How to outperform your competitors in troubled economic times- Evidence from the restaurant industry

Nan Hua
*University of Central Florida, nhua@mail.ucf.edu*

Elizabeth A. Lebruto
*University of Central Florida, Elizabeth.Yost@ucf.edu*
INTRODUCTION

The credit crisis and ensuing recession promise to plague the economy for the rest of 2008 and 2009 (Allen, 2008; Mealey, 2008). With consumers having much less disposable income, America’s consumer-based economy is in a shopping slumber. Recent news reports indicate that the United States restaurant industry is bearing the brunt of the economic downturn (Allen, 2008). The restaurant industry often feels the effects of an economic recession early. According to Technomic, a leading food service and consulting firm, the restaurant industry serves as a leading indicator of economic conditions.

Functioning in a complex business environment, restaurants suffer some of the highest failure rates among business start-ups, mostly because of the nature of restaurant ownership and management. The industry tends to appeal to people who want to start their own businesses. Its heritage is built on entrepreneurs—including Ray Kroc (McDonald’s), Colonel Harland Sanders (Kentucky Fried Chicken), Thomas Monahan (Domino’s Pizza), and David Thomas (Wendy’s) (Camillo et al., 2008). The successes of individuals such as these, the relatively low entry barriers, and people’s love of food tend to draw entrepreneurs into what is arguably one of the most demanding and difficult of businesses to run (Camillo et al., 2008).

Compared to the first quarter of 2006, consumer restaurant’s visits had fallen by approximately 10% during the first quarter of 2008. This is a stunning
reversal for an industry that has enjoyed largely consistent growth over the past 30 years (Allen, 2008). A decline in consumer restaurant visits has led to sluggish sales and difficulty in paying bills. Industry reports acknowledge that the primary reason for the decline in consumer restaurant visits is inflation, as seventy per cent of those attempting to cut back are saving money by going out to eat less, rather than by choosing cheaper entrees, avoiding desserts or dining at less expensive restaurants (Ferre, 2008). In addition, rising gas and food prices, home foreclosures and recession have caused many Americans to curb out-to-eat spending (Ferre, 2008). According to Jerry W. Thomas, President/CEO of Decision Analyst, the rising cost of gasoline, electricity, medical services, foods, etc. has sapped the consumer’s purchasing power (Allen, 2008). Staying in can reduce costs significantly when the price of casual and fine dining is considered.

These tough economic times have resulted in flat overall restaurant sales revenue, with no upward trend evident (Allen, 2008). This no-growth sales revenue trend is consistent with the measured decline in average number of visits. To compensate for the decline in visits, restaurants try to mask the effects of decreased demand by raising menu prices to capture more revenue (Farkas, 2008). Still, lower prices can drive traffic counts. To date, several large chains are bundling meals to add value while avoiding the semblance of discounting. For example, Chili’s Sizzle & Spice deal lets customers pick two entrees and two sides from a long list of menu items for about $15 per person, substantially less
than if they ordered the items separately (Farkas, 2008). When times are tough, consumers have less discretionary income, and are therefore more sensitive to increases in restaurant menu prices. The cycle continues in this downward spiral, and restaurant firms need to find ways to increase demand and sales growth. Despite tough economic times, certain restaurant firms are finding ways to outperform others and maintain profitability. Less expensive dining establishments such as Wings restaurants and casual dining establishments appeal to consumers experiencing the belt tightening effects of the economy. These types of restaurants are experiencing rapid growth. For example, Restaurant Business magazine lists Cincinnati-based Buffalo Wings & Rings as the nation’s fastest-growing chain of franchised restaurants with sales between $25 million and $50 million (“Wings restaurants soar”, 2008). Offering deals and increasing advertising intensity to entice consumers appears to also be a formula for success (Walker, 2008).

