

ABSTRACT

This study investigates the relationship between slack, marketing expenditure, and performance turnaround for Japanese firms that substantially decreased profit performance due to the Great Recession. This research study finds that Japanese firms which have increased their slack resources (e.g., cash and SGA (selling, general and administrative expenses)) and have decreased their levels of marketing expenditures at the onset of the Great Recession were more likely to increase their subsequent performance than their counterparts. The findings of this study have implications for managers affected by deep recessions.

Slack in an organization has been regarded as instrumental in enhancing the performance of companies that face environmental turbulence, such as economic recessions (e.g., Bradley, Shepherd and Wiklund, 2011; Cheng and Kesner, 1997; Latham and Braun, 2008; Zona, 2012). Only 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 an appropriate indicator of a company’s abil-

ity to increase performance during a recession.

Slack resources could afford discretionary funding to pursue new projects, improve processes, and develop new products or markets during times of hardship (Boyne and Meier, 2009; Lee and Wu, 2016; Marlin and Geiger, 2015; Mousa and Chowdhury, 2014). But, slack resources need to be used (i.e., reduced) to deploy other resources to combat recessions. Very few previous studies have examined the relationship between slack reduction and performance turnaround during a recession.

Notice that slack is often not used in times of recession. Managers may hold onto slack resources during a recession. Also, these slack 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.

Reduction of slack itself may not automatically lead to performance turnaround. Slack resources should be used appropriately to increase performance. Marketing expenses have often been found to be an effective means of increasing market share during recessions (e.g., Srinivasan, Lilien and Sridhar, 2011). Thus, one possible way to use slack resources to improve performance is spending on marketing. It is important to investigate whether firms that

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reduce slack and simultaneously increase marketing expenditures at the onset of a recession increase their likelihood of a performance turnaround.

In a traditional turnaround field, a firm's retrenchment is regarded as essential to obtain cash and other resources for implementing turnaround activities. Slack reduction, such as declining cash and selling expenses, is similar to the cost and asset retrenchment that is introduced by poor-performing companies in an attempt to achieve turnarounds. Although there have been many turnaround studies in the past, little research has examined firms that are suddenly hit by a severe recession and are in need of turnaround during a recession.

Note that the cost and asset retrenchment required for performance turnaround directly conflicts with the increase in marketing expenditures during recessions recommended by several marketing studies to increase firms' subsequent profitability and market share. Marketing expenditures are categorized as selling expenses that are considered absorbed slack (which will be further discussed in the later sections). Therefore, findings in the turnaround strategy field and those in the marketing field may be in direct conflict.

Notice also that the types of firms investigated in traditional turnaround strategies differ considerably from those examined in studies on slack. Companies pursuing traditional turnaround strategies have been performing poorly for several years and thus are likely to have exhausted most of their slack resources. So, 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 have substantial slack at the onset of a recession, so they have ready access to slack resources, such as cash and its equivalent.

Managers' inclinations to reduce a firm's liquidity may depend partly on their percep-

tion of the depth of recessions. 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 restricted to specific regions and industries. For example, the 2001 IT (Information Technology) recession has continued approximately only one year and primarily affected one industry (i.e., software) (Latham and Braun, 2008). On the other hand, at the beginning of the 2008 Great Recession, many academics and business people have predicted that this recession may be a very deep and long one. So, many firms have been expected to go bankrupt due to this recession. Therefore, those managers who have believed those predictions are likely to increase their firms' liquidity to a sufficient level to avoid bankruptcies.

The Great Recession's initial shocks to the economy have lasted until the spring of 2009. Firms that have closed their financial statements in the spring of 2009 are ideal sample companies for researching on actions at the onset of the Great Recession because marketing expenditures are usually disclosed only in annual financial statements. Most U.S. companies close their fiscal financial statements in December, so these firms did not disclose marketing expenditures in the spring of 2009. Thus, U.S. firms may not be ideal sample companies for this study. In contrast, most Japanese firms close their annual financial statements at the end of March. Therefore, Japanese companies are used as the sample firms in this study.

It should also be noted that not all firms are affected adversely by a recession. Some companies may increase their performance because of enlarged market size due to a recession. These firms do not need turnaround efforts. However, the turnaround activities of companies whose performance has declined substantially due to a recession should be investigated.

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 and increasing marketing expenditures at the onset of the Great Recession.

I PREVIOUS RESEARCH AND THEORETICAL DEVELOPMENT

1 Slack and Turnaround

Slack has usually 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 regarded 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 (Galbraith, 1973). Therefore, these companies have more innovation capabilities (Hambrick and Snow, 1977; Nohria and Gulati, 1996). However, previous studies on the relationship between slack and performance have 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. Notice that most previous studies have examined the “presence” of slack on firms’ subsequent performance.

