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FINANCIAL PERFORMANCE AND INTERNATIONALIZATION IN THE U.S. RESTAURANT INDUSTRY: A SIMULTANEOUS PERSPECTIVE AND ANALYSIS

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ABSTRACT. This study examines the simultaneous relationship between financial performance (FP) and the degree of internationalization (DOI) in the restaurant industry to address the potential endogeneity bias in prior research. In previous studies, theoretical rationales and empirical results appeared to contradict each other. These inconsistencies could have resulted from a unilateral approach of analyzing firm performance and degree of internationalization. The results of this study suggest the existence of a simultaneous relationship between financial performance and the degree of internationalization.

INTRODUCTION

The internationalization of the United States hospitality industry began after World War II (Dunning & McQueen, 1982). Initiated by the rapid increase in international travel in the 1950s, U.S. hospitality organizations began to expand overseas operations in the 1960s. Economic depression and overdeveloped domestic markets between the 1970s and 1980s led U.S. hospitality corporations to become increasingly involved in hotel and restaurant operations around the world (Walker, 2003). By 2012, major U.S. publicly traded restaurant corporations have aggressively entered foreign markets. For example, McDonald's has owned and franchised more than 33,500 restaurants in 119 countries, and Burger King International invested in or managed 12,604 restaurants worldwide (Burger King, 2012). Beverage service company, Starbucks Coffee, owns or franchises 17,651 store locations in nearly 60 countries (Starbucks, 2012).

However, the economic downturn and global financial crisis in recent years have seriously impacted the hospitality industry (Protiviti, 2009). In fact, the worldwide financial crisis that began in 2007 created the greatest financial disorder since the Great Depression of the 1930s (Melvin & Taylor, 2009). The decline resulted not only from fewer customers in hotels, restaurants, and conferences, but also from lower average expenditures per guest (Pizam, 2009). Facing serious challenges from tremendous decreases in total sales and increases in operational costs, U.S. restaurant firms need to reassess their international strategies and reconsider whether there exists a significant relationship between financial performance (FP) and degree of internationalization (DOI).

In general, multinational firms apparently exploit interrelationships between different sectors, geographical regions, or industries, together with the benefits of economies of scale, scope, and experience for profit perform-

ance (Porter, 1985; Kogut, 1985). In the current volatile economic environment, it becomes even more crucial to test this relationship in the context of multinational restaurant firms, because internationalization is evidently considered their prime strategy. This approach is very similar to that of other types of firms that strive to achieve sustainable growth and maximum returns (Annavarjula & Beldona, 2000).

Furthermore, although extensive research has been conducted to examine internationalization and firm performance during the past several decades, conflicting results existed (Glaum & Oesterle, 2007). Some researchers believe the conflicts are primarily caused by a lacking unified conceptualization of internationalization, whereas others believe conceptualization and operationalization of internationalization and FP cause the conflict (Annavarjula & Blendona, 2000; Glaum & Oesterle, 2007). Still others believe that differing implications from measurements of dependent and independent variables, or control variables or moderators, such as firm size, firm age, country of origin, R&D intensity, and product diversification, are the sources of conflicting results (Bausch & Krist, 2007; Hsu & Boggs, 2003; Kudina, Rugman, & Yip, 2009). Similarly, the existing studies in hospitality research also show varying and less consistent relationships between internationalization and firm performance.

Prior research of internationalization conducted in the hospitality industry, although making significant progress in further understanding the relationship between FP and DOI (Hua & Upneja, 2007, 2011; Lee, 2008; Lee & Jang, 2007; Tseng, Tansuhaj, Hallagan, & McCullough, 2007), has largely employed a unilateral approach by either focusing on the impact of DOI on FP (e.g., Lee, 2008; Lee & Jang, 2007) or the impact of FP on DOI (Sun & Lee, 2012). All of these previous research studies generally acknowledge that DOI and FP are mutually dependent. However, so far, no attempt has been made to specify and estimate a simultaneous equations model to analyze the strength of this interdependence. Prior studies have largely relied on single-equation models of internationalization strategy and firm performance that often focused on only one dimension (e.

g., DOI or FP) without correcting for the endogeneity of these. Hamilton and Nickerson (2003, p. 52) note, this is a serious omission in prior studies because "the failure to statistically correct for endogeneity can lead not only to biased coefficient estimates but, more importantly to faulty conclusions about theoretical propositions." This study uses simultaneous equations to address the endogeneity bias in prior work that arises from the simultaneity or "reverse causality" between DOI and FP of firms, specifically restaurant firms.

Very few studies in the area of hospitality industry have utilized the simultaneous equations approach. A recent study utilizing this approach is by Jang and Tang (2009), who focused on the reciprocal relationship between international diversification and financial leverage of the restaurant firms. However, none of the prior studies focused on the reciprocal relationship between DOI and the restaurant firms' FP. Hence, this interlinking relationship between requires further analysis. Therefore, with this study we aim to fill the research gap in the literature by examining the simultaneous effects of U.S. restaurant firms' DOI and FP.

Within a simultaneous system, this study addresses the following important research questions:

1. Does there exist a simultaneous relationship between internationalization and FP in the restaurant industry?
2. What major factors influence the relationship between internationalization and FP?

A firm can gain certain advantages by internationalization. It can rapidly accumulate strategic assets at lower costs by exchanging the core competencies among the operating units (Markides, 1995). This further translates into long-term competitive advantage of these firms (Stimpert & Duhaime, 1997). In addition, these firms can alleviate the risk of failure in one geographical market with cash flows generated in other stable markets (Martin & Sayrak, 2003). Thus, this study attempts to provide the ownership and

management of these firms with insights and an understanding of the relationship between internationalization and U.S. restaurant firms' performance. The outcomes of the study will possibly help these major stakeholders in strategic future decision-making.

LITERATURE REVIEW

The origins of contemporary study of firm internationalization trace to as early as the 1960s (Glaum & Oesterle, 2007). International businesses have a number of identities: transnational corporations, multinational corporations or enterprises, and international corporations. Previous studies identify internationalization as trans-nationality, multinationality, international diversification, or globalization. Some studies also refer to internationalization as globalization. Although no uniform definition for internationalization exists in economic studies, the general definition of internationalization is that it is a process of increasing activities of enterprises in international markets. In this study, the term "internationalization" represents the degree of international involvement of U.S. restaurant corporations.

Because internationalization has been an important strategy for business management, the study of the relationship between internationalization and firm performance became an intensely researched topic in international management (Annavarjula & Beldona, 2000), with most frequently researched topics such as internationalization, foreign direct investment (FDI), and entry mode (Canabal & White, 2008). However, despite abundant resources and effort invested, the findings of previous research into the relationship between internationalization and firm performance remain inconclusive and controversial (Glaum & Oesterle, 2007).