In a troubled economy, it becomes even more important for firms to understand the factors that contribute to restaurant success. Failure becomes even more commonplace in a recession, and despite the National Restaurant Association’s education programs, the industry as a whole has not done a sufficient job of institutionalizing and communicating the formulas for success to protect against and reduce the threats of failure (Camillo, et al., 2008). Therefore, this study proposes a model designed to identify what leading firms are doing to
outperform the competition in poor economic conditions. Findings from this study will reveal specific factors that contribute to firm success in troubled economic times and provide timely financial information for restaurateurs wishing to enter the industry. Moreover, this study will have important implications for restaurant firms that experience the cyclical downturn of the industry and offer guidance for financial survival.

LITERATURE REVIEW AND TEST PROCEDURE

Restaurant Industry


In the context of the restaurant industry, external environments can change rapidly and companies may not be able to change accordingly (Parsa, et. al., 2005). Many restaurants fail each year from an inability to understand, adapt to, or anticipate market trends, especially given that some market trends are more difficult to foresee than others (Parsa, et. al., 2005). Jogaratnam, Tse, and Olsen (1999) suggested that successful restaurant owners must develop strategies that enable them to continuously adapt to the changing environment and find ways to
“link with, respond to, integrate with, or exploit environmental opportunities.”

The focus of this study highlights the factors that contribute to restaurant success in order to provide guidance for survival and outperformance in economic downturns. It is imperative for restaurateurs to incorporate strategies of currently successful restaurant leaders to avoid the high possibility of failure associated with a recessionary economy.

**Defining Outperformance**

In this study, leading firms are defined as publicly traded restaurant firms that rank among the top 15% according to annual net income before extraordinary items in the restaurant industry, during periods of economic recessions that occurred in the 1974, 1980 and 1990. They are considered to outperform their competitors and the factors identified to differentiate them from their competitors are deemed key to outperformance when the economy troughs. Particularly, since the restaurant industry is cyclical by nature (Choi, 2007; Chathoth & Olson, 2007; Parsa et al., 2005), an identification of these factors could assist chain and independently owned restaurants in creating a strategy designed to promote success.

**Variables that Promote Outperformance in Economic Downturns**

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1 Our results are robust to alternative proportional sampling choices based on net income before extraordinary items.
Factors such as annual deviations in size, market share, leverage, book to market, advertising intensity, profit margin, liquidity, asset turnover and franchise utilization are considered key to restaurants’ outperformance in recessionary times based on previous research and practical effectiveness of differentiating leading firms from the others in the restaurant industry. Successful identification of leading firms would shed lights on reasons of their outperformance. In particular, annual deviations of individual firms’ financial characteristics are calculated by comparing individual firms against industry medians. Capturing the nature of outperformance, these comparisons provide direct measures of deviations of individual firms from corresponding industry median benchmarks. The choice of industry medians is due to the consideration of preventing distortions from extreme values, a common problem with utilizing arithmetic mean as a measurement tool in hospitality industry (Enz, Canina & Walsh, 2001). The median captures the most central or middle value. Since the median is based more on the size of the sample than on the numeric values, it has the benefit of being relatively free from the distortion experienced by the mean when a distribution contains extreme values (Enz, Canina & Walsh, 2001).²

Annual Size Deviation

² Our results, though, are not sensitive to the choice of median or mean as the comparison benchmark.
Annual size deviation is determined by calculating individual firms’ total assets minus industry median total assets for the same year. Large firms tend to possess more resources and better chances when utilizing the capital market (Gupta, 1969; Baum, 1996). In addition, firms may attain better performance from an increase in size due to more reasonable economies of scale, more promotional opportunities, improved efficiency in assets, capital, technology management, and other operational synergies (Mao & Gu, 2008). While there is evidence that size can positively affect performance, annual size deviations can affect firm profitability and thus serve as a critical variable that identifies a leading firm.

