

Cost of Doing Business   As can be seen from the top panel of Table 5, there is an interaction between type of management (MGMT) and percentage of ownership (OWNERSHIP), which indicates that the relationship between cost of doing business and percentage of ownership is not the same for owner-managed firms and outside managed firms. Figure 7 confirms the existence of this interaction effect. Figure 7 shows that while the cost of doing business was lowest for owner-managed firms when the manager owned 100 percent of the firm, this was not true for outside-manager firms. The cost of

doing business was higher for firms when the primary owner owned 100 percent of the firm than firms when the primary owner owned less than 100 percent of the firm. On the other hand, no interaction was detected between FAMILY and MGMT or FAMILY and OWNERSHIP. The FAMILY factor was significant at the 99 percent level, indicating that this factor is a main effect and that it is possible to reject the null hypothesis that cost of doing business is the same for the different groups in the factors. Figure 8 shows that the main effect of FAMILY does not have any interaction, depending on the level of ownership. This result leads support to the notion that as the level of ownership by primary owner decreases, cost of doing business was significantly higher for non-single family firms than for single family owned firms at all levels of ownership.
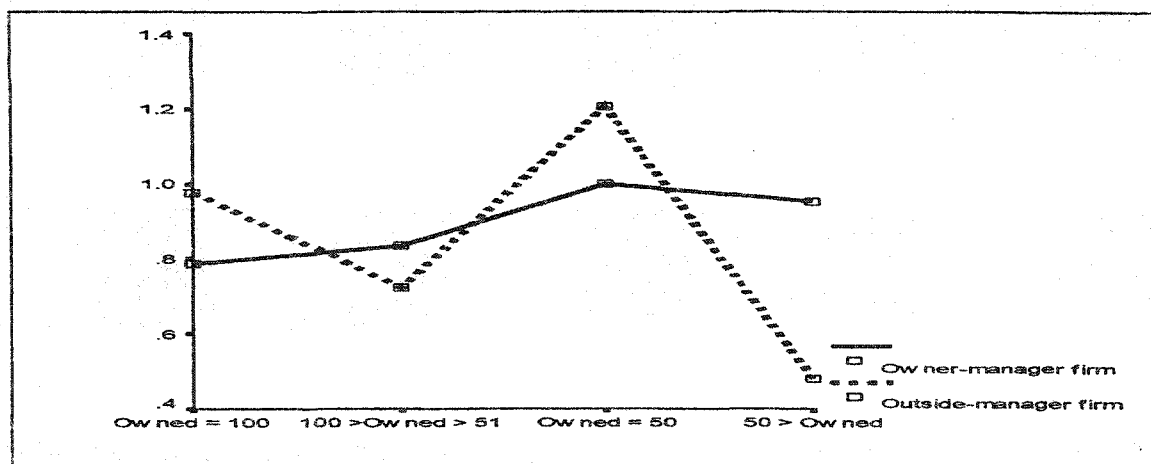

Figure 7 Mean score of cost of doing business by type of management and ownership percentage.
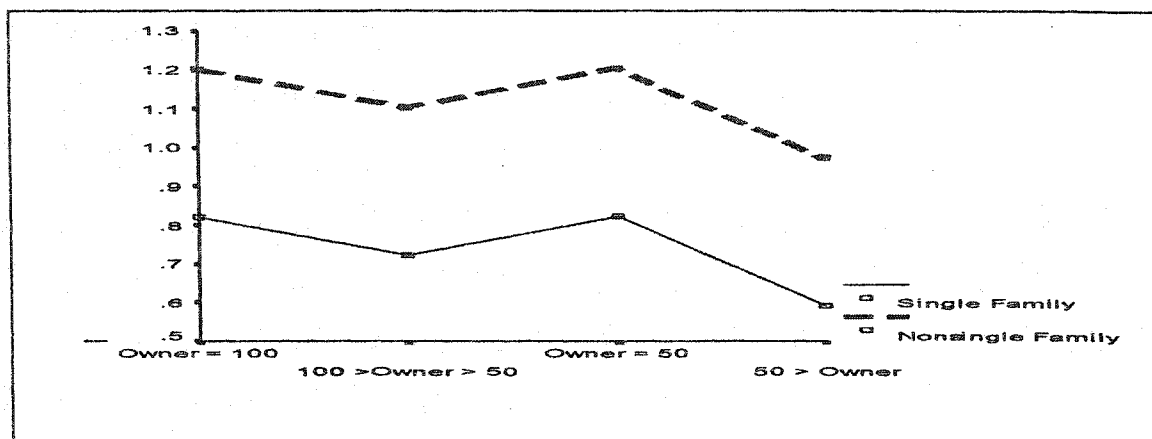
Figure 8 Mean score of cost of doing business by family owned factor and ownership percentage.