Some researchers believe that the conflicting results are mainly the result of differing conceptualization and operationalization (Annavarjula & Beldonna, 2000). In fact, the important economic theories used for studies of internationalization mainly include market imperfection (Hymer, 1976), internationalization (Johanson & Vahlne, 1977), theories of transac-

tional costs (Hennart, 1989; Williamson, 1979), FDI (Hymer, 1976), and eclectic paradigms (Dunning, 1985). The important behavioral economic theories used for internationalization mainly include the theory of growth of firms (Penrose, 1959), the Uppsala process theory (Johanson & Vahlne, 1977) and the prospect theory (Kahneman & Tversky, 1979).

According to Annavarjula and Beldona (2000), previous studies of relationships between internationalization and firm performance had foundation in a resource-based perspective, perspective of the power of markets, and perspectives for diversified portfolios. According to Jang and Tang (2009), the studies of the relationship between internationalization and firm performance can have a basis in behavioral prospect theory. Because of the complicated interrelationships among these theories, the current study groups these theories according to their differing perspectives (see Figure 1).

Resource-Based Perspective

The resource-based view indicates that the competitive advantages of firms lie in the application of valuable resources at a firm's disposal (Wernerfelt, 1984; Penrose, 1959). Some researchers believe that the heterogenic resources of firms are the main drivers of businesses' competitive advantages, and the utilization of the qualities of tangible or intangible resources greatly influence a firm's performance (Hymer, 1976; Knickerbocker, 1973).

Previous research classified "resources" into physical, intangible, and financial resources (Chatterjee & Wernerfelt, 1988), with the general agreement that these are the driving forces for diversification, whereas market opportunities have less importance (Anderson & Kheam, 1998). In the other words, firms direct strategies based on amassed resources (Barney, 1991) and international strategies represent firm-specific attributes rather than general market structures (Tallman, 1991).

Based on theories of firms' growth (Penrose, 1959), Johanson and Vahlne (1977, 1990) developed the model for Uppsala internationalization process, which indicates that knowledge

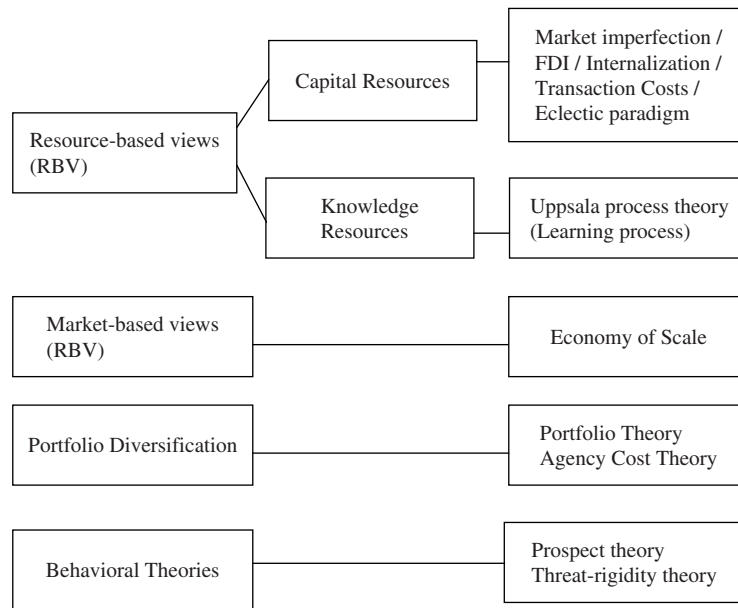


FIGURE 1. Major theories used in previous studies of internationalization.

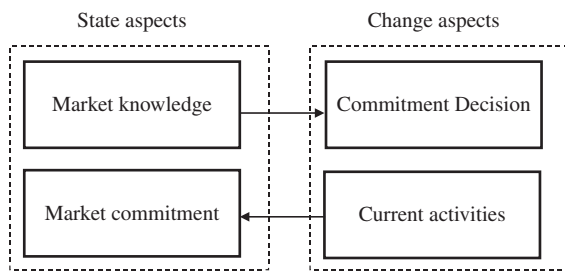


FIGURE 2. Firm's process of internationalization. Note. Adapted from "The Mechanism of Internationalization," by Johanson and Vahlne (1990) *International Market Review*, 7, p.12.

and learning strongly impact firms' investment decisions in international markets. According to Johanson and Vahlne (1977, 1990), the state aspect of market knowledge can affect the change aspect of commitment decision, and the change of current activities can affect the state aspect of market commitment (see Figure 2). In other words, not only can changes of a firm's resources alter the firm's current commitment to internationalization, but changes to the firm's current activities can affect commitment to the market in the future (Anderson & Kheam, 1998).

However, although some researchers agree that commitment to the current market and

familiarity with foreign markets and operations impact firms' decisions to commit (Andersen & Kheam, 1998), others argue that the Uppsala process model indicates something important about the early stage of internationalization only and fails to explain the later stage when a lack of resources and familiarity are no longer impediments (Forsgren, 2002). In addition, some studies indicated that the Uppsala process model was invalid for service industries (Engwall & Wallenstam, 1988), further limiting its usefulness. Nordstrom (1990) believed that the learning process is unimportant for decisions to internationalize, because modern technologies and shared information diminish the physical distance between home country and foreign markets.

Market Power Perspective

The foundation of the market power perspective is the theory of imperfect markets, economies of scale, and later theories of foreign direct investment. The imperfect market theory indicates that imperfect market of goods and competition due to economic scale and government intervention, leads firms to foreign direct investment (Hymer, 1960). Thus, some researchers believe that market imperfections enable firms

to enter foreign markets and profitably exploit them (Hamel & Prahalad, 1985).

Based on market imperfection theory, further economic theories for studies of internationalization were derived. Theories of internalization suggest that firms' growth results from focusing on core competence, combined competitive advantage, and opportunities in foreign markets (Buckley & Casson, 1976). Theories of transactional costs propose firms' need to create governance structures to reduce costs and inefficiencies associated with entering and operating in foreign markets. Transactions occur within a firm if the transactional costs in the market exceed internal costs (Williamson, 1985; Hennart, 1989).

From both internalization and transactional cost theories, Dunning (1985) proposed an eclectic paradigm suggesting that firms invest in foreign markets to seek efficiency through reducing costs and increasing access to materials or markets. Apparently, firms with advantages from valuable transaction-based ownership could reap profits from internationalization (Dunning, 1993). Thus, a reasonable assumption is that internationalization can improve FP by exploiting imperfect markets and reducing costs.

However, some researchers believe that the key motivation to internationalization is to access markets rather than save costs (Bausch & Krist, 2007). Thus, a reasonable assumption is that DOI does not impact FP, and vice versa. Hennart (2007) proposed that competitive advantage tends to diminish over time, leading to an erosion of profits. From this point of view, a firm's performance can decrease from the disadvantages of increased costs and increased risks associated with foreign operations; as a result, internationalization could negatively impact the FP.

In general, based on the perspective of the power of markets, internationalization can impact FP from changes to the size of markets rather than the resources of firms.

