

## RESEARCH NOTES AND COMMENTARIES

### PRIOR PERFORMANCE CHARACTERISTICS OF RELATED AND UNRELATED ACQUIRERS

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*In the diversification literature, studies, particularly those using accounting-based performance measures, have found that related diversifiers are more profitable and that related diversifiers are in more profitable industries than unrelated diversifiers. Due to the very nature of these studies based on cross-sectional data, however, the causal relationship between diversification strategy and performance was not clear. This paper focuses on a single event of a large acquisition, which enables us to better identify the sequential relationships between prior firm profitability, prior industry profitability, and subsequent acquisition strategies. By doing so, this paper makes clearer the causal relationships between firm profitability, industry profitability, and acquisition strategies. Copyright © 2003 John Wiley & Sons, Ltd.*

Whereas most studies in the diversification literature have focused on the effects of diversification strategies on performance (Datta, Narayanan, and Pinches, 1992; Ramanujam and Varadarajan, 1989), they have not paid serious attention to the reverse relationship, i.e., the impacts of performance on diversification strategies.

A few studies have examined the effects of firm profitability on the *extent* of diversification (Burgelman, 1983; Grant, Jammine, and Thomas, 1988; Miles, 1982; Weston and Mansinghka, 1971). However, these studies have not directly

investigated the *direction* of diversification, i.e., diversification strategy, which has been the major concern in the diversification literature.

Other studies (e.g., Ansoff, 1965; Bettis, 1981; Christensen and Montgomery, 1981; Bettis and Hall, 1982; Lecraw, 1984; Montgomery, 1979) have speculated on the possible impacts of prior industry performance, reflected in industry structure, on diversification strategy. These studies have found that related diversifiers are in more attractive industries than are unrelated diversifiers. Based on the findings, these studies have simply *speculated* that firms in structurally attractive industries might pursue related diversification, whereas firms in structurally unattractive industries follow unrelated diversification. The speculations by these studies, however, have not been empirically tested. Due to the very nature of their studies based on cross-sectional data, the causal relationship between

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diversification strategy and industry performance was not clear.

This paper attempts to fill this gap in the diversification literature, by examining how both prior firm profitability and prior industry profitability affect a firm's choice between related and unrelated acquisitions. More specifically, this paper investigates diversification as an isolated event in which the firm adds to its existing businesses a related or unrelated business through acquisition. By focusing on a single event of a large acquisition, this paper better identifies the sequential relationship between prior profitability and subsequent acquisition strategies, which makes clearer the causal relationships between firm profitability, industry profitability, and acquisition strategies.

## THEORY AND HYPOTHESES

### Prior firm profitability and acquisition strategy

Although previous studies have examined the effects of firm profitability on the *extent* of diversification either through acquisition or through organic growth, they have not paid direct attention to its impacts on the *direction* of acquisition, i.e., acquisition strategy.

There is a critical difference between the relationships of firm profitability to the extent of acquisition and to the direction of acquisition. To the extent of acquisition, firm profitability may be related by affecting both a firm's motive and ability to pursue acquisition. Specifically, a firm typically does not have the *motive for acquisition*, when things are going well in the mainstream area of businesses or when the firm is profitable (Weston and Mansinghka, 1971; Burgelman, 1983). Only when the firm is unprofitable or things look bad may it consider acquisition. Firm profitability affects a firm's *ability in acquisition* as well as its motive for acquisition. Miles (1982) and Grant *et al.* (1988) indicated that high-profit firms tend to engage in more acquisition activities than low-profit firms since high profits, especially high cash flows from existing businesses, enable them to invest in new businesses. These two seemingly conflicting arguments suggest that a firm pursues acquisition only when it has both the ability and motive for acquisition. Such a firm may include an above-average performing firm in a below-average performing industry (Park, 1995).