Size of Staff   Size of staff is a variable which was tested based on the expense-

preference theory. As discussed in chapter three, the size of staff is one of the variables

over which managers are assumed to have direct control. Table 5 indicated that there is

an interaction effect from the two factors which are MGMT and OWNERSHIP. Figure 9

confirms this interaction effect. While the mean score for size of staff increases for

owner-manager firms, when the level of ownership decreases, it is somewhat the opposite

for outside-manger firms. However, comparing the two extreme cases for the two types

of manager firms, it can be seen that size of staff was significantly higher for outside-

manager firms than for owner-manger firms when the primary owner owned 100 percent

of the firm.

Figure 9 Mean score of size of staff by management type and ownership percentage.
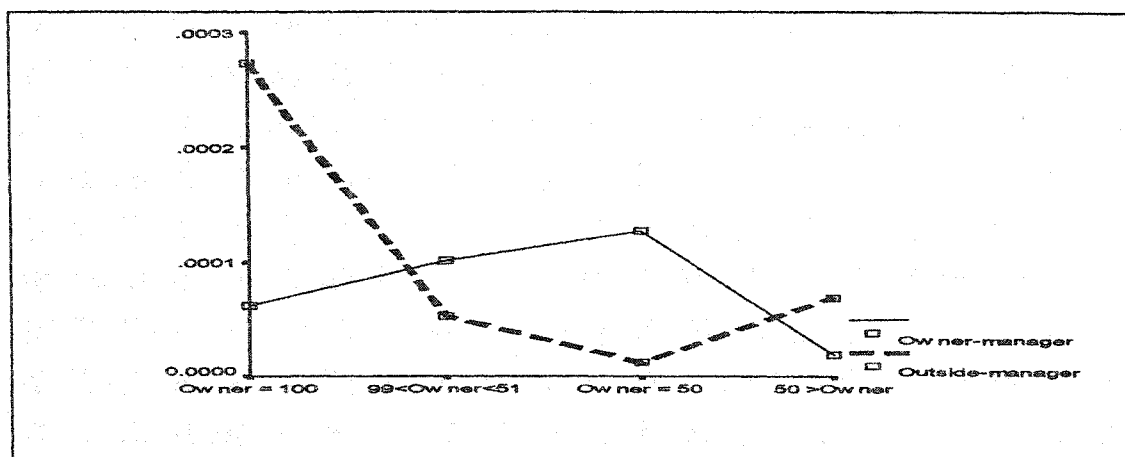
Degree of Agency Cost and Ownership Structure

In this section, the results of a regression test for each variable are shown. As discussed earlier, ordinary least square regression will be used to determine the coefficient of the independent variables.

Cost of Doing Business. Table 6 shows the result of the regression for the variable cost of doing business. First, the FAMILY factor, which was previously identified as a main effect, was significant at 99 percent, indicating that this factor is independently explaining the variance of the variable being tested. The coefficient of the FAMILY variable is -0.474, indicating that the mean cost of doing business decreases an average by 0.474 dollars when the firm is a single-family-owned firm compared to a non-single-family-owned firm. Although OWNERSHIP and MGMT factors were also significant, these factors will not be interpreted separately. Instead, the combined factor, which is the MGMT / OWNERSHIP variable shows that cost of doing business decreases by -0.763 dollars for owner-manager firms as the percentage of ownership by the primary owner increases.