**Annual Marketshare Deviation**

In addition to the size effect, many firms face a situation of declining opportunities for further market penetration, due, basically, to the massive size of the firm (Hua and Upneja, 2007). For example, theoretically speaking, McDonalds has expanded to such an extent in the USA that new traditional units could invariably cannibalize sales of the existing units. Surprisingly, McDonald’s grew 6.8 percent with sales exceeding $22.8 billion for 2007 alone (McDonald’s, 2008). This probably has occurred due to the availability of a high amount of resources for McDonalds from its unit operations compared to its competition. Albeit some of the growth came from international markets. Therefore, a firm, which sees its marketshare for one year bigger than the industry median
marketshare, could expect to have more opportunities to profit and outperform.
The annual marketshare deviation, computed by individual firms’ marketshare minus the industry median marketshare, would differentiate a leading firm from its competitors, everything else being equal.

Annual Leverage Deviation

Prior evidence from finance and accounting literature generally suggests that financial leverage is a risk factor (Ely, 1995). This implies that firms with higher level of financial leverage are riskier compared to the firms with lower financial leverage. In addition, the restaurant industry is a relatively risky industry with nearly 30% of new restaurants going out of business in the first year of operations (Parsa et al., 2005; Thompson, Yoon & Parsa 2008; Kim and Gu, 2006). However, to bear higher risks, investors would demand higher returns. Therefore, highly leveraged firms, assuming everything else being the same, would face bigger cost of capital and have to be able to generate sufficient returns to satisfy their investors. The annual leverage deviation, computed as the difference between individual firms’ leverage and the industry median leverage, is utilized to capture the relative riskiness of individual firms’ capital structure and impacts of costs of capital.

Annual Book to Market Deviation

Fama and French (1992) identified that book equity to market equity (BM) captures much of the cross-section of average stock returns. Since then BM has
been widely used as a proxy for risk, it can be stated that a high BM signals persistent poor earnings and a low BM signals strong earnings (Fama and French, 1995). Consequently, an annual BM deviation is calculated by individual firms’ BM minus the industry median BM to capture the impact of relative earnings’ signals on restaurant firms.

*Annual advertising Intensity Deviation*

Kotler, Bowens & Makens (1996) indicated that a firm’s investment in advertising could significantly improve net income through promotional events, enticement of repeat customers and strong customer relational bonds. Advertising expense to target groups establishes customer relationship marketing which benefits a firm through the continuing patronage of loyal customers who display decreased price sensitivity over time. It can be stated that an increase in marketing dollars for advertising provides stronger net income through increased customer growth. Therefore, annual advertising intensity deviation, computed as the difference between individual firms’ advertising intensity and the median industry advertising intensity, can be used to differentiate a leading firm from the rest.

*Annual liquidity Deviation*

Liquidity measures a restaurant firm’s ability to meet its short-term obligations (Kim & Gu, 2006). Moyer and Chatfield (1983) proposed a negative effect of liquidity on bankruptcy because high liquidity indicates a low level of
short-term obligations and implies low default risk. However, too much liquidity could hurt profitability because excess idle current assets increase opportunity costs. Therefore, we need to control for the extent of liquidity by computing annual liquidity deviation as the difference between individual firms’ liquidity and the median industry liquidity.

Annual Asset Turnover Deviation

Operating efficiency ratios measure a firm’s ability to use its resources to generate sales revenue. Logue and Merville (1972) suggested that firms with high operating efficiency tend to generate high profits and therefore have a lower chance of business failure. Total assets turnover is used to indicate the efficiency of using assets to generate revenue (Schmidgall, 2006). Therefore, annual asset turnover deviation is computed as the difference of individual firms’ asset turnover and the median industry asset turnover to capture the impact of asset utilization efficiency.

Annual Profit Margin Deviation

To understand impacts of the relative efficiency of firms’ ability to convert revenue to profit, the annual profit margin deviation, calculated as the difference between individual firms’ profit margin and the median industry profit margin, is utilized as a proxy. As annual profit margin deviation increases, a firm is more likely to outperform its competitors as it converts revenue more efficiently to profit and has more resources available for different revenue
maximization programs. Companies with stronger income statements are more likely to continue to grow and flourish over a long time period (Jegadeesh and Titman, 1993).