To the direction of acquisition or to the choice between related and unrelated acquisitions, however, firm profitability is likely related largely by affecting the firm's motive, rather than its ability, to pursue either related or unrelated acquisition since both strategies require the firm to have the resources to invest in new businesses.

One explanation for the effects of firm profitability on a firm's motive to pursue either related or unrelated acquisition may be found in the literature relating firm profitability to the firm's risk-taking behavior. Perhaps the most well-known theory on context-dependent risk-taking behavior is prospect theory (Kahneman and Tversky, 1979). Prospect theory suggests that individuals in favorable conditions are more risk averse whereas individuals in unfavorable situations are more risk seeking. Top managers in high-profit firms, who are in positive conditions, are thus more risk averse than are managers in lower-profit firms, who are in negative circumstances. Managers in the studies by Shapira (1986) and MacCrimmon and Wehrung (1986) also reported that managers should and would take few risks when things were going well and more risks when things were going bad.

In prospect theory, risk-taking indicates *choices without advance knowledge of their consequences* (Kahneman and Tversky, 1984) or *decision-making under uncertainty* (March and Shapira, 1987), such as whether or not to take an umbrella and whether or not to go to war. Since uncertainty denotes the inability to predict future outcomes or the state of the world, it can be measured by the difference between the amount of knowledge required to perform the task and the amount of knowledge possessed by decision-makers (Galbraith, 1977). Since managers tend to possess more knowledge about related industries than about unrelated industries in terms of products, markets, technologies, and even ways of conducting businesses (Govindarajan, 1989; Gupta, 1984), they perceive related acquisition as less risky than unrelated acquisition (Sitkin and Pablo, 1992).

In sum, managers in high-profit firms are more risk averse than are managers in lower-profit firms. Managers also perceive related acquisition as less risky than unrelated acquisition. Therefore, managers in high-profit firms prefer related acquisition to unrelated acquisition, unlike managers in lower-profit firms. It is thus hypothesized that:

*Hypothesis 1: It is likely that, prior to acquisition, a related acquirer was more profitable within its industry than an unrelated acquirer.*

### **Prior industry profitability and acquisition strategy**

A firm's tendency to pursue related acquisition over unrelated acquisition is affected not only by its prior firm profitability within its industry but also by its prior industry profitability (Christensen and Montgomery, 1981; Montgomery, 1979). Taking an industry as the unit of analysis, traditional industrial economists argue that industry structure influences the *collective* profitability of firms in the industry as well as the *collective* behavior or conduct of the firms (Bain, 1968; Mason, 1939; Porter, 1981). Therefore, industry average profitability reflects the structural attractiveness of the industry.

When an industry has low profitability, and is thus structurally unattractive, top managers of firms in the industry are more likely to pursue defensive acquisition (Weston and Mansinghka, 1971). Defensive acquisition attempts to avoid adverse developments in the firms' traditional industries (Weston and Mansinghka, 1971). Rumelt (1974) also suggested diversification as the means to escape from declining prospects in their original businesses. Therefore, the top managers of a firm in a low-profit or structurally unattractive industry tend to have a strong motive to improve the overall prospects of the firm by diversifying into more attractive industries either through acquisitions or internal developments. Ansoff (1965) also proposed that firms diversify when their objectives can no longer be met within the existing product-market scope, due to market saturation, general decline in demand, competitive pressures, or product-line obsolescence. Ansoff (1965) further presented that typical symptoms are a drop in the rate of return on reinvestment into the present business and a 'drying up' of the stream of new opportunities.

When an industry is unprofitable and structurally unattractive, however, the industries that the firm could enter through related acquisition are also likely to be unprofitable and structurally unattractive (Christensen and Montgomery, 1981). As a result, firms in a low-profit industry tend to acquire firms in unrelated industries, once they have decided to acquire firms in other industries.

