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INTERACTIVE EFFECT OF TURNAROUND STRATEGY AND FIRM-SPECIFIC FACTOR ON TURNAROUND PERFORMANCE

This study investigates the interactive effect of turnaround strategy and firm-specific factor on turnaround performance for firms in a turnaround situation. The empirical research indicated that (1) among smaller firms, making greater use of a growth-oriented strategy resulted in higher profitability of turnaround performances; (2) among firms with better prior performances, the increased use of an efficiency-oriented strategy improved market-based turnaround performance; (3) among firms whose prior performances were worse, adopting a growth-oriented strategy enhanced profitability of turnaround performance; (4) for the firms with lower market positions, increased utilization of a growth-oriented strategy improved market-based turnaround performance.

Keywords: turnaround situation; turnaround strategy; firm-specific factor; turnaround performance.

Чі-Юань Чень, Хуї-Хуї Хуанг, Ши-Чіу Вей ВЗАЄМОДІЯ АНТИКРИЗОВОЇ СТРАТЕГІЇ ТА ВНУТРІШНЬОФІРМОВОЇ СПЕЦИФІКИ В ПРОЦЕСІ ВИХОДУ З КРИЗИ

У статті досліджено взаємовплив антикризової стратегії та внутрішньофірмової специфіки окремого підприємства у процесі його виводу з кризового стану. Емпіричні результати вказують на те, що: 1) для малих фірм більш вигідним є антикризові стратегії, орієнтовані на зростання; 2) для фірм, показники яких були лише частково проблемними, для укріплення позиції на ринку слід орієнтуватися на стратегії підвищення ефективності; 3) для фірм з дійсно низькими показниками орієнтація на стратегії зростання підвищує шанси повернутися до докризових фінансових показників; 4) фірмам зі слабкими позиціями на ринку також слід орієнтуватися на стратегії зростання.

Ключові слова: процес виходу з кризи; стратегія виходу з кризи; внутрішньофірмова специфіка; показники після виходу з кризи.

Табл. 2. Літ. 18.

Чи-Юань Чень, Хуи-Хуи Хуанг, Ши-Чіу Вей ВЗАИМОДЕЙСТВИЕ АНТИКРИЗИСНОЙ СТРАТЕГИИ И ВНУТРИФИРМЕННОЙ СПЕЦИФИКИ В ПРОЦЕССЕ ВЫХОДА ИЗ КРИЗИСА

В статье исследовано взаимовлияние антикризисной стратегии и внутрифирменной специфики отдельного предприятия в процессе вывода его из кризиса. Эмпирические результаты указывают на то, что: 1) для малых фирм более выгодными являются антикризисные стратегии, ориентированные на рост; 2) для фирм, показатели которых были лишь частично проблемными, для укрепления позиции на рынке следует ориентироваться на стратегии повышения эффективности; 3) для фирм с действительно плохими показателями ориентация на стратегии роста повышает шансы вернуться к докризисным финансовым показателям; 4) для фирм со слабыми рыночными позициями также целесообразно ориентироваться на стратегии роста.

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Ключевые слова: процесс выхода из кризиса; стратегия выхода из кризиса; внутрифирменная специфика; показатели после выхода из кризиса.

1. Introduction

Most firms inevitably experience deteriorating financial performance at some point. Turnaround attempts should be conducted if a firm intends to recover from a decline. Previous studies on firm turnaround have adopted diverse strategy focuses, with some studies focusing on efficiency-oriented strategies (e.g., Robbins, Pearce, 1992; Pearce, Robbins, 1993), or focusing on growth-oriented strategies (e.g., Rasheed, 2005; Morrow, 2007), and others suggesting combined approaches (e.g., Hofer, 1980; O'Neill, 1986). To summarize, it is difficult to make conclusions regarding a strategy certain to ensure strategic success.