Traditional research on slack has presumed that the “presence” of slack at the onset of recessions creates an organizational atmosphere that promotes innovation and organizational per-

formance. 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 operate their organizations ineffectively.

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

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

Examples of slack resources also include excess expenses related to research and development and marketing expenditures, which are included in the selling, general and administrative (SGA) expenses section in financial statements. Retrenchment of cost, which is usually measured as the sum of SGA and interest expenses (Morrow, Johnson and Busenitz, 2004) in the turnaround field, is very similar to the reduction of slack called “absorbed slack”, consisting of excess selling, general and administrative expenses over sales. Therefore, some types of slack, such as absorbed slack, may be related

to components of cost and asset retrenchment in the turnaround strategy fields.

However, studies on slack and cost/asset retrenchment have rarely been conducted together because the two fields are concerned with very different types of organizations. The literature on slack deals mainly with firms that have performance high enough to accumulate extra resources, whereas the turnaround field tends to examine companies with prolonged poor performance. Firms encountering a sudden recession are similar to the companies examined for turnaround purposes, but they differ in one major respect: the presence of slack. Firms facing a recession may hold a substantial amount of slack that is usually not available in turnaround firms. Therefore, firms faced with adverse impacts from recessions may use their slack for performance turnarounds.

In the marketing field, several studies have examined whether firms should increase marketing expenditures during recessions (e.g., Srinivasan, Lilien and Sridhar, 2011). However, these marketing studies have seldom considered turnaround situations in recessions. This study combines the fields of slack, turnaround, and marketing, and attempts to shed light on whether firms should reduce their slack and increase their marketing expenditures at the onset of recessions in an attempt to improve performance turnaround during recessions.

2 Slack Types and Turnaround

Organizational slack has been measured in several ways, and includes the following five types:

- (1) High discretion slack (cash)
- (2) Recoverable slack (Account receivables plus inventory)
- (3) Potential slack (Equity/debt)
- (4) Available slack (Current ratios)
- (5) Absorbed slack (Selling, general and selling and administrative expenses over sales)

High discretion and recoverable slack rep-

resent cash and its equivalent that can be deployed to increase marketing spending. These slack measures vary in the degree of discretion they afford managers (e.g., Cheng and Kesner, 1997; Singh, 1986). For instance, available slack represents resources that remain uncommitted to system operations. Therefore, this slack can easily be converted into cash. In contrast, absorbed slack in the form of excess overhead and marketing expenditures may require more managerial effort and time to convert into cash (e.g., Geiger and Cashen, 2002; Sharfman et al, 1988).

Note that cost and asset retrenchment activities in the turnaround strategy field are similar to reductions of absorbed slack. This absorbed slack includes overhead expenses, marketing expenses, and administrative expenses. It should be noted that, in the turnaround field, the SGA plus interest expenses usually represent components of cost targeted for retrenchment. Firms attempting to turn around must reduce these hard-to-trim expenses to provide cash used for turnaround activities. Asset retrenchment in the form of selling manufacturing plants and buildings is even more time consuming to implement. Many previous turnaround studies have found positive relationships between cost and asset retrenchment and turnaround performance. In other words, firms that reduce costs and assets are more likely to improve their turnaround performance than are their counterparts. In the turnaround field, it is usually assumed that cash generated by cost and asset retrenchment is used for subsequent turnaround activities.

Notice that cash generated through cost and asset retrenchment may be identical to cash represented by high discretion and recoverable slack, and this cash can be used for investment attempts for turnarounds. Therefore, it is plausible that slack reduction may lead to improved performance during a recession.

It should also be noted that, by definition,

turnaround 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. 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 absorbed 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.

3 Marketing Expenditures and Turnaround

Several studies have investigated the relationship between marketing expenditure increases and performance during recessions. The consensus among the studies in this field seems to be that firms that reduce advertising budgets

tend to reduce their profit performance as well as their market share positions (e.g., Tellis and Tellis, 2009). However, most of these studies have been conducted in the marketing field and have not been concerned with turnaround situations. Furthermore, these studies have not investigated the marketing activities of firms adversely affected by a recession.

Some studies have posited that because firms with high market shares have high levels of customer awareness and market penetration (Bloom and Kotler, 1975), increasing these companies' advertising expenditures during a recession may increase their costs without a commensurate increase in sales (Srinivasan, Lilien and Sridhar, 2011). Furthermore, in recessions, customers may become averse to changing their buying patterns, making customer acquisition efforts more costly (Posner, 2009). Thus, studies have found that firms with high market shares may decrease their profits by increasing advertising expenditures (Srinivasan, Lilien and Sridhar, 2011, p.51).