As industry profitability increases, top managers' motive for defensive acquisition decreases, while their motive for offensive acquisition increases. Offensive acquisition refers to acquisition to exploit resources or capabilities developed in the firm's current industries (Yip, 1982). As discussed, industry average profitability reflects the structural attractiveness of the industry. Industry or market structure is often defined as certain stable attributes of the industry that provide the context in which competition among participants occurs (Bain, 1972). Such attributes include industry concentration and entry barriers. Both industry concentration and entry barriers are determined largely by average advertising, R&D, and capital intensities of the industry, since these factors affect economies of scale, capital requirements, product differentiation, switching costs, etc. of the industry (Bettis, 1981; Porter, 1980). Therefore, a high-profit industry can be characterized as a structurally attractive industry with high average advertising, R&D, and capital intensities.

Through heavy investments in capital-intensive facilities, advertising, and R&D, firms in a high-profit industry may have developed strong resources and capabilities, such as patents, product image, brand names, marketing and distribution skills, and product/process technologies, which are critical in the industry. These resources and capabilities are often impossible to duplicate by other firms within reasonable limits of time and cost (Salter and Weinhold, 1979). High levels of industry profitability thus indicate the presence of firm-specific, hard-to-duplicate resources and capabilities as well as other structural barriers in the industry (Wernerfelt and Montgomery, 1986).

When industry profitability is high or when firms in the industry possess strong resources and capabilities that are hard to duplicate, managers tend to have a strong motive to exploit those hard-to-replicate resources and capabilities in other industries. Since the hard-to-duplicate resources and capabilities developed in current industries tend to be transferred to related industries but not to unrelated industries (Lecraw, 1984), the firms in a high-profit industry tend to pursue related acquisition over unrelated acquisition. Ansoff (1965) also observed that firms tend to pursue unrelated acquisition when their capabilities are too obsolete or too shallow to offer opportunities for synergy. Otherwise, Ansoff (1965) implied, firms tend to pursue related acquisitions.

In sum, top managers of firms in a low-profit industry have a strong motive for defensive acquisition to escape from declining prospects in their original businesses, favoring unrelated acquisition over related acquisition. As industry profitability increases, a motive for defensive acquisition decreases and a motive for offensive acquisition increases to exploit hard-to-duplicate resources and capabilities in related industries. Therefore, the higher the industry profitability, the higher the motive for offensive acquisition over defensive acquisition, and thus the higher the tendency for a firm to pursue related acquisition over unrelated acquisition.

*Hypothesis 2: It is likely that, prior to acquisition, a related acquirer was in a more profitable industry than an unrelated acquirer.*

## METHODS

As a sample, this paper uses the acquisitions obtained from the FTC Large Merger Series, 1974–79, where all acquisitions involve an acquired firm that has assets of at least \$10 million at the time of acquisition. By focusing on a single event of a large acquisition, this paper can identify the exact timing of the acquisition and thus can measure a firm's *performance prior to the acquisition*. Unlike the previous studies based on cross-sectional data, this makes it easier to identify the sequential relationships between performance and acquisition strategy.

The FTC Large Merger Series identified a total of 229 acquisitions as either related or unrelated acquisitions. Of them, 121 were related acquisitions whereas the remaining 108 were unrelated ones. The average size of each acquisition was \$107.66 million, which represents about 22 percent with respect to the acquiring firm's assets.

### Variables

The FTC Large Merger Series defines a 'product extension merger' as an acquisition where the acquiring and acquired firms were functionally related in production and/or distribution prior to acquisition but sold products that did not compete directly with one another. The 'other conglomerate merger' represents the consolidation of two essentially unrelated firms. These definitions are highly

consistent with general definitions of related and unrelated acquisitions (Lubatkin, 1987). This paper thus treated 'product extension mergers' and 'other conglomerate mergers' in the FTC categorization as related and unrelated acquisitions, respectively.