Portfolio Diversification Perspective

Portfolio diversification theories suggest that firms engaging in internationalization primarily use international diversification as an incentive to seek optimal risk and return balance.

Markowitz (1952) introduced the theory of the modern portfolio to explain that firms maximize portfolios' expected returns for a given amount of risk by carefully choosing the proportions of various assets. Later researchers stated that efficiency of internal capital could benefit from international diversification (Palich, Cardinal, & Miller, 2000), because internal capital can mitigate product failure and can support risky ventures by using cash generated from more profitable divisions (Martin & Sayrak, 2003).

Based on the theories for diversified portfolios, researchers found that internationally diversified firms achieved higher returns and lower systematic risks compared to domestic firms (Hughes, Logue, & Sweeney, 1975). Other researchers suggested that international diversification positively impacts investors' responses to stock market value, and the market positively responds to the value of internationalization (Lee & Jang, 2007). Hua and Upneja (2011) found that investors rewarded restaurant firms that expanded internationally with an increased market capitalization. Lee and Xiao (2011) confirmed a positive relationship between internationalization and the value of a firm's equity.

However, the theory of agency cost argues that the more complex a firm is, the more difficult shareholders' influence on management becomes, and the more managers tend to favor internationalization to reduce firm-specific risks or to add to their personal prestige. Denis, Denis, and Sarin (1997) found that the level of diversification negatively relates to managerial equity, ownership, and outside shareholders; and a decrease of diversification associates with threats to corporate control, financial distress, and turnover in management. Thus, the expectation is that if corporate agents intend to maintain value-reducing diversification strategies and increase the level of diversification in order to maintain control of the firm, then maximizing profitability for shareholders is at risk.

Behavioral Theories

Taking a completely different approach, Jung and Bansal (2009) examined the impact of

firm performance on internationalization from a behavioral perspective. The prospect theory suggests that people's decisions arise from the potential value of losses and gains rather than the outcome, and that people evaluate losses and gains using interesting heuristics (Kahneman & Tversky, 1979). Thus, the suggestion is that a firm's performance negatively associates with risk-taking behaviors. In other words, when a firm achieves satisfactory financial goals, management is less willing to engage in risky behavior, such as seeking major strategic changes and investing in foreign markets (Ketchen & Palmer, 1999). However, if a firm fails to meet targeted performance, management will seek new or riskier strategies to recover losses (Kahneman & Tversky, 1979).

Some studies, relying on this theory, found evidence that more profitable organizations were the less likely to engage in risky activities such as acquisitions, litigation exposure, or new ventures (Fiegenbaum & Thomas, 1988). When a firm exceeded targeted performance, decision-makers most likely chose conservative strategies to avoid risks and maintain gains (Sitkin & Pablo, 1992). Other studies indicated that as a firm failed to meet targeted performance, worse performance led to increasingly risky ventures (Singh, 1986; Sitkin & Pablo, 1992). In fact, business managers often attempted to recover losses by accepting increasing levels of risk as losses escalated (Kahneman & Tversky, 1979).

On the other hand, the threat-rigidity effect suggests that worsening performance engenders accepting less risk (Audia & Greve, 2006). Empirical studies illustrated that managers perceive poor performance as a threat and are less likely to choose risky strategies (Staw, Lance, Dutton, Cummings, Martin, & Mill, 1981; Ketchen & Palmer, 1999; Palmer & Wiseman, 1999).

DOI-PERFORMANCE RELATIONSHIPS

Previous empirical studies yielded conflicting results from the various theories and perspectives (see Table 1). The initial finding of the DOI–performance relationship is a

positive linear relationship (Vernon, 1971). Some scholars confirmed the result (Kim & Lyn, 1987; Errunza & Senbet, 1981; Grant, 1987; Grant, Jammie, & Thomas, 1988), whereas other scholars argued that the relationship is, in fact, negatively linear (Siddharthan & Lall, 1982; Michel & Shaked, 1986; Collins, 1990) or no relationship exists at all (Buckley, Dunning, & Pearce, 1977, 1984; Morck & Yeung, 1989).

Recently, many researchers found U-shaped curvilinear relationships (Qian, 1997; Ruigrok & Wagner, 2003), inverted U-shaped relationships (Daniels & Bracker, 1989; Geringer, Beamish, & Costa, 1989; Sullivan, 1994a, 1994b; Hitt, Hoskisson, & Kim, 1997; Al-Obaidan & Scully, 1995; Gomes & Ramaswamy, 1999) or sigmoid-shaped relationships (Contractor, Kundu, & Hsu 2003; Thomas & Eden, 2004; Chang, 2007; Kudina et al., 2009). The three-stage S-shaped relationship gained acceptance as the “general mode” for the relationship between the DOI and a firm's performance (Glaum & Oesterle, 2007).

However, although the conflicting results of the studies mainly arise from differing implications of conceptualizations of DOI and FP, the cause of the conflict arises from differing uses of measurement for dependent, independent, and control variables in empirical tests. In fact, the majority of previous studies used FP as a dependent variable and DOI as an independent variable (Vernon, 1971; Dunning, 1985; Grant, 1987; Buckley et al., 1984; Sullivan, 1994a, 1994b; Ramaswamy, 1995; Gomes & Ramaswamy, 1999; Capar & Kotabe, 2003; Contractor et al., 2003; Thomas & Eden, 2004; Chang, 2007; Kudina et al., 2009; Jang & Tang, 2009; Lee & Xiao, 2011; Banalieva & Sarathy, 2011), but only a few used DOI as a dependent variable and FP as an independent variable (Hsu & Pereira, 2006; Tseng et al., 2007; Jang & Tang, 2009).

INTERNATIONALIZATION OF HOSPITALITY INDUSTRY

Although abundant studies considered DOI and FP of firms, in general, a few focused on the hospitality industry. In fact, arguably, market