Franchise

Franchising is likely to benefit small firms by enhancing their growth capabilities through infusion of capital, managerial experience, and sharing of risks (Roh, 2002). Claver-Cortes, Molina-Azorin, and Pereira-Molina (2007) suggest that franchising is highly advisable because the performance of chain establishments that franchise is stronger than that of the independent establishments. However, restaurant franchise chains engage in spatially decentralized production, distribution and marketing, which exposes the chain to varied local market conditions that require local adaptation to maximize performance that can be costly, considering uniform operating procedures cannot optimize performance across these diverse locations (Minkler, 1992; Kaufman and Eroglu, 1999). Simultaneously, chains’ competitive advantages over independently owned firms depend crucially on the benefits of the stronger brand names and more efficient operational procedures generated through applying common procedures across the firm (Norton, 1988; Jain, 1989). Consequently, costs associated with franchise can significantly burden firms’ performance in difficult times.

Test procedure
This study borrows a well-established methodology, reverse engineering, from computer science (Breuer, P. T. and Lano, K., 1991; Chikofsky, E.J., Cross, J.H., II, 1990; Forte, G., 1992). By definition, reverse engineering is the process of analyzing a subject system to identify the system’s components and their interrelationships and create representations of the system in another form or at a higher level of abstraction (Chikofsky, E.J., Cross, J.H., II, 1990). The restaurant industry can be considered as a system within which individual restaurant firms communicate and compete with each other over time. Therefore, to understand how particular restaurant firms outperform their competitors in difficult economic times, this study takes a retrospective look with a focus on leading firms, defined as those whose annual net income before extraordinary items ranked among the top 15% in the restaurant industry for the studied years, and identifies and analyzes factors that differentiate leading firms from their competitors. By modeling these factors and offering evidence of their high prediction power, we provide abstract but critical insights to researchers as well as practitioners on outperforming practices in the restaurant industry when the economy recesses. Specifically, we collect financial data for all publicly trade restaurant firms in 1974, 1980, and 1990 from COMPUSTAT, considering these years are considered economic trough years based on Choi (2007). Then we construct a logit model with a dummy dependent variable, coded as 1 if a firm is classified as a leading firm or 0 otherwise. Independent variables are selected based on
previous research and practical effectiveness of their explanatory power. We also
introduced three year dummies to control for year effects of 1974, 1980 and 1990,
with the 1974 year dummy as the base year. The logit model is chosen due to its
statistical property of being able to predict success from failure. By running the
logit model, we are able to differentiate leading firms from their competitors in
these difficult times and shine lights on leading firms’ outperforming practices.
As a result, we have (subscriptions are suppressed by ease of presentation)

\[ P(\text{Leading} = 1 | X) = \text{Logit}(\beta_0 + \sum_{n=1}^{11} \beta_n X_n) \]

(1)

where

\[ P(\text{Leading} = 1 | X) = \text{the probability of being a leading firm given } x; \]

\[ X = \text{a vector of all independent variables;} \]

\[ \text{Logit}(\cdot) \text{ is used to symbolize the logit function form;} \]

\[ \text{Leading} = 1 \text{ when a firm is ranked among the top 15\% based on net income before extraordinary income in the restaurant industry in a particular year on COMPUSTAT and 0 otherwise;} \]

\[ X_1 = \text{Annual profit margin deviation} = \text{Individual firms’ profit margin – the industry median profit margin, with profit margin calculated as net income before extraordinary income divided by revenue.} \]

\[ X_2 = \text{Annual leverage deviation} = \text{Individual firms’ leverage – the industry median leverage, with leverage calculated as total liabilities divided by total assets.} \]

\[ X_3 = \text{Annual size deviation} = \text{Individual firms’ total assets – the industry median total assets.} \]

\[ X_4 = \text{Annual liquidity deviation} = \text{Individual firms’ current ratio – the industry median current ratio, with current ratio calculated as current assets divided by current liabilities.} \]
X5 = Annual BM deviation = Individual firms’ BM – the industry median BM, with BM calculated as book value of equity divided by market value of equity, total shareholders’ equity/common shares outstanding*share price.

