STRATEGIC CHOICE AND FINANCIAL STRUCTURE

IN CASUAL THEMED RESTAURANTS

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(Abstract)

Capital structure is one of the most frequent topics in the finance literature. This literature has its origins in studies of the manufacturing industry. Much of the results of this work have been applied indiscriminately to other industries without thorough validation. Only limited studies have considered financial structure in hospitality industry.

The service industry is different than manufacturing industry, and even the hospitality industry is not homogeneous. The restaurant industry and lodging industry are quite different from each other. Of interest to this present study is to seek to understand how the patterns of capital structure are shaped within the context of the multi-unit casual themed restaurant industry.

Restaurant industry is well known for a high bankruptcy rate. Many multi-unit restaurants exist in the casual themed restaurants strategic group in the Unites States, and many small independent restaurants are also present. The firm's strategic choice and its relationship with financial structure became a topic for my research.

Publicly traded casual themed restaurants have been selected in this study. Hypothetically a common capital structure exists among firms within this strategic group. In this study, an investigation can consider the relationship among financial ratios as well as the uniqueness of the financial structure of the casual themed restaurants.

Dedication

I dedicate this work:

To my parents, sister and aunt

ACKNOWLEDGEMENT

Writing a thesis is all about persistence. Completing a thesis seemed never-ending to me. Something I never thought has come finally. There were many moments when I thought of discontinuing my thesis. A thesis is such a challenging project as a learning process.

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Chapter 1

Problem Statement

Capital structure is one of the most frequent topics in the finance literature. This literature has its origins in studies of the manufacturing industry. Much of the results of this work have been applied indiscriminately to other industries without thorough validation. Of interest to this present study is to seek to understand how the patterns of capital structure are shaped within the context of the multi-unit casual themed restaurant industry. This particular industry strategic group consists of thousands of small and medium sized enterprises, and is both highly competitive and subject to the uncertainties of the remote and business environments. Consequently, applying prior theory or research methods that have been developed in the context of large cap market value manufacturing firms is impractical. Although many studies have been conducted to explain why companies choose their own capital structure, the issue remains unresolved for this specific industry strategic group. Only a limited number of studies consider financial structure in the hospitality industry. The hospitality industry is part of the overall U.S. service industry. The service industry is very different than manufacturing, and even the hospitality industry is not homogeneous. The lodging industry and restaurant industry are quite different from each other.

Restaurant industry is well known for a high bankruptcy rate. The risky nature of business may affect the capital structure choice in the restaurant industry. In addition, nature of assets will impact the capital structure in the restaurant industry. Agency problem and information asymmetry may influence the capital structure in the restaurant industry as well.

Many multi-unit restaurants exist in the casual theme restaurant strategic group in the United States, and many small independent restaurants are present also. Due to data unavailability, limited studies about the financial structure of this industry group have been conducted.

Publicly traded casual themed restaurants have been selected in this study to discuss financial structure because of publically available data. Hypothetically a common capital structure exists among firms within this strategic group. Through the pattern of the financial structure in the casual themed restaurant chains, an investigation can consider the relationship among financial ratios as well as the uniqueness of the financial structure of the casual themed restaurants.

Theoretical Underpinning / Conceptual Framework

The literature which follows introduces the relevant work on capital.

<u>Capital structure and strategic decisions</u>

Strategic theory

- **Strategic groups and dominant logic**

The concept of strategic group has drawn attention increasingly in strategic management literature (Cool and Schendel, 1987). Strategic group theory became a popular instrument for analyzing competitive structure of industries (Barney & Hoskisson, 1990). Scholars examined strategic groups in different industries such as the pharmaceutical industry (Cool & Schendel, 1987; Cool & Diericks, 1993) and retail grocery industry (Lewis & Thomas, 1990; Mintzberg & Waters, 1982). Firms within strategic groups can be expected to demonstrate similar patterns of behavior and decision making often referred to as the dominate

logic of industry.   The strategic question becomes: Is this dominant logic instrumental to strategic success?

Some studies attempted to relate the strategic group with the financial structure of the firms (Chang & Thomas, 1989; Castro & Chrismam, 1995; Sandberg, Lewellen & Stanley, 1987; Barton & Goldon, 1988; Lowe, Naughton & Taylor, 1994). Strategy is not one time activity, but rather a consistent pattern of decision making.   Companies need to have a competitive strategy that is sustainable in the industry sector.   As a way of market entry or growth, companies may make strategic decisions such as franchising, diversification equity ownership, joint ventures, leases and choose financial structure to support those decisions.

From the literature, strategic choice seems related to the financial structure of the firm (Hatten, Schelndel and Cooper, 1978; Ryan and Wittink, 1985; Baird and Sudharsan, 1983; Primeaux, 1985; Hayes, Spence and Marks, 1983; Hergert, 1983; Cool and Diericks, 1993; Li and Li, 1996; Mackay and Phillips, 2005; Titman and Wessels, 1988; Newman, 1978; Campello, 2003).

Capital structure theory

- **Major optimal financial theories**

No universal theory explains the capital structure of the firm; however, several major theories which have been introduced provide a basis for continuous examination.

1. The Modigliani-Miller theory maintains that whether the company chooses debt and equity in the capital structure does not affect the firm's value.

2. The Trade-off theory holds that firms choose a combination of debt and equity by

trading off the tax benefits of debt against the costs of bankruptcy and financial distress.

3. Agency theory contends that corporate managers are the agents of shareholders, a relationship fraught with conflicting interests.

4. Pecking-order theory suggests that firms prefer internal funds; then, debt will be issued next, and finally equity will be issued.

Assessing capital structure

- **Balance sheet**

The balance sheet is one of the major, corporate financial statements for companies. It provides the book value of assets, liabilities and equity, and its preparation is according to Generally Accepted Accounting Principles (GAAP). Since market value keeps changing, the numbers shown in the balance sheet could be different from the numbers reflecting actual market capitalization. Although the balance sheet is essential to understand the company's financial structure, it has limitations for providing information since it is a book-value, based statement.

- **Debt vs. Equity**

Debt is what a company owes to individuals or institutions. Debt is classified into two categories: short-term and long-term debt. Debt has the advantage of tax deductions from interest payments.

Equity is the amount of assets after deducting debt on the balance sheet. Equity is the residual claim by investors. Equity consists of shares which indicate ownership in the corporation, thus who own how many shares is important in the financial structure in the company.

How to combine debt and equity is a significant issue in the company.   Quite a few studies about the determinants of debt have been conducted by scholars.   (Barcay and Smith, 1995; Toy, Stonehill, Wright and Beekhuisen, 1974; Bhandari, 1988)   Market timing of issuing equity have been examined by scholars (Baker and Wurgler, 2001; Elliott, Koeter and Warr, 2007).

Few large companies are financed entirely with debt-type claims.   Companies' dual issue of debt and equity and the proportion of combination are research questions.

- **Working capital**

Working capital management is associated with short-term investment and financing decisions.   Working capital is a financial metric which represents the amount of day-by-day operating liquidity available to a business.   Managing working capital efficiently is very important in corporate strategy.   The hospitality industry which is a cash related business shows different working capital patterns than manufacturing industries.

Some research has studied the relationship between a firm's net trade cycle and profitability (Shin and Sonene, 1998).   Working capital requirements is different depending on the business (Hawawini, Voallet and Vora, 1986).   Working capital ratio is a way of measuring a company's liquidity and has been somewhat neglected considering its influence on capital structure.   Thus, the working capital ratio and the relationship to other ratios within the hospitality industry is a research question.

Assessing capital structure in the hospitality industry

- **The hospitality industry as part of service industry**

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The literature of capital structure has a long history, and debate is ongoing among major theories.   Most research on capital structure has concerned public, non-financial corporations with access to U.S. or international capital markets (Myers, 2001).   In addition, most of the literature by research is driven by manufacturing companies.

Upneja and Dalbor (2001) have made some progress in the hospitality literature. They attempted to discern if the financial growth cycle, combined with pecking-order theory, can explain capital structure in the restaurant industry.   They also studied the choice of long-term debt in the U.S. lodging industry.

Lee (2007) examined the financial leverage trends in the lodging industry.   He found that industry median leverage ratio is more valid than the mean industry ratio as a norm for the lodging industry.   This work is minimal and focused on the lodging industry.   Little work has been accomplished with the food and service industry.

Although studies have been conducted about the capital structure in the hospitality industry, those are very limited (Sheel, 1994; Tang and Jang, 2007; Dalbor and Upneja, 2002; Phillips and Sipahioglu, 2004; Lee, 2007; Smith and Watts, 1982).

● **Services are different from manufacturing – small and medium sized enterprises**

The most distinctive characteristic of services which distinguishes them from manufacturing is the intangibility of the offer of sale which is produced and consumed simultaneously.   In addition, many small and medium sized enterprises within the industry seek to execute hundreds if not thousands of service experiences.   They have very different financing needs since they are primarily a cash oriented business.

Sheel (1994) compared determinants of capital structure choice and leverage behavior

of hotel and manufacturing firms.   This research found some important differences between short-term and long-term debt behavior in hotel and manufacturing firms.

Berger and Udell (1998) examined the economics of financing small business in private equity and debt markets.   These authors indicated some significant differences between the financing of small business and large business.

Kim, Dalbor and Feinstein (2007) examined cost management behavior in small restaurant firms.   They concluded the presence of significant differences in profitability depending on the management type and the ownership percentage of the primary owner.

The hotel industry, and likewise the restaurant industry, is unique in its character compared to manufacturing.   Through examining restaurants of different sizes, business models and concepts, this study reveals the pattern of financial structure.

Strategic group – casual themed restaurants

- **A common financial structure**

Franchising is a common strategic choice among the casual themed restaurants. Franchising is considered good for small companies that lack the capability to raise capital. Companies involved in franchising generally have recognizable brand names that help to assure the customer of uniform product and service quality (Brickely and Dark, 1987).

Despite the expansion of publicly traded, multi-unit, chain restaurants, the industry still primarily consists of small firms.   However, the amount of research is limited due to the lack of availability of data.

- **Financial structure and firm value**

The ultimate goal in determining a firm's optimal financial structure requires a selection of the mix if capital sources that maximizes shareholder wealth, that is, the market price of the firm's common stock (Kwansa, Johnson & Olsen, 1987).

Managers normally have an advantage over the market in predicting firm-specific events, which creates an information asymmetry between the managers of the firm and the market. The information asymmetry can vary over the life of the firm.

Research Questions

1. Do any relationships exist that drive financial structure in casual themed restaurants?

2. Does an optimal financial structure exist for casual themed restaurants?

3. If factor(s) are present that determine the unique capital structure in the casual dining restaurants, are the factor(s) applicable to all the restaurants regardless of type, size and concept?

Methodology and Procedure

Secondary data of publicly traded casual dining restaurants will be collected from 1999 to 2006 through COMPUSTAT. Variables that affect leverage will be used. Different financial leverage ratios including debt ratio, debt-to-equity ratio, short-term debt ratio, long-term debt ratio and long-term debt capitalization ratio will be examined. Ratios will be analyzed depending on the classification of restaurants, large vs. small, franchised vs. company-owned and one dominant vs. multiple brand restaurants.

Sample Selection Procedure

This research starts with all restaurant firms included in the COMPUSTAT database

between 1999 and 2006 (SIC Code 5812). From this general group those belonging to the casual dining restaurant industry will be chosen. By considering market capitalization, the small and large companies will be determined.

Chapter 2

Literature Review

This research seeks to develop an understanding of the financial structure of casual themed restaurants: a type of restaurant which serves moderately-priced food in a casual atmosphere. Between 2004 and 2006, sales in the casual themed restaurant sector have increased 17.2% to $39.2 million. The sector appears to exhibit a homogeneous financial structure among firms within this strategic group, and this study explores a research question which describes and explicates that financial structure.

To provide an understanding of the concept of financial structure in casual themed restaurants, this chapter reviews strategic management theory and its relationship to strategic decisions regarding financial structure, also introduced are strategic groups and dominant logic. To assess capital structure, the balance sheet, debt and equity and working capital are explained. To assess capital structure in the hospitality industry, the characteristics of the service industry and its differences compared to manufacturing are explored.

Capital structure and strategic decisions

Strategic theory

- **Strategic groups and dominant logic**

The concept of "strategic groups" has drawn attention continually in strategic management and industrial organization economics literature since its introduction by Hunt in 1972. Application of strategic groups to various industries has demonstrated that the concept can possibly provide insight into the character of strategy-performance relationships and into the

examination of competition generally (Cool and Schendel, 1987). Through the case study of the U.S. pharmaceutical industry, these authors found that strategic groups are relatively stable phenomena in industries. They concluded that strategic group analysis has considerable potential for illustrating crucial issues of performance, rivalry, and conduct (Cool and Schendel, 1987).

Mcgee and Thomas (1986) discussed the concept of strategic groups by focusing on the significance of intra-industry strategic groupings in explaining differences among companies within an industry. The authors found that the theory of strategic groups and associated mobility barriers relates to the structure of industries and the strategic choices of companies in those industries.

Strategic group theory has become well-known as an instrument for analyzing competitive structure of industries (Barney and Hoskisson, 1990). Barney and Hoskisson (1990) tested two assertions: (1) that strategic groups exist, and (2) that a firm's performance depends on strategic group membership. The authors concluded that in spite of the affluent theoretical tradition from which strategic group theory comes, these two assertions, the existence of strategic groups and the impact of strategic groups on a firm's performance, remain untested.

Lewis and Thomas (1990) examined the relationship between performance issues and strategy for companies in the U.K. retail grocery industry. The authors used seven strategic variables including number of stores, average size of stores, advertising expenditures/sales, number of food lines, proportion of own-label lines, food sales as a proportion of supermarket sales, and supermarket sales as a proportion of group sales. They found that, even though strategic groups based on size differ from those based on strategic variables, substantial commonality exists between the groups based directly on the strategic variables and those based

on a factor analysis approach.

"The strategic group concept provides an attractive middle ground between firm and industry for both theory development and empirical analysis" (Reger and Huff, 1993, p 103). Their research showed that strategic groups are useful for reviewing competitors' strategies in industries highly populated by competitors and individual attention to each firm is not possible. Also, strong uniformity appeared to exist across the sample of nearly 18 firms in the grouping. These groups precisely anticipated subsequent performance differences and acquisition patterns.

Cool and Diericks (1993) analyzed the U.S. pharmaceutical industry during the period, 1963 to 1982. They found that changes in the number and size of distribution of firms, in segment interdependence and in strategic distance do not support considerable decline in industry profitability. Adversely, declining industry profitability strongly related to increasing rivalry both within-groups and between- groups.

Mascarenthas (1989) conducted a longitudinal study of strategic group patterns of international off-shore drilling industries during periods of economic growth, stability and decline. As a result, changes in group strategy related to significant environmental shifts concerning economic growth and decline rather than stability.

Mackay and Phillips (2005) examined the relevance of the industry to a firm's real and financial decision making and found that financial structure is dependent upon a firm's position within its industry. They found that an industry's fixed effects explain much less of the variation in financial structure compared to firms' fixed effects. Their findings also supported the notion that industry factors influence both individual firm decisions and the joint distribution of real and financial characteristics within industries. A firm's financial structure relies on changes made by industry fellows which indicates the significance of industry interdependence

even in competitive industries.

Titman and Wessels (1988) analyzed determinants of capital structure using indicators such as collateral value of assets, non-debt tax shield, growth, uniqueness, industry classification, size, volatility and profitability. They used a factor-analytic technique to estimate the influence of unobservable attributes on corporate debt ratio. Six measures of financial leverage used in their study include short-term, long-term, and convertible debt divided by market and book values of equity. The variables, analyzed over the period 1974 through 1982, revealed that debt levels negatively relate to the uniqueness of a firm's line of business. Titman and Wessel also indicated that short-term debt ratios negatively relate to firm size, which shows the relatively high transaction costs that small firms have to pay when issuing long-term debt.

Newman (1978) emphasized the basis for strategic groups in the corporate planning process. "The strategic choice made by a firm can affect its production technology, degree of product differentiation, vertical integration and diversification, and formal organization and control systems" (Newman, 1978, p 417). Newman suggested the lack of necessity for firms competing in the same market to adopt identical corporate strategies, although they have the common goal of maximizing profit.

According to Campello's study (2002), debt financing has a negative influence on relative-to-industry firm sales growth in industries where rivals are relatively unlevered during recessions, but not during booms. However, such effects are not found for firms competing in high-debt industries.

Strategic groups are not random phenomena, but are a rather stable phenomenon in industries. Although firms belong to the same industry, their strategies are not necessarily the same as others. Firms can demonstrate differing performance with the same strategy in a

strategic group; likewise, firms can achieve the same goal with different strategies in the same strategic group. Generally, the profitability differences within strategic groups are less than differences between strategic groups. Strategic groups consist of firms which may compete for the same customers' patronage in diverse ways (Harrigan, 1985). Strategic groups are tools for understanding the firm and the competitive structure in the industry. Strategic groups may influence corporate strategy including the financial strategy of the company.

The existence of different strategic groups often links to the business models and financial structure of the firm. For example, hospitality industry firms choose franchising or company-owned units in terms of their business models. Ownership enables clear distinction between firms. "The obvious characteristics are the extent of shareholding both privately held and publicly quoted, nature of shareholders-family influence, country of origin, multi-national, institutional holdings, and corporate finance, subsidy or other flavored treatment" (McGee & Thomas, 1986, p 153). The percentage of ownership is one of a company's strategic decisions, which possibly affects its financial structure. Research indicated that a relationship exists between strategic groups and the financial structure of the company. (Hatten, Schendel and Cooper, 1978; Ryan and Wittink, 1982; Baird and Sudharsan, 1983; Primeaux, Li & Li, 1996; Campello, 2003; Titman and Wessels, 1988).

Perhaps companies in the same industry benchmark successful examples in making their strategic choices. For example, a significant industry effect on firms' investment in working capital is common, and within industry groups to which firms adhere when setting their working capital investment policies, industry benchmarks exist (Hawawini, Viallet and Vora, 1986). Ryans and Wittink (1985) contended that if more than two firms belong to the same strategic group, their stock prices should tend to move together.

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Companies need to have a competitive strategy that is sustainable when enacted among a community of competitors. Competitive strategy is the positioning of the firm in its market place and the extent to which this involves investment in firm-specific assets. Porter (1980; cited from Dess and Davis, 1984) introduced three broad dimensions for competitive strategy: differentiation, cost leadership and focus. According to his generic strategies, the low-cost leader gains the competitive advantage in a market. Also, differentiated goods and services contribute to sustainable competitive advantage. The focus strategy, also known as the "niche strategy," explains that firms enjoy a high degree of customer loyalty, and this loyalty prevents other firms from competing directly.

Strategy includes many activities that must come together in a synergistic manner to produce the results expected by firm's stakeholders. To achieve this synergy, a strategy must be a way of life in the firm, not something that is done once a year. Strategy is a consistent pattern of resource allocation directed to those investments for competitive methods which add significant value to the equity base of the firm's owners (Olsen, 2008). This includes decisions about financial structure.

Mintzberg and Waters (1982) reviewed the strategies of a retail chain over 60 years of its history to show how the strategic concept can be operationalized and to conclude how strategy forms in entrepreneurial companies that grow large and influences its structure. These authors suggested a tentative conclusion that companies plan when they have aimed strategies, not in order to obtain them. Plans are not for a strategy but for the consequences of it. Planning gives order to vision, and imposes form for the sake of formalized structure and environmental expectation. Although such planning as programming is not necessary in all circumstances, in some it is mandatory. The Mintzberg and Waters' study suggested that the success of the

entrepreneurial mode evokes the forces- both in structure and in environment--that weaken it.

Strategy, conceptualized as operating at both the corporate and competitive levels, constitutes the actions and plans which influence the portfolio of different business activities in the firm. Operationally, this is the level of diversity achieved, the mode used to achieve that level of diversity, and the management of the diversified set of assets and business.

Diversification has become a main topic of research in strategic management. "Diversification is defined as the entry of a firm or business unit into new lines of activity, either by processes of internal business development or acquisition, which entail changes in its administrative structure, systems, and other management processes" (Ramanujam & Varadarajan, 1989, p 525). This type of corporate strategy may influence the firm's capital structure.

Chang and Thomas (1989) studied the influence of diversification strategy on return and risk in diversified firms. As a result, the risk-return natures and the power of markets, where the business units of a diversified firm serve, seem to have the dominating impact on the firm's risk-return analysis**.**

Castro and Chrisman (1995) examined strategic choices reflecting the relationship between order of market entry and financial performance. Quite a few scholars agreed that the first-movers or pioneers can achieve a sustainable competitive advantage over the followers. Castro and Chrisman used a sample of firms competing in mature, concentrated, domestic, heterogeneous and manufacturing industries. The result indicated a significant relationship between entry order and competitive strategy. In addition, these relationships have a significant impact on a firm's financial performance.

Strategic choices at the corporate level in the hospitality industries include franchising, growth through company-owned units and single concept and multiple concepts.

Decisions about the degree of financial leverage in capital structure is very important to elements of a company's strategic plan (Sandberg, Lewellen & Stanley, 1987, p). The Modigliani and Miller model (1958) suggested no influence from strategy on capital structure and forms the basis of modern financial structure theory. Under the assumptions that no taxes, bankruptcy costs and asymmetric information exist in an efficient market, firm value will not be affected by how the firm is financed.

Barton and Goldon (1988) and Lowe, Naughton and Taylor (1994) discussed the relationship between capital structure and strategy. Barton and Goldon considered corporate strategy variables (single, dominant, related, unrelated), contextual financial variables (profit, size, sales growth rate, capital intensity and earnings risk) and capital structure variables (owner's equity/invested capital). Across all strategic categories profit emerged as having large and negative relationships with debt levels.

Lowe, Naughton and Taylor (1994) examined the relationship between corporate strategy and capital structure using Australian data. They extended Barton and Gordon's hypotheses to include interactions between corporate strategy and other factors such as the firm's profitability, size, growth, capital intensity, risk, effective tax rates and cash flow. Both studies showed various linkages between capital structure and corporate strategy.

Strategy is not a one time activity, but rather a consistent pattern of decision making about resource allocation in the company. A company's strategy such as diversification may be good or bad depending on the perspectives of different scholars. Strategy regarding market entry has been studied. Studies on the relationship between corporate strategy and capital structure have been conducted by some scholars. From this sampling of strategy literature, apparently some evidence suggests a relationship between financial structure and strategy within

strategic groups of firms within an industry sector.

Capital structure theory

Theories of capital structure

Although no universal theory about capital structure in relationship to corporate strategy exists, the major optimal financial theories include the Modigliani-Miller theory, the trade-off theory, agency theory and pecking-order theory. Those theories overlap to some extent. Brief descriptions of each theory follow.

- **Major optimal financial theories**

1. The Modigliani-Miller theory of capital-structure irrelevance maintains that whether the company chooses debt and equity in the capital structure is not important. Investment decision and firm value are independent of financing (Myers, 2002).

2. The Trade-off theory explains that firms choose a combination of debt and equity by trading-off the tax benefits of debt against the costs of bankruptcy and financial distress. The trade-off theory of optimal capital structure has strong commonsense appeal because interest tax shields account for significant value.

3. The agency theory maintains that financing decisions have first-order, real effects because they change managers' incentives and their investment and operating decisions. Agency costs drive financing, - or at least they explain the effects of financing decisions. The theory suggests that corporate managers act in their own interests as agents for shareholders. Since corporate managers are the agents of shareholders, a relationship fraught with conflicting interests arises. Managers have incentives to cause their firms to grow beyond the optimal size. Growth increases managers' power by increasing the resources under their

control.   Growth also associates with increases in managers' compensation, because changes in compensation positively relate to growth from sales (Jensen, 1976).

4. The pecking-order theory, developed by Stewart C. Myers (1984), suggests that the firm prioritizes the source of financing based on the law of least effort and least resistance. Therefore, internal funds are used first, and then debt will be issued, and finally equity will be issued.   Myers and Majluf (1984) assumed that the financial market is perfect except for asymmetric information.   Investors are not aware of the true value of either existing assets or the new opportunities with positive net present values (NPVs).   Bad news could be forthcoming if managers try to issue overvalued shares, although some firms will have undervalued shares, and issuing shares at price transfer value too low from existing shareholders to new investors.   If managers act in the interest of existing shareholders, they will refuse to issue undervalued shares unless the transfers of value is more than offset by the growth opportunity's NPV proving that bad news always outweighs good news.

Ever since the introduction of Modigliani and Miller's theory, other scholars generated quite a number of capital structure theories. Interest tax shields seem to be of significant value, so the trade-off theory has significant appeal.   Agency theory focuses on manager's interests which causes conflict with shareholders.   Pecking-order theory insists that equity is the least preferable choice in capital structure. Scholars agree and disagreed-none of these major theories are absolutely perfect for explaining capital structure of companies.

Due to the lack of agreement among theories, capital structure is one of the topics frequently studied in the finance field.   Capital structure is how companies finance strategic investments through debt and equity in support of the investments.

Harris and Raviv (1990) insisted on the theory that the role of debt information for investors affects capital structure. The informational role of debt is two sided: (1) The simple ability of the firm to make its contractual payments to debt holders releases information. (2) In default, management must soothe creditors to avoid liquidation, either through informal negotiations or through formal bankruptcy proceedings. These processes disperse substantial information to investors. Since default gives creditors the option to force the firm into liquidation and spreads information helpful to investors, debt is an important tool in capital structure. Harris and Raviv emphasized the important role of debt in terms of providing information to investors.

To develop a theory to determine corporate scope and corporate financial structure, Li, David and Li, Shan (1996) addressed three issues: the optimal financial structure, the optimal scope of operation, and the interaction between these two. They looked at mergers and spin-offs as a method to improve adequacy of corporate control because corporate scope has impact on the efficiency of the financial structure in management. They suggested that diversification alone can be an inadvisable corporate financial strategy because it may allow the manager too much or too little power in new investment decisions.

Many attempts have been made to discover the determinants of financial structure. Ferri and Jones (1979) chose industrial class, size, variability of income, and operating leverage to determine their influence on financial structure. They found: a) Industry class or strategic group relate to a firm's leverage, but less directly than previously suggested b) A firm's use of debt is connected with its size, but the relationship does not seem to be positive as shown in other studies c) Variation in income does not show any relationship with a firm's leverage And, d) operating leverage does not affect the percentage of debt in a firm's financial structures, and the relationship between these two types of leverage appear to be negative, as financial theory

suggests.