Another issue relates to cost retrenchment for firms attempting to turnaround (Pearce and Robbins, 1993; Robbins and Pearce, 1992). Notice that cost retrenchment may include a reduction of marketing expenses. Some previous studies on turnaround have found that companies that reduce expenses such as SGA during recessions increase performance (e.g., DeDee and Vorhies, 1998). One study investigated the relationship between marketing expenses and profit performance during the 2001 IT recession (Latham and Braun, 2008), treating the marketing expenses at the onset of the recession as a control variable. This study found insignificant relationships with subsequent profit performance, but this study has included all firms in the software industry, which was most affected by the IT recession. Therefore, the following hypotheses could be proposed:

Hypothesis 2a: The higher a firm's increase in marketing expenditures at the onset of a recession, the higher the improvement of its performance during the recession.

Hypothesis 2b: The higher a firm's increase in marketing expenditures at the onset of a recession, the lower its performance during the recession.

II RESEARCH METHODOLOGY

1 Sample

Each organization in this study's sample was a Japanese electronics manufacturer (SIC code: 36). A single industry was selected to control for industry differences. This industry had 161 companies with closing dates for their annual financial statements in the month of March. Of these 161 firms, 57 companies (35%) were eliminated from the sample because their return on assets (ROAs) did not decline more than two percentage points from September 2008 to March 2009. Sample firms were drawn from the Standard & Poor's Capital IQ database and are listed in the Japanese stock exchanges. Some of the variables, such as selling and marketing expenditures and the number of employees, were drawn from the Nikkei's NEEDS database. Firms that altered accounting periods from 2008 to 2011 were excluded from the study.

Companies that are majority-owned subsidiaries are unlikely to make important resource allocation decisions (e.g., marketing activities) independent of their parent firms. These decisions are usually made by their parents rather than by the subsidiaries' management. Thus, these subsidiaries were excluded from the study. A total of 90 companies satisfied the above criteria.

2 Dependent Variable

Organizational performance has been measured primarily by ROA in turnaround, slack and marketing 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 because some marketing studies (e.g., Biel and King, 1990; Kamber, 2002; Tellis and Tellis, 2009) have utilized it as performance measure.

The Great Recession began in the spring/summer of 2008 and bottomed out around the spring of 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.¹

3 Independent Variables

The following four measures of slack were used in this study:

- (1) High discretion slack (cash)
- (2) Recoverable slack (accounts receivables and inventory)
- (3) Potential slack (current ratio, calculated as current assets over current liabilities)
- (4) Absorbed slack (selling, general and administrative (SGA) expenses over sales).²

High discretion slack is a firm's cash reserves and provides the greatest freedom in allocation for various uses (e.g., Combs and Ketchen, 1999). Recoverable slack represents the level of resources in current operations. Miller and Leiblein (1996) have suggested that recoverable slack is a particularly important slack measure because of its immediate impact on operations. Potential slack is the equity-to-debt ratio for a firm. Larger ratios represent greater opportunities to acquire additional discretionary funds (Bradley, et al., 2011; Hambrick, et al., 1996). The current ratio is the most widely used measure of available slack (Daniel, et al., 2004). Absorbed

slack is a measure of slack that has already been committed to current operations.

Changes in the above four measures from March 2008 to March 2009 were calculated and utilized in this study. Another independent variable was the change in selling and marketing expenditures from March 2008 to March 2009.

4 Control Variables

I controlled for four different factors that may lead to changes in firm performance during turnaround 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 Roanelli, 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. Similarly, the more severe the performance decline, the more likely it is that reduction of slack, such as absorbed slack, will be utilized. 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. Means, standard deviations, and Interco relations for all of the variables used in this study are reported in Table 1.

III RESULTS

Table 2 shows the details of five regression analysis results related to the dependent variable as changes in ROA. Table 3 shows the analysis results related to the dependent variable as changes in sales from 2009 to 2011. Models 1 and 6 describe the regression analysis results without interaction terms. Because interaction terms show very high correlations, regression analysis were performed separately for each interaction term and are presented in Tables 2 and 3.

Of the four slack variables, only one, absorbed slack, shows significant positive impacts on changes in both ROA and sales. Available slack exhibits negative impacts on profit performance, whereas absorbed slack shows positive impacts on sales growth. Recoverable slack has insignificant relationships with both dependent variables. These findings show only partial support for hypothesis 1b.