Table 6 Regression for Cost of Doing Business

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
OWNERSHIP	7.786E-03	.003	.562	2.568	.012**
FAMILY OWNERSHIP	-.440	.103	-.474	-4.267	.000***
MGMT	.525	.232	.600	2.261	.026**
MGMT*OWNERSHIP	-7.663E-03	.003	-.763	-2.431	.017**

R Square = 0.47 Adjusted R Square = 0.22
OWNERSHIP = Percentage of ownership factor; FAMILY = Owned by single family
factor; MGMT = Type of management factor.
**Significant at 95%; ***Significant at 99%.

Size of Staff In Table 7, the regression result for size of staff showed a significance level of 95 percent for the MGMT*OWNERSHIP factor. This interaction was detected from the previous analysis of variance test. It is confirmed here that this interaction effect does the job of explaining the dependent variable. It can be concluded that the mean size of staff will decrease by -0.698 for owner-manager firms as the ownership level increases. This makes sense as owners with more ownership level will hire fewer staff.

Return on Equity(ROE). Table 8 confirms the previous result of the MANOVA test, showing that no interaction effect exists among the independent factors. However, it was found from this regression test that the family factor is significant in explaining ROE. According to the beta, it can be said that the mean ROE is higher by 0.448 for single-family-owned firms compared to non-single-family owned firms.

Table 7 Regression for Size of Staff

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
	B	Std. Error	Beta		
OWNERSHIP	1.963E-06	.000	.346	1.440	.154
FAMILY	-1.183E-07	.000	.000	-.003	.998
MGMT	1.581E-04	.000	.440	1.514	.134
MGMT / OWNERSHIP	-2.877E-06	.000	-.698	-2.030	.046**

R Square = 0.06 Adjusted R Square = 0.01.
MGMT = Type of management factor; FAMILY = Owned by single-family factor;
OWNERSHIP = Percentage of ownership factor.
**Significant at 95%.

Table 8 Regression for Return on Equity

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
	B	Std. Error	Beta		
OWNERSHIP	4.386E-03	.013	.046	.346	.730
FAMILY	2.843	1.376	.448	2.067	.042**
MGMT	2.025	1.375	.338	1.472	.145
MGMT / FAMILY	-2.769	1.534	-.531	-1.805	.075

R Square = 0.06 Adjusted R Square = 0.009.
OWNERSHIP = Percentage of ownership factor; FAMILY = Owned by single-family
factor; MGMT = Type of management factor.
**Significant at 95%.

Return on Assets(ROA). Another indicator of profitability is ROA. As in the

previous MANOVA test, the regression test also did not show any significant interaction

effect. However, using only ROA as the dependent variable, the regression resulted in a

significant main effect for family factor. The result shows that mean ROA is higher by

0.267 for single-family owned firms compared to non-single-family firms.

Table 9 Regression for Return on Assets (ROA)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
OWNERSHIP	-2.320E-03	.004	-.091	-.638	.526
FAMILY	.482	.236	.267	2.042	.045**
MGMT	-.167	.215	-.100	-.775	.441

R Square = 0.07 Adjusted R Square = 0.019.
MGMT = Type of management factor; FAMILY = Owned by single-family factor;
OWNERSHIP = Percentage of ownership factor.
**Significant at 95%.

Profit Margin. Profit Margin was one of the two variables to explain ROA.

Although from the MANOVA test an interaction effect was detected between the

OWNERSHIP and MGMT factors, an interaction effect was not detected in the

regression test. This may be due to the fact that the regression model did not account for

correlation among the dependent variables. However, the FAMILY factor was

significantly different at 0.05 level with a positive beta. This result means that single-

family firms will have a higher ROS compared to non-single-family firms, as predicted.

Table 10 Regression for Profit Margin

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
OWNERSHIP	-1.560E-03	.002	-.120	-.952	.344
FAMILY	.390	.100	.447	3.913	.000**
MGMT	-3.025E-02	.089	-.037	-.338	.736

Financial Leverage = Total Asset/Total Equity. As confirmed from the previous

MANOVA test, an interaction effect between OWNERSHIP and FAMILY was detected

to be significant. In addition, the beta showed a positive sign which means that as

ownership level increases, financial leverage will increase for single-family-owned firms

compared to non-single-family-owned firms.