Taggart (1977) developed a new model of corporate financing and concluded that changes in the market values of long-term debt and equity are crucial determinants of corporate security issues. The author suggested that permanent capital increases every quarter to the extent that firms can retain earnings, while any shortfall has compensation through bond and stock issues. Another point is that firms also look at their debt capacity, but, if bond issues result in extreme debt levels, stock issues will be stimulated as a countermeasure. The author argued that because of slow adjustments to the permanent capital targets, liquid assets and short-term debt are crucial in dealing with short-run fluctuations in the external financing deficit. However, the impact of the targets is obviously recognizable, eventually, and during the 1950's and 1960's, firms were urged to increase their long-term debt gradually.

Hovakimian at el (2004) examined the presence of market and operating performance impact on corporate financing behavior. This paper concentrated on the dual issues of both debt and equity unlike other studies (e.g., March, 1982; Hovakimian et al., 2001). These authors found that high market-to-book firms have good growth opportunities and low target debt ratios accordingly. In addition, they concluded that, whereas high stock returns relate to higher probability of equity issuance, the probability of debt issuance is not influenced by stock returns. They summarized that the significance of stock returns in corporate financing decision studies does not associate with target leverage and probably is the result of pecking order timing behavior.

These authors further developed an understanding of the dual issues. They contended that the analysis of dual issues enables extension of the existing literature in two directions: Addressing the inference problem related to the effects of profitability using regressions of

observed debt ratios and considering that firms with target capital structures have an observed debt ratio which may deviate substantially from these targets   (Hovakimian, Hovakimian, Gayane & Tehranin, 2004).

Kehoe (1996) explained franchising in the U.S. hotel industry.   The author discussed that agency problems influence a chain's organizational choices.   The author's view is that franchising is the most effective solution to these problems because franchisee-managers profit more from their labors than managers of company-owned and company-managed/investor-owned hotels do.   Likewise, some casual themed restaurants own all their outlets; others operate outlets as combinations of owned and franchised.

Capital structure related to strategic groups has been studied in different industries. While a strategic decision would affect a firm's financial structure, financial structure may change as firms grow.   The financial structure of a firm at the market entry stage would not necessarily be same as the firm's high growth stage.   In the hospitality industry, how to mix debt and equity can be investigated with franchising or company-owned strategic decisions.   In addition, the size and concept of a firm can be studied in relation to the financial structure of the firm.

Many examples of financing tactics relate to taxes.   Mackie-Mason (1990) examined whether or not firms with high marginal tax rates tend to finance debt.   His result was consistent with the trade-off theory because of the indication that tax-paying firms are in favor of debt financing.   Graham (1996) suggested that changes in long-term debt highly relate to the firm's effective marginal tax rate.   However, according to Fama and French (1998), no significant relationship exists between taxes, financing and market value.

One of the main issues in both the theory and practice of financial management is how to

determine the optimal capital structure of the firm. Wippern (1966) argued that the measure of maximization of firm value is a function of two variables: the expected earnings flow from the assets and the rate at which that flow is capitalized by the market. He suggested that capital structure decisions should be assessed according to the effect on both variables. He stressed that the debate of the optimal capital structure concerns the effect of the addition of non-equity financing on the quality of the firm's earnings and, thus, on the rate at which the earnings are capitalized.

Myers (1984) stated that theories do not explain financing behavior. He said in his paper, "The Capital Structure Puzzle," that "The capital structure puzzle is even tougher than the dividend one" (Myers, 1984, p 575). Myers (2001) also attempted to explain the combination of financing sources that corporations use. He reviewed the tradeoff and pecking order theory, and concluded that no general theory applies in financial structure.

Many studies concerned determinants of capital structure such as industry effect, taxes, information role of debt and market value of long-term debt and so forth.
The dominant theories explain capital structure through such concepts as trade-off, agency and pecking order theories even since the introduction of Modigliani-Miller's theory.
Despite various studies about capital structure by many scholars, the topic remains resolved; none of them explain the capital structure, unconditionally.

Assessing capital structure

- **Balance sheet**

The balance sheet is one of the major, corporate-financial statements and provides the book value of assets, liabilities and equity. Investors read the balance sheet to make investment

decisions. The balance sheet is a part of the annual report prepared according to Generally Accepted Accounting Principles (GAAP). Since it provides the book value of assets, liabilities and equity, investors may not find the exact information they seek. Market value keeps changing, and perhaps the numbers shown in the balance sheet are different from the numbers reflecting actual market value. Market value is the estimated value when transaction occurs between sellers and buyers. It reflects the valuation of assets on the date of transaction. Therefore, market value is more meaningful and important than book value to financial analysts. The balance sheet has weaknesses in terms of the fact that it does not show the market value which is continually changing, a consideration especially important for off-balance sheet items. For instance, off-balance sheet items, such as operating lease expense, do not appear in the balance sheet; therefore, the leverage ratio of the company will not be reliable without discovering the number of missing items.

Ball, Lev and Watts (1976) investigated the relationship between balance sheet composition and income variation. They found that variations in a firm's annual income relate to changes in balance sheet composition. They suggested that this relationship is meaningful for financial statement analysts interested in changes in the relative shares of financial statement items: the "common size statements" method. They concluded that income variation is a source of such relative share changes.

Duffee (2002) argued that changes in firm value associate with changes in the values of a firm's riskier assets compared to its less risky assets. The author also suggested that these changes should drive changes in stock return volatility. The theory of balance sheet effects in this paper indicates that betas and book-to-market ratios should predict the strength of the return volatility relation. Also, balance-sheet effects are a potential source of asymmetric volatility,

and the evidence in this paper supports the hypothesis that such effects drive a positive relationship between returns and volatility.

Stowe, Watson and Robertson (1980) identified and explained the relationships between the two sides of the balance sheet. They maintained that while the separation of investing and financing decisions is a valuable assumption which notably simplifies many corporate financial decisions, the actual balance sheets of corporations do not represent independence between the two sides of the balance sheet. Using canonical correlation, they found that the relationships across the balance sheet include hedging, the use of collateral and loans, inventories related to accounts payables and managing risk with simultaneous use of lower leverage and greater liquidity balances. They took a set of dependent variables instead of a single variable which is the method common to most studies.

Buckmaster and Jones (1997) tested hypotheses focusing on transition from balance sheet to income statement in accounting literature. Their result suggested that many questions and problems with sources relied on inferences about the transition from an asset and liability measurement emphasis to an income measurement emphasis. Because the balance sheet accumulates the effects of previous optimistic financial reporting, the prediction is that constraints already embedded in GAAP, such as objectivity and conservatism, when properly enforced, will limit managers', of firms with bloated balance sheets, repeatedly overstating earnings of firms with bloated balance sheets (Barton and Symko, 2002).

Chen, Defond and Park (2002) investigated a pervasive voluntary disclosure practice and found that balance sheet disclosures are more likely among firms: (1) in high technology industries, (2) reporting losses, (3) with larger forecast errors, (4) engaging in mergers or acquisitions, (5) that are younger, and (6) with more volatile stock returns.

The balance sheet is one of the financial statements along with the income statement, statement of retained earnings and statement of cash flows. To understand the financial structure of a company, the balance sheet is essential; however, off-balance sheet items and the difference between book value and market value are equally important. Additionally, off-balance sheet items account for an important portion of company's financial structure. Therefore, limitations remain for obtaining information only from balance sheets when seeking to understand the financial structure of a company.

- **Debt vs. Equity**

Debt is what a company owes to individuals or institutions. As a part of a financing strategy, debt could be chosen in corporations. Debt classification falls into one of two categories: short-term debt and long-term debt. Short term debt is one to be paid off in a year. In contrast, long term debt is debt with maturity of longer than one year. The distinctive characteristic of debt is that it has the advantage of tax deductions from interest payments. Debt has the priority in terms of claim on a firm's assets.

Equity is the amount of assets after deducting debt on the balance sheet. Equity is the residual claim. Equity consists of shares which indicate ownership in the corporation, thus, who owns how many shares is important to the financial structure of the company.

To answer why firms issue equity, Dittmar and Thakor (2007) developed and tested a new theory of security issuance. They concluded that: (1) Equity issuers have higher stock prices. (2) Regardless of their stock prices, these firms have higher values of the "agreement parameter." (3) This agreement parameter has incremental power over stock price levers, timing, and information asymmetry to explain a firm's security issuance decision And, (4) after equity

issues, firms experience larger increases in investment and this effect is stronger for high-agreement firms. (Dittmar and Thakor , 2007, p 49)

Market timing refers to "the practice of issuing shares at high prices and repurchasing at low prices.   This practice benefits ongoing shareholders at the expense of entering and exiting ones, so corporate managers have incentives to time the market if they care more about ongoing shareholders" (Baker and Wurgler, 2001, p 1). Three approaches influence studying market timing: First, analyses of actual financing decisions show that firms tend to issue equity instead of debt when market value is high relative to book value and past market values, and tend to repurchase equity when market value is low.   Second, analyses of long-run stock returns following corporate finance decisions suggest that market timing is successful on average. Third, and perhaps most convincing, managers admit to market timing in anonymous surveys. They found that, apparently, the reason why firms issue more equity than debt when valuations are high is the issuance's constant impact on capital structure.   They concluded that fluctuations in market valuations have significant influence on capital structure that continues for at least a decade.

Firms can reduce the cost of equity through successful timing in equity markets, and current shareholders can have an advantage at the expense of new shareholders.   Managers' ability to time the equity market will be valuable in the security issuance decision (Elliott, Koeter and Warr, 2007).   The authors indicated that the security issuance choice between public and private debt appear to be influenced by the characteristics of the firm rather than the level of misevaluation.   Firms younger and riskier have tendency to finance debt from private markets when they finance smaller amounts, given that firms issue straight debt.

Marsh (1982) developed a descriptive model of the choice between long term debt and

equity.   The coefficients of the model are estimated using logit analysis employing a sample of 748 issues of equity and debt made by UK companies during the period 1959 to 1970.   The predictive ability of the model, tested on a holdout sample of 110 equity and debt issues made between 1971 and 1974, showed that companies are heavily affected by market conditions and the past history of security prices in selecting between debt and equity.   In addition, the study supported that companies seem to make financing choices as if they had target levels for both the short- term debt and long-term debt ratios.

Barclay and Smith (1995) examined the determinants of corporate debt maturity.   Their results supported the hypothesis that firms with more growth options among their investment opportunities tend to issue more short-term debt.

Debt-to-equity ratio (DER), calculated by total debt divided by total equity, is the financial ratio indicating the portion of equity and debt.   This ratio is useful for determining the financial leverage of a firm.   High debt-to-equity ratio means risk to investors.   Debt-to-equity ratios vary among industries.   Although total debt and equity are obtained from the balance sheet of the firm, the ratio is based on book value.   Therefore, the ratio does not reflect current market value.   Investors need to know the market debt-to-equity ratio adjusted for their information.

The theory of capital structure does not propose to explain the observed differences in debt ratios, but rather the difference in the optimal debt-equity ratios across firms.   Perhaps, firms that face high costs of leverage should have lower optimal debt levels than firms with lower corresponding costs.   Of course, lack of correlation between a firm's costs for leveraging and its observed debt level at any given point in time does not necessarily invalidate the theories. (Banerjee, Heshmati and Wihlborg, 1999)

Toy, Stonehill Remmers, Wright and Beekhuisen (1974) tested the hypothesis that three financial performance variables such as risk, growth and profitability are determinants of corporate debt ratio. They sampled 816 firms from four selected industries in five industrialized countries, such as Norway, the United States, Holland, Japan and France, during the period 1966 to 1972. According to their result, growth rate in assets is an important debt ratio determinant in Japan and the United States but relatively less important in Norway and Holland. They also found that higher debt ratios relate to higher earnings risk.

Bhandari (1988) found that expected common stock returns positively relate to debt-to-equity ratio, when controlling for the beta and firm size with inclusion and exclusion of January (the relation is far larger in January). The research showed that the premium related to the debt-to-equity ratio is not likely to be simply some kind of risk premium.

Few large firms accomplish their financing almost entirely with debt-type claims because of the effect such a financial structure would have on the owner-manager's behavior. Potential creditors will not loan $100,000,000 to a firm in which the entrepreneur has an investment of $10,000. With that financial structure the owner-manager will have a strong incentive to engage in activities (investments) which promise very high payoffs if successful even if they have a very low probability if success. If the investments turn out well, he captures most of the gains; conversely, if they turn out badly, the creditors bear most of the costs (Jensen & Meckling, 1976).

In summary, companies' dual issues of debt and equity and the proportional mixture of the two sources represent areas of focus for research. The debt-to-equity ratio shows the firm's risk, thus, the firm having a too high ratio is faces problems when they try to issue debt. Equity issuing timing seems quite important in a firm's financial structure. Tracking the debt-to-equity

ratio of a firm is a way to analyze the financial structure of the firm.

Companies tend to issue more equity than debt when valuations are high (Baker & Wurgler, 2001).   Market–to-book ratio could be analyzed with debt-to-equity ratio. Not commonly does a company issue only either debt or equity.   Although the debt-to-equity ratio is different in companies, the mixture of debt and equity is a common financial structure in general.   Choosing debt or equity has been a controversial issue.   Issuing equity seems to be associated with market timing, stock price, past history of security prices, etc.   Issuing debt appears to be related to growth rate, profitability and managerial incentives, and so on.

- **Working Capital**

Working capital management is associated with the short-term investment and financing decisions of the firm.   Liquidity is important in financial structure of the firm; therefore, working capital is what firms have to consider.   Although many working capital models have been developed, most of them have very serious limitations.   Specifically, much of the literature consists of the application of novel approaches to the solution of some limited aspect of the overall problem (Kewon and Martin, 1977).

Working capital is a financial metric which represents the amount of day-by-day operating liquidity available to a business.   Along with fixed assets such as plant and equipment, working capital is considered a part of operating capital.   It is calculated as current assets minus current liabilities.

Managing working capital effectively is a critical issue for corporate strategy. Shin and Soenen (1998) investigated the relationship between the firm's net trade cycle and its profitability.   They found a strongly negative correlation between the length of the firm's net

trade cycle and profitability.

Deloof (2003) investigated the relationship between working capital management and corporate profitability using a sample of 1,009 large Belgian non-financial firms for the period 1992 to 1996. The result indicated a negative relationship between accounts payable and profitability. In addition, a significant negative relationship exists between gross operating income and the number of accounts receivable days, inventories and accounts payable of the Belgian firms. The research suggested that managers can add value for their shareholders by reasonably reducing the number of days of accounts receivable and inventories.

"Working capital is an important use of funds; however, working capital is also a source of liquidity that should be used to smooth fixed investment relative to cash–flow shocks if firms face financiable constraints" (Fazzari and Petersen, 1993, p. 339). Fazzari and Peterson found that working capital investments are very sensitive to cash-flow fluctuations. More importantly, when working capital investment is included in a fixed-investment regression as a use or source of funds, it has a negative coefficient.

A firm's working capital requirement varies depending on the nature of the firm's operating cycle. Generally, manufacturing firms of industrial equipment would require a higher working capital to keep the same level of sales as grocery stores. For certain firms in the retail and service sectors, the working capital requirement may be negative (Hawawini, Viallet and Vora, 1986).

"Working capital is a necessary input to the production process and yet is ignored in most economic models of production" (Hamlin and Heathfield, 1991, p. 207). The interrelation of the various factors of the working capital decision is important, but is likely to be a neglected area in finance (Arcelus and Srinivasan, 1993). Some managers react more successfully than

others to changes in their common economic environment.   Knowing, among other things, how those changes influence working capital requirements and how the economy's financial sector would respond to those new working capital requirements is necessary (Hamlin and Heathfield, 1991).

Working capital ratio is a way of measuring a company's liquidity.   The change of the ratio indicates the company's short-term debt financing pattern and how it affects the company's firm value.   Also possible is examining if the ratio is similar within an industry or strategic group, or if it varies depending on strategic choices, i.e., company-owned or franchised.

Most firms have a large amount of cash invested in working capital. Therefore, the expectation is that the way in which working capital is managed will have a significant impact on profitability (Deloof, 2003).   Shin and Soenen (1998) found a strong negative relationship between the cash conversion cycle and corporate profitability for a large sample of listed American firms for the 1975 to1994 period.   From these results, managers can create value for their shareholders by reducing the number of days of accounts receivable and inventories to a reasonable minimum.   Working capital has been somewhat neglected considering its influence on capital structure.   Compared to other topics in financial literature, working capital has not been studied.   The role of working capital needs to be studied more thoroughly in capital structure.   Working capital ratio is unique in the hospitality industry, and detailed attention is a requirement.   The restaurant industry heavily relies on short-term financing, and shows unique pattern of working capital.   Liquidity of assets and its relationship to capital structure choice needs to be investigated.

Assessing capital structure in the hospitality industry

● **The hospitality industry as a part of service industries**

The literature of capital structure has a long history, and debate is ongoing among major theories. Most research on capital structure has focused on public, non-financial corporations with access to U.S. or international capital markets (Myers, 2001). Additionally, most of the literature is driven by manufacturing companies despite the uniqueness of capital structure in the hospitality industry. Several studies compared the hospitality industry with other industries: Sheel (1994) contributed to providing a better understanding of capital structure in hotels by showing leverage behavior compared with manufacturing companies. Tang and Jang (2007) showed a comparison between lodging firms and software firms. The software firms rely on intangible assets; whereas, the lodging industry relies on fixed assets. Through comparing different industry's capital structures, Tang and Jang validated the uniqueness of the hospitality industry.

Some studies attempted to explain capital structure in the hospitality industry: Upneja and Dalbor (2001), researching in the hospitality literature, attempted to investigate if the financial growth cycle, combined with pecking-order theory, can help to explain capital structure in the restaurant industry. They concluded that publicly traded restaurant firms maintain a balance between long-term and short-term debt. Even though short-term debt is considered necessary in the restaurant industry, financing short-term debt is not easy based on the risky characteristics of the business. The research also indicated that older firms tend to use more long-term and total debt.

Upneja and Dalbor (2001) also studied the choice of long-term debt in the U.S. lodging industry. Their finding showed that firm size does not impact the choice for long-term debt. Unexpectedly, a significant positive relationship between growth opportunities and long-term

debt appeared from their result.

Phillips and Sipahioglu (2004) investigated the relationship between capital structure and corporate performance with hotel industries using data from 43 UK quoted organizations. They could not find any significant relationship between level of debt and financial performance as a cross-sectional design.

The service industry continues to overwhelmingly dominate the United State's gross domestic product and has the largest percentage of the labor force. Hundreds of thousands of businesses throughout the world are part of the vast service industry sector (Olsen, 2008). Since the service product is characterized as being perishable, counting services as inventory is not possible because it is produced and consumed at the same time. Service is also considered heterogeneous because the perception of the customer is the measure of the quality of the service experience. Considering the volume of the hospitality industry as a major contributor to the service economy and its distinctive character which is contrary to manufacturing firms suggests that the issues relative to capital structure need to be investigated further in order to better understand the financial structure of the industry and its relationship to strategic choices within strategic groups of the industry.

An examination of financial leverage trends in the lodging industry was conducted by Lee (2007). The purpose of his study was to find the optimum leverage point in the lodging industry. What he suggested is that the industry median leverage ratio is more valid than the mean industry ratio as an industry norm point for the lodging industry. Because a few extreme values may influence the mean ratio, the ratio cannot represent many lodging companies. His research also showed that the median leverage ratio is valid during recession periods, but not during growth periods.

Tang and Jang (2007) also examined lodging firms to investigate the contradiction between previous empirical and studies capital structure theories.   They found that growth opportunities and fixed assets affect each other and their relationship has a significant influence on long-term debt usage in the firm.   From this study, growth opportunities would be linked to other financial ratios such as debt-to-equity ratio and working capital ratio in the hospitality industry.

No study has been specifically geared to analyze why companies make a specific capital structure decision.   Although no optimal financial structure theory for the hospitality industry exists, reasons must explain why companies choose their financial structure, such as a strategic group.   From the trends toward casual dining restaurants such as Applebee's and Outback Steakhouse, the preliminary investigation shows firms' preference for issuing equity in their financial structures.   In addition, the importance of working capital has been undervalued, and only limited study has considered working capital both in the lodging and restaurant industries. The reasons preferring equity in the financial structure is unclear.   Perhaps relationships that drive this preference, which is definitely contrary to the pecking order theory, prevails in the financial structure literature.   Perhaps the agency theory explains this pattern.

- **Services industries are different than manufacturing industries – small and medium sized enterprises**

The most distinctive characteristic of services distinguishing it from manufacturing is the intangibility of the service exchange.   In addition, many small and medium sized enterprises populate the industry and most research in the case of financial structure has taken place in the manufacturing sector.

Sheel (1994) compared determinants of capital structure choice and leverage behavior of hotel and manufacturing firms. This research, found some important differences between short-term and long-term debt behavior in hotel and manufacturing firms. In addition, the research suggested that past profitability and collateral value of assets have a significant influence on the ratio of short-term debt to total assets in hotels. In contrast, the tax shields related to debt influences the ratio of long-term debt to total assets in hotels.

Berger and Udell (1998) examined the economics of financing small business with private debt and equity markets. The authors indicated that some differences exist between the financing of small businesses distinguished from large businesses. First of all, small businesses only have access to private debt and equity markets, while large businesses can approach to public markets. Another difference is that small firms are mostly owner-managed; therefore, agency problems, driven by the separation of ownership and control, are not usually relevant for small firms in deciding capital structure. The authors indicated that the relationship between ownership and management may create other problems in small businesses. For instance, an undiversified ownership may cause behavior which reduces risk rather than maximizes value.

Although the sector has quite a few large of multi-unit restaurant companies, many small sized restaurants exist in the industry. One study specifically focused on small restaurant firms: Kim, Dalbor and Feinstein (2007) examined cost management behavior in small restaurant firms. The authors suggested that most of the literature focused on the relationship between incentives (for instance, stock options, CEO compensation, performance plans, etc.) or the level of monitoring (for instance, number of board meetings) and how this impacts firm performance (for example, stock prices, profit ratios). The research used management type and ownership

structure as independent variables, and cost of doing business, size of staff and firm profitability as dependent variables.   Using a sample of 87 small restaurant firms, they found that significant differences in profit margins across firms depended on the management type and the ownership percentage of the primary owner.

Bankruptcy rate is very high in the restaurant industry.   The risk and its relationship of firms' performance have been studied by several scholars. (Gu, 1993; Gu, 2002; Kim & Gu, 2003; Gu & Kim, 2002)

Gu (1993) investigated the relationship between debt use and profitability in the restaurant industry.   The result from his study suggested that the restaurant firms should use debt as little as possible, and issue new equity when they need to finance.   The author concluded that a firm's risk can be reduced significantly with low-debt financing.

Gu (2002) also analyzed bankruptcy in the restaurant industry using a multiple discriminant model.   His research concluded that firms with poor EBIT tend to go bankrupt in the U.S. restaurant industry.   He suggested that a careful growth strategy combined with less debt financing policy and tighter cost control can solve the high bankruptcy rate in the U.S. restaurant industry.

Kim and Gu (2003) analyzed risk-adjusted performance in different restaurant sectors including full-service restaurants, economy/buffet restaurants and fast-food restaurants.   These authors found that systematic risks or betas for all three sectors are significantly lower than the market's beta overall, restaurant firms should improve their stock returns to enhance their performance adjusted for systematic risk.   They also concluded that total risk that includes unsystematic risk is the relevant in measuring risk-adjusted performance.   Restaurant firms should focus on reducing unsystematic risk to lower the total risk.

Furthermore, Gu and Kim (2002) reinvestigated determinants of restaurant systematic risk or beta.   They found that restaurant systematic risk has negative correlation with assets turnover but positive correlation with quick ratio.   These authors suggested that high efficiency in generating sales revenue can lower systematic risk.   However, excess liquidity has tendency to increase the risk.

The hotel industry, and likewise the restaurant industry, is unique in its character compared to manufacturing.   Considering the character of the restaurant industry in which multi-unit chains and small restaurants coexist, and also its varying percentage of ownership, questions about financial structure provide an interesting area for study.   How is the financial structure in the casual themed restaurant firm dependent on firm size?   How does the financial structure change as the company grows?   Do any factors affect the financial structure choice in the casual themed restaurants?   Through examining restaurants of different sizes, business models and concepts, this study reveals the pattern of financial structures.

Strategic group – casual themed restaurants

As mentioned earlier, one of the strategic groups in the hospitality industry, the casual themed restaurants, seems to have a homogeneous financial structure.   Therefore, consideration of the aspects of common financial structure and their relationship with firm value occur in the following sections.

- **Common financial structure**

U.S industry invests approximately half a trillion dollars in new equipment each year, and 30% of these investment dollars are spent on leased equipment.   According to the

Equipment Leasing Association of America Web Site (www.elaonline.com) (1998), a leasing volume of $169.9 billion accounted for 30% of $566.2 billion of total investment for 1996. Many reasons explain the popularity of using leases to acquire assets instead of purchasing them. The main benefit of leasing is minimum costs required to acquire assets and the tax advantages firms enjoy from leasing (Upneja & Dalbor, 1999). These authors tested the relationship between tax rates and leasing behavior for restaurant firms by applying both a pre-financing tax rate and post-financing tax rate. Their result indicated that applying post-financing tax rate, a significant spurious negative relationship occurs between this tax rate and the debt usage in restaurant firms. The study also suggested that restaurant firms with good financial condition tend to use fewer operating leases.

A positive correlation exists between firm size and the probability of bankruptcy from higher long-term debt ratios in the restaurant firms. Restaurant firms with growth opportunities tend to use less long-term debt. However, no significant relationship exists between the effective tax rates and use of long-term debt (Dalbor & Upneja, 2002).

Franchising is a common strategic choice among casual themed restaurants. Commonly, companies associated with franchising have recognizable brand names that help to guarantee uniform product quality (Brickley and Dark, 1987).
Brickley and Dark investigated the agency problems connected with company-owned versus franchised units. Their propositions concerned these agencies' considerations influence on own/franchise decisions. In addition, they questioned choice, purchase versus lease decisions. They said franchising is similar to leasing of an intangible asset (the brand name), and they suggested understanding how firms choose managerial compensation plans. Evidence of methods firms use to decide between franchising and central ownership is connected with how

firms select among several types of compensation plans.