X6 = Annual marketshare deviation = Individual firms’ marketshare – the industry median marketshare, with marketshare calculated as individual firms’ sales divided by the industry total sales.

X7 = Annual asset turnover deviation = Individual firms’ asset turnover – the industry median asset turnover, with asset turnover calculated by sales divided by average total assets.

X8 = Annual advertising intensity deviation = Individual firms’ advertising intensity – the industry median advertising intensity, with advertising intensity calculated as advertising expense divided by total sales.

X9 = 1 if an individual firm is using franchise or zero otherwise.

X10 = 1 if an observation falls in year 1990 or zero otherwise.

X11 = 1 if an observation falls in year 1980 or zero otherwise.

RESULTS AND DISCUSSION

Summary statistics of key variables are reported in Table One. The final sample consists of 152 publicly traded restaurant firm-year observations from 1974, 1980, and 1990. Echoing Enz, Canina & Walsh (2001), it appears the arithmetic means of all deviation metrics studied in this article are generally distorted by extreme values as well; while the medians of these metrics capture the most central or middle values, relatively free from the distortion experienced by the mean when a distribution contains extreme values. All the deviation metrics studied tend to span a wide range. For example, the median annual profit margin deviation (X1) turns out to be .68% with a wide range spanning -57.53% and 13.99%, indicating the efficiency for firms to convert revenue to profit varies widely. The median annual leverage deviation (X2) is -3.86% with a range
from -51.68% to 118.62%, indicating leverage levels of restaurant firms span a wide spectrum when compared to the industry median. In addition, we observe other variables such as annual size deviation, annual liquidity deviation, annual BM deviation, annual marketshare deviation, annual asset turnover deviation and annual advertising intensity deviation, share similar wide range distribution characteristics.

Table One: Summary Statistics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Median</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_1$</td>
<td>152</td>
<td>0.0068</td>
<td>-0.0062</td>
<td>0.0777</td>
<td>-0.5753</td>
<td>0.1399</td>
</tr>
<tr>
<td>$X_2$</td>
<td>152</td>
<td>-0.0386</td>
<td>-0.0243</td>
<td>0.2382</td>
<td>-0.5168</td>
<td>1.1862</td>
</tr>
<tr>
<td>$X_3$</td>
<td>152</td>
<td>12.2690</td>
<td>203.2366</td>
<td>971.8362</td>
<td>-33.6450</td>
<td>10,632.3300</td>
</tr>
<tr>
<td>$X_4$</td>
<td>152</td>
<td>-0.0319</td>
<td>0.2987</td>
<td>1.5546</td>
<td>-1.2379</td>
<td>11.6964</td>
</tr>
<tr>
<td>$X_5$</td>
<td>152</td>
<td>0.0087</td>
<td>0.1915</td>
<td>1.3735</td>
<td>-6.4204</td>
<td>8.4371</td>
</tr>
<tr>
<td>$X_6$</td>
<td>152</td>
<td>0.0014</td>
<td>0.0105</td>
<td>0.0353</td>
<td>-0.0032</td>
<td>0.2694</td>
</tr>
<tr>
<td>$X_7$</td>
<td>152</td>
<td>-0.0045</td>
<td>0.0537</td>
<td>0.7388</td>
<td>-1.8034</td>
<td>3.1960</td>
</tr>
<tr>
<td>$X_8$</td>
<td>152</td>
<td>0.0014</td>
<td>0.0050</td>
<td>0.0245</td>
<td>-0.0282</td>
<td>0.1636</td>
</tr>
</tbody>
</table>

