

The Role of Slack Reduction on Performance Turnaround during the Great Recession: The Case of Japanese Machinery Companies

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Abstract

This study investigates the relationship between slack reduction and performance turnaround for Japanese firms that substantially decreased profit performance due to the Great Recession. This study finds that Japanese firms that increased their slack resources (i.e., current ratios) at the onset of the Great Recession were more likely to increase their subsequent profit performance than their counterparts. On the other hand, companies that reduced their absorbed slack resources (i.e., sales, general and administrative expenses) at the recession onset tended to increase profit and sales growth performance. The findings of this study have implications for managers affected by deep recessions.

Keywords: slack, recession, Japan

I Introduction

Organizational slack has been considered instrumental in enhancing the performance of firms that face environmental turbulence, such as economic recessions (e.g., Latham and Braun, 2009; Latham and Braun, 2008). A few previous studies have examined the relationship between slack and performance during recessions, and most of these studies have investigated the impact of the “presence” of slack at the onset of recession on a firm’s subsequent performance during and after a recession (e.g., Latham and Braun, 2008). However, the presence of slack at the onset of recession may not be a viable indicator of a firm’s ability to increase performance during a recession.

Slack resources could provide discretionary funding to pursue new projects, improve processes, and develop new products or markets during times of hardship (Boyne and Meier, 2009). However, slack may be used (i.e., reduced) to deploy other resources to combat recessions. Very few previous studies have investigated the relationship between slack reduction and performance turnaround during a recession.

Notwithstanding, slack is often not used in times of recession. Managers may hold onto slack resources because these excess resources provide managers with fewer incentives to respond aggressively to initial disruptions caused by recessions (e.g., Mellahi and Wilkinson, 2009). Moreover, during severe recessions, many managers may wish to hold cash and short-term securities to prepare for financial emergencies and to avoid bankruptcies (e.g., Campello, et al, 2011).

In a traditional turnaround field, cost and asset retrenchment is considered essential to obtain cash and other resources for turnaround activities. Slack reduction, such as decreasing cash and selling expenses, is similar to the cost and asset retrenchment that is initiated by poor-performing companies to achieve turnarounds. Although there have been numerous turnaround studies in the past, little research has examined firms that are hit by a severe recession and are in need of turnaround during a recession.

It should be noted that the types of firms investigated in traditional turnaround strategies differ considerably from those examined in studies on slack. Companies in need of traditional turnaround

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strategies have been performing poorly for several years and thus are likely to have exhausted most of their slack resources. Therefore, their cost and asset retrenchment activities include reductions of resources that are usually considered difficult to convert into cash. In contrast, companies hit suddenly by a recession may maintain substantial slack at the onset of a recession, so they have ready access to slack resources, such as cash and its equivalent.

Managers' actions regarding this slack in the form of liquidity may depend partly on the depth of the recession. Since the Great Depression of the 1930s, most recessions in the United States have lasted only a few years, and the scope of their impact has been limited to specific regions and industries. For example, the 2001 IT (Information Technology) recession only lasted approximately one year and predominantly affected one industry (i.e., software) (Latham and Braun, 2008). Since the beginning of the Great Recession in the summer of 2008, many firms have gone bankrupt. Therefore, many managers may want to increase their firms' liquidity to a sufficient level to avoid bankruptcies.

The purpose of this study is to investigate the relationship between a firm's reduction of slack at the onset of a recession and its subsequent performance turnaround during a recession. Specifically, this research examines whether poor performing companies whose performance suddenly declined due to the Great Recession were able to accomplish performance turnarounds by reducing slack at the onset of the Great Recession.

II Previous Research and Theoretical Development

Slack has been defined as "the pool of resources in an organization that is in excess of the minimum necessary to produce a given level of organizational output" (Nohria and Gulati, 1996, p. 1246). Firms with substantial slack have been considered to have fewer resource allocation problems due to substantial resource availability (Cyert and March, 1963) and to have improved information processing due to reduced interdependencies between subunits (Gal-

braith, 1973). Thus, these firms have more innovation capabilities (Hambrick and Snow, 1977; Noria and Gulati, 1996). However, previous studies on the relationship between slack and performance have identified mixed results. Some studies (e.g., Bourgeois, 1981; Carter, 1971; Latham and Braun, 2008; Mohr, 1969) have found positive relationships between slack and performance, whereas others (e.g., Litschert and Bonham, 1978; Simon, 1997; Yasai-Ardekani, 1986) have found no relationship or negative relationships. It should be noted that most of these previous studies have examined the "presence" of slack on firms' consequent performance.