In spite of the expansion of publicly traded multi-unit-chain restaurants, the generally accepted fact is that the restaurant industry still consists of many small firms. However, the amount of research is limited because of a lack of availability of data. One of the distinctive characteristics of small firms is that most of these are family businesses (Handler, 1989). Fama and Jensen (1983) proposed that family-controlled businesses are expected to be more efficient than outsider-managed firms because the costs of monitoring are less in a family-controlled firm.

Franchising is generally considered as a source of capital for small business expansion. (Brickley, Dark and Weisbach, 1991). Oxenfeldt and Thompson (1969) argued that "franchisors create systems because they have too little capital to create a wholly owned chain" (cited from Brickley, Dark and Weisbach, 1991, p. 27). Small companies with limited access to capital markets tend to use franchising for expansion and repurchase units as the company grows. In terms of strategic perspective, franchising is not only limited to small companies. Many large, publicly traded corporations are involved in franchising. These companies commonly own some units, and franchise other units, financed through public debt and equity. This research discussed that franchising is a tool for both the large and the small companies that seek financing with cost/benefit trade-offs during decision making.

As a way of market entry, franchised or company-owned restaurants could be the firm's strategic choice. As the company grows, perhaps a change in percentage of ownership in the financial structure occurs. Lafontaine and Shaw (2001) found that the percentage of company ownership becomes constant after the first few years in franchising. The author also found a considerable decrease in company ownership during the first few years after a firm's involvement in franchising. The reason is that most of the firms, early in the franchise, started

at 100% of ownership. The author found that usually franchisors manage their portfolio of company and franchised units to keep a specific target level of corporate control and ownership. The decision to franchise or grow through company-owned units can affect financial structure. Franchising is a good strategy for the small company which lacks the capability to raise capital. However, multi-unit chain restaurants, which are relatively stable financially, also choose the franchising strategy. From the franchising pattern of the restaurant industry, the financial structure of small vs. large restaurants is a productive way to analyze the financial structure of the industry.

Franchising is a common strategy among restaurants in the casual themed restaurant segments. The percentage of ownership varies depending on the company, its growth and other factors. The relationship between franchising and financial structure decisions are interesting avenues of exploration.

● **Financial structure and firm value**

Deciding a firm's optimal financial structure requires the combination of capital sources which maximize shareholder wealth, the stock price of the firm (Kwansa, Johnson & Olsen, 1987). These authors found that the stock price positively relates to the debt-to-equity ratio. This is consistent with theory since decreases in the expected rate of return result in increases in stock price. (Gordon's model, 1958)

Managers have more knowledge than the market about firm-specific events, causing an information asymmetry between the managers of the firm and the market. "The information asymmetry can vary over the life of the firm. Its importance increases every time the firm accesses the capital market, and thus, managers can gain substantially at the expense of the

market by hiding information" (Dierkerns, 1991, p 181).   This research found the relevance of information asymmetry for the equity issue.   The research concluded that increases in the information asymmetry results in an increased drop in the market value of the firm at the equity issue announcement.

Morck, Shleifer and Vishny (1987) argued that assets can be utilized to benefit managers rather than shareholders in the company where managers hold little equity and shareholders are too diverse.   Jensen and Meckling (1976) suggested that the costs of deviation from value-maximization deteriorate as management ownership increases.

Debt and equity should be interchangeably used without risk, and investors will hold whichever generates higher net rate of return (Auerbach, 1979).   Auerbach concluded that due to differential taxation of dividends and capital gains, wealth maximization does not necessarily mean maximization of firm market value and the source of equity financing is not irrelevant.

Miller (1977) showed that a firm could generate higher after-tax income by increasing the debt-equity ratio, and this additional income would result in a higher payout to stockholders and bondholders, but the firm value need not increase.

Firm value is usually evaluated by stock price.   The financial structure in the restaurant industry needs to be studied with the movement of share price as well.

From the review of literature, evidently, the study of capital structure in the hospitality industry is not sufficient to explain its distinctive character as compared to the strategic groups of other industries.   Even though some financial leverage analyses have considered the lodging industry, these provide insufficient explanation of the uniqueness of the restaurant industry. Often, the restaurant industry shows negative working capital which indicates a unique pattern

for using short-term debt. Considering the significant sales volume of the hospitality industry and its distinctive character, more studies need to focus on this particular industry's capital structure.

Capital structure is not easily explained; no universal theory covers the differing patterns of the financial behavior of all industries. Although scholars have made constant attempts to explain financial structure with major capital structure theories, the patterns change as the firms grow.

Debt-to-equity ratio has been studied frequently including analysis of the relationship between debt-to-equity ratio and other ratios, but often excluding the relationship between the debt-to-equity ratio and working capital ratio. In the restaurant industry, short-term debt management is an important issue, especially since working capital is a very important concept in short-term debt management. The uniqueness of the hospitality industry gives ratio analysis an interesting importance for shedding light on the capital structure in the restaurant industry.

Debt is not homogeneous and is classified as short-term and long-term debt. How to mix short-term and long-term debt relates to the firm's strategic choice. The restaurant industry is known for assigning a large portion of debt to the short-term, while the lodging industry relies on long-term debt. For the restaurant industry, the optimal mixture of short-term and long-term debt is an interesting avenue for exploration.

Firms with a high working capital could be considered risky to lenders. Therefore, they may have trouble borrowing long-term debt. Firms with multiple concepts may be considered risky because it will be hard for managers to monitor diverse company units. Small firms may use less debt. Because they lack information, it is hard for them to borrow compared to larger firms.

Most studies have focused on the relationship between various measures and a firm's capital structure. Few studies investigated financial behavior in the restaurant industry which has a characteristically high failure rate which, in turn, makes short-term debt management important. The relationships among financial ratios or factors affecting determining financial structure have not been studied in spite of abundant capital structure literature.

This study contributes to research in the hospitality industry especially for casual dining restaurants, since most of the literature focuses on the manufacturing industry. In spite of the distinctive characteristics of the hospitality industry, applying literature from manufacturing industry studies without questioning the validity of this application does not provide full understanding of the hospitality segment. In addition, this study emphasizes the importance of working capital in the financial structure because working capital relates to liquidity and short term capital management. Since the restaurant industry has a high failure rate, short term capital management is very important when considering financial structure. Through analyzing relationships among financial ratios, for instance, between debt-to-equity and working capital ratios, the relationships among financial ratios in the financial structure become clear. Also, the impact of strategic choice such as franchising can be tested with analysis of the ratios' relationships with firm value.

Furthermore, if the relationship among financial ratios is applicable to restaurants regardless of size, then concept and business models can be examined.

Does debt to equity ratio become different with change in a strategic group? Companies choose franchising or growth though company-owned outlets when they begin business or grow further. Depending on the strategic group choice, the debt-to -equity ratio will become different. A

research question in this paper concerns this aspect.

Does a cash related business like those in the hospitality industry have different financial structure patterns as a result of use of working capital? Analyzing the relationship between debt-to-equity ratio and working capital ratio reveals the pattern of using working capital, such as cash, in the hospitality business.

Does share price change with changes in financial structure? Share price is the measure of the firm's value. The proposed study considers change is share price in relationship to the change in the financial structure.

Agency problem

Does the agency problem impact financial structure on the firm?

Structures vs. historical growth rate

Does past performance or growth rate affect the firm's financial structure?

Market capitalization difference

Market capitalization is a measure of the firm's position in the industry.

Book to market value difference

Number of concepts

Restaurants have only one concept or multiple concepts in their structure. Does the number of concepts relate to the financial structure of the firm?

Chapter 3

Methodology

The purpose of this study is to examine the financial structure of the casual themed restaurants along with the relationship between the structural and strategic choices of companies. The previous chapter contained a review of the literature which have considered strategic management, strategic grouping, dominant logic and capital structure (balance sheet, debt vs. equity and working capital). Additionally, chapter 2 introduced a comparison of hospitality industry with manufacturing industry to emphasize the different natures of the financial structure in the service industry.

This chapter provides: (1) Research questions and propositions; (2) data collection; (3) statistical methods for data analysis.

Research Questions

1. Do any relationships exist that drive financial structure in casual themed restaurants as a strategic group?

- Do any relationships exist among financial ratios for casual themed restaurants?

- Do any relationships exist between strategic choice and firm value?

2. Does an optimal financial structure exist for casual themed restaurants?

-Do any target ratios exist for casual themed restaurants?

-To what degree do ratios vary among the target ratios?

The mean ratio of each company should be calculated. In addition, the maximum and minimum ratio will be observed and then the standard deviation will be calculated. This method is based on the study of Kim, Dalbor and Feinstein (2007) who considered variables such

as ownership percentage of principal owner, total sale, total assets and others, and then observed the mean, minimum and maximum and standard deviation.

3. If a factor(s) does exist to determine a unique capital structure for casual dining restaurants, is the factor(s) applicable to all the restaurants regardless of type, size and concept?

-Does a difference exist for financial ratios depending on size, business model and concept of restaurant?

Propositions:

Proposition 1. No difference exists for a debt ratio in large vs. small sized restaurants.

Proposition 2. No difference exists for a debt-to-equity ratio in large vs. small sized restaurants.

Proposition 3. No difference exists for a long-term debt ratio in large vs. small sized restaurants.

Proposition 4. No difference exists for a short-term debt ratio in large vs. small sized restaurants.

Proposition 5. No difference exists for a long-term debt capitalization ratio in large vs. small sized restaurants.

Proposition 6. No difference exists for a debt ratio in franchised vs. company-owned restaurants.

Proposition 7. No difference exists for a debt-to-equity ratio in franchised vs. company-owned restaurants.

Proposition 8. No difference exists for long-term debt ratio in franchised vs. company-owned restaurants.

Proposition 9. No difference exists for a short-term debt ratio in franchised vs. company-owned restaurants.

Proposition 10. No difference exists for long-term debt capitalization ratio in franchised vs. company-owned restaurants.

Proposition 11. No difference exists for a debt ratio in one dominant vs. multiple brand casual dining restaurants.

Proposition 12. No difference exists for a debt-to-equity ratio in one dominant vs. multiple brand casual dining restaurants.

Proposition 13. No difference exists for a long-term debt ratio in one dominant vs. multiple brand casual dining restaurants.

Proposition 14. No difference exists for a short-term debt ratio in one dominant vs. multiple brand casual dining restaurants.

Proposition 15. No difference exists for a long-term debt capitalization ratio in one dominant vs. multiple brand casual dining restaurants.

Method

Using data between 1999 to 2006 from COMPUSTAT, secondary data of publicly traded casual dining restaurants will be collected. Variables that have been affecting leverage will be used. The debt-to-equity ratio will be used as an indicator of financial leverage in the capital structure. Working capital ratio will be used to measure the capability of the company's short-term assets to cover short-term debt. Also, free cash flow in a company will be analyzed to determine if the manager's decisions related to agency theory in terms of financial structure choice. Debt-to-equity ratio and working capital ratio will be analyzed depending on the classification of restaurants, large vs. small, franchised vs. company-owned and one dominant vs. multiple brand restaurants.

The significant number of publicly traded restaurants in the U.S. vary in terms of size, business model and concept. Some restaurants continue to grow, but some of them fail in one year or a

few years after opening.   Some restaurants prefer franchising instead of owning the restaurants. Some restaurants have only one concept restaurant, but others have several different concept restaurants.   Given the diversity in the restaurant industry, research needs to analyze for diverse restaurant industry character.

Sources of data

This study employs secondary data from Securities and Exchange Commissions (SEC) filings and COMPUSTAT.

Sample Selection Procedure

The initial group of subjects are all restaurant firms included in the COMPUSTAT database between 1999 and 2006 (SIC Code 5812).

From this group members of the casual dining restaurant industry will be chosen. Considering market capitalization, the small and large companies will be determined.   A minimum of two years active listing on a stock exchange market will be considered as well.

The selected firms are:

Applebeas Intl Inc, Ark restaurants group, Benihana Inc, Bob Evans Farms, Brinker Intl Inc, Buca Inc, Cheesecake factory, Mexican restaurants, CBRL Group   Inc, CEC entertainment, O'Charley's Inc, Dennys corp., Darden restaurant, Eaco Corp, Elephant & Castle Group Inc, Frischs Restaurant, Grill Concepts, J. Alexander's Corporation, Landry's restaurant, Lone Star Steakhouse Saloon, Lubys Inc, Max & Ermas restaurant, OSI Restaurant Partners Inc, P.F. Chang's Chinese Bistro, Rare Hospitality, Roadhouse Grill Inc, Rubio's restaurant, Ruby Tuesday Inc, Ryan's Restaurant Group Inc, , Shells Seafood Restaurants Inc, Star Buffet Inc,

Steak N Shake

Time Frame

Because of questions of reliability in regression modeling and the availability of data from casual theme restaurant, an eight-year period has been selected.

Independent Variables

Size

Total assets were employed as a proxy for the firm size. (Tang & Jang, 2007; Ferri & Jones, 1979).   Ferri & Jones (1979) used four different measures to represent firm size: total sales and total assets at book value from previous research, and average level of total assets and average level of sales.

Lemmon & Zender (2004), Mackay and Phillips (2005), Banerjee, Heshmati & Wihlborg (1999) and Wald (1999) used log of total assets as a proxy for size.

The natural logarithm of sales are employed as indicators of size (Titman & Wessels, 1988; Hovakimian. Armen, Hovakimian, Gayane and Tehranian, 2004; Carter & Stover; 1991; Deloof, 2003).

Dalbor and Upneja (2002) used the natural log of the market value of stockholder equity to measure the firm size similarly to Barclay and Smith (1995).

Market capitalization has been used as a proxy for size by Lee (2007).   The log of size has been used in analysis to reduce the skewed distribution problem.

$SIZEt= \log(\text{Market Capitalization}) = \log(\text{Number of Shares Outstanding} * \text{Stock Price})$

Sheel (1994) used average total assets as a proxy for size.

Comb and Castrogiovanni (1994) used log (number of units in the franchise system) for size variable.

In this study, total sales will be used as a proxy for the firm size.

Business model

A business model is a conceptual tool that contains a large set of elements and their relationships and allows expressing the business logic of a specific firm. The model is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams (Osterwalder, Pigneur and Tucci , 2005).

Based on company ownership, business models will be categorized as either franchising or company-owned.   Furthermore, ownership percentage of the primary owner will be investigated.   Kim, Dalbor and Feinstein (2007) employed management type (owner-managed vs. outsider-managed), single family majority/minority ownership and ownership percentage of the primary owner.

Lafontaine and Shaw (2001) found a significant positive relationship between the target rate of company ownership and measures of their brand value.   According to the study, companies with high-quality brand name strategies tend to take on higher targets of company ownership because they pursue a high degree of managerial control in their chains.   Lafontaine and Shaw observed that firms maintain their proportion of company ownership quite constant after they achieve a target level – which is generally neither 0 nor 100%.   They also suggested that the stable level of company ownership is the same for firms of differing success levels as

captured by the size of the chains, their "near exit" status or not, and their growth rates.

Concept

Some restaurants pursue only one concept in their strategies.   Some pursue multiple concepts instead.   For example, Applebee's International Inc. has only one concept.   However, Darden Restaurants have multiple concepts such as Olive Garden, Red Lobster and so on.

Agency cost

The ratio of free cash flow to total assets has been used as a proxy for management agency cost (Tang & Jang, 2007).   The conflicts of interest between managers and shareholders over payout policies are especially severe when firms generate substantial free cash flow. (Jensen, 1986)

This study will employ the ratio of free cash flow as a proxy for agency cost.

Growth (market-to-book ratio)

As a proxy for growth opportunities, market-to-book ratio has been employed (Tang & Jang, 2007; Lemmon & Zender, 2004).   It is measured by the ratio of market value of firm assets to book value of assets (Dalbor & Upneja, 2002).

Market-to-book ratio is perceived as an indicator of investment opportunities, risk, agency, or some other determinant of the optimal tradeoff between debt and equity (Baker & Wurgler, 2001).   Baker and Wurgler (2001) recognize that the proxy for firm value can also be a measure of growth opportunities.   The authors found that firms with high market-to-book ratios tend to grow fast and possibly can issue as much as debt as equity.

Hovakimian, Armen, Hovakimian, Gayane and Tehranian, Hassan (2004) used the market-to-book ratio which is defined as (total assets – book value of equity + market value of equity) / total assets.

Upneja & Dalbor (2001) used growth opportunity variable by the ratio of the market value of the firm's assets to the book value of assets.   The market value of the firm's assets is equal to the book value of assets minus the book value of equity plus the market value of equity (Barclay and Smith, 1995).

The log (Percentage change in number of units) was used in the study of Combs and Castrogiovanni in 1994.

Wald (1999) used a five-year average of sales growth as a proxy for growth.

Titman and Wessels (1988) used indicators such as capital expenditures over total assets (CE/TA) and the growth of total assets measured by the percentage change in total assets (GTA). In addition, research and development over sales (RD/S) is an indicator of the growth attribute.

In this study, market-to-book ratio will be employed as a proxy for growth.

Risk

Beta: Beta is the systematic risk of firms.   Kim, Gu & Mattila (2002) investigated the systematic risk and unsystematic risk of hotel real estate investment trust stocks and the determinants of the firms' systematic risk, beta.

Ferri & Jones (1979) used variables: a) the coefficient of variation in sales, σ (SA) / μ (SA); b) the coefficient of variation in pre-tax cash flow, σ (CF) / μ (CF); c) the standard deviation of the standardized growth in sales, σ (SGSA); and, d) the standard deviation of the standardized growth in cash flow, σ (SGCF).

Mackay and Phillips (2005) used the standard deviation of operating cash flow divided by total assets.

Standard deviation of EBIT: Tang and Jang (2007) used standard deviation of 3-year earnings before interests and income taxes (EBIT) as a measure of volatility.

Sheel (1994) used standard deviation of profitability as well.

Titman and Wessels (1988) used the standard deviation of the percentage change in operating income (SIGOI).

In this study, beta, standard deviation of EBIT, σ (EBIT) and standard deviation of net operating income, σ (net operating income) will be employed.

Tax

Mackie-Mason (1990) used tax loss carry forwards, investment tax credit.

Tax loss carry forward = book tax loss carryforward / net sales

Investment tax credit = investment tax credits / net sales

Effective tax rate, calculated by the ratio of income taxes to taxable income, has been used in the studies (Kim & Sorensen, 1986; Dalbor & Upneja, 2002).

Titman and Wessels (1988) used indicators of non-debt tax shields such as the ratios of investment tax credits over total assets (ITC/TA), depreciation over total assets (D/TA), and a direct estimate of non-debt tax shields over total assets (NDT/TA).

Benerjee, Heshmati and Wihlborg (1999) used the ratio of depreciation to total assets to measure non-debt tax shields.

Fisher, Heinkel and Zechner (1989) used the two variables:

the ratio of the total reported income tax over the total pre-tax income and

the average of the ratio of the quarterly total reported income tax over the quarterly pre-tax income.

Tax paid / EBIT, Tax paid / EBITDA and Tax paid / pretax income will be used in this study.

Operating leverage

Traditionally, the measure of operating leverage is the ratio of the percentage change in earnings to the percentage of change in sales (Ferri & Jones, 1979). These researchers mentioned two other measures: the ratio of net fixed assets to total book assets (FA/TA) and the ratio of the average of net fixed assets in the current and proceeding four years to the average of total book assets over the same time period, μ (FA) / μ (TA).

The regression of operating income and revenue will be employed as a proxy in this study.

Past performance

Profitability is generally measured by return on assets (ROA). Tang & Jang (2007) used ROA as a proxy for profitability similarly with Lemmon & Zender (2004).

Sheel (1994) used average of net income after taxes divided by net sales.

Past profitability is measured by return in assets (ROA) in the pre-issue year and net operating loss carry forwards (NOLC) (Hovakimian, A., Hovakimian, G. and Tehranian, 2004).

Mackay and Phillips (2007) used earnings before interest expense and taxes (EBIT) / total assets.

Titman and Wessels (1988) used the ratio of operating income over sales and operating

income over total assets.

ROA previous year will be used in this study.

Working capital ratio = Current asset - current liability

To obtain working capital, current asset and current liability are derived from the balance sheet of each company.

Dependent Variables

Dependent variables are firm value, debt ratio, debt-to-equity ratio, short-term debt ratio, long-term debt ratio and long-term debt capitalization ratio.

Firm value (stock price, market cap)

Market capitalization is calculated by multiplying share price times number of shares outstanding.

Debt to equity ratio = Total debt / total equity

Total debt and total equity are derived from the company's balance sheet.

Debt ratio = Total debt / total assets

Total debt and total assets are derived from the company's balance sheet.

Long-term debt to capitalization ratio = Long-term debt / long-term debt + equity

To obtain long-term debt to capitalization ratio, long-term debt will be divided by a sum of long-term debt and equity.

Short-term debt ratio = Short-term debt / total assets

The portion of short-term debt of total assets will be calculated to determine the

company's dependence on short-term debt.

Sheel (1994) used short-term debt divided by total assets for short-term leverage measurement.

Long-term debt ratio = Long-term debt / total assets

The percentage of long-term debt of total assets will be calculated to determine the company's dependence on long-term debt.   Many scholars used the long-term debt ratio in their studies of the lodging industry (Tang & Jang, 2007; Dalbor & Upneja, 2002; Wald, 1999). They used the ratio because long-term debt ratio could explain the financial behavior better since the lodging industry generally prefers long-term debt.   To determine the trend for the casual dining restaurants, examining this ratio creates a helpful comparison with the lodging industry. Long-term debt is defined as any debt that has maturity of more than three years, as used by Barclay and Smith (1995).

Data Analysis

Coefficient of Variation

Coefficient of variation is the ratio of the standard deviation to mean.   After finding the mean of financial ratios, each company's ratio will be analyzed to check the variation.

Analysis of Variance

Analysis of variance (ANOVA) is a collection of statistical models, and their associated procedures, in which the observed variance is partitioned into components due to different explanatory variables.   This technique will be used to compare mean among groups with different size.

Paired Sample T-test

This test will be used to compare mean depending on number of concepts and business model.

Correlation Analysis

Correlation describes the strength of association between variables.   Each financial ratio will be analyzed using correlation analysis.

Cross Sectional Regression Analysis

Regression analysis examines the relation of dependent variable to specified independent variables.

A cross sectional regression is a type of regression model in which the explained and explanatory variables are associated with one period or point in time.

One Sample T-test

The one sample T test is used to compare the mean score of a sample to a known value.

Regression Model

$DR = \alpha_0 + \alpha_1\,GROWTH + \alpha_2\,WC + \alpha_3\,PP + \alpha_4\,TAX + \alpha_5\,RISK + \alpha_6 AGC + \alpha_7 OL + \varepsilon_i$

$DER = \alpha_0 + \alpha_1\,GROWTH + \alpha_2\,WC + \alpha_3\,PP + \alpha_4\,TAX + \alpha_5\,RISK + \alpha_6 AGC + \alpha_6 OL + \varepsilon_i$

$LTCR = \alpha_0 + \alpha_1\,GROWTH + \alpha_2\,WC + \alpha_3\,PP + \alpha_4\,TAX + \alpha_5\,RISK + \alpha_6 AGC + \alpha_6 OL + \varepsilon_i$

$LTDR = \alpha_0 + \alpha_1\,GROWTH + \alpha_2\,WC + \alpha_3\,PP + \alpha_4\,TAX + \alpha_5\,RISK + \alpha_6 AGC + \alpha_6 OL + \varepsilon_i$

$STDR = \alpha_0 + \alpha_1\,GROWTH + \alpha_2\,WC + \alpha_3\,PP + \alpha_4\,TAX + \alpha_5\,RISK + \alpha_6 AGC + \alpha_6 OL + \varepsilon_i$

*AGC: agency cost, Growth: market-to-book ratio, OL: operating leverage, PP: past performance, WC: working capital needs

Table 1. Abbreviation of variables

Abbreviation	Variable Name
DR	debt ratio
DER	debt-to-equity ratio
LTDR	long-term debt ratio
STDR	short-term debt ratio
LTDCR	long-term debt capitalization ratio
MBR	market-to-book ratio
σ NOI	standard deviation of net operating income
WCR	working capital ratio
FCF	free cash flow
OL	operating leverage
EBIT	earning before interest and tax
LN MVEQ	log of market value of a firm
Tax	tax / pretax income

Table 2. Sample Firms

COMPANY NAME	GVKEY	SMBL
APPLEBEES INTL INC	16665	APPB
ARK RESTAURANTS CORP	11872	ARKR
BENHANA	2163	BNHNA
BOB EVANS	2282	BOBE
BRINKER	3007	EAT
BUCA INC	119893	BUCA
CBRL GROUP	3570	CBRL
CEC ENTERTAINMENT INC	15092	CEC
CHEESECAKE FACTORY INC	25737	CAKE
DARDEN RESTAURANTS INC	31846	DRI
DENNYS CORP	19398	DENN
EACO CORP	13187	3EACO
ELEPHANT & CASTLE GROUP INC		3PUBSF
FRISCH'S RESTAURANT	4911	FRS
GRILL CONCEPTS INC	29346	GRIL
J. ALEXANDER'S CORP	11538	JAX
LANDRYS RESTAURANTS INC	28765	LNY
LONE STAR STEAKHOUSE SALOON	25025	STAR.1
LUBYS	6831	LUB
MAX & ERMAS RESTAURANTS	7132	MAXE
MEXICAN RESTAURANTS INC	62698	CASA
O'CHARLEY'S INC	22829	CHUX
OSI RESTAURANT PARTNERS INC	24186	OSI
P F CHANGS CHINA BISTRO INC	116503	PFCB
RARE HOSPITALITY INTL INC	25111	RARE
ROADHOUSE GRILL INC	64051	3GRLL
RUBIO'S RESTAURANTS INC	120557	RUBO
RUBY TUESDAY INC	7566	RT
RYAN'S RESTAURANT GROUP INC	9298	RYAN
SHELLS SEAFOOD RESTRNTS INC	62964	3SHLL
STAR BUFFET INC	65482	STRZ
STEAK N HOUSE	3424	SNS

The purpose of this study is to examine strategic group and financial structure in the casual themed restaurants. The previous chapters contained a review of literature and methodology. This chapter provides result of research questions proposed in chapter 3.

Results

Research Questions

1. Do any relationships exist that drive financial structure in casual themed restaurants as a strategic group?

- Do any relationships exist among financial ratios for casual themed restaurants?