*Acquisition strategy*, as a dependent variable, was measured by a dummy variable. If an acquisition is categorized as a 'product extension merger' (i.e., related acquisition) by the FTC Large Merger Series, the variable 'related acquisition' was coded '1.' If classified as an 'other conglomerate merger' (i.e., unrelated acquisition), it was coded '0.'

*Pre-acquisition industry profitability*, as an independent variable, was measured by 3-year average returns on assets (ROA)<sup>1</sup> of the primary 3-digit SIC industry of an acquiring firm from the Compustat tape, which covers the last full pre-acquisition fiscal year and the two preceding years (Hambrick and Cannella, 1993). As a motive for unrelated acquisition, this paper suggests defensive acquisition that indicates acquisition to avoid adverse developments in a firm's *traditional industry* (Weston and Mansinghka, 1971). The firm is likely to have a strong motive for defensive acquisition when its major and primary industry, rather than all the industries where the firm competes, is unattractive. Likewise, the firm is more likely to have a strong motive for offensive acquisition when the largest and primary industry of the firm, rather than its industries on average, is an attractive industry. This paper thus uses the average profitability of the primary industry of a firm as a proxy for its industry profitability.

*Pre-acquisition firm profitability* was examined as *industry-adjusted* firm profitability by subtracting industry average profitability from (absolute) firm profitability. Pre-acquisition firm profitability was also measured as the *3-year average ROA*, covering the last full pre-acquisition fiscal year and the 2 preceding years (Hambrick and Cannella, 1993).

Both industry profitability and firm profitability vary with fluctuations in general economic conditions. Thus, a level of industry profitability or firm profitability cannot be determined without considering general economic profitability since

<sup>1</sup> In addition to ROA, this paper also used ROE and ROI as an independent variable. Since the results using ROE and ROI produced no statistically meaningful differences from those using ROA, this paper only reports the results with ROA as an independent variable.

the sample of this study was drawn from different years. To eliminate this source of variability, all profitability measures were converted to profitability premium measures (Rumelt, 1977). Each profitability premium measure was calculated by subtracting from each profitability in year  $t$  the average ROA of all industrial firms in the Compustat tape in the same year. Thus, any profitability hereinafter refers to the *profitability premium*, considering fluctuations in general economic conditions over different years.

As control variables in the analysis, this paper included the following four variables, i.e., pre-acquisition diversification profile, pre-acquisition resource availability, pre-acquisition size, and pre-acquisition risk of an acquiring firm. The literature implies that a firm's *pre-acquisition diversification profile* may affect the choice of subsequent acquisition strategy. A firm tends to pursue strategic actions that are the same as or the expanded version of the firm's previous strategies (Amburgey and Miner, 1992). Therefore, if a firm has pursued largely related (unrelated) diversification projects over time, and thus its overall diversification profile is a related (unrelated) one, the firm is more likely to pursue related (unrelated) acquisition over unrelated (related) acquisition.

As the measure of pre-acquisition diversification profile, this paper used the number of 2-digit SIC industry groups for each company, 1 year prior to each acquisition (Berry, 1971; Jacquemin and Berry, 1979). Since this paper used the sample in the 1970s, neither sales nor assets data for each business unit of a firm were available during the study period. Therefore, Herfindahl or entropy measures could not be employed as a measure of pre-acquisition diversification profile. In such cases, the number of 2-digit SIC industry groups has been used as a proxy for diversification profile (Berry, 1971; Jacquemin and Berry, 1979).