For changes in ROA as a dependent variable, marketing expenditures were found to have very weak, insignificant relationships, whereas marketing expenditures had significant negative impacts on sales growth performance. These findings support hypothesis 2b.

For interaction terms, only recoverable and absorbed slack showed significant impacts on ROA changes, whereas the three variables, recoverable, available and absorbed slack, exhibited significant impacts on sales changes.

In most regression equations in Tables 2 and 3, the control variables (cost retrenchment, severity of performance decline and, firm size) were significant. Cost retrenchment showed significant negative impacts on both of the dependent variables, whereas asset retrenchment had insignificant impacts. The severity of performance decline and firm size showed mostly significant positive relationships with

Table 1 Correlation Analysis Results

	1	2	3	4	5	6	7
1. ROA	1						
2. Sales	0.28***	1					
3. Cost retrenchment	-.18*	-.06	1				
4. Asset retrenchment	-.18*	.11	.01	1			
5. High discretion slack	.03	.08	-.03	-.07	1		
6. Recoverable slack	-.41**	-.1	.17*	.07	.01	1	
7. Available slack	-.09	.30***	-.12	-.06	-.06	-.19*	1
8. Absorbed slack	-.4	.23	.22**	.21**	.05	.03	.21**
9. Marketing expenses	-.29***	-.33***	.10	-.10	.01	.06	-.01
10. High discretion slack * marketing	-.14	-.35***	.10	-.05	-.07	.03	-.01
11. Recoverable slack * marketing	.39***	.32***	-.12	.11	-.02	-.09	.01
12. Available slack * marketing	-.09	-.4	.10	-.06	.01	.06	-.13
13. Absorbed slack * marketing	-.27**	-.35**	.07	-.10	.02	.06	-.02
14. Severity of decline	.44***	.02	-.16	-.21	.12	-.45	-.03
15. Firm size	.06	.23**	.01	.22**	.13	.08	-.21**

	8	9	10	11	12	13	14
1. ROA							
2. Sales							
3. Cost retrenchment							
4. Asset retrenchment							
5. High discretion slack							
6. Recoverable slack							
7. Available slack							
8. Absorbed slack	1						
9. Marketing expenses	.04	1					
10. High discretion slack * marketing	.05	.99***	1				
11. Recoverable slack * marketing	-.04	-.99***	-.98***	1			
12. Available slack * marketing	-.04	.98***	.97***	-.98***	1		
13. Absorbed slack * marketing	.01	.99***	.98***	-.99***	.99***	1	
14. Severity of decline	-.03	-.13	-.15	.14	-.13	-.13	1
15. Firm size	.09	-.17	-.19*	.17	-.16	-.17	-.04

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

both dependent variables.

IV DISCUSSION AND CONCLUSION

A firm’s slack reduction at the onset of a recession showed mixed impacts on its subsequent profit performance. However, slack reduction had mostly positive relationships with a company’s sales growth performance. There

was a negative relationship between a firm’s marketing expenditure and its sales growth performance. Therefore, firms that had accumulated greater slack and, at the same time, had reduced marketing expenditures at the onset of a recession tended to increase their subsequent sales performance.

The findings in this study confirm the view that when managers are faced with declining ROA at the onset of deep recessions, these man-

Table 2 Regression Analysis Results – ROA change

Model	ROA 2009-2011				
	1	2	3	4	5
Cost Retrenchment	-.32**	-.32**	-.31**	-.34***	-.44***
Asset Retrenchment	-.10	-.12	-.10	-.11	-.15
Severity of decline	.27**	.28	.28***	.24**	.21*
Firm size	.20	.21**	.20**	.19*	.20**
High discretion slack	.09	.14	.10	.10	.13
Recoverable slack	-.13	-.11	-.02	-.14	-.16
Available slack	-.29**	-.28**	-.29**	-.56**	-.37***
Absorbed slack	.34**	.32**	.32**	.35**	.27**
Marketing Expenses	-.10	-.14	.34	-.05	.10
High discretion SL*Mktg		.12			
Recoverable SL*Mktg			.52**		
Available SL*Mktg				-.29	
Absorbed SL*Mktg					-.32**
R ²	.30	.30	.34	.31	.35
F-Value	5.08***	4.66***	5.30***	4.75***	5.60***