Table 3. T-Test (Correlation for MBR)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.15178	.212203	.037513
DER	32	−.10831	.183864	.032503
LTDR	32	−.24094	.108279	.019141
STDR	32	.15819	.159212	.028145
LTCR	32	−.20616	.143214	.025317

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
DR	−4.046	31	.000	−.15178	−.22829	−.07527
DER	−3.332	31	.002	−.10831	−.17460	−.04202
LTDR	−12.587	31	.000	−.24094	−.27998	−.20190
STDR	5.620	31	.000	.15819	.10079	.21559
LTCR	−8.143	31	.000	−.20616	−.25779	−.15452

Table 4. T-Test (Correlation for σ of NOI)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.10334	.153212	.027084
DER	32	−.21566	.125052	.022106
LTDR	32	−.05856	.169425	.029950
STDR	32	.03044	.156790	.027717
LTCR	32	−.13966	.188701	.033358

One-Sample Test

	Test Value = 0					
				Mean	95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Difference	Lower	Upper
DR	−3.816	31	.001	−.10334	−.15858	−.04810
DER	−9.755	31	.000	−.21566	−.26074	−.17057
LTDR	−1.955	31	.060	−.05856	−.11965	.00252
STDR	1.098	31	.281	.03044	−.02609	.08697
LTCR	−4.187	31	.000	−.13966	−.20769	−.07162

Table 5. T-Test (Correlation for FCF)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	.02622	.145914	.025794
DER	32	.11328	.148427	.026238
LTDR	32	−.10222	.123179	.021775
STDR	32	.11128	.106284	.018789
LTCR	32	.00250	.176146	.031139

One-Sample Test

	Test Value = 0					
				Mean	95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Difference	Lower	Upper
DR	1.016	31	.317	.02622	−.02639	.07883
DER	4.317	31	.000	.11328	.05977	.16679
LTDR	−4.694	31	.000	−.10222	−.14663	−.05781
STDR	5.923	31	.000	.11128	.07296	.14960
LTCR	.080	31	.937	.00250	−.06101	.06601

Table 6. T-Test (Correlation for EBIT/SALES)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.22303	.188681	.033354
DER	32	−.22150	.223215	.039459
LTDR	32	.05659	.147947	.026154
STDR	32	−.07162	.172979	.030579
LTCR	32	−.1326	.18088	.03197

One-Sample Test

	Test Value = 0					
				Mean Difference	95% Confidence Interval of the Difference	
	t	df	Sig. (2−tailed)		Lower	Upper
DR	−6.687	31	.000	−.22303	−.29106	−.15500
DER	−5.613	31	.000	−.22150	−.30198	−.14102
LTDR	2.164	31	.038	.05659	.00325	.10993
STDR	−2.342	31	.026	−.07162	−.13399	−.00926
LTCR	−4.148	31	.000	−.1326	−.1978	−.0674

Table 7. T-Test (Correlation for WCR)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.50316	.166547	.029442
DER	32	−.29556	.121649	.021505
LTDR	32	−.42678	.140210	.024786
STDR	32	.31978	.195446	.034550
LTCR	32	−.42719	.130638	.023094

One-Sample Test

	Test Value = 0					
				Mean Difference	95% Confidence Interval of the Difference	
	t	df	Sig. (2−tailed)		Lower	Upper
DR	−17.090	31	.000	−.50316	−.56320	−.44311
DER	−13.744	31	.000	−.29556	−.33942	−.25170
LTDR	−17.219	31	.000	−.42678	−.47733	−.37623
STDR	9.256	31	.000	.31978	.24932	.39025
LTCR	−18.498	31	.000	−.42719	−.47429	−.38009

Table 8. T-Test (Correlation for OL)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	31	−.01861	.158127	.028400
DER	31	−.06326	.095608	.017172
LTDR	31	.05048	.173715	.031200
STDR	31	−.09532	.180484	.032416
LTCR	31	.01216	.145147	.026069

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2−tailed)	Mean Difference	Lower	Upper
DR	−.655	30	.517	−.01861	−.07661	.03939
DER	−3.684	30	.001	−.06326	−.09833	−.02819
LTDR	1.618	30	.116	.05048	−.01324	.11420
STDR	−2.941	30	.006	−.09532	−.16152	−.02912
LTCR	.466	30	.644	.01216	−.04108	.06540

Table 9. T-Test (Correlation for TAX)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.29478	.268497	.047464
DER	32	−.33866	.305148	.053943
LTDR	32	−.04900	.204916	.036224
STDR	32	.04169	.159507	.028197
LTCR	32	−.19003	.287376	.050801

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2−tailed)	Mean Difference	Lower	Upper
DR	−6.211	31	.000	−.29478	−.39158	−.19798
DER	−6.278	31	.000	−.33866	−.44867	−.22864
LTDR	−1.353	31	.186	−.04900	−.12288	.02488
STDR	1.478	31	.149	.04169	−.01582	.09920
LTCR	−3.741	31	.001	−.19003	−.29364	−.08642

Using 32 quarterly data of 32 companies between 1999 and 2006, the Pearson correlation analysis has been performed to examine the relationship among financial ratios in this study. As a result, there is a significant relationship between MBR and five dependent variables. The correlation between MBR and DR, DER, LTDR and LTCR is negative. However, the correlation between MBR and STDR is positive. In terms of standard deviation of net operating income, there is a negative correlation with DR, DER and LTCR. As for the free cash flow, the correlation with DER and STDR is positive. However, a negative correlation exists with LTDR. In terms of EBIT/SALES, the positive correlation exists with LTDR, but negative correlation with other ratios. As for working capital ratio, significant correlation exists for all the ratios. There is a positive correlation with STDR. As for operating leverage, a negative correlation exists with DER and STDR. Tax rate showed a negative correlation with DR, DER and LTCR.

As shown in the table above, growth is significantly related to all the financial ratios in this study. Growth is usually measured by the ratio of the market value of the firm's equity to the book value of equity. Growth has positive correlation with short-term debt ratio. However, it has negative correlation with other ratios. In addition, working capital needs is significantly related to all the ratios. Working capital needs is positively related to short-term debt ratio only. It has negative correlation with other ratios. Risk has shown a negative correlation with total debt, debt-to-equity ratio and long-term debt capitalization ratio. In terms of profitability, EBIT/sales showed a significant relation with all the financial ratios. Agency cost shows a positive correlation with debt-to-equity ratio and short-term debt ratio. Tax rate shows negative correlation with debt ratio, debt-to-equity ratio and long-term debt capitalization ratio.

Operating leverage has a negative correlation with debt-to-equity ratio and short-term debt ratio.

Notes: The table reports the Pearson coefficients for the different variables used in the regression analysis.　DR is the debt ratio and it is calculated by total debt divided by total assets.　DER is debt-to-equity ratio and it is measured by total debt divided by total equity.　LTDR is long-term debt ratio and is calculated by long-term debt divided by total debt.　STDR is measured by short-term debt divided by total debt.　LTCR is measured by long-term debt divided by a sum of long-term debt and equity.

- Do any relationships exist between strategic choice and firm value?

As a result of comparison of firm value in 2006 according to strategic choice, the companies having franchising strategy shows lower means of market cap ($660.12 millions) than the ones having no franchising strategy ($971.79 millions).　But, this result is not statistically significant.　In addition, companies that have multiple concepts show a higher mean of market cap ($1300.51 millions) compared to the ones with a single concept ($448.79 millions).　This result is statistically significant.　Using log of market cap, the companies having franchising strategy shows lower means, $5.44, compared to the ones having no franchising strategy, $5.64. In addition, companies that have multiple concepts show a higher mean of market cap, $6.48, compared to the ones with a single concept, $4.83.

Table 10. T test (Business Model 1)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MVEQ 1	660.11724 85119	55	933.99289149 905	125.939575 79806
	MVEQ 2	971.78843 36942	55	1547.6995822 2868	208.691769 09460

*MVEQ: Market value of equity

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	MVEQ 1 & MVEQ 2	55	−.112	.417

Paired Samples Test

		Paired Differences					t	df	Sig. (2−tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2−tailed)
Pair 1	MVEQ 1 − MVEQ 2	− 311.67118 51823	1894.8752299 4418	255.5049238 8267	− 823.927715 1046	200.585344 7401	−1.220	54	.228

Table 11. T test (Business Model 2)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	LN MVEQ 1	5.43528985 59	44	2.0211224889 6	.304695679 60
	LN MVEQ 2	5.64238688 71	44	1.9817544078 4	.298760718 07

*LN MVEQ: natural log of market value of equity

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	LN MVEQ 1 & LN MVEQ 2	44	.389	.009

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	LN MVEQ 1 − LN MVEQ 2	−.207097031 2	2.2122729416 9	.333512694 61	−.87968948 07	.46549541 84	−.621	43	.538

68

Table 12. T test (Concept 1)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	MVEQ 1	448.796436 3553	60	644.74898112 679	83.2367355 4628
	MVEQ 2	1300.51250 91082	60	1592.2643042 0343	205.560437 76468

* MVEQ: market value of equity

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	MVEQ 1 & MVEQ 2	60	.207	.112

Paired Samples Test

		Paired Differences						t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference					
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper				
Pair 1	MVEQ 1 − MVEQ 2	− 851.716072 7529	1589.0364486 4143	205.1437234 0349	− 1262.2077 151270	− 441.224430 3788	−4.152	59	.000

69

Table 13. T test (Concept 2)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	LN MVEQ 1	4.8319635935	49	1.93887592274	.27698227468
	LN MVEQ 2	6.4792192525	49	1.58190178085	.22598596869

* LN MVEQ: natural log of market value of equity

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	LN MVEQ 1 & LN MVEQ 2	49	.251	.082

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	LN MVEQ 1 − LN MVEQ 2	−1.6472556590	2.17309468763	.31044209823	−2.2714413320	−1.0230699861	−5.306	48	.000

70

2. Does an optimal financial structure exist for casual themed restaurants?

-Do any target ratios exist for casual themed restaurants?

To examine if the company moves to its target level of financial ratios, the graph has been made

for each company with five financial ratios and LN MVEQ which stands for the market value of

a company.

Figure 1. Applebees Intl Inc.
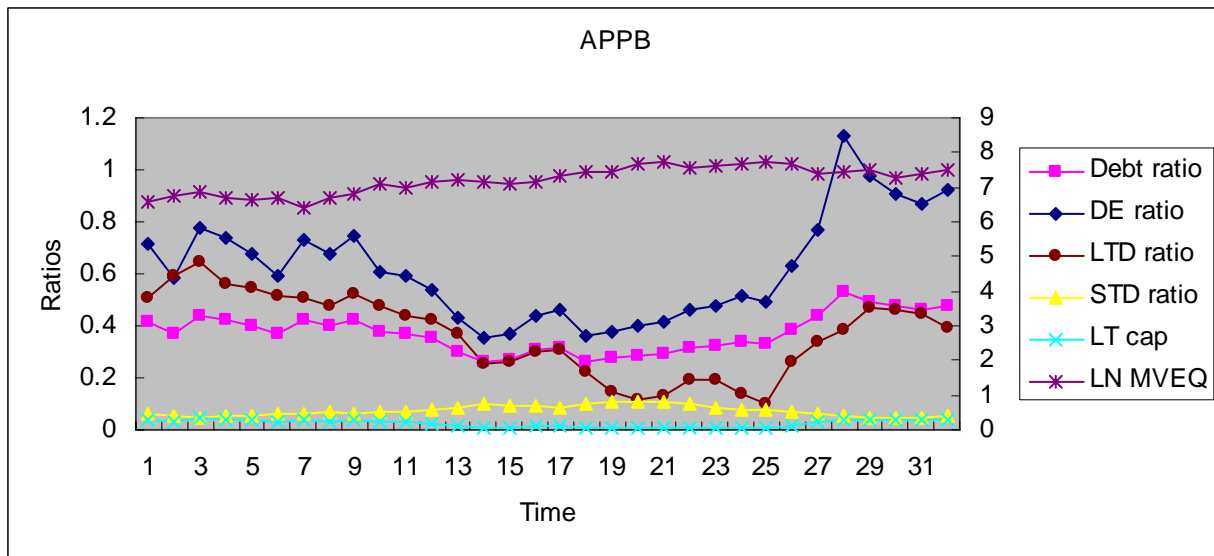
In case of APPB, a short-term debt ratio, long-term capitalization ratio and market cap look

constant.   Other ratios are fluctuating without constant pattern of change.

Figure 2. Ark Restaurants Corp.
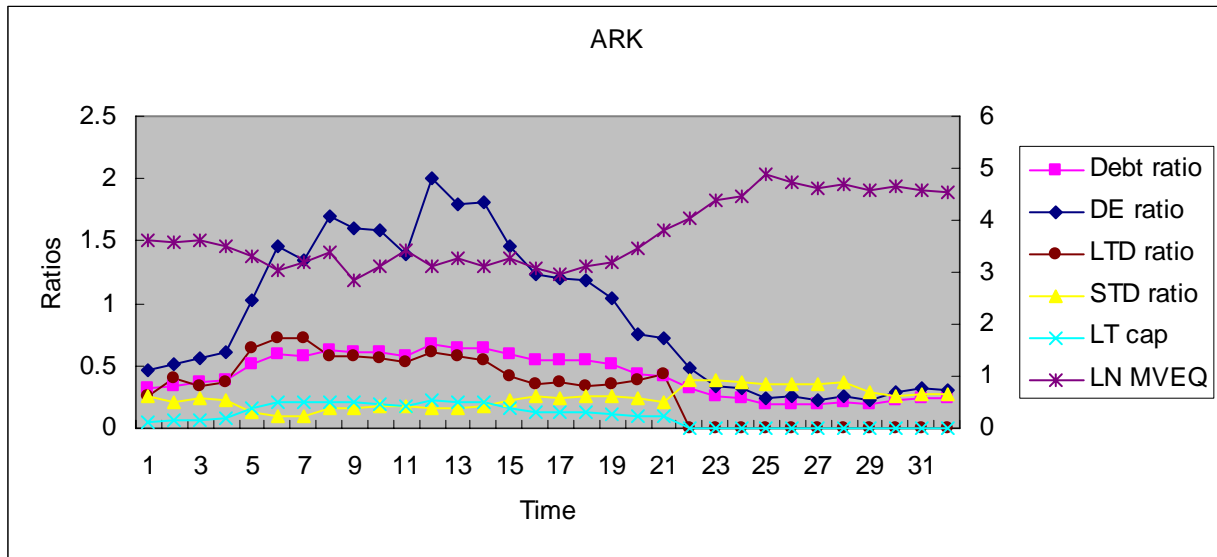
In case of ARK, a debt-to-equity ratio moves in the opposite direction of a firm value.   Other

ratios look constant overall.

Figure 3. Benihana
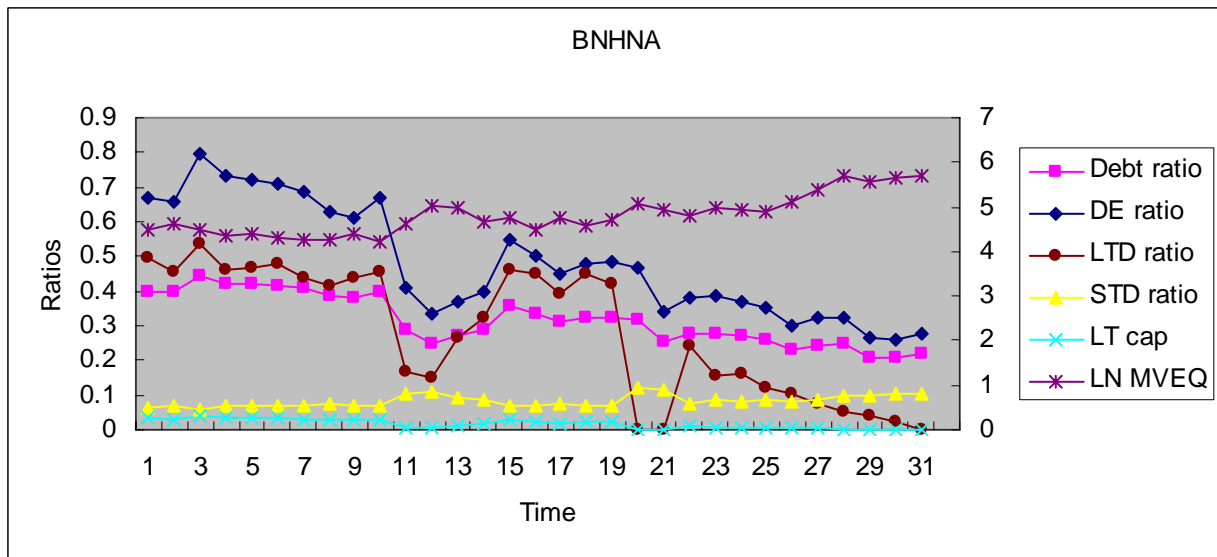
As for BNHNA, a debt-to-equity ratio and long-term debt ratio move in the same direction.   A

short-term debt ratio and long-term capitalization ratio look flat.

Figure 4. Bob Evans
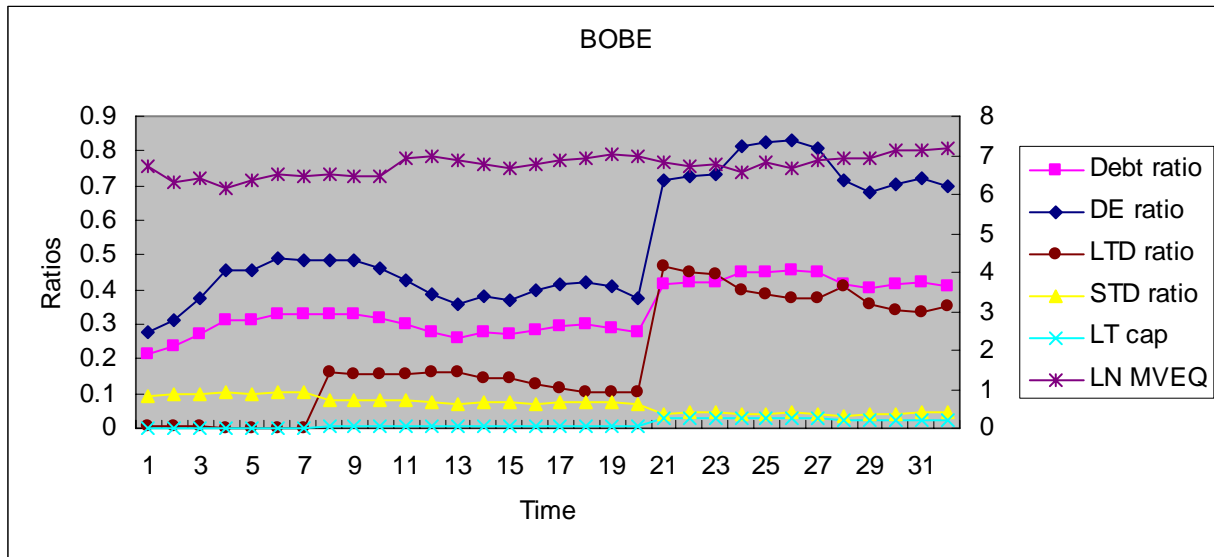
BOBE

In case of BOBE, a debt-to-equity ratio, debt ratio and long-term debt ratio move in the same direction. The firm value becomes fixed as time goes by.   A short-term debt ratio and long-term capitalization ratio are almost constant.

Figure 5. Brinker

EAT

As for EAT, a firm value is constant overall.   A debt-to-equity ratio, debt ratio and long-term debt ratio move together.   A short-term debt ratio and long-term capitalization ratio are flat.

Figure 6. Buca Inc.

As for BUCA, a debt-to-equity ratio becomes high as time goes by. A short-term debt ratio and long-term debt capitalization ratio are almost constant.

Figure 7. Cheese Cake Factory Inc.
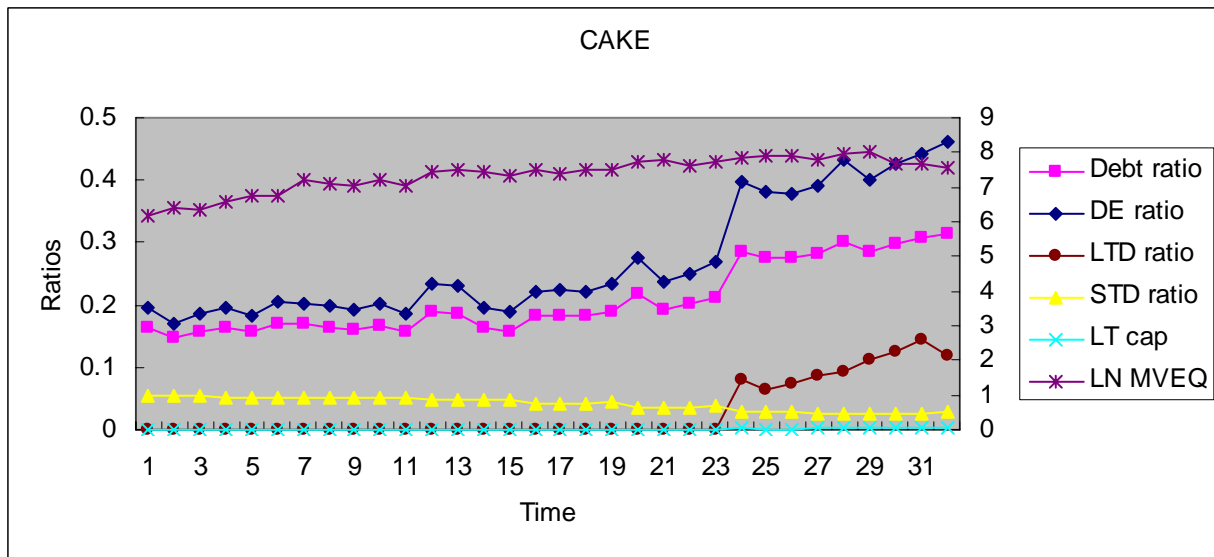
In case of CAKE, a short-term debt ratio and long-term capitalization ratio are constant overall. A firm value is constant as well. A debt-to-equity ratio and long-term debt ratio move together and get higher as time goes by.

Figure 8. CBRL Group
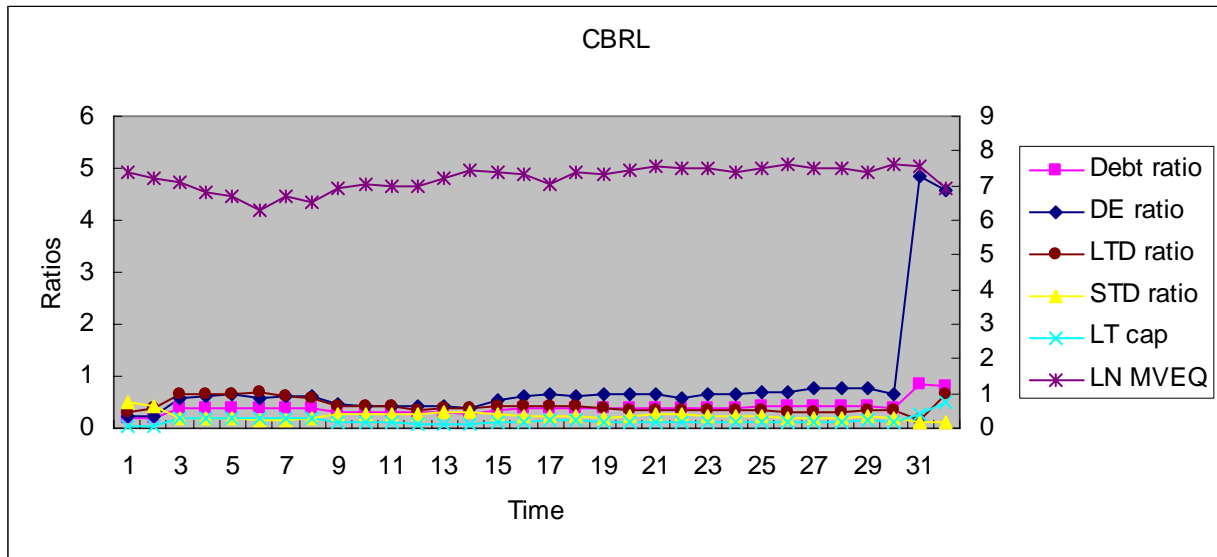
CBRL

As for CBRL, All the ratios look constant.   Debt-to-equity ratio becomes higher at the last period.

Figure 9. CEC Entertainment Inc.

CEC
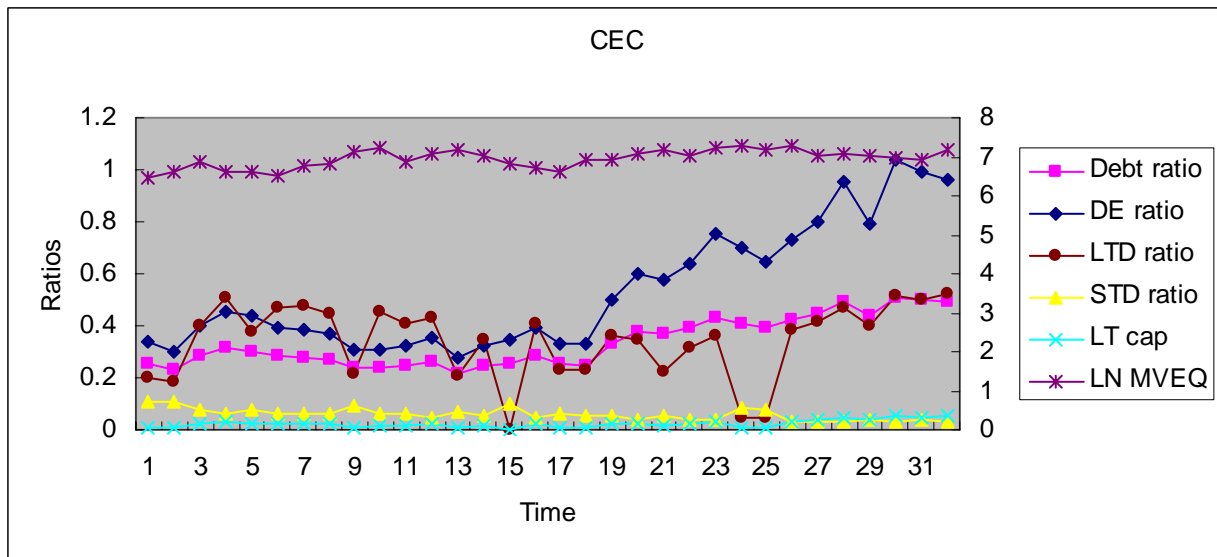
In case of CEC, a firm value is constant.   Long-term debt capitalization ratio and short-term debt ratio are constant.   So is a firm value.