*Pre-acquisition resource availability* was also controlled in the analysis. Research on innovation in general suggests a positive relationship between organizational slack and risk-taking as choices without advance knowledge of their consequences. Organizational slack is positively related to risk-taking because slack buffers the organization from downside risk and because the legitimacy of taking a risk is less likely to be questioned in the presence of abundant slack (Singh, 1986; Thompson, 1969). Since unrelated acquisition is perceived as riskier than related acquisition, resource availability is

expected to relate positively to the choice of unrelated acquisition over related acquisition. Resource availability as uncommitted liquid resources was measured by combining two measures: current ratio and unused debt capacity of the acquiring firm (Finkelstein and Hambrick, 1990; Hambrick and Finkelstein, 1987; Singh, 1986). The current ratio was defined as current assets divided by current liabilities and unused debt capacity was defined as total equity divided by total long-term debt. After obtaining the current ratio and unused debt capacity, 1 year prior to acquisition, this paper converted the two measures to their standard or  $z$  scores.<sup>2</sup> This paper then added the two standard scores to construct the measure for total resource availability.

*Pre-acquisition firm size* was also included as a control variable. While Chatterjee and Wernerfelt (1991) speculated that firm size might be positively related to unrelated acquisition, Wiersema and Bantel (1992) expected firm size to be negatively related to unrelated acquisition. Large firm size is likely to increase organizational complexity due to structural elaboration and formalized systems for planning, control, and resource allocation (Quinn and Cameron, 1983). These structural elaboration and formalized systems may create stronger resistance to fundamental change in the structure and systems, which may result from unrelated acquisition (Wiersema and Bantel, 1992). Therefore, this paper expects that the larger the firm size, the higher likelihood to pursue related acquisition over unrelated acquisition. As a measure of pre-acquisition firm size, this paper used the reciprocal of the natural logarithm of the acquiring firm's assets 1 year prior to each acquisition. This measure has been well established by the prior work (e.g., Hall and Weiss, 1967; Winn, 1975).

*Pre-acquisition risk*, i.e., the fluctuations of pre-acquisition returns, may also influence a firm's choice of acquisition strategy. Risk reduction has been portrayed as one major motive for acquisitions (e.g., Amihud and Lev, 1981; Hill and Hansen, 1991; Hill and Snell, 1988). In agency theory, the two parties to the agency relationship (i.e., the managers and the shareholders) are assumed to maximize their own utilities. It is therefore assumed that the agent/manager does

<sup>2</sup> The standard or  $z$  score of  $X$  was calculated as follows (Cohen and Cohen, 1983):  $Z_x = (X - X')/sd_x$ , where  $X'$  is a mean value of  $X$ ; and  $sd_x$  is a standard deviation of  $X$ .

not always act in the best interests of the principal/shareholders, particularly when their interests are conflicting (Jensen and Meckling, 1976). In general, unrelated acquisition, through diversification effects, leads to reduced risk for the combined entity. In efficient capital markets, such risk reduction cannot be beneficial to shareholders since they can achieve on their own the desired level of risk through portfolio diversification. Managers, however, cannot diversify their employment risk (e.g., risk of losing job, professional reputation, etc.) in capital markets. Therefore, managers tend to pursue unrelated acquisition to reduce their undiversifiable employment risk (Amihud and Lev, 1981). Since such agency behavior is likely to prevail when the prior risk of the firm is high, this paper expects that the higher the pre-acquisition risk of the firm, the higher the likelihood for the firm to pursue unrelated acquisition over related acquisition. Pre-acquisition risk was measured by ‘accounting determined risk,’ i.e., the variance of the firm’s ROA for 3 years prior to acquisition, covering the last full pre-acquisition fiscal year and the 2 preceding years. The hypotheses were then tested by a logistic regression model.

RESULTS

Table 1 shows means, standard deviations, and correlations among the variables used in this study. Table 2 presents the results of the analysis. The results in Table 2 first show that the higher the pre-acquisition industry profitability, the greater the tendency for a firm to pursue

related acquisition over unrelated acquisition, strongly supporting Hypothesis 2 ( $p < 0.01$ ). Prior to acquisition, therefore, a related acquirer was in a more profitable industry than an unrelated acquirer. The results also present the evidence that pre-acquisition firm profitability is positively and strongly related to the tendency for a firm to pursue related acquisition over unrelated acquisition, again strongly supporting Hypothesis 1 ( $p < 0.01$ ). This indicates that prior to acquisition a related acquirer was more profitable within its industry than an unrelated acquirer. From these two results together, we may characterize a related acquirer as the firm that was profitable and/or was in a profitable industry prior to acquisition, whereas an unrelated acquirer may be characterized as the firm that was less profitable and/or was in a less profitable industry.