Successful turnaround depends on numerous factors rather than on executing a single strategy. Prior studies examined the effects of firm-specific factors on the capacity for strategic change in a turnaround attempt (e.g. Boeker, 1989; Amburgey, 1991; Barker, Duhaime, 1997). These studies investigated firm-specific factors, including firm size, prior financial resource, culture, market position etc. Reviewing these prior researches, although the conclusions regarding the relationship between firm-specific factor and the likelihood of implementing strategic change are sometimes equivocal and controversial, it is advisable for firms undergoing a turnaround to consider these firm-specific factors when making their strategic decisions. However, few previous studies have examined the effects of turnaround strategy on turnaround performance in the context of firm factor. To understand how turnaround strategy and firm-specific factor interactively affect turnaround performance, this study thus considers 3 firm-specific factors – firm size, prior performance and market position, and seeks to respectively fit them into the efficiency-oriented and growth-oriented strategies.

2. Literature review and hypotheses

2.1. Turnaround strategy. Turnaround strategies are the processes by which firms experiencing declining performance overcome their problems and recover their pre-downturn performance (Pearce and Robbins, 1993). Reviewing the major researches on turnaround strategies, this study concluded that turnaround strategies could be two types: growth-oriented and efficiency-oriented. Growth-oriented strategies usually involve a new definition of core activities, either by increasing the dominance at the existing markets or by diversifying into new markets or products. Turnaround can be achieved through the strategies based on entrepreneurial reconfiguration of business assets (Hambrick, Schecter, 1983; Pearce, Robbins, 1993). On the other hand, efficiency-oriented strategies focus on reducing organizational scope or size and emphasize cuts in unproductive and unprofitable parts of business to increase efficiency. Efficiency-oriented strategies are primarily intended to stabilize firms' financial condition, and usually comprise a combination of cost cutting and asset reducing activities (Hofer, 1980; Hambrick, Schecter, 1983).

2.2. Interactive effects of turnaround strategy and firm-specific factor on turnaround performance. Larger firms are more likely to have complex procedures and structure, and less likely to change, while smaller firms are more flexible and likely to change (Barker, Duhaime, 1997). On the other hand, larger firms have more resources and market power (Porter, 1980), expanding their strategic options and

allowing them overcome market barriers that small firms could not easily conquer (Barker, Duhaime, 1997). These researches demonstrate an equivocal relationship between firm size and capacity to implement change. Rajagopalan and Spreitzer (1996) argued that the equivocal effect for firm size can be attributed to different strategic changes and organizational factors.

Love and Nohria (2005) found that large manufacturing firms could improve their performance through the downsizing strategy in response to high slack. However, for small manufacturing firms, Chowdhury and Lang (1996) suggested that a growth strategy is a promising alternative to retrenchment. These prior researches indicate that turnaround strategy and organization size are two contingent factors that simultaneously and interactively influence turnaround performance. To verify the interactive effect of turnaround strategy and organization size, we hypothesize the following:

Hypothesis 1: Turnaround strategy and organization size interactively affect turnaround performance.

Hofer (1980) argued that turnaround strategy selection depended on business financial situation. According to Hofer, firms substantially below financial breakeven may initiate asset reduction strategies; while firms near breakeven may implement cost reduction strategies. Meanwhile, Rasheed (2005) investigated the influences on firm choice between growth and retrenchment strategies, and found that firms were likely to select a growth strategy when their perceptions of both resource availability and past financial performance are high, and when both are low. These prior research findings demonstrate that turnaround strategy and firm prior performance interactively affect turnaround performance. To verify this interactive effect, we hypothesize the following:

Hypothesis 2: Turnaround strategy and prior performance interactively affect turnaround performance.

Hambrick and Schecter (1983) suggested that market share can affect strategic choices and thus strategic success, and proposed that businesses with high market share might rely on exerting their market power (Porter, 1980) by following entrepreneurial strategies, such as product/market refocusing. High market power allows firms influence market environment and thus aggressively implement growth strategies. However, O'Neil (1986) found that firms in weaker positions could achieve success by adopting cutback strategies, rather than growth strategies. These prior research findings show that firm market position might be a contingency that influences the relationship between turnaround strategy and turnaround performance. To verify it, the following hypothesis is proposed:

Hypothesis 3: Turnaround strategy and market position interactively affect turnaround performance.