Figure 10. Dennys Corp.
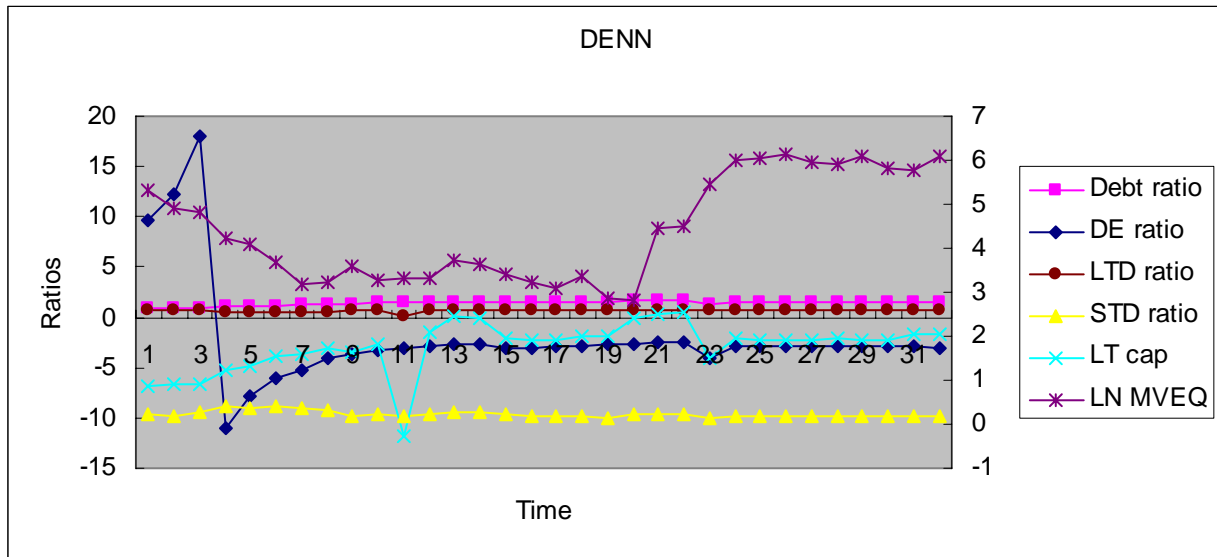
In case of DENN, debt-to-equity ratio gets fixed after a huge decrease in the beginning period.

Debt ratio, long-term debt ratio and short-term debt ratio are constant.

Figure 11. Darden Restaurants Inc.
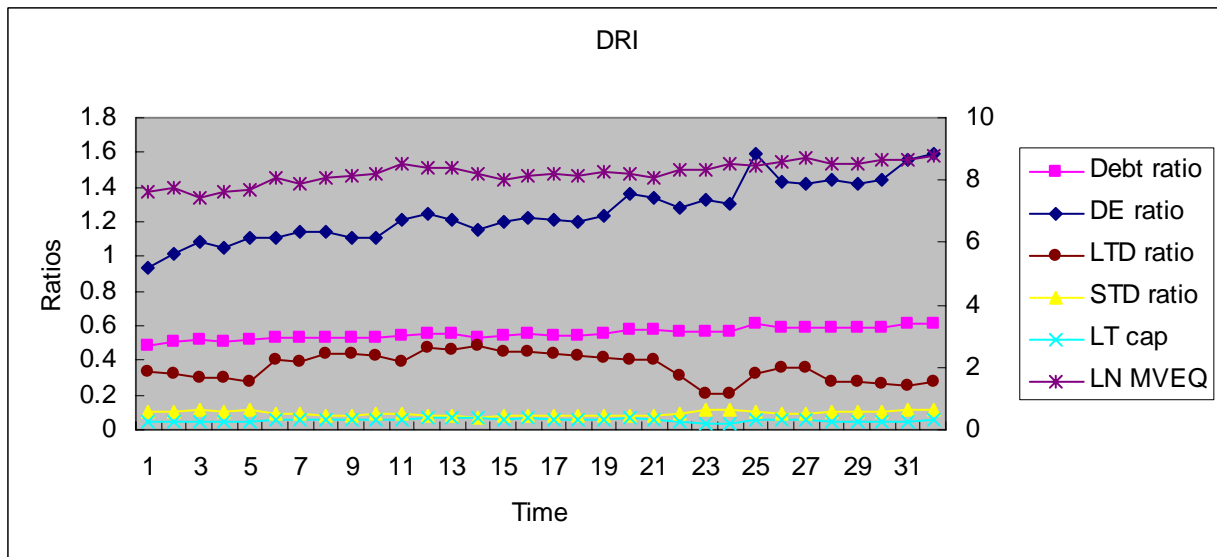
All the ratios of DRI have constant movement.

Figure 12. Eaco Corp.
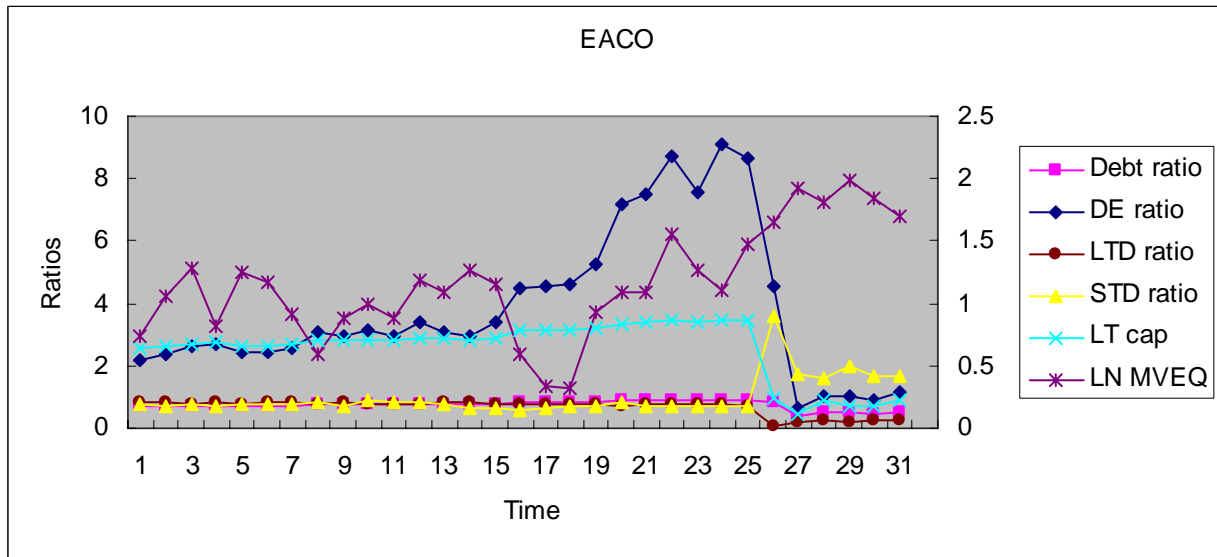
As for EACO, debt ratio and short-term debt ratio are constant.

Figure 13. Elephant & Castle Group Inc.
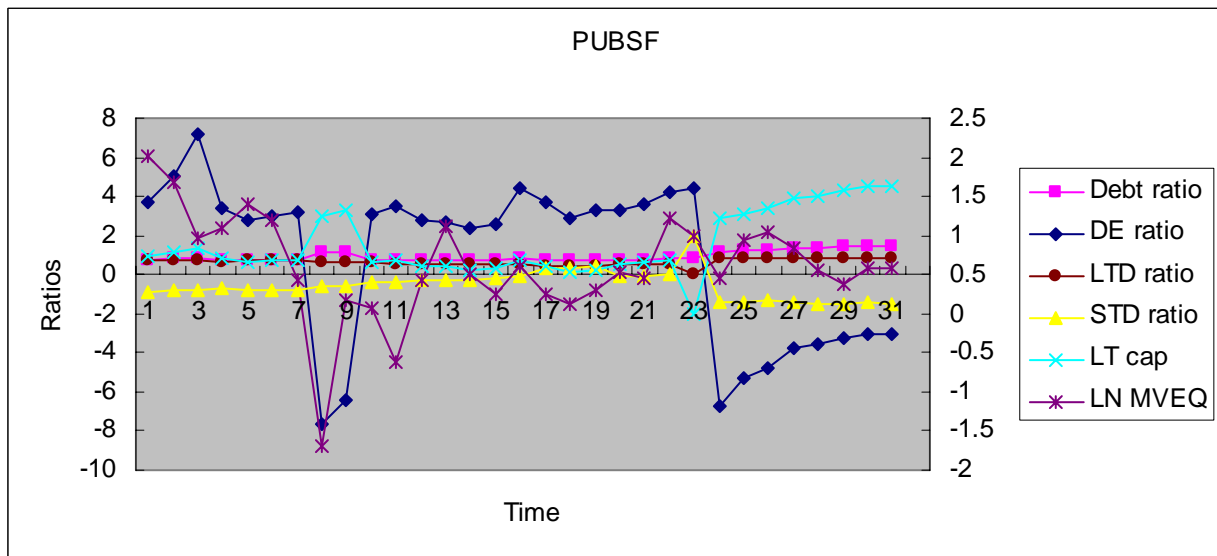
Debt-to-equity ratio, long-term debt ratio and long-term cap ratio fluctuate as time goes by.

Figure 14. Frisch's Restaurant

FRS
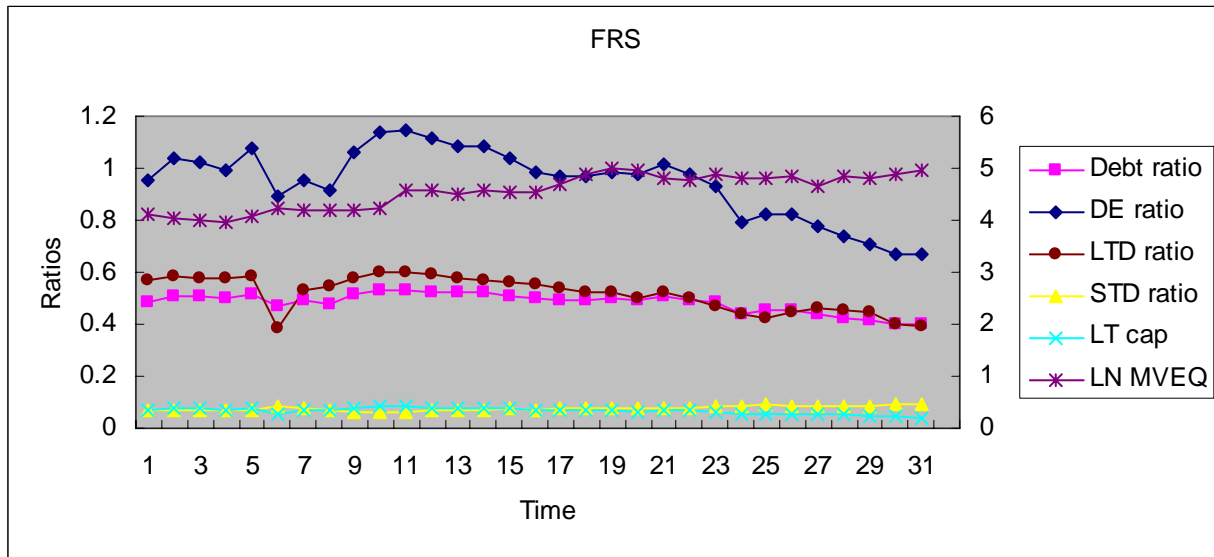
Debt-to-equity ratio decreases as time goes by.　　Firm value increases slightly as time goes by. Short-term debt ratio and long-term debt capitalization ratio are constant overall.　　Debt ratio and long-term debt ratio are also constant.

Figure 15. Grill Concepts Inc.

GRIL
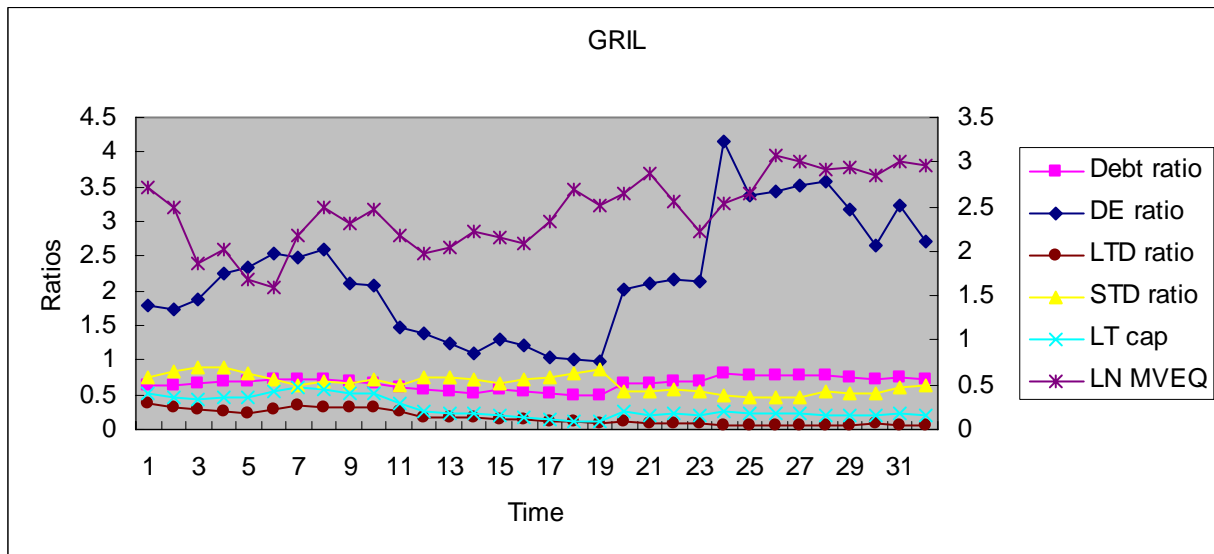
Debt-to-equity ratio and firm value fluctuate without a constant pattern.　　Other ratios are almost constant.

Figure 16. J. Alexander's Corp.
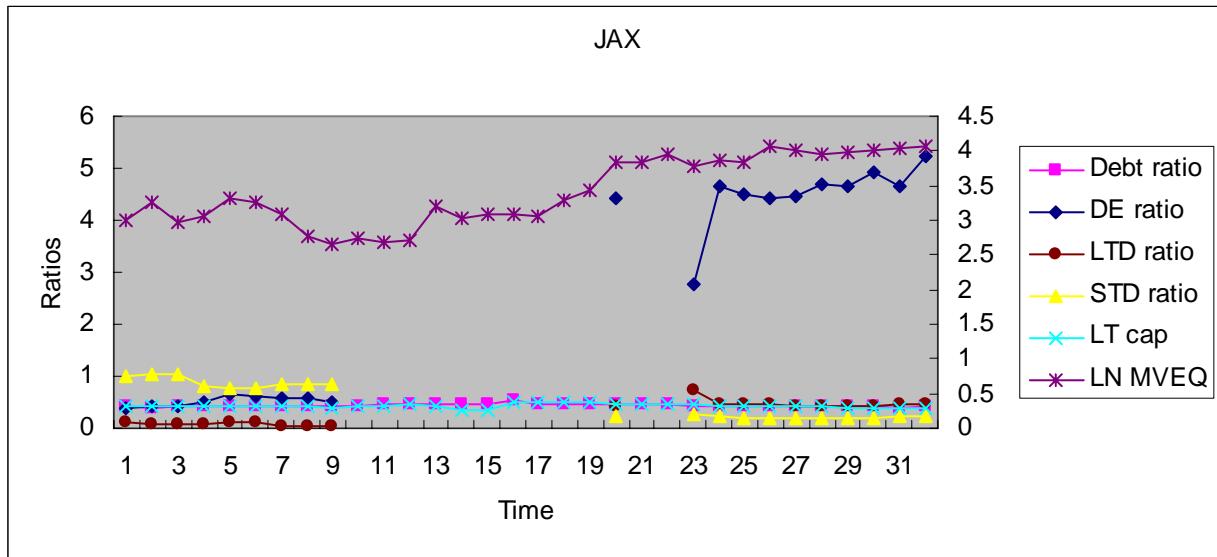
Figure 17. Landrys Restaurants Inc.
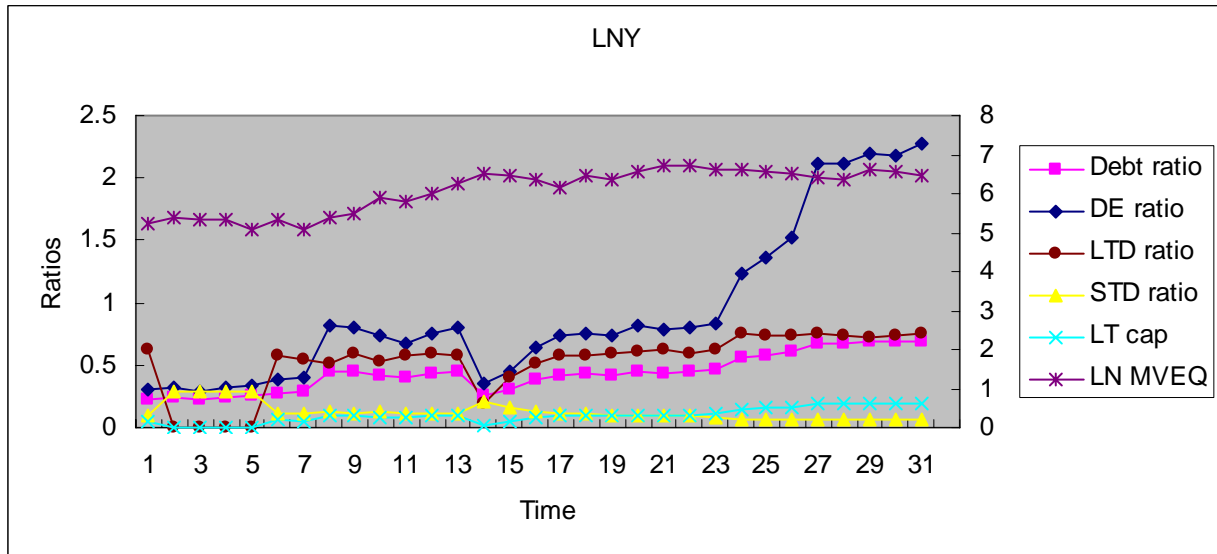
Debt-to-equity ratio increases towards the end of period. Long-term capitalization ratio and short-term debt ratio are constant.

Figure 18. Lone Star Steakhouse Saloon
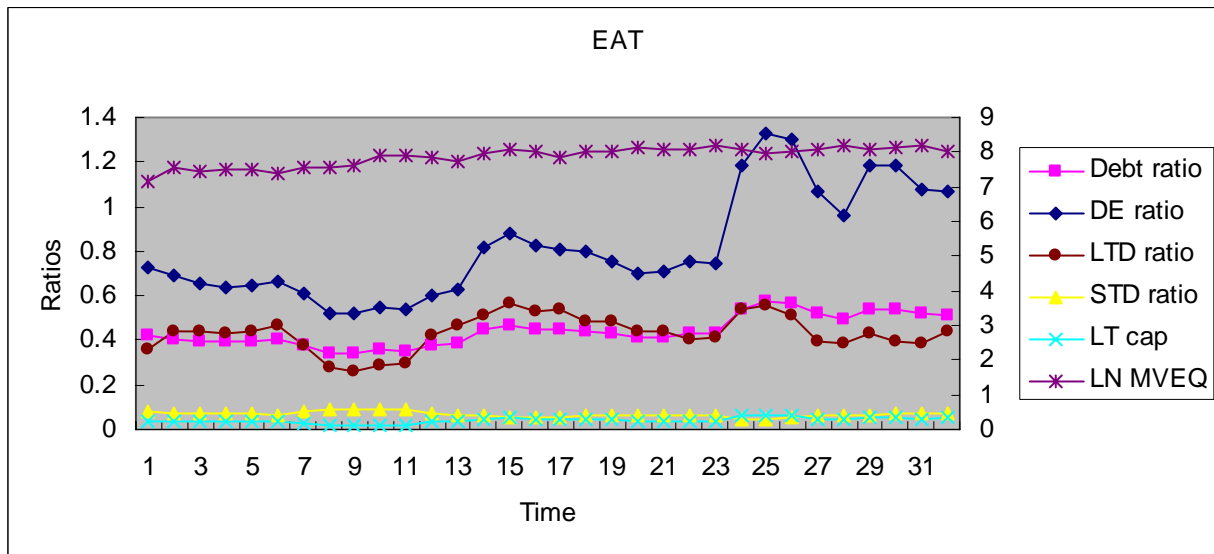

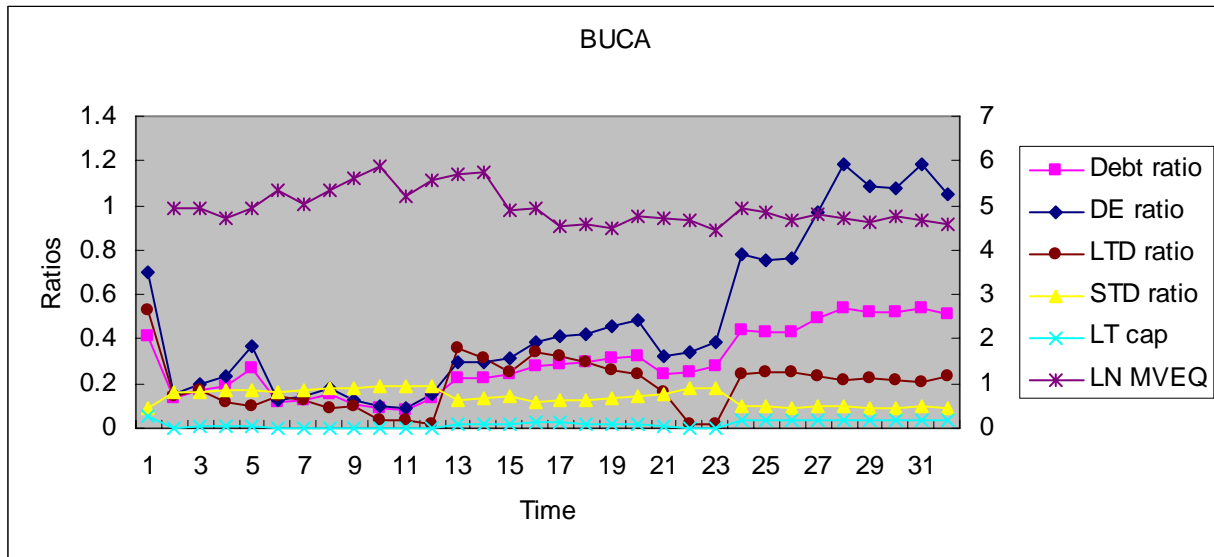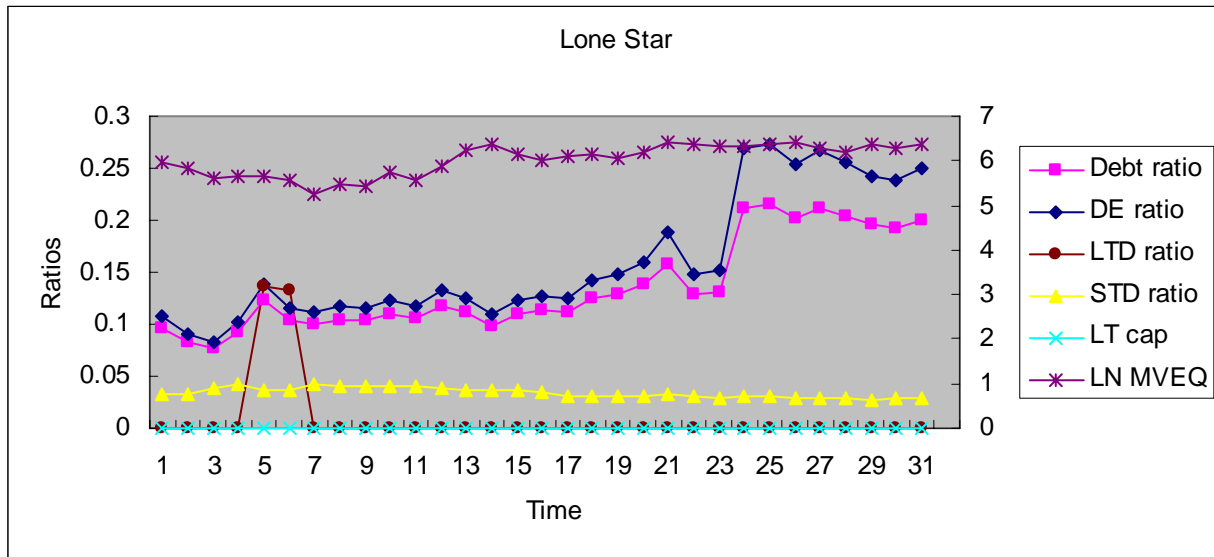Debt-to-equity ratio and debt ratio move in the same direction.   Short-term debt ratio and long-term capitalization ratio are constant overall.   So is a market cap.

Figure 19. Lubys
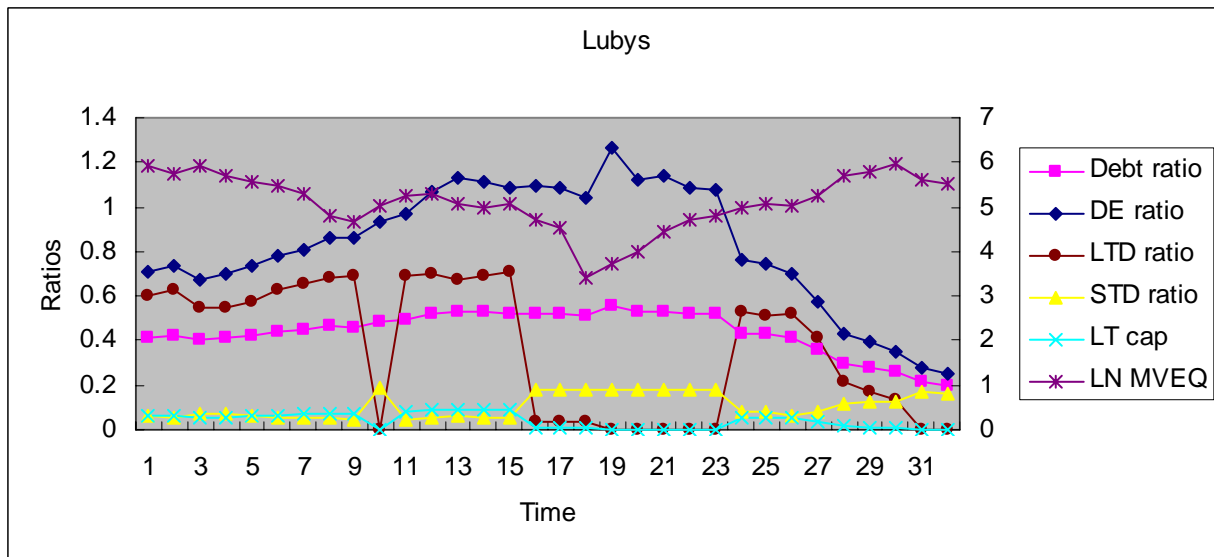
Debt-to-equity ratio decreases as time goes by.   So is debt ratio.   Long-term debt ratio and market cap fluctuate.