TABLE 1. Different Main Variables and Findings in Previous Studies

Author(s) and Year	Dependent Variables	Independent Variables	Relationships
Vernon (1971)	ROI, ROS	FSTS	Positive Linear
Hughes et al. (1975)	ROE, Beta	FSTS	Positive Linear
Errunza and Senbet (1981)	Excess Return		Positive Linear
Dunning (1985)	ROS	OPR	Positive Linear
Kim and Lyn (1987)	ROI, ROS		Positive Linear
Grant (1987)	ROA, ROE, ROS		Positive Linear
Grant et al. (1988)	ROA, ROE, ROS		Positive Linear
Jung (1991)	After-tax NI, PM		Positive Linear
Johanson and Vahlne (1977)	Risk-adjusted Return	FSTS	Negative Linear
Brewer (1981)	Stock Return		Negative Linear
Kumar (1984)	ROA, ROS	OPR	Negative Linear
Michel and Shaked (1986)	Risk-adjusted Return		Negative Linear
Collins (1990)	Total Risk, D/E, Beta		Negative Linear
Buckley et al. (1977, 1984)	ROA		No Relationship
Morck and Yeung (1991)	Market Value		No Relationship
Qian (1997)	ROE		U-Shaped
Ruigrok and Wagner (2003)	ROA	FSTS	U-Shaped
Capar and Kotabe (2003)	ROS	FSTS	U-Shaped
Daniels and Bracker (1989)	ROA, ROS	FSTS, FATA	Inverted U
Geringer et al. (1989)	ROA, ROS	FSTS	Inverted U
Sullivan (1994a)	ROA, ROS	Multi-Index	Inverted U
Sullivan (1994b)	ROA, ROS		Inverted U
Hitt et al. (1994)	ROA, ROS		Inverted U
Ramaswamy (1995)	ROA, ROS, ROVA		Inverted U
Al-Obaidan and Scully (1995)	FPF, VTE		Inverted U
Hitt et al. (1997)	ROS, R&D Intensity		Inverted U
Gomes and Ramaswamy (1999)	ROA, OPSAL, ROS	Multi-Index	Inverted U
Contractor et al. (2003)	ROA, ROS	FSTS, FETE, FOTO	3-stage Sigmoid
Thomas and Eden (2004)	ROA, ROE, ROS, EMV, AMV	FSTS	3-stage Sigmoid
Chang (2007)	ROA	FSTS + FATA	3-stage Sigmoid

Note. ROA = return on assets; ROS = return on sales; ROE = return on equity; FSTS = ratio of foreign sales to total sales; FETE = ratio of foreign employees to total employee; FOTO = ratio of foreign offices to total offices; EMV = excess market value; AMV = average market value; OPR = overseas Production ratio; OPSAL = ratio of operating costs to sales; OPR = overseas production ratio; PDIO = physical dispersion of international operations; ROFA = return on foreign assets; OSTs = ratio of overseas subsidiaries' sales to total sales; TMIE = top management's international experience.

factors rather than cost factors most influence global strategies of the international hotel industry (Whitla, Walters, & Davies 2007). More often, internationalization of hotel corporations is the pursuit of market expansions, global branding, strategic positioning, and uniform service standards because limited economies of scale and standardization opportunities constrain costs factors (Yip, 1992).

However, recent studies examined the relationship between FP and DOI in the hospitality industry (Lee & Jang, 2007; Lee, 2008; Jang & Tang, 2009; Tang & Jang, 2010; Park & Jang, 2010; Lee & Xiao, 2011) and yield differing results (see Table 2).

Lee and Jang (2007) found that internationalization did not impact a firm's growth but

impacted only the stability of firms within the segment of U.S. hotel companies. This finding supports that market diversification of hotel firms may not function as a means to improve FP. The Lee (2008) study found that DOI did not significantly impact a firm's value, but DOI² significantly impacted a firm's value with a curvilinear, U-shaped relationship. The result suggests that internationalization does not impact a firm's performance until DOI reaches a certain level, because high capital intensity in the hospitality industry requires more time for hotels to realize profits from internationalization.

Jang and Tang (2009) found that although an inverted U-shape relationship existed between leverage and FP, DOI only indirectly impacted FP with a moderating role from

TABLE 2. Previous Internationalization Studies for U.S. Hospitality Industry

No.	Author	Samples	Data Period	Variables
1	Lee and Jang (2007)	36 U.S. public hotels	1997–2001	Dependent: ROA, ROE, NPM Independent: DOI
2	Lee (2008)	5 U.S. public hotels	1997–2006	Dependent: Tobin's Q Independent: MNHC% Control: Size, LEV, EP%
3	Jang and Tang (2009)	41 U.S. public hotels	1990–2004	Dependent: ROA, LEV, DOI Independent: LEV, DOI Control: Size, EBIT, Tobin's Q
4	Tang and Jang (2010)	U.S. hotels and manufacture firms	1990–2006	Dependent: Excess Q, DOI Independent: DOI, EV
5	Park and Tang (2010)	180 U.S. Restaurants	1995–2006	Dependent: Firm Size Independent: Firm growth, DOI Control: LEV, RE

Note. ROA = return on assets; ROE = return on equity; NPM = net profit margin; DOI = degree of internationalization; MNHC% = proportionate level of internationalization; EP% = proxy of proportional level of internationalization; LEV = leverage; EV = excess value; RE = returned earning.

leverage. Although finding a simultaneous relationship between leverage and internationalization is significant, investigation of a simultaneous relationship between DOI and FP remains unexamined. Tang and Jang (2010) found a U-shaped curvilinear relationship between internationalization and a firm's excess value which suggests that highly-diversified hotel firms can benefit from internationalization compared with less diversified hotel firms.

METHODOLOGY

Sample

The data used for this study was collected from the COMPUSTAT database for publically traded restaurant companies (North American Industry Classification System [NAICS] code 722110) and publicly traded limited-service restaurants (NAICS code 722211). In 2011, out of 73 publicly traded restaurants, only 60 had continuous financial data for 2006 to 2011 (see Appendix). After deleting observations with missing data and outliers, the data retained 188 observations for publicly traded U.S. restaurants.

Because certain financial data such as foreign sales or pre-tax foreign earnings can't be found from COMPUSTAT, this study uses units of foreign subsidiaries of international restaurants and total of restaurant units to calculate DOI. The numbers of foreign units

and total units of the international restaurants are manually collected from SEC 10-K annual reports (2006–2011).

Based on the review of literature of internationalization and FP, clearly the conflicting findings arise from different conceptualizations and operationalization of DOI and FP. Because the majority of previous research focused on studying the impact of DOI on FP and a few studied the impact of FP on DOI, the current study examines the simultaneous relationship between DOI and FP in order to provide better insight into the studies of internationalization.

Variables and Measurement

This study tests simultaneous equations for the relationship between DOI and performance. DOI represents the dependable variable in Equation (1) and the independent variable in Equation (2). Meanwhile, FP is the dependent variable in Equation (2) and the independent variable in Equation (1).

Dependent Variables

Financial Performance. Initially, the return on investment (ROI) and return on sales (ROS) measured a firm's performance (Vernon, 1971). Later, other research frequently used return on equity (Hughes et al., 1975; Grant, 1987; Qian, 1997) and return on assets (ROA; Buckley et al., 1997; Kumar, 1984; Grant, 1987;

Daniels & Bracker, 1989; Geringer et al., 1988; Sullivan, 1994a, 1994b; Hitt et al., 1997; Ramaswamy, 1995; Gomes & Ramaswamy, 1999; Ruigrok & Wagner, 2003; Contractor et al., 2003; Hsu & Boggs, 2003; Capar & Kotabe, 2003; Chang, 2007). Previous researchers argued that a single-item financial measure, such as ROA, ROS, ROE, or ROI, is unrepresentative of actual FP of firms. Because of the limitations of available financial data from the hospitality industry, this study uses ROA to measure a firm's FP.