Table 11 Regression for Financial Leverage

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
OWNERSHIP	-1.365E-02	.006	-1.047	-2.219	.029**
FAMILY	-.169	.292	-.194	-.581	.563
MGMT	-1.091E-02	.088	-.013	-.124	.902
OWNERSHIP/FAMILY	1.259E-02	.006	1.345	2.036	.045**

R Square = 0.205 Adjusted R Square = 0.156.
OWNERSHIP = Percentage of ownership factor; FAMLY = Owned by single family
factor; MGMT = Type of management factor.
**Significant at 95%.

Chapter Summary

First, given the results of three-way ANOVA, MANOVA and simple linear

regression tests, the first two hypotheses tested can be accepted based on the test

conducted. It was found that the level of ownership, management type, and family

ownership yield significant differences in cost of doing business and size of staff of the

firm. It was found that the size of staff decreased for owner-manager firms as the level of

ownership increased. For the cost of doing business variable, a significant difference was

found between a single-family-owned firm and a non-single-family-owned firm.

Additionally, the results confirmed that as the level of ownership increased for owner-manager firms, the cost of doing business decreased.

Second, among the overall profitability variables measured by ROE, ROA, ROS, asset utilization and financial leverage, only ROE, ROS and financial leverage were shown to be significantly different depending on level of ownership, family-owned factor and management type.

Third, from the regression tests, it was found that cost of doing business and size of staff had negative linear relationships with the three independent variables tested, as expected, therefore the two H_3 null hypotheses are rejected. In addition, the regression test for the profitability variables showed significant relationships for the family-owned factor and the joint factor between ownership and family.

Overall, the results of the statistical tests tend to support the literature regarding agency theory and cost management preferences by firms. The next chapter will provide final conclusions and make recommendations for additional research.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Conclusion of the study

The purpose of this paper was to test cost management preferences of restaurant firms. Based on the agency theory literatures, it was expected that costs are controlled differently by managers depending on the degree of conflict between the agent (managers) and the principal(s) (owners). The results of the statistical tests largely support the evidence in the existing literature.

The issue of "conflict of interest" based on agency theory has been a topic of interest for many researchers (Rozeff, 1982; Kim & Sorensen, 1986; Morck et al., 1988; Hudson et al., Kim et al., 1988' Hudson et al., 1992; Gu & Qian, 1999) and has been applied to many industries. The majority of these studies have tested the relationship between managerial ownership and company performance in order to determine whether agency relationship exists or not. This is different from the previous research in that it has attempted to identify the firm-level cost variables that are assumed to be controlled differently by agents (managers) depending on their ownership structure. In other words, it was attempted to identify whether cost is controlled differently depending on the degree of conflict that exists between the agent (managers) and the principal (owners) in small restaurant firms.

53

In order to do so, this study used data from 87 non-publicly traded firms (SIC code 58 for restaurants) obtained from the Federal Reserve Board in their 1998 Survey of Small Business Finances. The use of this data made it possible to compare every level of ownership structure in which a firm is 100 percent owned and managed by a single individual (no agency cost occurs) and in which a firm is operated by a manager with no equity in the firm.

Of the seven dependent variables analyzed (cost of doing business, size of staff, return on assets, return on equity, profit margin, asset utilization, and financial leverage) the cost of doing business and size of staff were examined based on expense preference theory assuming that managers have the most direct control over these two variables. In addition, five accounting ratios frequently used to measure the profitability of the firm were selected. Independent variables considered in the study were management type (owner-manager firm versus outside-manger firm), family ownership (a single family owns more than 50 percent of the firm or less than 50 percent of the firm) and ownership percentage (primary owner owns 100 percent of the firm, primary owner owns more than 50 percent but less than 100 percent, primary owner owns 50 percent of the firm, primary owner owns less than 50 percent).