Note:
$X_1$ = Annual profit margin deviation = Individual firms’ profit margin – the industry median profit margin, with profit margin calculated as net income before extraordinary income divided by revenue.
$X_2$ = Annual leverage deviation = Individual firms’ leverage – the industry median leverage, with leverage calculated as total liabilities divided by total assets.
$X_3$ = Annual size deviation = Individual firms’ total assets – the industry median total assets.
$X_4$ = Annual liquidity deviation = Individual firms’ current ratio – the industry median current ratio, with current ratio calculated as current assets divided by current liabilities.
$X_5$ = Annual BM deviation = Individual firms’ BM – the industry median BM, with BM calculated as book value of equity divided by market value of equity, total shareholders’ equity/common shares outstanding*share price.
$X_6$ = Annual marketshare deviation = Individual firms’ marketshare – the industry median marketshare, with marketshare calculated as individual firms’ sales divided by the industry total sales.
$X_7$ = Annual asset turnover deviation = Individual firms’ asset turnover – the industry median asset turnover, with asset turnover calculated by sales divided by average total assets.
$X_8$ = Annual advertising intensity deviation = Individual firms’ advertising intensity – the industry median advertising intensity, with advertising intensity calculated as advertising expense divided by total sales.
Pearson correlation analysis results are provided in Table Two. In general, all key variables are reasonably correlated, and multicollinearity does not appear to pose significant problems considering no deviation metrics constructed are highly correlated with each other. Size and marketshare deviations exhibit a moderate correlation of close to 70%. However, later VIF tests do not show any sign of multicollinearity problems.

Table Two: Pearson Correlation Analysis.

<table>
<thead>
<tr>
<th>Leading</th>
<th>X1</th>
<th>X2</th>
<th>X3</th>
<th>X4</th>
<th>X5</th>
<th>X6</th>
<th>X7</th>
<th>X8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1</td>
<td>0.2073 (0.0104)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X2</td>
<td>-0.1383 (0.0894)</td>
<td>-0.3234 (0.0000)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X3</td>
<td>0.3907 (0.0000)</td>
<td>0.1362 (0.0942)</td>
<td>0.0776 (0.3423)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X4</td>
<td>-0.0371 (0.6499)</td>
<td>-0.1488 (0.0673)</td>
<td>0.3467 (0.0000)</td>
<td>0.0247 (0.7627)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X5</td>
<td>-0.1222 (0.1337)</td>
<td>-0.0001 (0.9992)</td>
<td>-0.1681 (0.0384)</td>
<td>0.012 (0.8837)</td>
<td>-0.2171 (0.0072)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X6</td>
<td>0.4067 (0.0000)</td>
<td>0.0881 (0.2804)</td>
<td>0.1256 (0.1232)</td>
<td>0.6996 (0.0000)</td>
<td>-0.0998 (0.9044)</td>
<td>0.1416 (0.0818)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>X7</td>
<td>-0.1466 (0.0716)</td>
<td>-0.1084 (0.1837)</td>
<td>0.0976 (0.2316)</td>
<td>-0.1806 (0.0260)</td>
<td>0.0601 (0.4618)</td>
<td>-0.1278 (0.1168)</td>
<td>-0.1511 (0.0632)</td>
<td>1</td>
</tr>
<tr>
<td>X8</td>
<td>0.0138 (0.8664)</td>
<td>-0.0413 (0.6137)</td>
<td>0.1256 (0.1232)</td>
<td>0.0118 (0.8849)</td>
<td>0.045 (0.5820)</td>
<td>-0.0922 (0.2586)</td>
<td>-0.0294 (0.7195)</td>
<td>-0.0617 (0.4501)</td>
</tr>
</tbody>
</table>