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

SL*Mktg: Interactions between slack and marketing expenditure

Table 3 Regression Analysis Results – SALE change

Model	SALE 2009-2011				
	1	2	3	4	5
Cost Retrenchment	-.25**	-.26**	-.31**	-.35***	-.33
Asset Retrenchment	-.08	-.05	-.10	.03	-.09
Severity of decline	-.11	-.12	.28***	-.14	-.14
Firm size	.20**	.18*	.20**	.09	.18
High discretion slack	.18**	.13	.01	.18**	.20
Recoverable slack	.01	-.01	-.02	-.09	-.02
Available slack	.17	.16	-.29**	-.44**	.11
Absorbed slack	.37***	.39***	.32**	.40***	.33
Marketing Exp.	-.31***	.32	.34	3.9***	2.49
High discretion SL*Mktg		-.64			
Recoverable SL*Mktg			.52**		
Available SL*Mktg				-.4.3***	
Absorbed SL*Mktg					-.2.81*
R ²	.34	.34	.34	.43	.35
F-Value	6.06***	5.5***	5.3***	7.6**	5.86***

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

SL*Mktg: Interactions between slack and marketing expenditure

agers tend to adopt very conservative approaches. These conservative managers are subsequently rewarded with higher performance.

This finding may partially be attributed to the uniqueness of the Great Recession, which from

its onset in the fall of 2008, has been labeled one of the largest and deepest recessions in U.S. history. The Great Recession has created environmental uncertainty that is likely to have made these managers very conservative. At the same

time, consumers may have become very conservative and very averse to changing their buying patterns. Future research should investigate the impacts of the Great Recession on changes in buying patterns among consumers.

The findings on the different effects of slack reduction measures on performance may provide implications for managers on possible options for their slack resources when faced with recessions. The impact of slack on sales changes differed only slightly based on the type of slack. Slack resources closely related to cash and SGA had significant relationships with sales changes and high discretion and absorbed slack showed positive impacts.

Nevertheless, the impact of slack on ROA changes differed considerably based on the type of slack. Slack resources related to current ratio and SGA had significant impacts, whereas those relating to immediate access to cash (i.e., high discretion and recoverable slack) had no relationships with ROA changes. Available slack had negative relationships with ROA changes, whereas absorbed slack resources had a positive impact. Therefore, these two measures of slack showed opposite effects on ROA changes. Marketing expenditures showed no impact on profit performance. Therefore, firms that reduced their current ratio and increased SGA tended to increase their subsequent profit performance, without regard to their marketing expenditure levels.

It should be noted that available slack (i.e., current ratio) showed a negative relationship with profit performance. Therefore, a decline in the current ratio would increase profit performance, and vice versa. This slack measure may be one of a few slack resources that could be reduced by managers to provide discretionary funding to combat recessions. The current ratio is one of the financial ratios related to a firm's liquidity. Future research should seek other slack measures that could be reduced by managers to obtain discretionary funding.

Although firms' slack reduction showed complex relationships with their subsequent performance, firm's cost retrenchment had a consistent, negative relationship with their performance. Firms that decreased their costs had much higher improvements in their performance. Furthermore, the severity of the performance decline and firm size showed positive impacts on subsequent profit performance. Firm size had a positive relationship with subsequent sales growth performance. Many previous studies of turnaround strategies have found similar results concerning cost retrenchment, the severity of performance decline, and firm size (e.g., Latham and Braun, 2008; Morrow, et al., 2004)

Overall, the findings in this study suggest that for firms whose profit performance decreased suddenly due to initial disruptions by recessions, the traditional turnaround strategy field may offer superior prescriptions for combating recessions compared to the suggestions offered by the marketing field. These prescriptions include the retrenchment of costs for marketing expenditures.

Interaction effects between slack measures and marketing expenditures show that the variables in these two measures have a significant effect on another. These two measures seem highly dependent on each other. A close examination of these interaction effects reveals closer relationships between the two when the dependent variable is a sales growth performance measure. Without interactions (Model 6), the coefficients of the marketing expenditures differ when the interactions are entered into the equations. These effects on marketing expenditures are absent when the dependent variable is ROA performance. These findings closely align with findings on the relationships between the main effects of slack measures and marketing expenditures and their impacts on performance.

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. Furthermore, this study focused on firm's marketing expenditures as the means for its turnaround activities because marketing expenditures tend to have immediate effects on performance (Graham and Frankenberger, 2011), whereas other activities, such as research and development (R&D), are considered to affect performance after several years. Future research should also examine the impact of slack reduction on firms' performance in other industries. This study focused on one industry, electronics. More research is needed to further understanding of the relationships between slack and performance in recessions.

Note

1 Changes in ROA and sales from April 2009 and March 2010 were also examined as dependent variables. However, almost no relationships were found between the dependent and independent variables, so they were not reported in this paper.

2 Potential and available slack measures showed very high correlations (89%, $p < .001$). Therefore, potential slack measure was dropped from analysis in this study.

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