The profitability of the firm variables represented in this study by ROE, ROA, profit margin, financial leverage and asset utilization, was tested using multiple analysis of variance (MANOVA). Among these variables, it was found that ROE, profit margin, and financial leverage were significantly different depending on the independent factors. First, it was found that ROE was higher for single family-owned firms than non-single family-owned firms as expected. Second, when the primary owner owns 100 percent of

the firm, it was found that profit margin was higher for owner-manager firms than outside-manager firms. Finally, it was found that as the ownership percentage decreases, financial leverage also decreased within the single family-owned firms. Therefore there is some evidence to support the hypothesis that the profitability of a firm is different depending on ownership structure.

According to the analysis of variance tests (ANOVA) that was used to compare the mean values of each group depending on the ownership structure, it was found that cost of doing business was lowest for owner-managed firms when the primary owner owned 100 percent of the firm. It was also found that as the level of ownership by primary owner decreases, cost of doing business was significantly higher for non-single family-owned firms than single family-owned firms at all levels of ownership percentage. In addition, when the primary owner owned 100 percent of the firm, it was found that the size of staff was significantly higher for outside-manger firms than owner-manager firms. This result tends to support the hypothesis that the cost of doing business and the size of staff are different depending on ownership structure.

Ordinary least squares regression was used to test the significance and the sign of the coefficient of the independent variables that were tested. As expected, it was found that the cost of doing business is lower for single family-owned firms compared to non-single family-owned firms. It was also found that cost of doing business is smaller for owner-manager firms as the percentage of ownership by the primary owner increases. For size of staff variable, it was found that the mean size of staff decreased for owner-manager firms as the ownership level increased.

For the five dependent variables that were used to measure the overall profitability, it was found that there was a positive linear relationship between all of the five variables tested and the family-owned factor leading one to conclude that single family-owned firms compared to non-single family-owned firms performed better in terms of profitability.

Recommendations for Further Research

While this study used two dependent variables (size of staff and cost of doing business) to examine whether or not cost is controlled differently depending on ownership structure, it would be more meaningful if the cost of doing business variable can be broken down into specific expenses. In this way it would be possible to examine which specific cost is more directly controllable for managers of different ownership structure. Additionally, the reader should be reminded that this study used only restaurant firms. If data is available, it would be interesting to test different sectors (for example hotel, casino or others) within the industry or among other different industries.

Finally, while this study only considered the relationship between managers and owners, other agency problems which occur in different relationships, such as lender and owner relationship, can also be examined. In addition, while this study mainly focused on problems such as moral hazard, other agency problems such as informational asymmetry could be examined.

REFERENCES

Achampong, F.K. & Zemedkun. W. (1995). An empirical and ethical analysis of factors motivating managers' merger decisions. Journal of Business Ethics, 14(10), 855-865.

Alchian, A.A. & Demsetz, H. (1972). Production, information costs, and economic organization. The American Economic Review, 62(5), 777-795.

Ang, J.S., Cole, R.A., & Lin, J.W. (2000). Agency costs and ownership structure. The Journal of Finance, 55(1), 81-106.

Barnea, A., Haugen, R.A., & Senbet, L.W. (1985). Agency problems and financial contracting. New Jersey: Prentice-Hall, Inc.

Brickley, J. & F. Dark (1987). The Choice of Organizational Form: The Case of Franchising. Journal of Financial Economics 18, 401-420.

Carter, R.B. & Stover, R. D. (1991). Management ownership and firm compensation policy: evidence from converting savings and loan associations. Financial Management, 20(4), 80-90.

Castrogiovanni, G. J. & Justis, R.T. (2002). Strategic and contextual influences on firm growth: An empirical study of franchisors. Journal of Small Business Management, 40(2), 98-109.

Coase, R. H. (1937). The Nature of the Firm. Economica, 4(16), 386-405.

Combs, J.G. & Ketchen D. J. (1999). Can capital scarcity help agency theory explain franchising? Revisiting the capital scarcity hypothesis. Academy of Management Journal, 42(2), 196-107.

DeAlessi, L. (1974). Managerial tenure under private and government ownership in the electric power industry. Journal of Political Economy 82, 645-653.

Dor, A., Duffy, S., & Wong, H. (1997). Expense preference behavior and contract-management: Evidence from U.S. hospitals. Southern Economic Journal, 64(2), 542-554.