Figure 20. Max & Ermas Restaurants

MAXE
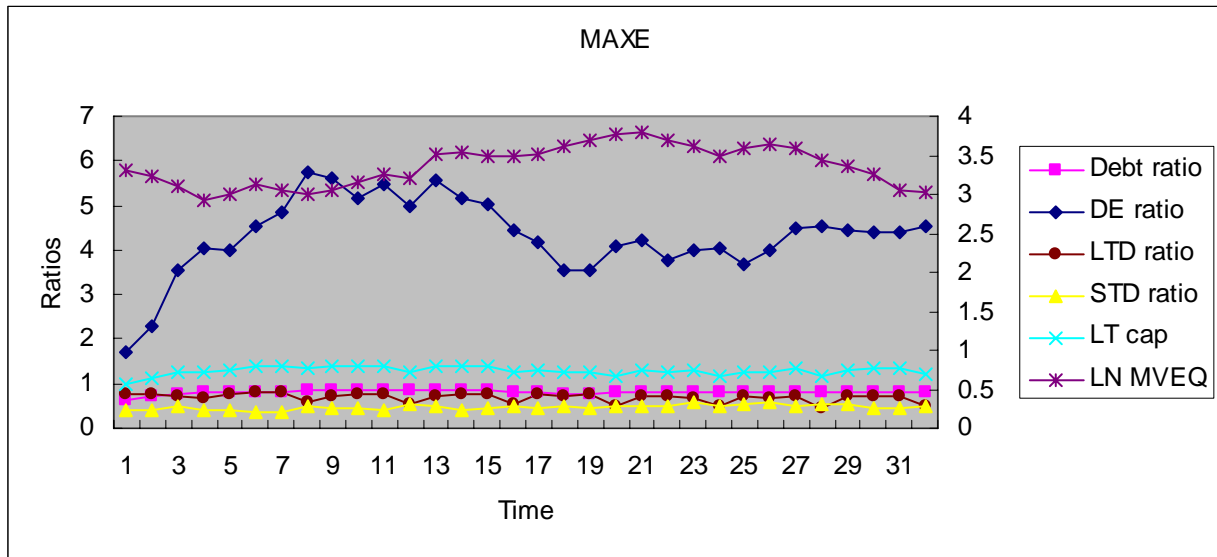
Other ratios are constant.   Debt-to-equity ratio and firm value move in the opposite direction.

Figure 21. Mexican Restaurants Inc.
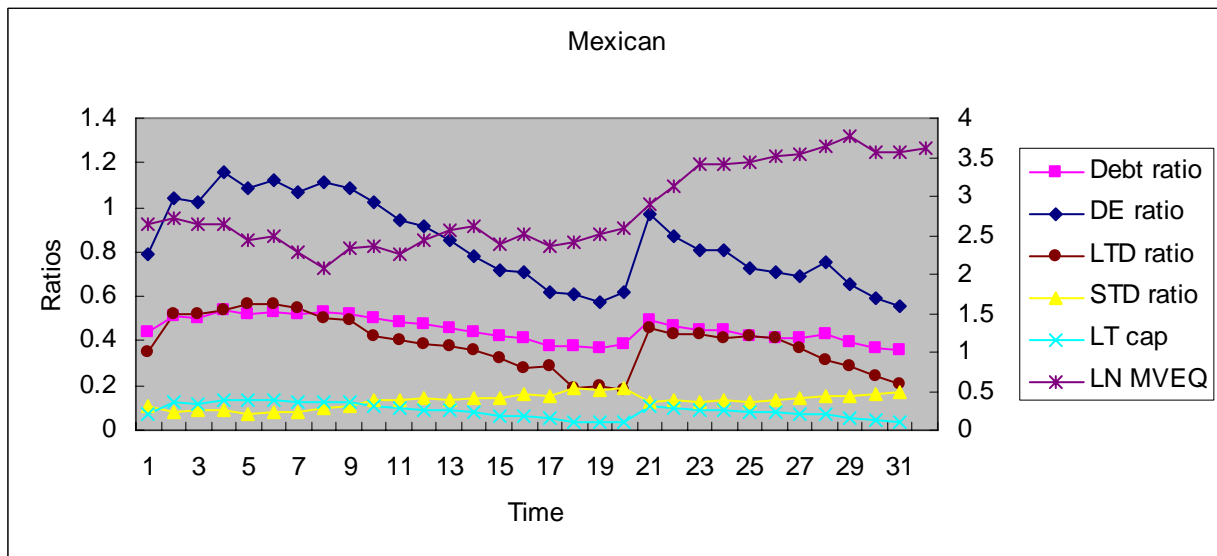
Mexican

Debt-to-equity ratio and long-term debt ratio move in the same direction.   Long-term cap ratio

and short-term debt ratio are constant.

Figure 22. O'Charley's Inc.
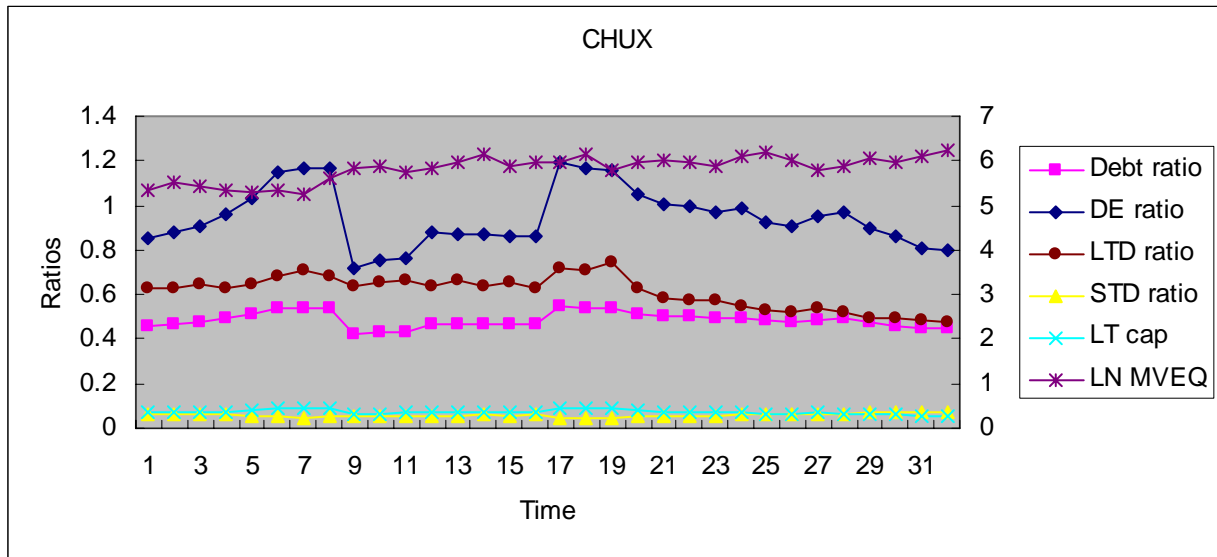
CHUX

In case of CHUX, Short-term debt ratio and long-term capitalization ratio are flat. So is a market cap. Debt-to-equity ratio and long-term debt ratio move in the same direction.

Figure 23. OSI Restaurant Partners Inc.

OSI
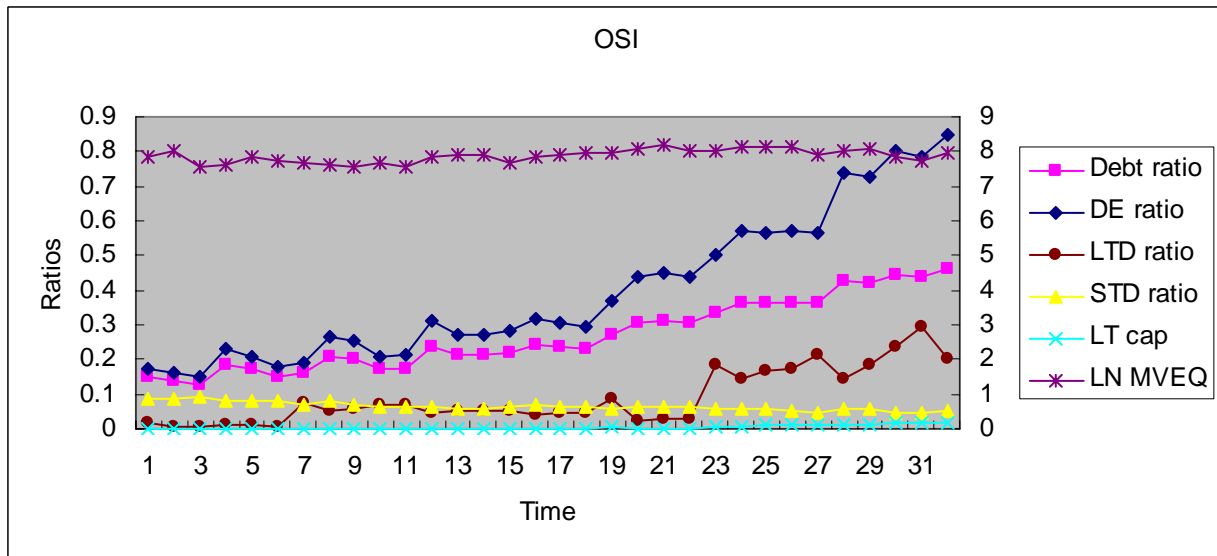
Debt-to-equity ratio and debt ratio increase as time goes by. Firm value, short-term debt ratio and long-term cap ratio are constant.

Figure 24. PF Chang China Bistro Inc.
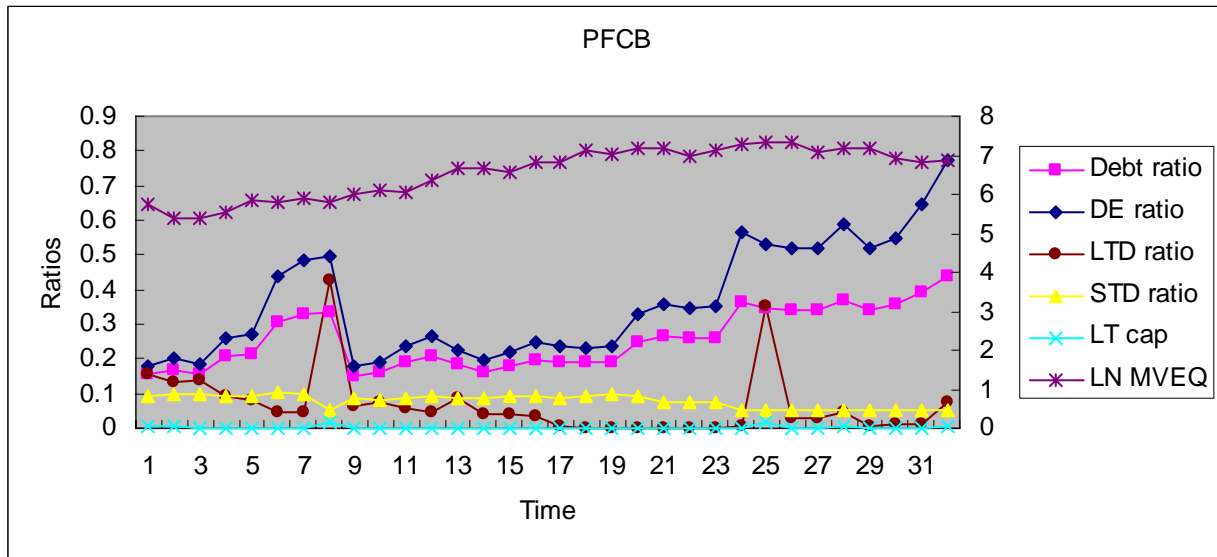
Debt ratio and debt-to-equity ratio moves in the same direction. Long-term cap ratio and short-term debt ratio are flat.

Figure 25. Rare Hospitality Intl Inc.
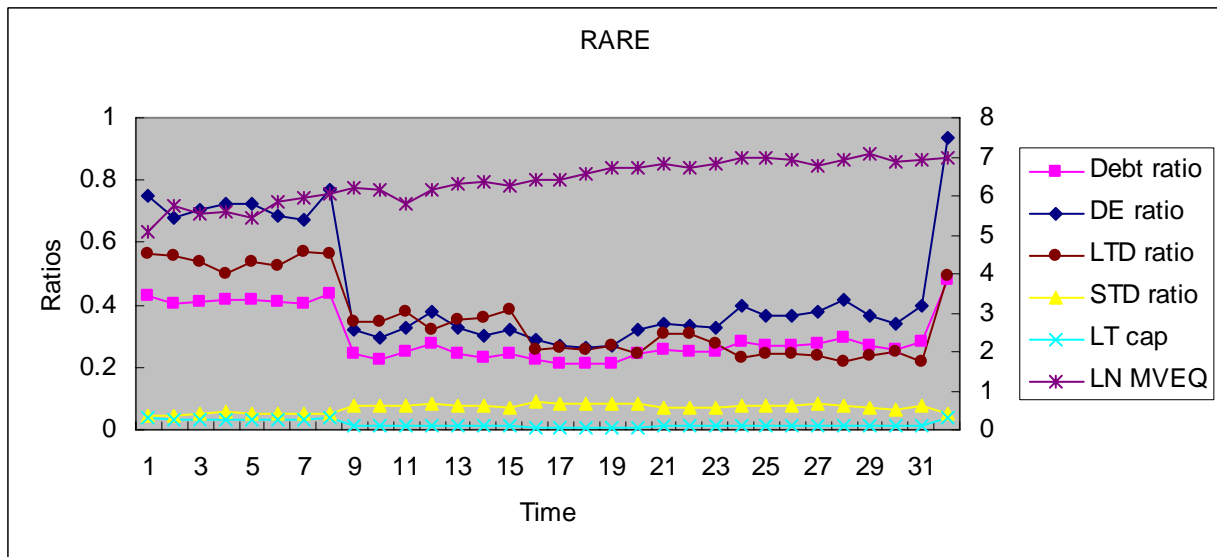
Firm value, short-term debt ratio and long-term debt cap ratio are constant overall. Debt-to-equity ratio, debt ratio and long-term debt ratio move in the same direction.

Figure 26. Roadhouse Grill Inc.

Roadhouse
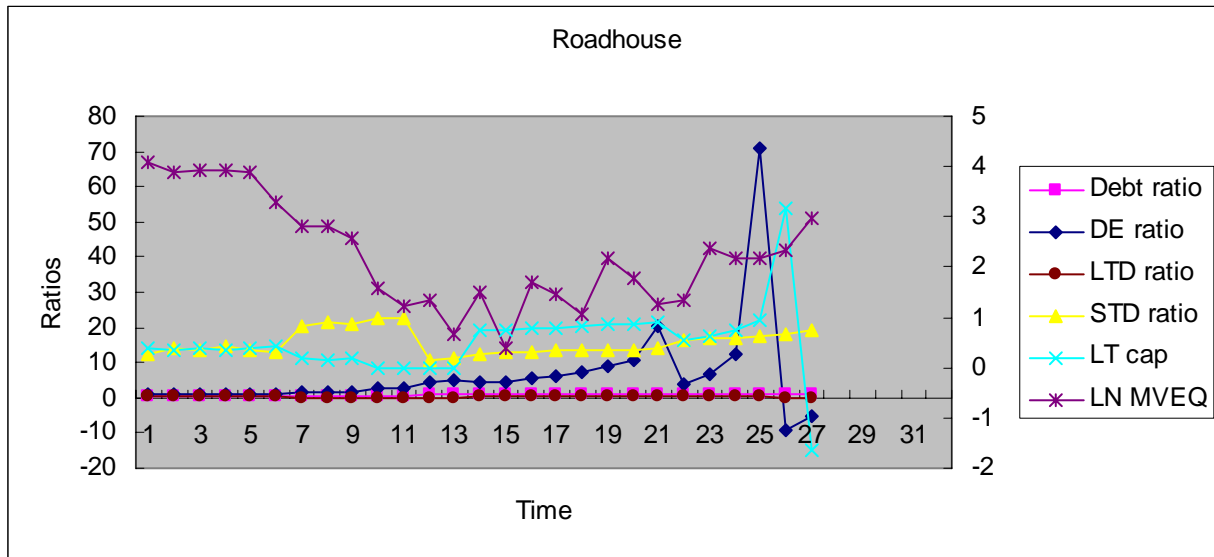
Long-term debt ratio and debt ratio look constant. Other ratios fluctuate without constant pattern.

Figure 27. Rubio's Restaurants Inc.
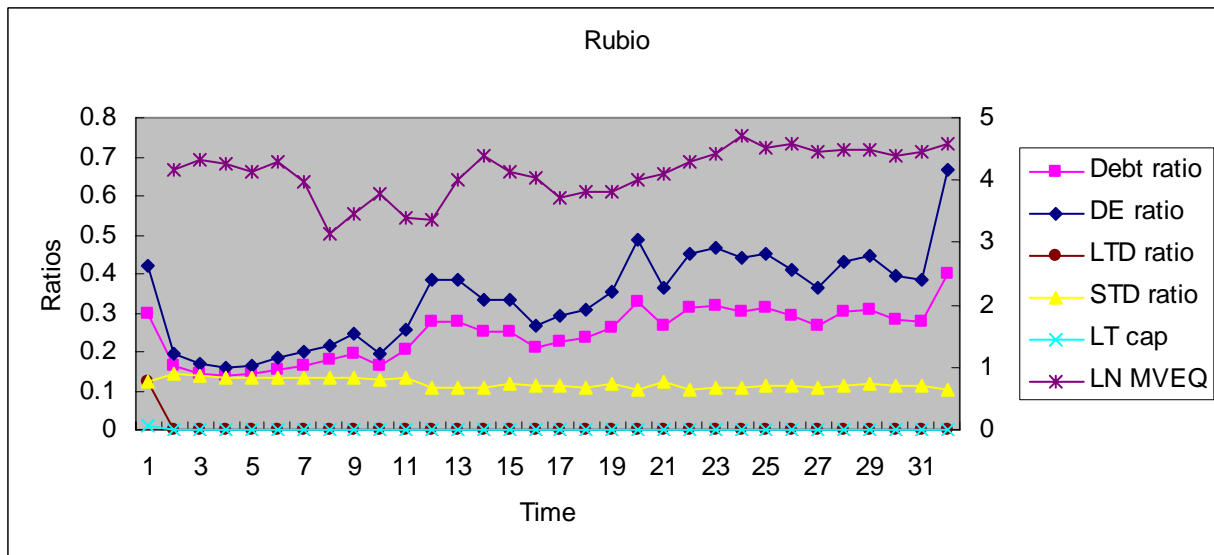
Rubio

Short-term debt ratio and long-term cap ratio are constant overall. Debt-to-equity ratio and debt ratio move in the same direction.

Figure 28. Ruby Tuesday Inc.
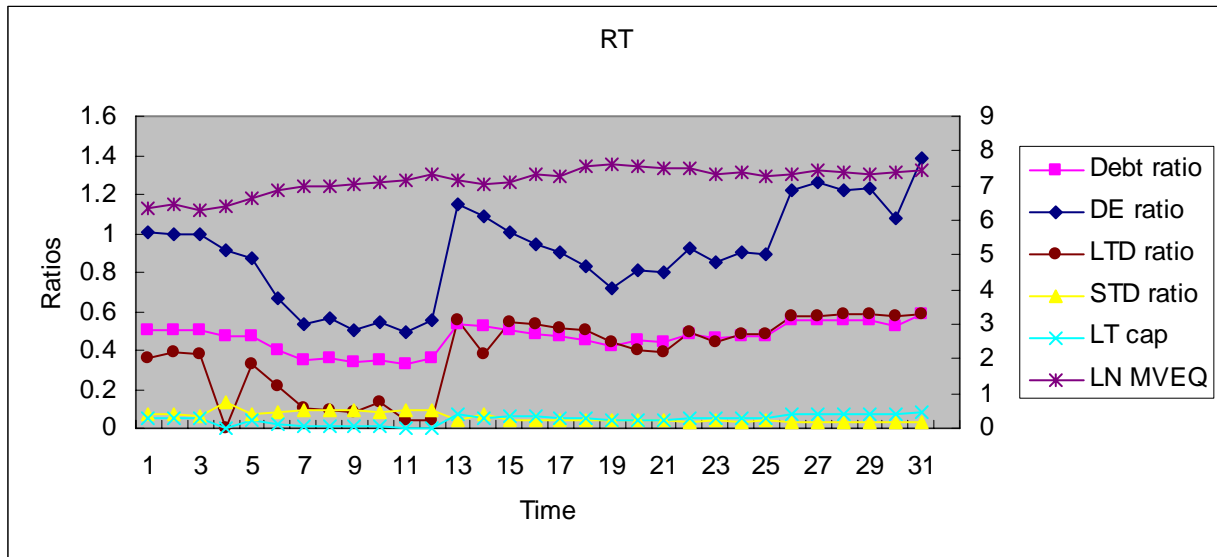
Firm value is constant.   Long-term cap ratio and short-term debt ratio are constant as well.

Debt-to-equity ratio and long-term debt ratio move in the same direction.

Figure 29. Ryan's Restaurant Group Inc.
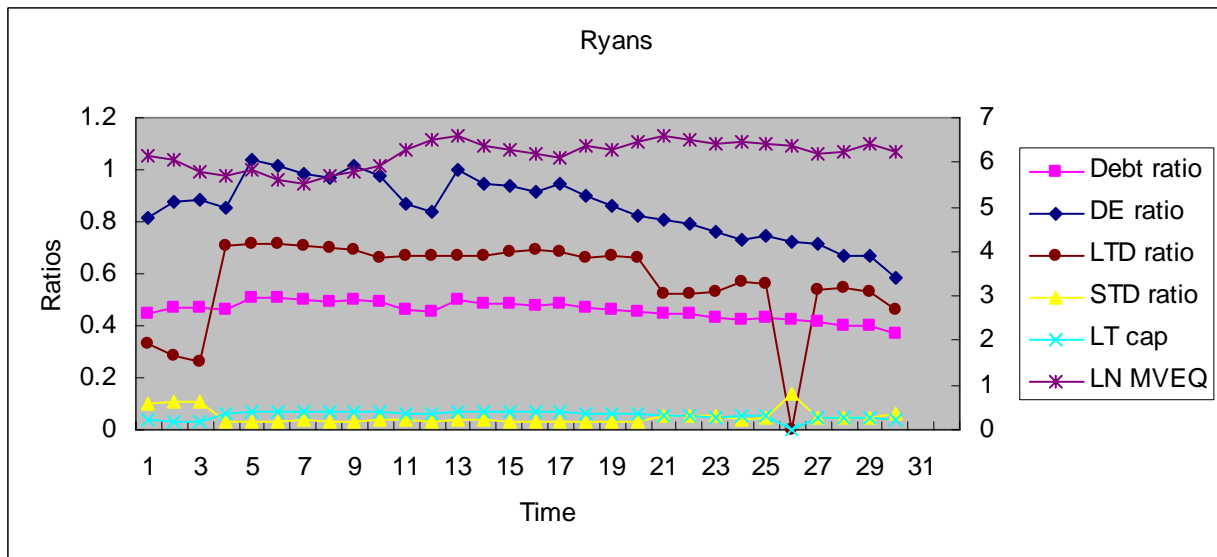
Short-term debt ratio and long-term cap ratio are constant overall.   Debt-to-equity ratio and debt ratio decrease as time goes by.

Figure 30. Shells Seafood Restaurants Inc.

Figure 30. Shells Seafood Restaurants Inc.
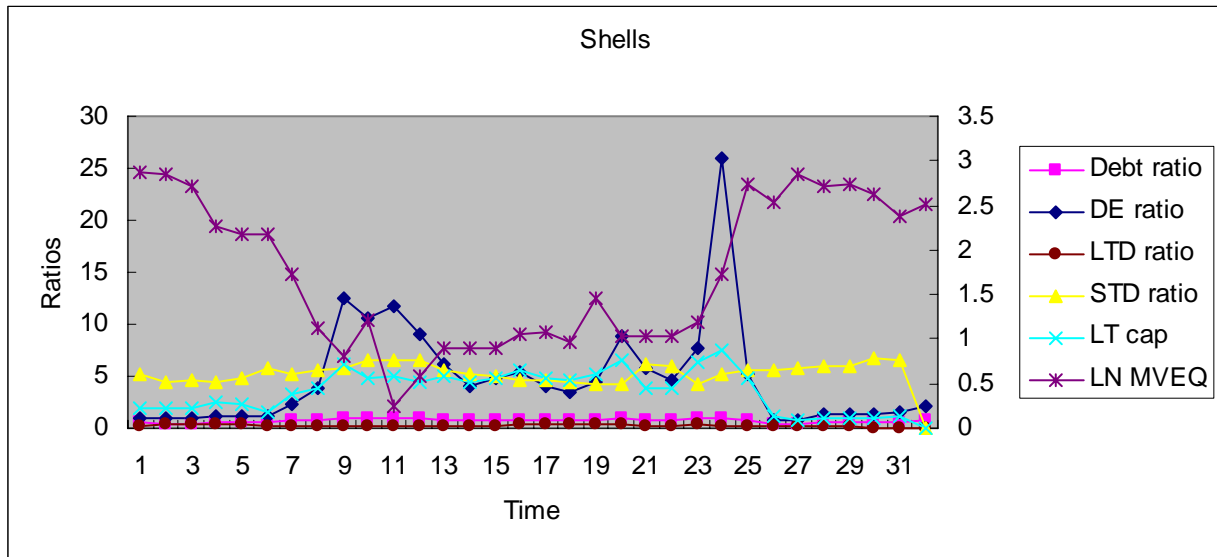
Firm value and debt-to-equity ratio move in the opposite direction.   Long-term debt ratio and debt ratio are constant.