The effects of the four control variables were also in the predicted directions. The results show that a firm’s pre-acquisition diversification profile is significantly and negatively related to its choice of related acquisition over unrelated acquisition ( $p < 0.05$ ). That is, if a firm has largely engaged in unrelated diversification over time and, thus, its diversification profile is an unrelated one, the firm is less likely to pursue related acquisition over unrelated acquisition (Amburgey and Miner, 1992). The results also supported the expectation that the pre-acquisition size of an acquiring firm was positively related to a firm’s tendency to pursue related acquisition over unrelated acquisition ( $p < 0.01$ ) (Wiersema and Bantel, 1992). Furthermore, as agency theory predicts,

Table 1. Means, standard deviation, and correlations<sup>a</sup>

Variables	Means	S.D.	1	2	3	4	5	6
1. Related acquisition	0.53	0.50						
2. Pre-acquisition industry profitability	0.03	0.02	0.14*					
3. Pre-acquisition firm profitability	0.01	0.03	0.19**	−0.19**				
4. Pre-acquisition acquisitions profile	3.83	2.56	−0.20**	−0.06	−0.20**			
5. Pre-acquisition resource availability	13.93	47.15	0.01	0.19**	0.26***	−0.15+		
6. Pre-acquisition firm size	0.17	0.06	−0.01	−0.10	−0.12+	−0.15+	−0.01	
7. Pre-acquisition risk	0.0004	0.002	−0.15*	−0.10	−0.18**	−0.12	−0.01	0.53***

<sup>a</sup> N ranges from 150 to 229; +  $p < 0.10$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

Table 2. The effects of prior performance on the choice of acquisition strategy<sup>a</sup>

Variables	Dependent variable: acquisition strategy <sup>b</sup>
Constant	-1.93*(0.98)
Pre-acquisition industry profitability	27.91**(10.93)
Pre-acquisition firm profitability	21.74**(7.59)
Pre-acquisition acquisitions profile	-0.18*(0.08)
Pre-acquisition resource availability	-0.010(0.006)
Pre-acquisition firm size	12.30**(5.06)
Pre-acquisition risk	-1085.9**(466.1)
N	138
-2 log likelihood	160.82
$\chi^2$	30.23***
d.f.	6

<sup>a</sup> Standard errors are in parentheses under coefficients.

<sup>b</sup> Logistic regression analysis: related acquisition, 1; unrelated acquisition, 0.

<sup>+</sup>  $p < 0.10$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

pre-acquisition risk was negatively related to the firm's tendency to pursue related acquisition over unrelated acquisition ( $p < 0.01$ ). The effect of pre-acquisition resource availability was also in the predicted direction, but was not statistically significant.

## IMPLICATION AND FUTURE RESEARCH

As introduced earlier, most previous studies on diversification have focused on the performance consequences of diversification strategies. Previous research on the performance consequences of diversification strategies can be classified into two streams. One stream of research has examined diversification strategy as an isolated event in which the firm adds to its existing businesses a related or unrelated business through acquisition. This stream of research has tended to adopt the market-based performance measures, typically employing the event study methodology and using the Federal Trade Commission (FTC) categories as a basis for classifying acquisition strategies (Seth, 1990). The results of these studies have been highly mixed. Whereas some studies have supported the relatedness hypothesis, other studies have found either that unrelated acquisitions

generate better performance than related acquisitions (Chatterjee, 1986; Dubofsky and Varadarajan, 1987; Elgers and Clark, 1980; Michel and Shaked, 1984) or that there is no performance difference between related and unrelated diversifiers (Lubatkin, 1987; Rajagopalan and Harrigan, 1986; Seth, 1990).