3. Research methodology

3.1. Turnaround situation and sample. A turnaround situation was defined as at least 3 consecutive years of return on investment below the risk-free rate of return (Barker, Duhaime, 1997). The return rate for 6-month US Treasury notes was used as a proxy for the risk-free rate. The sample firms were taken from the Standard and Poor's COMPUSTAT North American database, and were limited to manufacturing firms with NAICS codes ranging from 31 to 33. To be included in the sample, a firm had to be actively traded at the US stock markets and had to have experienced a turn-

around situation during the 15-year study period (fiscal years 1992–2006). Data after 2006 were not included to avoid the Global Financial Crisis (GFC) influencing the results. GFC was triggered by the complex problems in the US banking system in 2008, as well as the bursting of the housing bubble in 2007. The number of firms that match turnaround situation is 251. However, firms with extensive missing data were removed, leaving the final sample of 164 firms.

3.2. Measurement of variables. In previous literature investigating turnaround strategies, the research methods used are generally case studies (e.g., Schendel et al., 1976; Hofer, 1980) and questionnaire surveys (e.g., Rasheed, 2005; Zhou et al., 2006), which may be unsuitable for application here. Instead, this study adopted a new method to measure turnaround strategies. The efficiency-oriented strategy was assessed by observing the average fluctuation rate of "selling, general, and administrative expenses" during a three-year period following the third year of the turnaround situation. Meanwhile, the growth-oriented strategy was measured by observing the average fluctuation rate of sales per employee during a three-year period following the third year of the turnaround situation. The higher the negative average fluctuation rate of operating expenses is, the more efficiency-oriented the firm was. Meanwhile, firm growth orientation increased with the positive average fluctuation rate of sales per employee.

Turnaround performance was measured by the average return on investment (ROI) and average return on assets (ROA) during a four-year period following the third year of the turnaround situation (Barker, Duhaime, 1997; Zhou et al., 2006). As suggested by Pearce and Robbins (1993), market performance measure of the troubled firm should also be included. Accordingly, average market share growth rate (MSGR) is used to measure market performance for turnaround outcome, also using a four-year period following the third year of the turnaround situation. Firm size was measured as total assets in the year prior to implementation of turnaround strategy (Kelly, Amburgey, 1991). Prior performance was measured as the average ROA during the four-year period before firms experienced turnaround (Hoffman et al., 2000). The common measures of market position are market share (Hambrick, Schecter, 1983). Market position was measured as sample firm sales divided by total sales for firms with the same NAICS industry subsector code, measured in the year before implementation of the turnaround strategy. Table 1 summarizes the measurements on research variables.

Table 1. Measurement of research variables, developed by the authors

Research variables	Measurement	Y-4	Y-3	Y-2	Y-1	Y0	Y1	Y2	Y3	Y4	Y5	Y6
Turnaround situation	ROI below the risk-free rate of return, from Y0 to Y2 year					•	•	•				
Turnaround Strategy	Growth-oriented, efficiency-oriented, from Y3 to Y5 year								•	•	•	
Firm size	Total asset in Y2 year							•				
Prior performance	Average ROA, from Y-4 to Y-1 year	•	•	•	•							
Market position	Market share in Y2 year							•				
Turnaround performance	Average ROI, ROA, MSGR, from Y3 to Y6 year								•	•	•	•

*Y0 is the first year of turnaround situation.

4. Analysis and results

Hierarchical regression was used to test the interactive effect of turnaround strategy and firm-specific factor on turnaround performance, with a mean-centering procedure for the firm-specific and strategic variables to minimize multicollinearity. Table 2 lists the results.