Figure 31. Star Buffet Inc.

Figure 31. Star Buffet Inc.
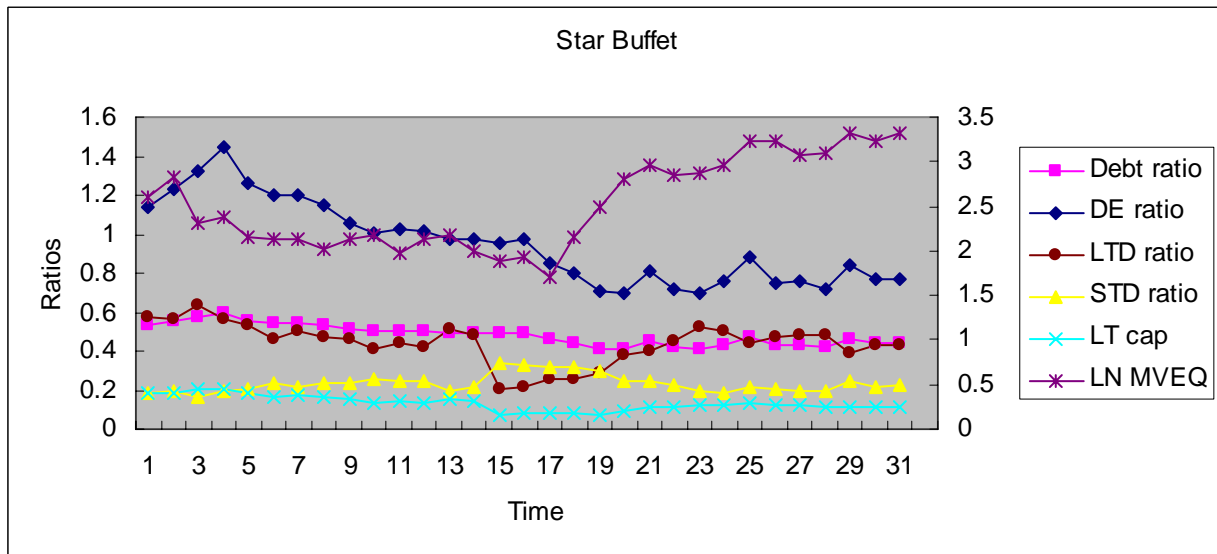
Firm value increase as time goes by.   Debt-to-equity ratio is decreasing as time goes by.   Long-term cap ratio and short-term debt ratio are constant overall.

Figure 32. Steak N House
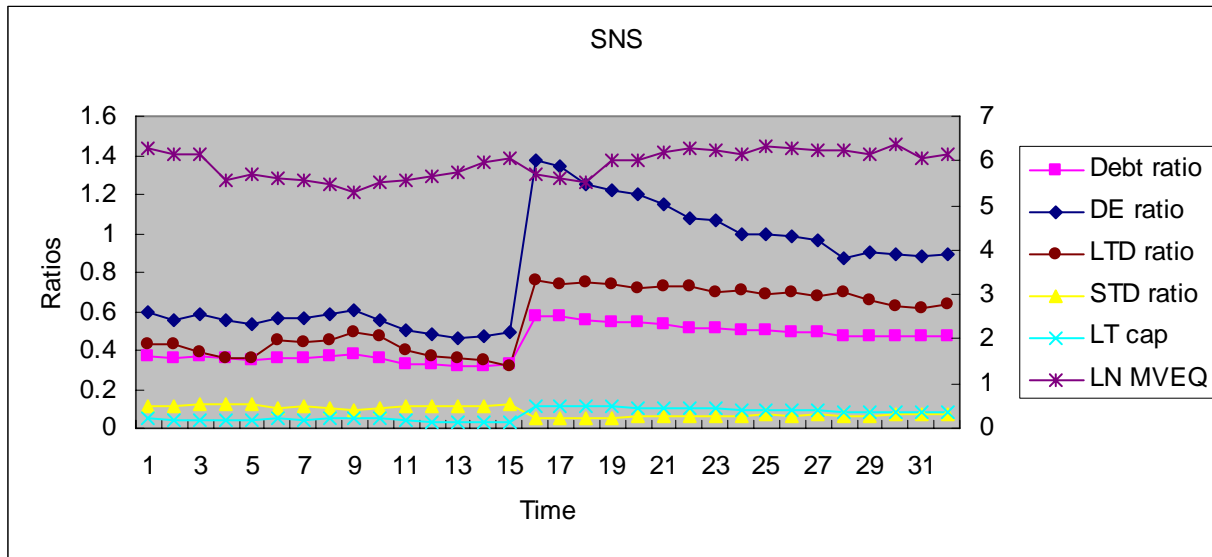
Debt-to-equity ratio, long-tem debt ratio and debt ratio move in the same direction.   Short-term debt ratio and long-term cap ratio are flat.

In general, it is hard to say that there is a target ratio for each company.   The movement also does not have a constant pattern overall.   However, debt ratio and debt-to-equity ratio tend to decrease as firms grow in most of the companies.   Short-term debt ratio and long-term debt capitalization ratio are constant overall in most of the companies.

-To what degree do ratios vary among the target ratios?

Coefficient of variation (CV) is the ratio of standard deviation to the mean.   Mean and standard deviation have been calculated for each financial ratio to see coefficient of variation for each company for 32 quarters.   In terms of debt ratio, BUCA showed a highest variation, 50.59 %, and MAXE showed the lowest variation, 5.35%.   For debt-to-equity ratio, 3PUBSF showed a highest variation, 466.24% and DRI showed a lowest variation, 13.44%.   In terms of long-term debt ratio, RUBO showed a highest variation, 565.69% and STAR.1 showed the

lowest, 0.86%. For short-term debt ratio, STAR.1 showed a highest variation, 79.37% and

RUBO showed a lowest variation, 10.19%. As for long-term capitalization ratio, RUBO

showed a highest variation of 565.69%, and STAR.1 showed a lowest variation, 0.11%. In

terms of MVEQ, STAR.1 showed a highest variation, 602.02% and CEC showed a lowest

variation, 3.33%.

Table 14. Coefficient of Variation

	Mean DR	Mean DER	Mean LTDR	Mean STDR	Mean LTCR	Mean MVEQ
CV APPB	19.94203	32.63776	43.02231	27.12880	52.43704	5.38958
CV ARKR	40.32673	64.79007	81.09321	33.69235	87.87963	17.66752
CV BNHNA	22.97300	33.88312	66.46668	20.54503	77.52080	9.11698
CV BOBE	21.19688	32.60384	78.21258	32.92448	90.68709	3.82248
CV EAT	15.31657398	28.97714517	18.2446425	17.10817671	29.32261023	3.607948961
CV BUCA	50.59090582	72.70084317	59.22042529	26.08900332	84.16616969	8.056238965
CV CAKE	26.93468089	35.38650096	169.6162508	26.18352352	172.0444044	6.815572408
CV CBRL	33.13327559	122.8302499	31.56430477	31.40397342	54.89045526	4.789518433
CV CEC	28.01910816	44.35659137	41.78493951	38.18490567	61.36318231	3.33413551
CV DENN	14.98367414	268.3425565	19.79132377	32.28435057	32.34676486	26.94112022
CV DRI	5.901795531	13.43615362	22.0529846	13.97024493	15.20778173	4.209673122
CV 3EACO	17.93163129	63.17463691	34.80768125	62.50966805	36.41828041	37.40134695
CV 3PUBSF	28.52824758	466.2398208	29.62639125	52.13611085	46.65334221	110.6028649
CV FRS	7.789545152	14.25722606	12.91446502	11.92814699	17.90190742	7.397477343
CV GRIL	13.71264971	39.06930731	62.33291853	19.49387532	48.43285286	16.54337259
CV JAX	5.775607695	76.97256888	72.99324637	68.5751648	9.666963791	14.40379614
CV LNY	34.206277	67.68080206	44.72436255	57.46135838	62.34275872	9.217588925
CV STAR.1	13.55661521	15.98641742	0.863157731	79.3685676	0.108511296	602.0245254
CV LUB	22.01908912	33.51923013	81.39986588	51.87443909	84.72070331	12.22775351
CV MAXE	5.353335755	20.16218924	14.5974705	11.43731511	7.334862733	7.690192516
CV CASA	12.42393114	22.50191565	29.74998828	25.12269414	37.71685915	18.59205185
CV CHUX	7.052998795	13.88422938	12.31275656	12.7547884	14.13798462	4.890974955
CV OSI	37.80398373	53.49191047	89.60734721	18.53969175	122.1485143	2.384286864
CV PFCB	33.27627527	45.76883836	142.7015371	24.3508429	175.0649561	9.629039063
CV RARE	27.63044003	42.74934905	35.11005632	18.75342215	64.3935312	8.428880778
CV 3GRLL	26.26094603	218.664532	70.15513216	50.83147226	145.1333934	47.69377
CV RUBO	26.81921669	35.17440803	565.6854249	10.19403069	565.6854249	9.723134799
CV RT	15.27261594	27.02109014	50.25785377	47.82095882	54.23057451	5.195450186
CV RYAN	7.764072824	13.8586502	28.92648287	57.30189785	29.15057178	4.942855806
CV 3SHLL	23.13619395	104.6225073	45.51757631	23.56883184	56.82403808	48.24887516
CV STRZ	11.09987948	22.14302471	23.80687133	19.61677099	28.23610783	19.88823535
CV SNS	20.10754469	35.68553103	27.68137508	31.29686701	42.11501919	5.361346023

* CV: Coefficient of Variation

3. If a factor(s) exist to determine a unique capital structure for casual dining restaurants, is the

factor(s) applicable to all the restaurants regardless of type, size and concept?

Proposition 1. No difference exists for a debt ratio in large vs. small sized restaurants.   (Reject)

Proposition 2. No difference exists for a debt-to-equity ratio in large vs. small sized restaurants. (Reject)

Proposition 3. No difference exists for a long-term debt ratio in large vs. small sized restaurants. (Reject)

Proposition 4. No difference exists for a short-term debt ratio in large vs. small sized restaurants. (Accept)

Proposition 5. No difference exists for a long-term debt capitalization ratio in large vs. small sized restaurants. (Reject)

Table 15. Anova

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Debt ratio	Between Groups	9.936	2	4.968	77.552	.000
	Within Groups	64.379	1005	.064		
	Total	74.315	1007			
Debt-to-equity ratio	Between Groups	377.469	2	188.734	19.271	.000
	Within Groups	9725.388	993	9.794		
	Total	10102.857	995			
Long-term debt ratio	Between Groups	1.519	2	.760	12.621	.000
	Within Groups	59.765	993	.060		
	Total	61.284	995			
Short-term debt ratio	Between Groups	.228	2	.114	2.445	.087
	Within Groups	46.348	993	.047		
	Total	46.576	995			
Long-term debt capitalization ratio	Between Groups	9.868	2	4.934	35.322	.000
	Within Groups	140.382	1005	.140		
	Total	150.250	1007			

Proposition 6. No difference exists for a debt ratio in franchised vs. company-owned restaurants. (Reject)

Proposition 7. No difference exists for a debt-to-equity ratio in franchised vs. company-owned restaurants. (Reject)

Proposition 8. No difference exists for long-term debt ratio in franchised vs. company-owned restaurants. (Reject)

Proposition 9. No difference exists for a short-term debt ratio in franchised vs. company-owned restaurants. (Accept)

Proposition 10. No difference exists for long-term debt capitalization ratio in franchised vs. company-owned restaurants. (Reject)

Table 16. T test (DR)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	DR 1	.6150232	44	.41088752	.06194362
	DR 2	.4492784	44	.16600900	.02502680

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	DR 1 & DR 2	44	.076	.622

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	DR 1 - DR 2	.1657448	.43122319	.06500934	.0346410	.2968486	2.550	43	.014

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Table 17. T Test (DER)

Paired Samples Statistics (DER)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	DER 1	.3575186	44	1.64232834	.24759031
	DER 2	1.3478970	44	1.34772518	.20317722

Paired Samples Correlations

	N	Correlation	Sig.
Pair 1 DER 1 & DER 2	44	−.731	.000

Paired Samples Test

	Paired Differences					t	df	Sig. (2−tailed)
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1 DER 1 − DER 2	−.9903784	2.78391454	.41969091	−1.8367658	−.1439910	−2.360	43	.023

Table 18. T Test (LTDR)

Paired Samples Statistics (LTDR)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	LTDR 1	.3820313	44	.27203587	.04101095
	LTDR 2	.2392651	44	.21182734	.03193417

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	LTDR 1 & LTDR 2	44	.226	.140

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	LTDR 1 − LTDR 2	.1427662	.30469382	.04593432	.0501308	.2354016	3.108	43	.003

Table 19. T test (STDR)

Paired Samples Statistics (STDR)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	STDR 1	.4011742	44	.19793974	.02984054
	STDR 2	.4479834	44	.20308120	.03061564

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	STDR 1 & STDR 2	44	.420	.005

Paired Samples Test

| | | Paired Differences | | | | | | | |
| | | | | | 95% Confidence Interval of the Difference | | | | |
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	STDR 1 − STDR 2	−.0468091	.21599755	.03256286	−.1124784	.0188601	−1.438	43	.158

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Table 20. T Test (LTCR)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	LTCR 1	.4666255	44	.61433642	.09261470
	LTCR 2	.1870748	44	.18487539	.02787101

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	LTCR 1 & LTCR 2	44	.399	.007

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper			
Pair 1	LTCR 1 - LTCR 2	.2795507	.56654352	.08540965	.1073058	.4517957	3.273	43	.002

Proposition 11. No difference exists for a debt ratio in one dominant vs. multiple brand casual dining restaurants.   (Reject)

Proposition 12. No difference exists for a debt-to-equity ratio in one dominant vs. multiple brand casual dining restaurants. (Accept)

Proposition 13. No difference exists for a long-term debt ratio in one dominant vs. multiple brand casual dining restaurants. (Accept)

Proposition 14. No difference exists for a short-term debt ratio in one dominant vs. multiple brand casual dining restaurants. (Accept)

Proposition 15. No difference exists for a long-term debt capitalization ratio in one dominant vs. multiple brand casual dining restaurants. (Reject)

Table 21. T test (DR)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	DR 1	.6165780	48	.38210099	.05515153
	DR 2	.4163961	48	.13267072	.01914937

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	DR 1 & DR 2	48	.277	.057

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	DR 1 − DR 2	.2001820	.36813029	.05313503	.0932881	.3070758	3.767	47	.000

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Table 22. T test (DER)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	DER 1	1.1564959	48	2.22282224	.32083675
	DER 2	.8187905	48	.49730894	.07178036

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	DER 1 & DER 2	48	−.450	.001

Paired Samples Test

		Paired Differences					t	df	Sig. (2−tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2−tailed)
Pair 1	DER 1 − DER 2	.3377054	2.48670825	.35892542	−.3843594	1.0597702	.941	47	.352

Table 23. T test (LTDR)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	LTDR 1	.3379803	48	.28088304	.04054197
	LTDR 2	.3160937	48	.18679103	.02696096

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	LTDR 1 & LTDR 2	48	.192	.191

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	LTDR 1 − LTDR 2	.0218867	.30599872	.04416711	−.0669661	.1107394	.496	47	.623

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Table 24. T test (STDR)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	STDR 1	.4037874	48	.22724802	.03280043
	STDR 2	.4780569	48	.13774684	.01988204

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	STDR 1 & STDR 2	48	−.009	.950

Paired Samples Test

		Paired Differences					t	df	Sig. (2−tailed)
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	STDR 1 − STDR 2	−.0742695	.26683988	.03851502	−.1517517	.0032127	−1.928	47	.060

Table 25. T test (LTCR)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	LTCR 1	.4335323	48	.56143722	.08103648
	LTCR 2	.2058530	48	.15066659	.02174685

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	LTCR 1 & LTCR 2	48	.399	.005

Paired Samples Test

		Paired Differences								
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	LTCR 1 – LTCR 2	.2276793	.52003546	.07506065	.0766767	.3786818	3.033	47	.004

To analyze research question 3, regression model has been developed and the result is below.

Regression Result

Table 26. T-Test (Regression for MBR)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	.18613	.397289	.070231
DER	32	.19341	.437552	.077349
LTDR	32	−.16250	.420773	.074383
STDR	32	.09591	.386554	.068334
LTCR	32	.02797	.439991	.077780

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2−tailed)	Mean Difference	Lower	Upper
DR	2.650	31	.013	.18613	.04289	.32936
DER	2.500	31	.018	.19341	.03565	.35116
LTDR	−2.185	31	.037	−.16250	−.31420	−.01080
STDR	1.403	31	.170	.09591	−.04346	.23527
LTCR	.360	31	.722	.02797	−.13066	.18660

Table 27. T-Test (Regression for σ NOI)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	.00206	.193542	.034214
DER	32	−.08606	.260201	.045997
LTDR	32	−.0753	.27507	.04863
STDR	32	.14056	.254827	.045048
LTCR	32	−.0491	.24256	.04288

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
DR	.060	31	.952	.00206	−.06772	.07184
DER	−1.871	31	.071	−.08606	−.17987	.00775
LTDR	−1.549	31	.132	−.0753	−.1745	.0239
STDR	3.120	31	.004	.14056	.04869	.23244
LTCR	−1.146	31	.261	−.0491	−.1366	.0383

Table 28. T-Test (Regression for FCF)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	31	.03687	.205722	.036949
DER	31	.09868	.212713	.038204
LTDR	31	−.18542	.262960	.047229
STDR	31	.24732	.222811	.040018
LTCR	31	−.0273	.23532	.04226

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
DR	.998	30	.326	.03687	−.03859	.11233
DER	2.583	30	.015	.09868	.02065	.17670
LTDR	−3.926	30	.000	−.18542	−.28187	−.08896
STDR	6.180	30	.000	.24732	.16559	.32905
LTCR	−.646	30	.523	−.0273	−.1136	.0590

Table 29. T-Test (Regression for TAX)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	31	−.26187	.319021	.057298
DER	31	−.32313	.343556	.061704
LTDR	31	−.04023	.225983	.040588
STDR	31	.02594	.178806	.032114
LTCR	31	−.20561	.310457	.055760

One-Sample Test

	Test Value = 0				95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
DR	−4.570	30	.000	−.26187	−.37889	−.14485
DER	−5.237	30	.000	−.32313	−.44915	−.19711
LTDR	−.991	30	.330	−.04023	−.12312	.04267
STDR	.808	30	.426	.02594	−.03965	.09152
LTCR	−3.687	30	.001	−.20561	−.31949	−.09174

Table 30. T-Test (Regression for EBIT/SALES)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.32778	.280142	.049523
DER	32	−.27231	.289448	.051168
LTDR	32	.00319	.340534	.060198
STDR	32	−.02322	.348208	.061555
LTCR	32	2.8408	17.36709	3.07010

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2−tailed)	Mean Difference	Lower	Upper
DR	−6.619	31	.000	−.32778	−.42878	−.22678
DER	−5.322	31	.000	−.27231	−.37667	−.16796
LTDR	.053	31	.958	.00319	−.11959	.12596
STDR	−.377	31	.709	−.02322	−.14876	.10232
LTCR	.925	31	.362	2.8408	−3.4207	9.1023

Table 31. T-Test (Regression for WCR)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.52359	.141193	.024960
DER	32	−.30756	.167372	.029588
LTDR	32	−.41116	.251095	.044388
STDR	32	.28088	.190115	.033608
LTCR	32	−.42094	.204680	.036183

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
DR	−20.978	31	.000	−.52359	−.57450	−.47269
DER	−10.395	31	.000	−.30756	−.36791	−.24722
LTDR	−9.263	31	.000	−.41116	−.50169	−.32063
STDR	8.357	31	.000	.28088	.21233	.34942
LTCR	−11.634	31	.000	−.42094	−.49473	−.34714

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Table 32. T-Test (Regression for OL)

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
DR	32	−.0344	.19085	.03374
DER	32	−.04747	.207073	.036606
LTDR	32	.04462	.172760	.030540
STDR	32	−.074	.1559	.0276
LTCR	32	.01347	.192493	.034028

One-Sample Test

	Test Value = 0					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
DR	−1.019	31	.316	−.0344	−.1032	.0344
DER	−1.297	31	.204	−.04747	−.12213	.02719
LTDR	1.461	31	.154	.04462	−.01766	.10691
STDR	−2.680	31	.012	−.074	−.130	−.018
LTCR	.396	31	.695	.01347	−.05593	.08287

Table 33. Regression Model

Model	DV	MBR	WCR	EBIT/SALES	Tax	σ NOI	OL	FCF
1	DR	0.18613	-0.52359	-0.32778	-0.26187	0.00206	-0.0344	0.03687
2	DER	0.19341	-0.30756	-0.27231	-0.32313	-0.08606	-0.04747	0.09868
3	LTDR	-0.1625	-0.41116	0.00319	-0.04023	-0.0753	0.04462	-0.18542
4	STDR	0.09591	0.28088	-0.02322	0.02594	0.14056	-0.074	0.24732
5	LTCR	0.02797	-0.42094	2.8408	-0.20561	-0.0491	0.01347	-0.0273

Notes: The table reports the results of the regression models with different dependent variables. DR is the debt ratio and it is calculated by total debt divided by total assets. DER is debt-to-equity ratio and it is measured by total debt divided by total equity. LTDR is long-term debt ratio and is calculated by long-term debt divided by total debt. STDR is measured by short-term debt divided by total debt. LTCR is measured by long-term debt divided by a sum of long-term debt and equity.

It is obvious that WCR is the significant independent variable for all the dependent variables. MBR is a significant variable for the dependent variables such as DR, DER and LTDR. Standard deviation of NOI is a significant factor for STDR. FCF is a significant factor for DER, LTDR and STDR. Tax rate is a significant factor for DR, DER and LTCR. EBIT/SALES is a significant factor for DR and DER. OL is a significant factor for STDR.

Chapter 5

Conclusion and Discussion

The previous chapters introduced a review of literature and methodology, and presented statistical test results and graphical analysis. This chapter summarizes conclusion and limitation of the study.

Research Questions

1. Do any relationships exist that drive financial structure in casual themed restaurants as a strategic group?

- Do any relationships exist among financial ratios for casual themed restaurants?

The companies that have a high growth rate tend to use more short-term debt, but they do not rely on long-term debt financing. They keep a low debt ratio so that they reduce the risk considered by creditors. It is different than the result of Upneja and Dalbor (2001) in terms of the fact that there is a positive relationship between growth opportunities and long-term debt in the lodging industry. The negative relationship of market-to-book ratio with debt ratio is consistent with the result of Hovakimian, Hovakimian and Tehranian (2003).

The companies with a high profitability tend to use less total debt and rather depend on internal funds according to the pecking order theory by Myers (1984). However, long-term debt financing pattern in the casual themed restaurants showed different result. It seems that companies with a high profitability past year have ability to finance with long-term debt. Past performance is negatively related to debt ratio. It supports the pecking order theory in terms of fact that companies prefer internal funds to issuing debt.

Agency cost represented by free cash flow shows positive relation with a short-term debt

ratio. Other studies such as Tang and Jang (2007) investigated the relationship of agency cost with long-term debt ratio. They found no significant relationship between free cash flow and long-term debt in the lodging industry, but a negative relationship in software firms. High free cash flow could encourage managers to reduce financing with debt to avoid obligation for debt payment. However, this study showed that short-term debt financing is positively related to agency cost. Even though agency cost could play an important role for managers to decide financial structure, the influence of growth rate appears to be stronger factor. In addition, financing with short-term debt appears necessary in the restaurant industry since it is cash based business.

- Do any relationships exist between strategic choice and firm value?

Companies that have franchising strategy shows lower market cap compared to the ones with no franchising strategy. It implies that companies which maintain company-owned strategy are more effective in terms of monitoring each unit and potential growth opportunity. As mentioned in the study of Brickley and Dark (1986), the cost of monitoring is high when the unit is physically removed from the franchiser. Company-owned strategy turned out to be a stronger choice to achieve a high firm value in this study. Franchising is considered good source for small business expansion. However, it is better to have company-owned strategy for expansion eventually based on the result of this study.

Companies that have multiple concepts show higher market cap means compared to the ones that follow a single concept strategy. Although multiple concepts could be considered as risky factors to companies since companies have to manage different concepts and controlling and monitoring would be difficult, it is good to have diversification strategy in terms of growth according to the result.

2. Does an optimal financial structure exist for casual themed restaurants?

-Do any target ratios exist for casual themed restaurants?

From the analysis of the graphs of key ratios in chapter four, it is obvious that companies do not have a target ratio for each dependent variable. However, a company such as DRI shows consistent pattern of ratios, which means Darden is pretty good at managing the financial structure strategically. Companies such as DENN, PUBSF, Roadhouse, Shells and EACO show extreme changes in their financial ratios, which indicates that they do not strategically plan their capital structure and are eventually poorly managed overall.

Gu (1993) suggested that restaurants firms should finance with debt as little as possible. In addition, Gu recommended that restaurant firms should consider issuing new equity rather than debt to lower risk. Financing with no debt is not an optimal financial decision since debt has a tax advantage for interest payment. However, a high debt ratio indicates a high risk. Also, high debt ratio causes a low profitability. Many firms went bankrupt due to inability to pay debt interest and principal matured. Companies seem to maintain certain level of debt in the financial structure. However, the target ratio for each firm has not been specified in this study.

-To what degree do ratios vary among the target ratios?

Since the target ratio is not clearly determined, mean ratios have been chosen as a proxies for a target ratio, and the coefficient of variation has been measured for each company. The company like DRI shows lowest variation for all the ratios overall. It is hard to say that the lower the variations are, the better the firms' management are. There are some points where companies finance a lot of debt and show extreme change in their capital structure.

3. If a factor(s) does exist to determine a unique capital structure for casual dining restaurants, is the factor(s) applicable to all the restaurants regardless of type, size and concept?

Depending on the size of company, there was difference in DR, DER, LTDR and LTCR. There was no difference in STDR depending on the company size. The result here is consistent with the result of Barclay and Smith (1995). They found that large firms are able to carry a higher level of long-term debt. Dalbor and Upneja (2002) also confirmed that larger firms are able to afford the higher fixed costs related to long-term debt financing. It is also consistent with other studies such as Tang and Jang (2007) and Upneja and Darbor (2001) in terms of the fact that small companies do not have ability to generate debt. It is different than the result of Kwansa, Johnson and Olsen (1987). In this study, there was no difference in debt-to-equity ratio depending on a firm size.