The other dominant stream of research has examined diversification strategies as the overall patterns of relationships between a firm's current businesses. Research in this stream has tended to use the accounting-based performance measures, such as ROI or ROA, based on cross-sectional data. A majority of studies in this stream have reported relatively consistent findings that related diversifiers are more profitable than unrelated diversifiers (Bettis, 1981; Christensen and Montgomery, 1981; Lecraw, 1984; Palepu, 1985; Rumelt, 1974, 1982; Salter and Weinhold, 1979; Varadarajan, 1986; Varadarajan and Ramanujan, 1987).

Why were related diversifiers in their findings more profitable than unrelated diversifiers? Most authors in the second stream of research have presented the findings as the evidence for the 'relatedness' hypothesis that related diversification is superior to unrelated diversification. However, other studies (e.g., Bettis, 1981; Christensen and Montgomery, 1981; Bettis and Hall, 1982; Lecraw, 1984; Montgomery, 1979) speculated that related diversifiers are more profitable than unrelated diversifiers, not because related diversification is superior to unrelated diversification, but simply because related diversifiers were in structurally more attractive and thus more profitable industries prior to diversification than unrelated diversifiers. As the evidence for their speculation, these studies have presented the findings that related diversifiers are in more attractive industries than are unrelated diversifiers.

In sum, the studies using the accounting-based performance measures have presented two consistent findings: (1) related diversifiers are more profitable than unrelated diversifiers, *after diversification*; and (2) related diversifiers are in more profitable industries than unrelated diversifiers, *after diversification*. Due to the very nature of their studies based on cross-sectional data, however, the causal relationships between organizational performance, industry performance, and diversification strategy were not clear. Are related diversifiers more profitable than unrelated diversifiers because

related diversification leads to higher performance than unrelated diversification, or simply because high-performing firms pursue related diversification whereas lower-performing firms follow unrelated diversification? Also, why are related diversifiers in higher-performance industries than are unrelated diversifiers? Are related diversifiers in higher-performance industries because related diversification has enabled the firms to enter the higher-performance industries (Bettis and Hall, 1982; Wernerfelt and Montgomery, 1986)? Or is it simply because firms in higher-performance industries have diversified into related industries (Christensen and Montgomery, 1981; Montgomery, 1979)? This is a theoretically and empirically critical issue because each of the alternative explanations has different implications for the performance consequences of diversification strategies.

This paper has presented two findings: (1) related acquirers were more profitable in their industries than unrelated acquirers, *prior to acquisition*; and (2) related acquirers were in more profitable industries than unrelated acquirers, *prior to acquisition*. These findings imply that a considerable portion of the *ex post* performance differences between related diversifiers and unrelated diversifiers, which were reported in the previous studies, may simply reflect the systematic *ex ante* performance differences, not the true impacts of diversification strategy per se. That is, related diversifiers are more profitable than unrelated diversifiers, not because related diversification is superior to unrelated diversification, but simply because prior to diversification related diversifiers were more profitable and/or were in more profitable industries than unrelated diversifiers.

This paper has some limitations in providing implications for the performance consequences of diversification strategy. First, whereas related and unrelated diversification can be pursued through either acquisition or internal developments, this paper focuses only on diversification through acquisition. Acquisition is the most dominant mode of diversification (Porter, 1987). Nevertheless, all the implications of the findings in this paper should be limited to diversification through acquisition, not to diversification in general.

Second, this paper presents the evidence that a considerable portion of the *ex post* performance differences between related and unrelated

acquirers are due to their systematic *ex ante* performance differences. However, it is unclear whether related acquirers are still more profitable than unrelated acquirers, even after controlling for the *ex ante* performance differences. Further research is required to examine more dynamic relationships among prior performance, diversification strategy, and performance after diversification.

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