Table 2. Results of the hierarchical regression analysis, developed by the authors

	ROI performance			ROA performance			MSGR performance		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Independent variables									
Firm-specific factor									
Size	.016	.012	-.030	.101	.100	.053	-.090	-.091	-.072
Prior performance (PP)	.338***	.347***	.269**	.384***	.383***	.347***	-.195*	-.182*	-.193*
Market position (MP)	.107	.101	.105	.078	.082	.078	-.002	-.024	-.118
Turnaround strategy									
Efficiency-oriented (EO)		.029	.056		.053	.083		-.218*	-.287**
Growth-oriented (GO)		-.077	-.031		.014	.037		-.144	-.285*
Interaction terms									
EO \times Size			.036			-.047			-.059
GO \times Size			-.236**			-.222*			.094
EO \times PP			-.054			-.096			.261*
GO \times PP			-.232*			-.105			-.046
EO \times MP			-.012			-.046			.153
GO \times MP			.032			-.038			-.310**
R ²	.130***	.138***	.281***	.172***	.175***	.259***	.049†	.097*	.201**
ΔR^2	.130***	.008	.143***	.172***	.003	.084*	.091†	.048*	.104**

^a Standardized coefficients are reported. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.10$

The first step entered the main effects of firm-specific factors, which together explained a significant share of the variance in performance (Model 1: $R^2 = 0.130$, $p < 0.001$; Model 4: $R^2 = 0.172$, $p < 0.001$; Model 7: $R^2 = 0.049$, $p < 0.10$). The second step entered the main effects of the firm-specific factor and turnaround strategy, which also together significantly explained the variance (Models 2, 5, 8).

In the third step, interaction terms were entered to test the contingency hypotheses. This addition increased the explained variance in ROI performance (Model 3: $\Delta R^2 = 0.143$, $p < 0.001$), ROA performance (Model 6: $\Delta R^2 = 0.084$, $p < 0.05$), and MSGR performance (Model 9: $\Delta R^2 = 0.104$, $p < 0.01$).

First, the interaction between growth-oriented strategy and firm size significantly and negatively affected both ROI performance (Model 3: $\beta = -0.236$, $p < 0.01$) and ROA performance (Model 6: $\beta = -0.222$, $p < 0.05$). *Hypothesis 1*, proposing the interaction effect of turnaround strategy and firm size on turnaround performance, was thus supported.

Furthermore, the interaction between efficiency-oriented strategy and prior performance positively affected MSGR performance (Model 9: $\beta = 0.261$, $p < 0.05$). Additionally, the interaction between growth-oriented strategy and prior performance had a significant and negative effect on ROI performance (Model 3: $\beta = -0.232$, $p < 0.05$). Accordingly, *Hypothesis 2*, stipulating that turnaround strategy and prior performance interactively affect turnaround performance, was supported.

Finally, the interaction between growth-oriented strategy and market position significantly and negatively affected MSGR performance (Model 9: $\beta = -0.310$, $p < 0.01$). *Hypothesis 3*, proposing an interaction effect of turnaround strategy and market position on turnaround performance, was thus supported.

5. Discussion

5.1. Discussion of results. Testing the main effects of firm-specific factor and turnaround strategy on turnaround performance, only prior performance was positively related to both ROI performance (Model 2: $\beta = 0.347$, $p < 0.001$) and ROA performance (Model 5, $\beta = 0.383$, $p < 0.001$). This result is similar to the finding of Hoffman et al. (2000), indicating that financial resources are an important part of firm resource profile to achieve turnaround success. This study failed to find a significant impact of turnaround strategy on both ROI performance (Model2) and ROA performance (Model5), whereas both efficiency-oriented strategy and growth-oriented strategy were negatively related to MSGR performance (Model8). These findings showed that simply adopting an efficiency-oriented or a growth-oriented strategy wouldn't be effective in improving turnaround performance for general unspecified firms in a turnaround situation. In some respects, this result seems close to the findings of Morrow et al. (2007). Morrow et al. (2007) noted that simply taking a strategic action, regardless its value, either does not affect or negatively affects the recovery performance.

Accordingly, this study proposed including firm-specific factors in forming a turnaround strategy to maximize the value of the adopted strategy. The empirical results identified certain interactive effects of turnaround strategy and firm-specific factor on turnaround performance.