Degree of Internationalization (DOI). Traditionally, a single variable, such as a ratio of Foreign Sales to Total Sales (FSTS) or a ratio of Foreign Assets to Total Assets (FATA), was the measure of DOI. This is mainly because of limited availability of financial data for international operations (Gomes & Ramaswamy, 1999). However, Sullivan (1994a, 1994b) argued that a single-item measurement is vulnerable to risk for representing only a limited portion of the constructed domain. Thus, Sullivan proposed using a composite index for measurement by adding new variables.

Although some research contended that the multi-item index might be superior to the common, single item, such as FSTS or FATA (Ramaswamy, Kroeck, & Renforth, 1996), most researchers strongly argued that Sullivan's concept lacked validity from psychometrics, content, and criterion, as well as reliability and utilitarian value (Ramaswamy et al., 1996). Ramaswamy, Kroeck, and Renforth (1996) agreed to a need for developing better measurements.

Previous researchers have continually used FSTS or FATA, or both, as measurements for firms' internationalization (Ruigrok, Amann, & Wagner, 2007; Elango & Sethi, 2007) because of a lack of well-developed multiple-item measures and available data.

Many researchers also used the "ratio of foreign offices to the total number of offices" (FOTO) and the "ratio of foreign employees to total employees" (FETE) as measures for DOI (Contractor et al., 2003; Hsu & Boggs, 2003). Some researchers used the "ratio of number of countries and number of foreign subsidiaries that firms invested in" to measure DOI (Morck

& Yeung, 1991; Ramaswamy, 1995; Jung & Bansal, 2009).

FSTS and FATA are the most common single-item measures for DOI; however, this study uses the ratio of number of foreign hotel rooms to the total number of hotel rooms to measure hotel firms' DOI, and the ratio of the number of foreign restaurant units to total restaurant units to measure restaurant firms' DOI. Because many international hotel and restaurant firms did not report their foreign sales, the number of foreign subsidiaries is the only data representing a firm's foreign operations.

Independent Variables

To examine the relationship between DOI and FP, all factors that can impact performance and DOI must be considered. Based on previous studies of the relationship of DOI and firm performance, it was determined that numerous variables can significantly impact both a firm's FP and its DOI.

Leverage (or Debt Ratio). Leverage represents the firm's capital structure. Leverage can positively impact FP from tax benefits, but it can also negatively impact performance from a high level of debt that leads to the perception of the firm as risky for financial markets. The agency cost theory (Jensen & Meckling, 1976) suggests that the impact of leverage on firm performance from a higher debt level often induces managers' to engage in value-added ventures. At the same time, leverage maintains a tighter control of management's engagement in quick developments (William, 1987).

Previous research used leverage as an important control variable for examining the relationship between DOI and firm performance (Elango, 2006; Elango & Sethi, 2007; Chang, 2007; Lee, 2008). Tasi and Gu (2007) used leverage as an independent variable and found that debt significantly impacts ownership but did not impact a firm's performance. Hua and Upneja (2007) suggested that restaurant firms having a high level of debt were less likely to expand into the international market. However, Jang and Tang (2009) found that leverage significantly impacts performance in the hospitality industry, and most importantly,

simultaneous impacts from leverage and DOI exist.

Firm Size. Firm size can significantly impact a firm's performance. Firms' sizes directly represent economies of scale, as large firms often benefit from competitive advantages over smaller organizations (Contract & Kundu, 2003). However, some researchers believed that as firms increase in size, they encounter difficulties maintaining higher performance. Thus, the firm's size can negatively impact performance (Hsu & Boggs, 2003). Nevertheless, previous researchers commonly used firms' sizes as an important control variable in the studies of relationships between internationalization and firm performance (Gomes & Ramaswamy, 1999; Contractor et al., 2003; Hsu & Boggs, 2003; Capar & Kotabe, 2003; Thomas & Eden, 2004; Elango, 2006; Elango & Sethi, 2007; Chang, 2007; Lee, 2008).

Hua and Upneja (2007) suggested that a firm's size influenced decisions to internationalize. Pangarkar (2008) argued that the DOI had a positive impact on performance for small and medium-sized firms. Park and Jang (2010) stated that small firms grew faster than larger firms in international markets, but as the size of a firm decreased, the growth rate also decreased in relation to the internationalizing. Therefore, the expectation is that a firm's size influences the relationship between DOI and FP.

Some researchers used the logarithmic function of total sales to measure a firm's size (Buckley et al., 1977; Kumar, 1984; Contractor et al., 2003). Others used the logarithm of total employees (Hsu & Boggs, 2003; Elango, 2006) or the natural log of total assets as proxies for a company's economics scale (Thomas & Eden, 2004). This study adapts use of the natural log of total assets to measure a firm's size.

Firm Age. A firm's age can also influence the DOI–performance relationship. Younger firms may have greater flexibility when facing challenges from developing new international markets (Penrose, 1959). The ability to learn a foreign market's characteristics can be crucial for success from international expansion (Johanson & Vahlne, 1997). Based on the learning theory, older firms may be more experienced than

younger firms; therefore, older firms with more experience may perform better in the international markets (Banalieva & Sarathy, 2011). In fact, older and larger firms often have higher DOIs than younger firms (Hitt et al., 1997; Kotabe et al., 2002). Thus, many researchers used a firm's age as an important variable in their studies of the relationship between DOI and FP (Tseng et al., 2007; Bausch & Krist, 2007; Jung & Bansal, 2009; Banalieva & Sarathy, 2011). In relation to the resource-based view, Hsu and Pereira (2006) examined the effect of organizational learning on relationships between DOI and performance and found that insight and experience with regard to both social and market characteristics significantly moderated the relationship between DOI and performance. Therefore, this study considers a firm's age as an important variable.

Selling, General, and Administrative Expenses (SG&A). Previous studies used general and administrative expenses (G&A) as a control variable (Thomas & Eden, 2004). The market factor has consensus as one of the most important drivers for internationalization among hotel companies (Whitla et al., 2007). General and administrative expenses indicate the level of fixed costs for management in the home country. The change in fixed costs is most likely to moderate both the firm's performance and management's decision to internationalize. Meanwhile, advertising expenses can represent a proxy for indicating the market's impact on a firm's decision-making (Chen & Hsu, 2010). Thus, this study considers selling, general, and administrative expenses (SG&A) as a control variable. The measurement of SG&A is the ratio of SG&A expenses to total sales.

Firm Growth. Firms with a high growth rate can experience a negative impact on performance because higher internal investment of a firm's resources can result in lower short-term profitability (Tallman & Li, 1996). Therefore, some researchers used firm growth rate as a control variable in studies of internationalization (Elango, 2006; Elango & Sethi, 2007). Applying the resource-based view, Tseng et al. (2007) conducted a study that identified knowledge-based resources as a generator of faster

international growth than property-based resources. Tseng et al. also found that technological and marketing knowledge related more to resources, whereas property-based resources related more to organizational slack and internally generated profits. Consequently, technological and marketing knowledge can significantly impact DOI.