Note:
Leading = 1 when a firm is ranked among the top 15% based on net income before extraordinary income in the restaurant industry in a particular year on COMPUSTAT and 0 otherwise;
The logit regression analysis results from (1) are reported in Table Three. The overall model exhibits a nice fit of over 72% based on the Pseudo R-square value, implying independent variables employed significantly differentiate leading firms from the rest in the restaurant industry in 1974, 1980 and 1990. White’s error (1980) is computed to accommodate heteroscedasticity effects, if any. Benchmarking firms against the industry median offers an opportunity to understand what leading firms did in troubled economic times to differentiate themselves from the rest. Specifically, Annual profit margin deviation ($X_1$) shows a significantly positive impact on differentiating a leading firm from the rest, indicating the importance of the relative efficiency to convert revenue to profit when pursuing outperformance in difficult economic times. Annual leverage deviation ($X_2$) exhibits significantly negative impact on the dependent variable, implying the extent of leverage level adversely affect distinguishing a leading firm. This result echoes the argument that investors demand higher returns to bear higher risks; thus resulting in higher cost of capital for higher leveraged firms and in turn negatively affect these firms’ financial performance. Annual size deviation ($X_3$) does not turn out to be significant at 5% level, indicating failure of pursuing outperformance by a size growth strategy in difficult economic times. Although liquidity can be an issue if inadequate, it is not a driver for a firm to outperform in recessive times as indicated by the insignificant impact from annual liquidity deviation ($X_4$). Annual BM deviation ($X_5$) shows significantly negative impact on distinguishing a leading firm, echoing Fama and French (1995) that a high BM signals persistent poor earnings and a low BM signals strong earnings. Annual marketshare deviation ($X_6$) exhibits a significantly positive impact on differentiating leading firms from the rest, suggesting the criticality of improving market
shares to outperform competitors in difficult times. Annual assets turnover deviation (X_7) does not exhibit significance in the process of distinguishing leading firms, indicating the inadequacy of focusing on asset utilization efficiency to outperform. However, annual advertising intensity deviation (X_8) significantly differentiates leading firms from the rest, suggesting increasing advertising intensity helps a firm to outperform assuming everything else the same. Surprisingly, franchise utilization (X_9) turns out to hurt a firm’s performance, which can be caused by bearing costs of franchise and weakening of franchise brands in difficult times. Both year dummies of 1980 (X_{10}) and 1990 (X_{11}) are significantly negative relative to year 1974, indicating different year effects are controlled for.

**Table Three: Regression Analysis Results.**

| Leading | Coef.   | Robust Std. Err. | z       | P>|z| |
|---------|---------|------------------|---------|------|
| X_1     | 61.0343 | 27.9032          | 2.1900  | 0.0290 |
| X_2     | -13.3096| 5.6007           | -2.3800 | 0.0170 |
| X_3     | 0.0016  | 0.0010           | 1.6500  | 0.0990 |
| X_4     | -0.2442 | 0.2570           | -0.9500 | 0.3420 |
| X_5     | -4.4361 | 1.6081           | -2.7600 | 0.0060 |
| X_6     | 104.6188| 39.3570          | 2.6600  | 0.0080 |
| X_7     | -1.7999 | 1.3252           | -1.3600 | 0.1740 |
| X_8     | 37.4089 | 17.7340          | 2.1100  | 0.0350 |
| X_9     | -2.5259 | 0.7499           | -3.3700 | 0.0010 |
| X_{10}  | -3.5661 | 1.5141           | -2.3600 | 0.0190 |
| X_{11}  | -14.3252| 4.9298           | -2.9100 | 0.0040 |
| **Constant** | -6.3917 | 2.3253           | -2.7500 | 0.0060 |
| Pseudo R2 |      |                  |         | 0.7208 |
CONCLUSIONS AND IMPLICATIONS

This study, for the first time, provides systematic financial evidence on how restaurant firms outperform their competitors in recessionary economic times. Its results have timely and significant implications for practitioners, researchers and other parties of interest. From a practical standpoint, owners and managers should use industry medians to benchmark financial performance, focusing on factors such as annual deviations in market share, leverage, book to market, advertising intensity, and profit margin in recessionary times in order to ensure financial performance leadership among restaurant firms. Moreover, this study provides evidence of those strategies that do not work in a troughed economy. For example, blindly increasing firm size or liquidity, even resorting to franchise, does not guarantee outperformance at all in difficult economic times.

Caution, though, that the balance between short-term and long-term goals is delicate. For example, when considering acquisition during difficult economic times, we may face a trade-off between short-term financial performance and long-term sustainability, in that sense, our paper is silent. However, we stress that understanding the criticality of comprehensive considerations of all the studied metrics at the same time is the key to outperformance. The consequences of manipulating any of the metrics studied herein should be manifested and understood within the context of all metrics that can be affected before a final decision is drawn.
References