1) First, this empirical finding indicated that the interaction between growth-oriented strategy and firm size negatively affected profitability turnaround performances. This shows that, among smaller firms, making greater use of a growth-oriented strategy resulted in higher profitability turnaround performance. This result appears consistent with the finding reported by Chowdhury and Lang (1996). Chowdhury and Lang (1996) suggested that small manufacturing firms experiencing declining performance could consider growth strategies rather than retrenchment. To achieve successful turnaround, firms may need to change their organizational procedures and structures, to match the implementation of growth strategy. Meanwhile, smaller firms are more flexible and likely to change as a result of turnaround attempts (Barker, Duhaime, 1997).

2) Second, the empirical result identified the interaction between efficiency-oriented strategy and prior performance as positively affecting turnaround market-based performance. This means that, among firms with better prior performances, the increased use of an efficiency-oriented strategy improved market-based turnaround performance. Financial resources are important to firm resource profile, which help

support firm strategic planning for successful turnaround (Hoffman et al., 2000). Adopting efficiency-oriented strategies can improve manufacturing and operational efficiency. Meanwhile, sufficient financial resources allow a firm further invest in improving cost infrastructure, for example, replacing old equipments to enhance productivity. Combining an efficiency-oriented strategy with sufficient financial resources, a firm can effectively implement the cost leadership strategy (Porter, 1980) to become a low cost manufacturer relative to its competitors, and thus increase its market share.

3) Furthermore, the empirical result indicated that the interaction between growth-oriented strategy and prior performance negatively affected profitability turnaround performance. This means that, among firms with worse prior performances, adopting a growth-oriented strategy enhanced profitability turnaround performance. This research finding seems consistent with the conclusion of Rasheed (2005). Rasheed (2005) found that firms are likely to choose a growth strategy when they perceive a low combination of past financial performance and resources availability. This finding also supports the contention of Burgelman (1983) that deteriorating performance stimulates efforts to create new ventures. Zhou et al. (2007) suggested that poor performance could widen the gap between managerial aspirations and achievement, thereby providing a strong incentive for firms to seek new ways to improve. Accordingly, firms experiencing decline should remain aggressive to choose growth strategies even when prior performance and resources are poor.

4) Finally, the result identified that the interaction between growth strategy and market position negatively affected market-based turnaround performance measured. Hambrick and Schecter (1983) suggested firms with stronger market positions should leverage their advantage and adopt growth strategy. O'Neil (1986) proposed that firms in weaker positions can achieve success through adopting efficiency strategies. Meanwhile, this study showed a different result: for firms with weaker market positions, greater use of a growth-oriented strategy increased market-based turnaround performance. Robbins and Pearce (1992) found that firms tend to adopt entrepreneurial turnaround strategies when they perceive their decline problems to be primarily external in origin. Market position can reflect firm condition in external market competition. Accordingly, weak market position can be regarded as the motivating factor for a firm to take more aggressive actions to change its market position and thus improve turnaround performance.

5.2. Managerial implications. This study provides empirical evidence that helps to identify how turnaround strategy and firm-specific factor interactively affect turnaround performance. The practical implications are that for the firms experiencing a turnaround situation, the challenges in implementing their turnaround strategies on improving firm performance are four-fold: (1) Smaller firms are portrayed as more flexible to changes intended to achieve the success of turnaround attempts (Barker, Duhaime, 1997). Accordingly, owners/managers of small firms should exploit the flexibility of their firms and change organizational procedures and structures to fit the implementation of a growth strategy and thus achieve higher profitability turnaround performance. (2) Financial resources are important to firm resource profile, and are helpful in supporting firm strategic plan for successful turnaround effort. For firms with better historical performances, they should take advantage of sufficient financial

resources to thoroughly improve their cost infrastructure and become low cost manufacturers relative to their competitors, thus increasing market share. (3) Firms should maintain an aggressive strategy choice when their prior performances and resources are worse. Owners/managers of firms should convert the deteriorating performance into a motivating force that stimulates efforts to recover from decline, and undertake more entrepreneurial moves, thus improving the profitability turnaround performance. (4) Firms experiencing a turnaround situation must endeavor to implement growth strategies to increase market share when their current market positions. Market position reflects firm condition in external market competition. Accordingly, firm owners/managers should treat low market position as the motivation for change that promotes attempts to take more aggressive actions to recover from decline and thus improve market position.

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