Because the hotel industry's characteristic is a more property-intense industry, further testing is necessary in order to determine if financial resources generated from international operations can impact DOI decisions. Lee and Jang (2007) suggested that a hotel diversification strategy does not improve growth of profits but only improves a firm's stability in terms of performance. Lee (2008) further examined that DOI displays an inverted U-shaped relationship with the growth of a hotel firm's value. Hua and Upneja (2011) found that a firm's annual growth in earnings did not significantly impact the decisions of U.S. restaurant firms to internationalize. Above all, firm growth rate in consideration of relationships between internationalization and hotel performance are necessary during evaluation.

Capital Intensity. Capital intensity is a firm's efficiency in utilizing assets to produce goods or services, and its measurement is often the ratio of total assets to total sales (Lee & Xiao, 2011). Some researchers argued that capital intensity positively impacts FP (Harris, 1998), and others argued that capital intensity can negatively impact risk (Lee & Xiao, 2011). The hospitality industry shares high levels of capital intensity compared with other industries because hotels and restaurants must invest significant amounts of capital to acquire fixed assets, such as buildings, equipment, and furniture. Therefore, capital intensity becomes an important consideration among variables when examining the DOI–ROA relationship. Because this study is conducted toward the restaurant industry, the capital intensity is generally controlled.

Industry Effect. Hitt et al. (1997) identified that differences among industries can influence the relationship between DOI and performance. In the other words, an industry-specific effect can be an important

factor impacting the relationship between DOI and performance. Gomes and Ramaswamy (1999) found an inverted U-shaped relationship between DOI and performance in the U.S. manufacturing industry. Capar and Kotabe (2003) found a U-shaped relationship in the German service industry. Contractor et al. (2003) found an S-shaped relationship when studying both knowledge-based and capital-based service sectors. Thomas and Eden (2004) found a three-stage sigmoid relationship in the U.S. manufacturing industry, and they contributed by illustrating a significant impact on the relationship from the dimension of time.

The hotel and restaurant industry are major service sectors in the U.S., and high capital intensity, contrary to other industries in service sectors, is characteristic (Contractor, Kundu, & Hsu, 2003). Although the characteristics of the hotel industry led its early involvement in internationalization, few previous studies investigated the relationship between internationalization and performance for the industry. However, because this study focuses on U.S. international hotel and restaurant corporations, this study generally controls the characteristic effect of the industry.

Country of Origin Effect (COE). Hitt et al. (1997) suggested that the country of origin effect could result in different findings for a study of a relationship between DOI and performance. Elango and Sethi (2007) offered strong support that a COE significantly impacts the DOI and performance relationship. In fact, Elango and Sethi found a positive linear relationship for small economies with extensive trade and an inverted U-shaped relationship for countries with larger economies with moderate trade.

Bobillo and Gaité (2008) conducted a study analyzing the relationship between DOI and performance in Germany, France, the U.K., Spain, and Denmark. The results supported a curvilinear U-shaped relationship for large countries and an S-shaped relationship for small and medium countries. This further proved that COE has an important influence on the relationship between DOI and firm performance.

Contrarily, in a study of 400 U.K. international organizations, Driffield, Du, and Girma (2008)

did not find a significant impact from COE on DOI and performance. Many other researchers found different relationships between DOI and performance among international firms in emerging markets. Elango (2006) studied 719 firms from 12 emerging markets and concluded that the quality of governance of the home country interacted with internationalization. Chang (2007) studied 115 multinational enterprises (MNEs) from Asia-Pacific and concluded that the relationship between DOI and performance is nonlinear. Table 3 lists some different controlled variables used in previous research. Therefore, a firm's country of origin and the country's geographic scope for expansion can influence the relationship between DOI and firm performance.

PROPOSED HYPOTHESES

Based on the literature review and arguments provided therein, we propose the following hypotheses:

- H1: DOI significantly impacts FP.
 H2: FP significantly impacts DOI.
 H3: A simultaneous relationship exists between DOI and FP,

Two-stage Least Square (2SLS) Regression Models

In view of previous literature and in consideration of potential firm-specific variables that might influence firm performance and DOI, this study addresses endogeneity through a simultaneous equations model consisting of Equations (1) and (2) specified as follows:

$$\begin{aligned} \text{ROA} = & \alpha_0 + \alpha_1 \text{DOI} + \alpha_2 \text{DOI}^2 + \alpha_3 \text{DOI}^3 \\ & + \alpha_4 \text{LEV} + \alpha_5 \text{LEV}^2 + \alpha_6 \text{SIZE} + \alpha_7 \text{AGE} \\ & + \alpha_8 \text{SGA} + \alpha_9 \text{GR} + \alpha_{10} \text{YR2} + \alpha_{11} \text{YR3} \\ & + \alpha_{12} \text{YR4} + \alpha_{13} \text{YR5} + \varepsilon_1 \end{aligned} \quad (1)$$

$$\begin{aligned} \text{DOI} = & \beta_0 + \beta_1 \text{ROA} + \beta_2 \text{LEV} + \beta_3 \text{LEV}^2 + \beta_4 \text{SIZE} \\ & + \beta_5 \text{AGE} + \beta_6 \text{SGA} + \beta_7 \text{GR} + \beta_8 \text{YR2} \\ & + \beta_9 \text{YR3} + \beta_{10} \text{YR4} + \beta_{11} \text{YR5} + \varepsilon_2, \end{aligned} \quad (2)$$

where:

ROA (Return on Assets) = ratio of total net income to total sales.

DOI (Degree of Internationalization) = ratio of foreign units to total units.

LEV (Leverage) = ratio of total liability to total of assets.

SIZE (Firm Size) = log of total assets.

AGE (Firm Age) = log of years of public corporate registration.

SGA (Selling, General, and Administrative Expenses) = ratio of SG&A expenses to total sales.

Growth Rate (GR) = ratio of total market value to total book value.

RESULTS

Data Analysis

Using the Stata software, 11.0 version, this study applied a two-stage least square (2SLS) regression to examine the reciprocal relationship between internationalization and firm performance. The study, first, conducted descriptive statistical analysis and Pearson's

TABLE 3. List of Controlled Variables in Previous Research

Author(s)	Controlled Variables	Relationships
Gomes and Ramaswamy (1999)	Size, IEF	Inverted U-Shaped
Ruigrok and Wagner (2003)	Size, IEF	U-Shaped
Contractor et al. (2003)	Size, IEF	3-stage Sigmoid Shaped
Hsu and Boggs (2003)	Size, IEF, R&D	Linear & Curvilinear
Capar and Kotabe (2003)	Size, IEF, R&D, G&A	U-Shaped
Thomas and Eden (2004)	Debt	3-stage Sigmoid Shaped
Elango (2006)	Size, Debt, GR	U-Shaped for manufacture Inverted U-Shaped for Service
Chang (2007)	Size, R&D, Debt	3-stage Sigmoid Shaped
Lee (2008)	Size, Debt	U-Shaped

Note. IEF = Industry Effect; R&D = research and development; G&A = general administrative expense; GR = firm growth rate.