Traditional research on slack has assumed that the presence of slack creates an organizational atmosphere that promotes innovation and organizational performance (e.g. Dolmans, van Burg, Reymen, and Romme, 2014). The opposite view is supported by agency theory, which posits that managers with excess cash flow (i.e., one of the slack resources) (e.g., Mellahi and Wilkinson, 2009) tend to run their organizations ineffectively.

Neither of the above views usually take into account the impact of a reduction of slack on performance. This is because in normal circumstances managers do not consider reducing slack because slack reduction may lead to infighting for resources between departments, thereby failing to support an organizational atmosphere conducive to creativity and coordination. Thus, in normal circumstances, it may not be a prudent practice to reduce organizational slack.

Slack has been considered a buffer for environmental turbulence such as economic recessions (Bourgeois, 1981; Cheng and Kesner, 1997; Meyer, 1982). Therefore, in times of recession, firms may reduce slack to maintain or improve their performance. In the turnaround strategy field, it is usually considered essential to reduce costs of poorly performing companies. Some studies (e.g., Pearce and Robbins, 1993; Robbins and Pearce, 1992) have even regarded cost and asset retrenchment as a first step in turnaround activities. Arguments against such slack reduction may include the high risks of reducing liquidity in recessions.

It should also be noted that, by definition, turn-

Table 1 Correlation

	Mean	S.D.	2	3	4
1. ROA	.03	.06	.61***	.03	.07
2. Sales growth	-.11	.38		.09	.05
3. Slack 1	2.20	1.28			.44***
4. Slack 1 reduction	.20	.36			
5. Slack 2	.18	.07			
6. Slack 2 reduction	.61	.53			
7. Slack 3	1.71	1.57			
8. Slack 3 reduction	.08	.34			
9. Cost retrench	-.05	.08			
10. Asset retrench	-.04	.13			
11. Severity	.30	.46			
12. Firm size	3.11	.66			

Notes: Slack 1, unabsorbed slack; Slack 2, absorbed slack; Slack 3, potential slack.

Level of significance: ***, $p < .01$; **, $p < .05$; *, $p < .10$.

around activities are usually conducted by firms with declining performance. A large percentage of companies are not adversely affected by a recession, and the performance of these firms improves despite recessionary periods (e.g., Srinivasan, et al, 2011). The hypotheses developed in this study do not relate to such firms. Therefore, the following hypothesis can be proposed:

Hypothesis 1a: The higher a firm's reduction of slack at the onset of a recession, the higher the improvement of its performance during the recession.

Arguments against slack reduction during recessions are related to high risks of reducing liquidity during recessions, which may lead to bankruptcies. To obtain safe levels of liquidity, some managers may become risk averse enough to sacrifice their firm's efficiency (Campello, et al, 2011). Moreover, an aversion to take risks in reducing slack may be attributed to organizational resistance. The reduction of slack resources, such as selling, general and administrative expenses usually means a workforce reduction. It has been well documented that workforce reductions during difficult times lead to increased workloads and thus reduced worker morale among surviving employees (Wagan, 1998), especially in firms attempting performance turnarounds. Therefore, the following hypothesis can be proposed:

Hypothesis 1b: The higher a firm's reduction of slack at the onset of a recession, the lower its performance during the recession.

III Research Methodology

1 Sample

Each organization in the sample for this study was a Japanese machinery manufacturer (SIC code: 35). A single industry was chosen to control for industry differences. For this study, 191 companies with closing dates for their annual financial statements in the month of March were selected. Of these 191 firms, 53 companies (28%) were dropped from the sample because their return on assets (ROAs) did not decline more than two percentage points from March 2008 to March 2009. Remaining 138 firms were used for analysis. Sample companies were drawn from the Standard & Poor's Capital IQ (formerly COMPUSTAT) database and are listed in the Japanese stock exchanges. Some of the variables, such as the number of employees, were taken from the Nikkei's NEEDS database. Companies that changed accounting periods from 2008 to 2011 were excluded from the study.