Depending on the business model, there was difference in DR, DER, LTDR and LTCR between companies with franchised and company-owned. No difference existed in STDR in different business models. Gu (1993) suggested that capital structure is related to long-term financing sources and LTCR is the most relevant measure for capital structure. Companies involved in franchising usually have recognizable brand names. Franchising is considered as a good financing source especially for small firms. The result indicated that there is s difference for DR, DER, LTDR and LTCR depending on the business model. Short-term debt seems necessary for restaurants regardless of the business model.

Depending on number of concepts of companies, difference existed in DR and LTCR between companies with one single concept and multiple concepts. There was no difference in DER, LTDR and STDR. Li and Li (1996) suggested that diversification is not always a good strategy because it gives a manager too much or too little freedom for a new investment decision.

In summary, a size of company does not affect the firm's short-term debt ratio.   The business model is a factor affecting DR, DER, LTDR and LTDCR.   Number of concepts is determinant of DR and STDR in companies.

Limitation and implications for Further Research

This study has attempted to understand the relationship between strategic choice and financial structure in the casual themed restaurants. Market-to-book ratio has turned out to be the most determining factor affecting financial structure of the company. Even though many factors affect the financial structure of the firm, growth opportunity is the most influential factor as a determinant of financial structure in the casual themed restaurants.

Financing with short-term debt appears necessary in the industry. However, companies tend to show constant short-term debt level overall. Short-term debt is costly due to a high interest rates associated with this type of loan. That is why companies maintain flat level of short-term debt. Because of a possibility of default, debt investors can gain at the expense of debt shareholders. Since bankruptcy rate is very high in restaurant industry, it is expected that risk can be a determinant of the financial structure.

Restaurant industry shows a high growth and high risk of bankruptcy simultaneously. It makes restaurant industry have unique financial structure. For growth, they rely on short-term debt. However, it also causes high risk with obligation of paying short-term debt.

A major new finding of this study is the comparison of financial structure of casual themed restaurants according to the strategic group. Different ratios have been analyzed with size, business model and number of concepts.

This study is not free from limitations. This research has been directed to study the capital structure of public casual themed restaurants. However, many small private restaurants exist in the industry. It does not include many small restaurants due to data unavailability. Research needs to be done about capital structure of small, private restaurants if data is available.

Also, the change of ownership percentage and number of franchising units need to be

investigated for further detailed study depending on data availability.   It seems that there is a target level of company ownership according to the literature.   The change of company ownership in terms of business model needs to be analyzed if data becomes available.

Table 34. Major Finding Summary Table

Research Question	Do any relationships exist among financial ratios for casual themed restaurants?
Result	Growth has positive correlation with short-term debt ratio.
	Working capital needs is positively related to short-term debt ratio.
Research Question	Do any relationships exist between strategic choice and firm value?
Result	Companies that have franchising strategy show a lower mean of market cap.
	Companies that have multiple concepts show a higher mean of market cap.
Research Question	If a factor(s) does exist to determine a unique capital structure for casual dining restaurants, is the factor(s) applicable to all the restaurants regardless of type, size and concept?
Proposition	No difference exists for a short-term debt ratio in large vs. small sized restaurants.
Result	Accept
Proposition	No difference exists for a short-term debt ratio in franchised vs. company-owned restaurants.
Result	Accept
Proposition	No difference exists for long-term debt capitalization ratio in franchised vs. company-owned restaurants.
Result	Reject
Proposition	No difference exists for a debt-to-equity ratio in one dominant vs. multiple brand casual dining restaurants.
Result	Accept
Proposition	No difference exists for a long-term debt ratio in one dominant vs. multiple brand casual dining restaurants.
Result	Accept
Proposition	No difference exists for a short-term debt ratio in one dominant vs. multiple brand casual dining restaurants.
Result	Accept

Reference

Arcelus, F.J. & Srinvasan, G.. Intergrating working capital decisions. *The Engineering Economist*. 39:1, (1993), pp. 1-15.

Auerbach, J. Alan. Wealth maximization and the cost of capital. *The Quarterly Journal of Economics*, Vol. 93, No.3. (Aug., 1979), pp. 433-446.

Baird, I.S. & D. Sudharsan. Strategic groups: a three mode factor analysis of some measures of financial risk. Working Paper 931, Bureau of Economic and Business Research, University of Illinois at Urbana-Champaign. (1983)

Baker, Malcolm & Wurgler, Jeffrey. Market timing and capital structure. *The Journal of Finance*. Vol. LVII, No. 1. (Apr.,2001)

Ball, Ray, Lev, Baruch & Watts, Ross. Income variation and balance sheet compositions. *Journal of Accounting Research*, Vol. 14, No. 1. (Spring, 1976), pp. 1-9.

Banerjee, Saugata, Heshmati, Almas and Wihlborg, Clas. The dynamics of capital structure. *SSE/EFI Working Paper Series in Economics and Finance* No. 333 (Sep.21, 1999).

Barclay, J. Michael & Smith, W. Clifford. The maturity structure of corporate debt. *The Journal of Finance*. Vol. 50, No.2. (Jun., 1995), pp. 609-631

Barney, Jay B. & Hoskisson, Robert E. Strategic groups: untested assertions and research proposals. *Managerial and Decision Economics*, Vol. 11, No. 3, (Jul., 1990), pp. 187-198.

Barton, Sidney L., & Gordon, Paul J. Corporate strategy and capital sturucture. *Strategic Management Journal,* Vol. 9, No. 6. (Nov. – Dec., 1988), pp. 623-632

Barton, John & Simko, Paul. The balance sheet as an earnings management constraint. *Accounting Review*, Vol. 77, (Supplement, 2002), pp. 1-27.

Berger, N. Allen & Udell, F. Gregory. The economics of small business finance: the roles of private equity and debt markets in the financial growth cycle. *Journal of Banking and Finance*, Vol. 22 (1998).

Bhandari, Laxmi Chand. Debt/equity ratio and expected common stock returns: empirical evidence. *The Journal of Finance*, Vol. 43, No. 2. (Jun., 1988), pp. 507-528.

Brickley, A. James & Dark, H. Frederick. The choice of organizational form. *Journal of Financial Economics*, Vol. 18. (1987), pp. 421

Brickely, James A, Dark, Frederick H. & Weisbach, Michael S. An agency perspective on franchising. *Financial Management*, Vol. 20, No. 1 (Spring, 1991), pp. 27-35.

Buckmaster, Dale & Jones, Scott. From balance sheet to income statement; a study of a transaction in accounting thought in the USA, 1926-1936. *Accounting, Auditing & Accountability Journal*, Vol. 10, No. 2, 1997, pp. 198-211.

Campello, Murillo. Capital structure and product markets interactions: evidence from business cycles. *Journal of Financial Economics*, Vol. 68 (2003), pp. 353-378

Carter, Richard B. & Stover, Roger D. Management ownership and firm compensation policy: Evidence from converting savings and loan associations. *Financial Management*, Vol. 20, No. 4 (Winter, 1991), pp. 80-90.

Castro, O. De Julio & Chrisman, J. James. Order of market entry, competitive strategy, and financial performance. *Journal of Business Research* 33, pp. 165-177 (1995), © Elsevier Science Inc.

Chang, Yegmin & Thomas, Howard. The impact of diversification strategy on risk-return performance. *Strategic Management Journal*, Vol. 10, No. 3. (May – Jun., 1989), pp. 271-284.

Chen, Shuping, Defond, L. Mark & Park, W. Chul. Voluntary disclosure of balance sheet information in quarterly earnings announcements. Journal of Accounting and Economics, Vol. 33. (2002). Pp. 229-251.

Cool, Karel & Schendel, Dan. Strategic group formation and performance: the case of the U.S. pharmaceutical industry, 1963-1982. *Management Science*, Vol. 33, No. 9. (Sep., 1987), pp. 1102-1124.

Cool, Karel & Dierickx, Ingemar. Rivalry, strategic groups and firm profitability. *Strategic Management Journal*, Vol. 14, No. 1. (Jan., 1993), pp. 47-59.

Combs, James G. & Castrogiovanni, Gary J. Franchisor Strategy: A Proposed Model and Empirical Test of Franchise versus Company Ownership. *Journal of Small Business Management*, Vol. 32, 1994.

Dalbor, C. Michael & Upneja, Arun. Factors affecting the long-term debt decision of restaurant firms. *Journal of Hospitality and Tourism Research*, Vol. 26, No. 4. (Nov., 2002). pp. 422-432.

Deloof, Mark. Does working capital management affect profitability of Belgian firms? *Journal of Business and Accounting*, Vol. 30 (3) & (4), (April/May, 2003), 0306-686X.

Dess, G. Gregory & Davis, S. Peter. Porter's generic strategies as determinants of strategic group membership and organizational performance. *The Academy of Management Journal*, Vol. 27, No. 3. (Sep., 1984), pp. 467-488.

Dierkens, Nathalie. Information asymmetry and equity issues. *Journal of Financial and Quantitative Analysis*, Vol. 26, No.2, (June 1991), pp.181-199.

Dittmar, Amy & Thakor, Anjan. Why do firms issue equity? *The Journal of Finance*, Vol. LXII, No. 1 (February, 2007).

Duffee, Gregory R. Balance sheet explanations for asymmetric volatility. Hass School of Business. University of California-Berkeley (May, 2002).

Elliott, W.B., Koeter-Kant, J. & Warr, R.S. Market timing and debt-equity choice *Journal of Financial Intermediation*, in press, 2007.

Fama, Eugene F. & French, Kenneth R. Taxes, financing decisions and firm value. *The Journal of Finance*, Vol. 53, No. 3. (Jun., 1998), pp. 819-843

Fama, Eugene F. & Jensen, Michael C. Separation of ownership and control. *Journal of Law and Economics*, Vol. 26, No. 2, Corporations and Private Property: a conference sponsored by the Hoover Institution. (Jun., 1983), pp. 301-325.

Fazzari, M. Steven & Peterson, C. Bruce. Working capital and fixed investment: new evidence on financing constraints. *The RAND Journal of Economics*, Vol. 24, No. 3. (Autumn, 1993), pp. 328-342.

Ferri, G. Michael & Jones, H. Wesley. Determinants of Financial Structure: A new methodological approach. *The Journal of Finance*, Vol. 34, No. 3. (Jun., 1979), pp. 631-644.

Fischer, Edwin O, Heinlkel, Robert & Zechner, Josef. Dynamic capital structure choice: theory and tests. *The Journal of Finance*, vol. 44, No. 1. (Mar., 1989), pp. 19-40.

Graham, John R. Debt and the marginal tax rate. Journal of Financial Economics, Vol. 41. (1996), pp. 41-73

Gu, Zheng. Debt use and profitability: A reality check for the restaurant industry. *Journal of Foodservice Systems*, Vol. 7. (1993), pp. 135-147

Gu, Zheng. Analyzing bankruptcy in the restaurant industry: a multiple discimirnant model. *Hospitality Management*, Vol. 21, (2002), pp. 25-42

Gu, Zheng & Kim, Hyunjoon. Determinants of restaurant systematic risk: a reexamination. *The Journal of Hospitality Financial Management*. Vol. 10, No. 1. (2002), pp

Hamlin, P. Alan & Heathfiled, F. David. Competitive management and working capital. *Managerial and Decision Economics*, Vol. 12, No. 3, (Jun., 1991), pp. 207-217.

Handler, Wendy C. Methodological issues and considerations in studying family businesses. *Family Business Review*, Vol. 2, Issue. 3, (Sep., 1989), pp. 257-276.

Harrigan, Kathryn R. An application of clustering for strategic group analysis. *Strategic Management Journal*, Vol. 6, No.1. (Jan.-Mar., 1985), pp. 55-73.

Harris, Milton & Raviv, Artur. Capital structure and the informational role of debt. *The Journal of Finance*, Vol. 45, No. 2. (Jun., 1990), pp. 321-349

Hatten, K.J., D.E. Schendel and A.C. Cooper. A strategic model of the U.S. brewing industry: 1952-1971. *Academy of Management Journal*, Vol. 21, No. 4. (1978), pp. 592-610.

Hawawini, Gabriel, C., Viallet, and Vora, Ashock. Industry influence on corporate working capital decisions. *Sloan Management Review*, Vol. 27, No. 4, (Summer, 1986), pp. 15-24.

Hayes, S.L. III, A.M. Spence and D.V. P. Marks. Competition in the investment banking industry. *Harvard University Press, Cambridge, Mass.*, 1983

Hergert, M. The incidence and implications of strategic groupings in U.S. manufacturing industries. unpublished doctoral dissertation, Harvard University, 1983

Hovakimian, Armen, Hovakinian, Gayane & Tehranian, Hassan. Determinants of target capital structure: The case of dual debt and equity issues. *Journal of financial Economics* 71 (2004) pp. 517-540.

Jensen, C. Michael & Meckling, H. William. Theory of the firm: managerial behabior, agency costs and ownership structure. *Journal of Financial Economics*, Vol. 3, No. 4, (Oct, 1976), pp. 305-360.

Jordan, Judith & Lowe, Julian & Taylor, Peter. Strategy and financial policy in UK small firms. *Journal of Finance & Accounting*, 25 (1) & (2), (January/March 1998), 0306-686X.

Joyce, Chuck & Gray, Jack. Goodbye to book value investing. *Balance Sheet*, 10,2 2002, pp. 15-16 © MCB UP Limited, 0965-7967.
  http://www.Emeraldinsight.com/0965-7967.htm

Kehoe, R. Michael. Franchising, agency problems, and the cost of capital. *Applied Economics*. Vol. 28, (1996), pp. 1485-1493.

Kim, Amy, Dalbor, C. Michael and Feinstein, Andrew Hale. An examination of cost management behavior in small restaurant firms. *Hospitality Management*, Vol. 26, (2007), pp. 435-452.

Kim, Hyunjoon & Gu, Zheng. A logistic regression analysis for predicting bankruptcy in the hospitality industry. *The Journal of Hospitality Financial Management*, Vol. 14, No. 1, (2006),

Kim, Hyunjoon & Gu, Zheng. Risk-adjusted performance: A sector analysis of restaurant firms. *Journal of Hospitality and Tourism Research*, Vol. 27, No. 2,

(May 2003), pp. 200-216

Kim, Hyunjoon, Gu, Zheng & Mattila, S. Anna. Hotel real estate investment trusts' features and beta determinants. Journal of Hospitality and Tourism Management, Vol. 26, No. 2, (May, 2002), p.138-154

Kim, W., & Sorensen, E. Evidence of the impact of agency costs of debt on corporate debt policy. *Journal of Financial and Quantitative Analysis*, Vol. 21, p.131-144

Kwansa, A. Francis, Johnson, J. Dana & Olsen, D. Michael. Determinants of financial structure in the hotel industry and implications for the teaching of financial management in the hospitality industry. *Hospitality Education and Research Journal.* (1987)

Kweon, J. Arthur. & Martin, D. John. A chance constrained goal programming model for working capital management. *The Engineering Economist*, 22:3 (Jan., 1977), pp. 153-174.

Lafontaine, Francine & Shaw, L. Kathryn. Targeting managerial control: evidence from franchising. *NBER Working Paper* No. 8416. (Aug., 2001), JEL No. L2, J4, L1, J3

Lee, Seoki. An examination of financial leverage trends in the lodging industry. *The Journal of Hospitality Financial Management*. Vol. 15, No. 1 (Nov, 2007)

Lemmon, L. Michael, Zender, F, Jaime. Debt capacity and tests of capital structure theories. Working Paper, University of Colorado (Feb, 2004).

Lewis, Pam & Thomas, Howard. The linkage between strategy, strategic groups, and performance in the U.K. retail grocery industry. *Strategic Management Journal*, Vol. 11, No.5. (Sep., 1990), pp. 385-397

Li, D. David & Li, Shan. A theory of corporate scope and financial structure. *The Journal of Finance*. Vol. LI, No 2 (June, 1996), pp. 691-709.

Lowe, Julian, Naughton, Tony and Taylor, Peter. The impact of corporate strategy on the capital structure of Australian Companies. *Managerial and Decision Economics*, Vol. 15, No. 3. (May – Jun., 1994), pp. 245-257.

Mackay, Peter & Phillips, Gordon M. How does industry affect firm financial structure. *The Review of Financial Studies*, Vol. 18, No. 18 (2005)

Mackie-Mason, K. Jeffrey. Do taxes affect corporate financing decisions. *The Journal of Finance*, Vol. 45, No. 5. (Dec., 1990), pp. 1471-1493

Marsh, Paul. The choice between equity and debt: an empirical study. *The Journal of Finance*, Vol. 37, No. 1. (Mar., 1982), pp. 121-144

Mascarenhas, Briance. Strategic group dynamics. *The Academy of*

Management Journal. Vol. 32, No. 2. (Jun., 1989), pp. 333-352

McGee, John & Thomas, Howard. Strategic groups: theory, research and taxonomy. *Strategic Management Journal*, Vol. 7, No. 2. (Mar.-Apr., 1986), pp. 141-160.

Miller, H. Merton. Debt and taxes. *The Journal of Finance*, Vol. 32, No. 2. (May, 1977), pp. 261-275.

Mintzberg, Henry & Waters, A. James. Tracking strategy in an entrepreneurial company. *The Academy of Management Journal*, Vol. 25, No. 3. (Sep., 1982), pp. 465-499.

Morck, Randall, Shleifer, Andrei & Vishny, W. Robert. Management ownership and market valuation. *Journal of Financial Economics*, Vol. 20. (1988), pp. 293-315.

Myers, Stewart C. Capital structure puzzle. *The Journal of Finance*, Vol. 39, No. 3, Papers and Proceedings, Forty-Second Annual Meeting, American Finance Association, San Francisco, CA, December 28-30, 1983. (Jul., 1984), pp. 575-592.

Myers, C. Stewart. Capital structure. *The Journal of Economic Perspective*, Vol. 15, No.2. (Spring, 2001), pp. 81-102.

Myers, C. Stewart. Financing of corporations. *Handbook of the Economics of Finance* (Aug, 2002).

Myers, C. Stewart & Majulf, S. Nicolas. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, Vol. 13. (1984), pp. 187-221.

Newman, Howard. Strategic groups and the structure-performance relationship. *The Review of Economics and Statistics*, Vol. 60, No. 3. (Aug., 1978), pp. 417-427.

Olsen, D. Michael. *Strategic management in the hospitality industry.* 3rd Edition. (2008)

Osterwalder, Alexander, Pigneur, Yves & Tucci, Christopher. Clarifying business models: origins, present and future of the concept. *Communications of AIS*, Vol. 16, Article 1, (July, 2005)

Phillips, A. Paul & Sipahioglu, A. Mehment. Performance implications of capital structure: evidence from quoted UK organizations with hotel interests, *The Services Industries Journal*, 24:5. (Sep., 2004). pp. 31-51.

Primeaux, Walter, J. Jr. A method for determining strategic groups and life cycle stages of an industry, in H. Thomas and D.M. Gardener (eds), *Strategic Marketing and Management,* John Wiley, Chichester, 1985.

Ramanujam, Vasudevan & Varadarajin, P. Research on corporate diversification: A synthesis. *Strategic Management Journal*, Vol. 10, No. 6. (Nov-Dec., 1989). pp. 523-551.

Reger, Rhonda K. & Huff, Anne Sigismund. Strategic groups: a cognitive perspective. *Strategic Management Journal*, Vol. 14, No. 2. (Fed., 1993). pp. 103-123.

Ryans, A.B.& D. R. Wittink. Security returns as a basis for estimating the competive structure in an industry. *Strategic Management Journal*, 3(4), (Oct/Dec.,1982), pp. 359-369.

Sandberg, M. Carl, Lewellen, G. Wilbur and Stanley, L. Kenneth. Financial strategy: planning and managing the corporate leverage position. *Strategic Management Journal*, Vol. 8, No. 1. (Jan.-Feb. , 1987), pp. 15-24.

Shin, Hyun-Han & Soenen, Luc. Efficiency of working capital management and corporate profitability. *Financial Practice and Education*, Vol. 8. (1998), pp. 37-45.

Sheel, Atul. Determinants of capital structure choice and empirics on leverage behavior: a comparative analysis of hotel and manufacturing firms. *Hospitality Research Journal,* Vol. 17, No. 3. (1994), pp. 3-14

Smith, W. Clifford & Watts, L. Ross. Incentive and tax effects of executive compensation plans. *Australian Journal of Management.* Vol. 7, No. 2, (Dec., 1982), pp. 139-157

Stowe, D. John, Watson, G. Collin & Robertson, D. Terry. Relationships between the two sides of the balance sheet: a canonical correlation analysis. *The Journal of Finance*, Vol. 35, No. 4. (Sep., 1980), pp. 973-980.

Taggart, A. Robert Jr. A model of corporate financing decisions. *The Journal of Finance*, Vol. 32, No. 5. (Dec., 1977), pp. 1467-1484.

Tang, Chun-Hung & Jang, SooCheong. Revisit to the determinants of capital structure: a comparison between lodging firms and software firms. *Hospitality Management.* Vol. 26. (2007), pp. 175-187

Titman, Sheridan & Wessels, Roberto. The determinants of capital structure choice. *The Journal of Finance*, Vol. 43, No. 1. (Mar., 1988), pp. 1-19.

Toy, Norman, Stonehill, Arthur, Remmers, Lee, Wright, Richard & Beekhuisen, Theo. A comparative international study of growth, profitability and risk as determinants of corporate debt ratios in the manufacturing sector. *The Journal of Finance and quantitative Analysis*, Vol. 9, No. 5., Proceedings. (Nov., 1974) pp. 875-886.

Upneja, Arun & Dalbor, C. Michael. An examination of leasing policy, tax rates, and financial stability in the restaurant industry. *Journal of Hospitality and Tourism Research*, Vol. 23, No.1. (Feb., 1999), pp. 85-99.

Upneja, Arun & Dalbor, C. Michael. An examination of capital structure in the restaurant industry. *International Journal of Contemporary Hospitality Management.* Vol.13, No. 2. (2001), pp. 54-59

Villamil, P. Anne. The Modigliani-Miller Theorem. *The New Palgrave Dictionary of Economics.* pp. 1-7

Wald. John K. How firm characteristics affect capital structure: an international comparison. *Journal of Financial Research.* Vol. 22, No. 2. (1999). pp. 161.

Wippern, F.Ronald. Financial structure and the value of the firm. *The Journal of Finance,* Vol. 21, No. 4. (Dec.,1966), pp. 615-633.

http://en.wikipedia.org/wiki/Modigliani-Miller_theorem
http://www.quickmba.com/strategy/generic.shtml
http://en.wikipedia.org/wiki/Business_model

Appendix A.

Firm Value (Concept)

Means

Case Processing Summary

	Cases						
	Included		Excluded		Total		
	N	Percent	N	Percent	N	Percent	
MVEQ * conceptr	124	96.875	4	3.125	128	100	

Report

MVEQ

conceptr	Mean	N	Std. Deviation
1	457.9322244	63	626.7955
2	1279.533596	61	1587.418509
Total	862.1070926	124	1263.857846

Means

Case Processing Summary

	Cases						
	Included		Excluded		Total		
	N	Percent	N	Percent	N	Percent	
LN MVEQ * conceptr	111	86.71875	17	13.28125	128	100	

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LN MVEQ

conceptr	Mean	N	Std. Deviation
1	4.999018299	57	1.924128694
2	6.449817945	54	1.583355883
Total	5.704812722	111	1.903501816

Appendix B

Financial Ratios (Concept)

Means

Case Processing Summary

| | Cases | | | | | |
| | Included | | Excluded | | Total | |
	N	Percent	N	Percent	N	Percent
Debt ratio * mveqr	113	88.28125	15	11.71875	128	100
DE ratio * mveqr	113	88.28125	15	11.71875	128	100
LTD ratio * mveqr	113	88.28125	15	11.71875	128	100
STD ratio * mveqr	113	88.28125	15	11.71875	128	100
LT cap * mveqr	113	88.28125	15	11.71875	128	100
WC ratio * mveqr	112	87.5	16	12.5	128	100

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Report

mveqr			Debt ratio	DE ratio	LTD ratio	STD ratio	LT cap	WC ratio
1	Mean		0.554089519	1.433144854	0.280219624	0.448275612	0.298726222	0.654190324
	N		44	44	44	44	44	43
	Std. Deviation		0.307541988	2.002886719	0.2595173	0.206708074	0.410791844	0.332081787
2	Mean		0.508379746	0.654560202	0.381582421	0.39005118	0.366981466	0.718088488
	N		53	53	53	53	53	53
	Std. Deviation		0.324104114	1.359552002	0.246200038	0.185673541	0.497890069	0.359917083
3	Mean		0.473659857	0.977186746	0.272539754	0.48964096	0.210632622	0.709888829
	N		16	16	16	16	16	16
	Std. Deviation		0.11013406	0.400454876	0.104349118	0.085411235	0.104676238	0.416513659
Total	Mean		0.521262151	1.003407542	0.326674052	0.426823848	0.318266314	0.692384778
	N		113	113	113	113	113	112
	Std. Deviation		0.295859824	1.596884946	0.241145554	0.186472765	0.429275314	0.356063146

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Appendix C. Financial Ratios (Business Model)

Means

Case Processing Summary

| | Cases | | | | | |
| | Included | | Excluded | | Total | |
	N	Percent	N	Percent	N	Percent
Debt ratio * bizmr	113	88.28125	15	11.71875	128	100
DE ratio * bizmr	113	88.28125	15	11.71875	128	100
LTD ratio * bizmr	113	88.28125	15	11.71875	128	100
STD ratio * bizmr	113	88.28125	15	11.71875	128	100
LT cap * bizmr	113	88.28125	15	11.71875	128	100
WC ratio * bizmr	112	87.5	16	12.5	128	100

Means

Case Processing Summary

| | Cases | | | | | |
| | Included | | Excluded | | Total | |
	N	Percent	N	Percent	N	Percent
LN MVEQ * bizmr	114	89.0625	14	10.9375	128	100

Report

LN MVEQ			
bizmr	Mean	N	Std. Deviation
1	5.509324292	66	1.985456515
2	5.73222069	48	1.981644066
Total	5.603175407	114	1.978150611

Means

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
MVEQ　* bizmr	127	99.21875	1	0.78125	128	100

Report

MVEQ

bizmr	Mean	N	Std. Deviation
1	742.6664138	72	975.9815573
2	971.7884337	55	1547.699582
Total	841.8924854	127	1255.519392