TABLE 4. Descriptive Statistics Summary for Publicly Traded U.S. Restaurants

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	188	0.03	0.15	-1.02	0.50
DOI	188	0.04	0.09	0.00	0.51
DOI ²	188	0.01	0.04	0.00	0.26
DOI ³	188	0.00	0.02	0.00	0.14
LEV	188	6.92	42.99	0.00	576.15
LEV ²	188	1885.83	24213.21	0.00	331954.10
SIZE	188	6.18	1.71	1.47	9.44
AGE	188	11.25	6.71	0.00	24.00
SGA	188	0.12	0.07	0.04	0.45
GR	188	1.00	0.78	-1.60	3.04

Note. ROA = return on assets; DOI = degree of internationalization; LEV = leverage; SIZE = firm size; AGE = firm age; SGA = ratio of selling and general administrative expenses to total revenue; Obs = Observations; GR = firm growth rate; Std. Dev. = Standard Deviation.

correlation analysis for all variables, and second, performed the regression to test both Equation (1) and Equation (2).

Descriptive Statistics. Sample descriptive statistics are presented in Table 4.

Based on the 188 observations from the publicly traded restaurants; the ROA ranges from negative 1.02 to positive 0.50 with a mean value of 0.02. The degree of internationalization ranges from 0 to 0.51 with an average 0.04. The average leverage is 6.92 with a range from 0 to 576.15. The average size of total assets for the restaurants is approximately 6.18 and ranges from 1.47 to 9.44. The age of restaurants ranges from zero to 24 years with a mean value approximately 11.25. The average ratio of general and administrative expenses to total sales is about 0.12, ranging from 0.04 to 0.45. The average growth rates are approximately 0.99, ranging from negative 1.60 to positive 3.04. Regression analysis for Equation 1 is presented in Table 5.

LEV has a negative influence on ROA ($\beta = -0.0030327$; $t = -2.17$; $p = 0.032$) and indicates that a restaurant with a lower leverage has higher performance. Firm size ($t = -0.28$; $p = 0.782$), DOI³ ($t = 1.58$; $p = 0.115$), age ($t = -1.19$; $p = 0.236$), and SGA ($t = -1.41$; $p = 0.160$) did not show any statistically significant effect on ROA. Also, none of the dummy variables was statistically significant.

TABLE 5. Simultaneous Regression Analysis for Publicly Traded U.S. Restaurants - Equation (1)

ROA	Coef.	Std. Dev.	t	P > t	95% C.I.
DOI	0.94	0.42	2.23	0.027**	0.11 1.78
DOI ²	-4.81	2.64	-1.82	0.070	-10.03 0.40
DOI ³	5.99	3.78	1.58	0.115	-1.48 13.46
LEV	0.00	0.00	-2.17	0.032**	-0.01 0.00
LEV ²	0.00	0.00	2.13	0.034**	0.00 0.00
SIZE	0.00	0.01	0.28	0.782	-0.02 0.03
AGE	0.00	0.00	1.19	0.236	0.00 0.01
SGA	-0.42	0.30	-1.41	0.160	-1.02 0.17
GR	0.06	0.02	2.67	0.008***	0.01 0.10
YR 2	-0.04	0.03	-1.17	0.245	-0.11 0.03
YR 3	0.01	0.03	0.36	0.717	-0.05 0.07
YR 4	0.00	0.03	-0.12	0.904	-0.05 0.05
YR 5	0.02	0.03	0.67	0.501	-0.04 0.08
Const.	-0.01	0.09	-0.17	0.866	-0.19 0.16

$R^2 = 25.48\%$.

Note. ROA = return on assets; DOI = degree of internationalization; LEV = leverage; SIZE = firm size; AGE = firm age; SGA = ratio of selling and general administrative expenses to total revenue; GR = firm growth rate; Coef. = coefficient; P = p value; C.I. = Confidence Interval. ** Significant 0.05; *** Significant 0.01.

Next, we conducted regressions analysis for the model in Equation (2). ROA has a positive impact on DOI ($\beta = 2.54$; $t = 5.52$; $p = 0.000$), indicating that the higher the ROA of restaurants', the higher the DOI for them, supporting Hypothesis 2. Regression analysis for Equation 2 is presented in Table 6.

For the examination of the impact of ROA on DOI, all variables except firm size ($t = 0.36$; $p = 0.36$) seem to significantly influence DOI. LEV positively impacts DOI ($\beta = .006$; $t = 4.41$; $p = 0.000$). Firm age has a negative impact on DOI ($\beta = -0.0062$; $t = -5.78$; $p = 0.000$). SGA had a positive effect on DOI ($\beta = 1.27$; $t = 7.33$; $p = 0.000$). In addition, firm growth has a negative impact on DOI ($\beta = -0.12$; $t = -3.09$; $p = 0.002$). Also the two dummy coded variables bore a positive impact on DOI; namely YR2 ($\beta = 0.065$; $t = 3.89$; $p = 0.000$), and YR3 ($\beta = 0.12$; $t = 4.59$; $p = 0.000$). However, SGA does not significantly impact DOI ($t = -0.89$; $p = 0.375$), and firm growth does not significantly impact DOI ($t = -1.46$; $p = 0.145$).

The results suggest that the restaurant firms with a high ROA have a higher DOI. The older the restaurant firms, the lower the DOI for

TABLE 6. Simultaneous Regression Analysis for Equation (2)

DOI	Coef.	Std. Dev.	t	P > t	95% C.I.	
ROA	2.54	0.46	5.52	0.000***	1.63	3.45
LEV	0.01	0.00	4.41	0.000***	0.00	0.01
LEV2	0.00	0.00	-4.40	0.000***	0.00	0.00
SIZE	0.01	0.01	0.92	0.359	-0.01	0.02
AGE	-0.01	0.00	-5.78	0.000***	-0.01	0.00
SGA	1.27	0.17	7.33	0.000***	0.93	1.61
GR	-0.11	0.04	-3.09	0.002**	-0.18	-0.04
YR 2	0.07	0.02	3.89	0.000***	0.03	0.10
YR 3	0.12	0.03	4.59	0.000***	0.07	0.18
YR 4	0.00	0.02	-0.06	0.952	-0.05	0.04
YR 5	0.02	0.02	0.99	0.323	-0.02	0.06
Const.	-0.10	0.06	-1.66	0.098	-0.22	0.02

$R^2 = 48.01\%$.

Note. ROA = return on assets; DOI = degree of internationalization; LEV = leverage; SIZE = firm size; AGE = firm age; SGA = ratio of selling and general administrative expenses to total revenue; GR = firm growth rate; Coef. = coefficient; P = p value; C.I. = Confidence Interval. **Significant 0.05; ***Significant 0.01.

them. On the other hand, higher leverage leads to higher DOI for hotels and restaurants. Most importantly, ROA and DOI significantly impact each other simultaneously, and hence, Hypothesis 3 is supported.