2 Variables

Organizational performance has been measured primarily by ROA in turnaround and slack studies (e.g., Bradley, et al., 2011; Latham and Braun, 2008) relating to recessions. In addition to ROA performance measure, this study employed sales growth measure.

The Great Recession began in the spring/summer of 2008 and bottomed out around the spring of

Analysis Results

5	6	7	8	9	10	11	12
.03	-.18*	-.01	-.29***	-.22**	-.27***	.47***	.03
.09	-.28***	.17*	-.15*	-.23***	.05	-.01	.20**
.12	.05	.90***	.39***	-.13	.06	-.15*	-.11
.01	.23***	.44***	.56***	-.01	-.01	-.15*	-.19**
	-.30***	.13	-.01	.02	.09	.07	-.07
		-.03	.26***	.03	-.01	.01	-.16*
			.37***	-.05	.05	-.22***	-.06
				-.02	.01	-.37***	-.28***
					-.07	-.13	-.05
						-.28***	-.17**
							-.16*

2009. The financial performance of most firms in the sample bottomed out in March 2009 and has since gradually improved. Therefore, changes in ROA and sales from March 2009 to March 2011 were calculated and used in this study.

I used three different measures of slack, i.e., unabsorbed slack (i.e., current ratio), absorbed slack (i.e., selling, general and administrative expenses over sales), and potential slack (i.e., equity to debt ratio) (e.g., Iyer and Miller, 2008; Greve, 2003; Martinez and Artz, 2006). Changes in the above slack resources from March 2008 to March 2009 were calculated and utilized in this study.

I controlled for four different factors that may lead to changes in firm performance during turn-around situations: (1) cost retrenchment, (2) asset retrenchment, (3) firm size, and (4) the severity of performance decline. Firm size has been found to affect the ability of firms to make necessary changes in the face of environmental threats (Tushman and Romanelli, 1985). Firm size was operationalized as the log of employees at the onset of the Great Recession.

Previous research (Bibeault, 1982) suggests that the severity of performance decline may influence the type of retrenchment strategies selected. Specifically, the more severe the performance decline, the more likely it is that asset retrenchment will be used. For this variable, I used a dummy variable coded "1" if a sample firm had a negative operating income in March, 2009, and "0" if a sample firm had a positive operating income.

Cost retrenchment, calculated as the change in

the cost (i.e., SGA plus interest expenses) from 2008 to 2009, was used in this study. Asset retrenchment was calculated as the change in fixed assets from 2008 to 2009.

IV Results

Table 1 shows the descriptive statistics and correlation analysis results among variables used. Tables 2 and 3 show the details of seven regression analysis results related to the dependent variable as changes in ROA and sales. Regression analysis was performed separately for slack presence and slack reduction because they had high correlations.

Three measures of slack reduction, i.e., unabsorbed, absorbed, and potential slack, showed very different effects on a firm's performance. For changes in ROA as a dependent variable, unabsorbed slack at the onset of recession had no impact on performance, while reduction of unabsorbed slack had positive impact on performance. It means that, when firms increase their current ratios subsequent to the recession, these companies tend to increase their performance. Opposite was true for absorbed slack. Reduction of absorbed slack led to increase in performance. Potential slack had no impacts on profit performance.

For changes in sales as a dependent variable, unabsorbed slack had no impact on performance. Reduction in absorbed slack showed negative effects on performance. Potential slack had positive influence on performance, while reduction in potential

Table 2 Regression Analysis Results — ROA change

Model	ROA 2009–2011						
	1	2	3	4	5	6	7
Cost Retrenchment	-.18***	-.18**	-.18**	-.20**	-.18**	-.17**	-.20**
Asset Retrenchment	-.17**	-.17**	-.16*	-.20**	-.18**	-.17**	-.20**
Severity of decline	.41***	.42***	.45***	.33***	.41***	.44***	.33***
Firm size	.05	.05	.08	-.01	.02	.06	-.01
Slack types		Unabsorbed		Absorbed		Potential	
Slack presence		.05		-.14		.11	
Slack reduction			.18**		-.17**		-.14
R ²	.26	.26	.28	.27	.28	.26	.27
F-Value	12.10***	9.70***	11.02***	10.19***	10.97***	10.10***	10.19***

Notes: Level of significance: ***, $p < .01$; **, $p < .05$; *, $p < .10$
 N = 128