Emery & Finnerty (1991). Principles of finance with corporate applications. West Publishing Company.

Fama, E.F. & M.C. Jensen (1983). Separation of ownership and control. Journal of Law and economics 26, 301-325.

Ferris, S.P., KumarRajiv, R., & Sopariwala, S.R. (1998). An agency analysis of the effect of long-term performance plans on managerial decision making. Quarterly Review of Economics and Finance, 38(1), 73-91.

Gu, Z. and Qian, Yu. (1999). Hotel managerial ownership and firm performance: An empirical investigation. Tourism and Hospitality Research, 1(2), 145-154.

Hair, J.F., Anderson, R.E., Tatham, R.E., & Black, W.C. (1995). Multivariate Data Analysis. Fourth Edition. New Jersey: Prentice-Hall, Inc.

Handler, W.C. (1989). Methodological issues and considerations in studying family businesses. Family Business Review 2, 257-276.

Hannan, T. H. and Mavinga. F. (1980). Expense preference and managerial control: the case of the banking firm. Bell Journal of Economics, 11(2), 671.

Hudson,C.D., Jahera, J. S., and Lloyd, W.P. (1992). Further evidence on the relationship between ownership and performance. The Financial Review, 27(2), 227-239.

Ingram, R. (1994). Financial Accounting. Cincinnati: South-Western Publishing Company.

Jensen, M.C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior agency costs and capital structure. Journal of Financial Economics, 3(4), 305-360.

Kim,W.S., Lee, J.W., & Francis, J.C. (1988). Investment performance of common stocks in relation to insider ownership. The Financial Review, 23(1), 53-64.

Kim,W.S. and Sorensen, E.H. (1986). Evidence on the Impact of the agency costs of debt on corporate debt policy. Journal of Financial and Quantitative Analysis 21, 131-144.

Kim, Y.K. (1998). The relationship between managerial holding and performance: An empirical study on the restaurant industry. University of Nevada, Las Vegas. MS Thesis.

Lafontaine, F. (1992). Agency Theory and Franchising: Some Empirical Results. RAND Journal of Economics 23, 263-283.

Mixon, F. G. (2001). The impact of agency costs on regulator compensation and the size of electric utility commissions. The Energy Journal, 22(2), 17-21.

Morck, P., Shleifer, A. & Vishny, R. (1988). Management ownership and market valuation. Journal of Financial Economics, 20(1), 293-315.

Rozeff, M.S. (1982). Growth, beta and agency costs as determinants of dividend payout ratios. Journal of Financial Research 5, 81-88.

Scott, L.W., Gardner, J.M., & Dixie L. Mills (1988). Expense preference and minority banking: a note. The Financial Review, 23(1), 105-115.

Stevens, J. (1999). Intermediate Statistics. A Modern Approach (2nd ed.). New Jersey: Lawrence Erlbaum Associates, Inc.

Tsetsekos, G.P. & DeFusco, R.A. (1990). Portfolio performance, managerial ownership and the size effect. Journal of Portfolio Management, 16(3), 33-39.

US Government Printing Office. (1996). The State of Small Business: A Report of the President, Washington, DC.

Williamson, O.E. (1963). Managerial discretion and business behavior. American Economic Review 53, 1032-1057.

VITA

Graduate College
University of Nevada, Las Vegas

Heesun (Amy) Kim

Local Address:
139 Avocado St.
Encinitas, CA 92024

Permanent Address:
204-803 Mugungwha Apt Wallpyoungdong Seogu
Taejeon, South Korea. 302-280

Degree:
Bachelor of Arts (1997), German Language and Literature, 1997
Sogang University, Seoul Korea

Thesis Title: Cost Management Preferences of Small Restaurant Firms

Thesis Examination Committee:
Chairperson, Dr. Michael Dalbor, Ph.D.
Committee Member, Dr. Bernie Fried, Ph.D.
Committee Member, Dr. Karl Mayer, Ph.D.
Graduate Faculty Representative, Dr. Robert Chatfield, Ph.D.