LIMITATIONS AND FUTURE RESEARCH

Figure 3 Due to limited availability of financial data for the U.S. hotel industry, only 78 observations were possible for publicly traded hotels in this study. Thus, the graph produced by this study represents only the

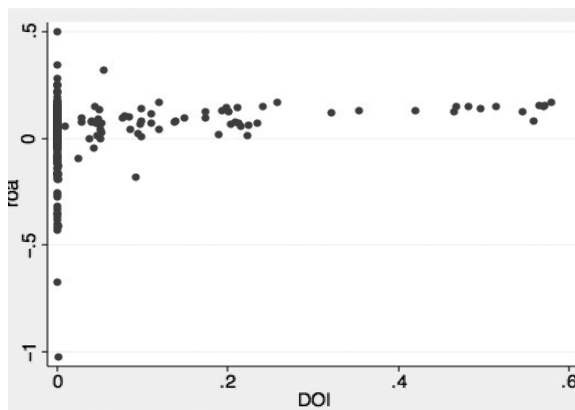


FIGURE 3. DOI-ROA relationship for U.S. publicly traded restaurants.

characteristics of publicly traded restaurants rather than publicly traded hotels in the United States. Although U.S. restaurants and hotels share many common characteristics with service industries, many differing financial attributes remain. A comparison of the differences between the results for U.S. hotels and restaurants would be an enlightening pursuit.

This study collected six years of financial and operational data of publicly traded restaurants in the United States; therefore, the long-term impact of DOI on ROA and ROA on DOI remain untested. According to Glaum and Oesterle (2007), the dimension of time plays a significant role in the relationship between DOI and FP. Financial data for a 10-year or 20-year period should be the informational set for such a study. As many researchers suggested, longitudinal, empirical studies should compare firms' internationalization processes to their performance, over time (Annavarjula & Beldona, 2000).

CONCLUSION

As increasing numbers of restaurants expand into international markets, strategies for internationalization remain important for managers of restaurants in the United States. Understanding the impact of internationalization on FP and vice versa is critical for successful investment and management of international hotels and restaurants. By studying the simultaneous relationship between DOI and ROA, this study adds insight to reconcile existing conflicting findings from different theories.

The results of this study suggest that not only does internationalization has a significant impact on firm performance; firm performance also has significant impact on internationalization. Most important, this study clarifies that the relationship between DOI and ROA is simultaneous. Another confirmed point is that other factors such as leverage, firm size, firm age, SGA expenses, and firm growth rate are important factors that can influence the relationship between internationalization and financial performance. In fact, leverage and firm growth significantly impact both DOI and ROA. Firm age and SGA only significantly impact ROA but

not DOI. Firm size neither impacts DOI nor ROA.

In the end, intent of this study for restaurant managers is to demonstrate that financial profitability can be the major factor impacting hotels or restaurants expansion into overseas markets, and internationalization can also improve profitability restaurants' overall financial performance. In the other words, profitability does in fact impact decisions to internationalize and vice versa. Because leverage, firm size, firm age, SGA expenses and firm growth can play important roles influencing decisions for internationalization, hotel and restaurant managers should seek a balance between profitability, leverage and market growth, while pursuing international expansion.

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APPENDIX 1

Sample of U.S. Publicly Traded Hotels

Rank by Sales	Hotel Companies
1	Marriott Int'l, Inc*
2	Starwood Hotels & Resorts Worldwide*
3	InterContinental Hotels Group
4	Gaylord Entertainment Co
5	Orient-Express Hotels*
6	Great Wolf Resorts Inc
7	Elbit Imaging Ltd
8	Morgans Hotel Group Co
9	Red Lion Hotels Corp
10	Intergroup Corp
11	Santa Fe Financial Corp
12	Allied Hotel Pptys, Inc
13	Comstock Mining, Inc

Source: COMPUSTAT (NAICS, code 721110).

Note. Companies with* are the company's reported number of foreign subsidiaries in SEC 10-K annual reports between 2005–2011.

APPENDIX 2

Sample of U.S. Publicly Traded Restaurants

Rank by sales	Restaurant Companies
1	MCDONALD'S CORP*
2	SODEXO
3	ARAMARK CORP
4	YUM BRANDS, INC*
5	STARBUCKS CORP*
6	DARDEN RESTAURANTS, INC
7	TIM HORTONS, INC
8	BRINKER INTL, INC*
9	CRACKER BARREL OLD CTRY STOR
10	WENDY'S CO
11	BURGER KING WORLDWIDE, INC
12	CHIPOTLE MEXICAN GRILL, INC
13	JACK IN THE BOX, INC
14	PANERA BREAD CO
15	CHEESECAKE FACTORY, INC
16	BOB EVANS FARMS
17	DOMINO'S PIZZA, INC
18	RUBY TUESDAY, INC
19	CKE RESTAURANTS, INC
20	P F CHANG'S CHINA BISTRO, INC*
21	PAPA JOHN'S INTERNATIONAL, INC*
22	TEXAS ROADHOUSE, INC
23	DINEEQUITY, INC*
24	NPC INTERNATIONAL, INC

(continued)

– (Continued)

Rank by sales	Restaurant Companies
25	RED ROBIN GOURMET BURGERS
26	O'CHARLEY'S, INC
27	CARROLS RESTAURANT GROUP, INC
28	CEC ENTERTAINMENT, INC*
29	BUFFALO WILD WINGS, INC
30	BIGLARI HOLDINGS, INC
31	BJ'S RESTAURANTS, INC
32	SONIC CORP
33	DENNY'S CORP*
34	EINSTEIN NOAH RESTAURANT GRP
35	KRISPY KREME DOUGHNUTS, INC
36	RUTH'S HOSPITALITY GROUP, INC*
37	BENIHANA, INC*
38	LUBY'S, INC
39	CARIBOU COFFEE CO
40	JAMBA, INC*
41	FRISCH'S RESTAURANTS, INC
42	J. ALEXANDER'S CORP
43	FAMOUS DAVE'S OF AMERICA, INC
44	ARK RESTAURANTS CORP
45	BRAZIL FAST FOOD CORP
46	COSI, INC
47	KONA GRILL, INC
48	GRANITE CITY FOOD & BREWERY
49	MERITAGE HOSPITALITY GROUP
50	RICK'S CABARET INTL, INC
51	MORGANS FOODS, INC
52	SPORTSCENE GROUP, INC
53	MTY FOOD GROUP, INC
54	FLANIGANS ENTERPRISES, INC
55	NATHAN'S FAMOUS, INC*
56	PIZZA PIZZA ROYALTY INCM FD
57	SECOND CUP LTD
58	GOOD TIMES RESTAURANTS, INC
59	SIR ROYALTY INCOME FUND
60	EAT AT JOE'S LTD

Source: COMPUSTAT (NAICS, code 722110 & 722211).

Note. Companies with* are the company's reported number of foreign subsidiaries in SEC 10K annual reports between 2005–2011.