Table 3 Regression Analysis Results — SALES change

Model	SALES 2009–2011						
	1	2	3	4	5	6	7
Cost Retrenchment	-.21**	-.20**	-.21**	-.22**	-.21**	-.20**	-.23***
Asset Retrenchment	.08	.08	.09	.07	.06	.08	.05
Severity of decline	.01	.03	.03	.01	.01	.06	-.06
Firm size	.21**	.22**	.23**	.21**	.17**	.23***	.15*
Slack types		Unabsorbed		Absorbed		Potential	
Slack presence		.09		.10		.18**	
Slack reduction			.10		-.25***		-.14
R ²	.07	.07	.07	.07	.12	.09	.08
F-Value	3.50***	3.04**	3.07**	3.11**	4.85***	3.79***	3.22***

Notes: Level of significance: ***, $p < .01$; **, $p < .05$; *, $p < .10$
 N = 138

slack showed no impact. Above results supported both hypotheses 1a and 1b, depending on a slack measure used.

Cost retrenchment showed very significant negative impacts on both profit and sales growth performance. Asset retrenchment had significant negative impacts on profit performance, while it showed no effect on sales growth performance. The severity of performance decline showed significant positive relationships with profit performance, while it had no impacts on sales growth performance. Firm size had no impact on profit performance, while it showed significant positive effects on sales growth performance.

V Discussion and Conclusion

Companies that reduced absorbed slack tended to increase their profit and sales growth performance during recession. Also, firms with high levels of potential slack just before the start of a recession had better sales growth performance.

Firms that increased unabsorbed slack at the onset of recession, i.e., current ratio, tended to increase their profit performance. This finding was not expected. But, in retrospect, it may be reasonable for firms facing possibly a very deep recession to increase current assets, i.e., cash, to prepare for future environmental turbulence. By so doing,

managers tried to increase borrowing capacity.

Potential slack, i.e., equity over debt, is quite similar to unabsorbed slack. Both represent a firm's borrowing capacity. But, raising unabsorbed slack may be likely to lead to increasing cash, while raising potential slack probably lead to either increasing equity or decreasing debt, neither of which may not be preferred by managers in very uncertain environments.

Notice that some measures of slack have very high correlations among themselves (Table 1). Unabsorbed and potential slack have about 90 percent correlation, while almost no correlations exist between unabsorbed and absorbed slack, and absorbed and potential slack. Most prior studies have used only one measure of slack resources. Some studies have utilized two or three different measures and had found distinct effects of these slack measures on their dependent variables (e.g., Iyer and Miller, 2008; Greve, 2003; Martinez and Artz, 2006). Yet, these measures of slack are usually considered representing a firm's "slack". This study has found some distinct effects of some of slack resources on performance. Future studies should investigate nature and characteristics of relationships between these slack measures.

This study has found mixed results on the relationship between slack reduction and performance. This finding may indicate special circumstances surrounding deep recessions. Managers in such circumstances may want to hold onto borrowing capacity. Many managers may be willing to increase their borrowing capacities due to financial institutions' problems stemming from the Great Recession.

On the other hand, Japanese managers who are willing to reduce selling and overhead expenses tended to be more rewarded later with higher profit and sales growth performance. Note that reducing selling and overhead expenses would lead to some reduction in personnel, which is quite unpopular in Japan.

The findings of simple relationships between cost/asset retrenchment and performance suggest that for firms whose performance decreased suddenly due to initial disruptions by recessions, the

traditional turnaround strategy field may offer prescriptions for combating recessions in Japan. Cost retrenchment had positive impacts on both profit and sales growth performance. Also, asset retrenchment showed positive impacts on profit performance. When faced with severe economic downturn, companies which reduce cost and asset may achieve higher profit and/or sales growth performance during recession. Moreover, other factors such as the severity of performance decline and firm size that usually have strong relationships with turnaround performance showed positive effects on performance during recession. These findings would also indicate the relevance of turnaround strategies during recession.

This study has only examined performance during recessions because only a few years have passed since the beginning of the Great Recession. Future research should be conducted after the end of the Great Recession to investigate the impact of slack on performance during recovery periods. Future research should also examine the impact of slack reduction on firms' performance in other industries. This study focused on one industry, machinery. More research on other industries are needed to further understanding of the relationships between slack and performance in recessions.

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