Impact of Firm Performance on Changes in Strategic Resource Allocation Decisions

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We tested the effect of prior firm performance on changes in strategic resource allocation decisions under the environmental conditions of an economic recession. Results from a study of commercial banks suggest that the effect of firm performance on changes in resource allocation in response to environmental change is curvilinear and nonmonotonic. Firms with middle-level performance, however, tend to respond to changes in the environment with changes in strategic resource allocations, while both poor-performing firms and high performing firms demonstrate little such changes in response to environmental change.

When, why, and how firms initiate and implement strategic changes needs to be understood more clearly in the field of strategic management (Rajagopalan & Spreitzer, 1996). Although previous studies have contributed to our knowledge of the phenomenon of strategic change in different contexts (e.g., Boeker, 1989, 1997; Chandler, 1962; Gersick, 1991; Ginsberg, 1988; Kraatz & Zajac, 2001), at least two important questions remain unresolved.

First, are there systematic patterns of change that firms undertake in adapting to changes in macroeconomic conditions? Prior studies examined firms' responses to environmental shocks (Meyer, 1982) and environmental transformations (Grimm & Smith, 1991; Haveman, 1992; Smith & Grimm, 1987). However, how firms respond to macroeconomic conditions remains poorly understood. Specifically, given that resource

allocation is one of the most important strategic decisions (Hofer & Schendel, 1978), how do firms change their strategic resource allocation decisions in response to changes in macroeconomic conditions?

Second, what is the effect of a firm's prior performance on organizational change? On the one hand, firms with performance below the historical norms are more likely to take risks and make changes (Greve, 1998). This view suggests that firms maintain their status quo until faced with failure. Poor performance is likely to trigger corrective actions such as organizational change (Cyert & March, 1963; Pfeffer & Salancik, 1978). On the other hand, poorly performing firms may avoid changes due to a shortage of resources (Cameron & Whetton, 1987) or pessimistic perceptions (Staw, Sandelands & Dutton, 1981). Given the equivocal conclusions about the influence of performance on organizational change, a logical question to ask would be "is the effect of performance on organizational change linear?" Several studies examined the impact of strategic change on firm performance when faced with a change in a macroenvironmental condition such as deregulation (Haveman, 1992; Kim & McIntosh, 1999). However, the influence of a firm's performance on strategic change did not receive much empirical attention.

The macroeconomic condition discussed in this particular study is economic recession. In general, such macroeconomic conditions are likely to place a systematic negative effect on the performance levels of firms. Our empirical context is the commercial banking sector in the states of Kansas, Nebraska and Oklahoma that were affected severely by recession. The banks in these states were relatively free from any confounding effects of other macroenvironmental factors in the banking industry such as currency markets and derivatives markets. The purpose of our study is to observe how firms react to such environmental stimuli. More specifically, this paper addresses two questions:

1) During a period when the economy moves from growth into recession, do firms adapt to the economic conditions by making changes in strategic resource allocation decisions?

2) How does firm performance affect changes in strategic resource allocation decisions under economic recession? Is the performance effect linear?

We integrate theoretical perspectives of strategic choice (Child, 1972; Hrebiniak & Joyce, 1985), organizational inertia, and threat rigidity (Freeman & Hannan, 1984; Staw et al., 1981) to study the effects of firm performance on firm level strategic resource allocation decisions in response to change in macroeconomic conditions.

Theoretical Background and Hypotheses

Strategic Choice, Inertia, Threat-rigidity and Changes in Strategic Resource Allocation Decisions

Whether organizations undertake changes and adapt to changes in their environments has long been a focal concern for researchers in various fields such as strategy (Ginsberg, 1988; Rajagopalan & Spreitzer, 1996), organization theory (Astely

& Van de Ven, 1983; Haveman, 1992), and sociology (Freeman & Hannan, 1984). A central debate around the question is adaptation vs. inertia or strategic choice vs. determinism (Hrebiniak & Joyce, 1985).

The strategic choice perspective (Andrews, 1971; Child, 1972) argues that organizations (or general managers) purposefully adapt to environmental changes and that strategic choice is the primary link between organizations and their environments (Miles & Snow, 1978). In particular, Andrews (1971) suggests that organizations maintain an organization-environment fit to achieve superior performance. According to the strategic choice perspective, these firms should undertake strategic change in response to environmental changes in order to achieve better organization-environment fit and superior performance.

The other side of the debate, the perspective on inertia or determinism (Freeman & Hannan, 1984), argues that previous success may lead to organizational forces for stability and inertia. These forces act to guard the status quo and resist organizational changes. Another school of thought within the inertia perspective argues that poor performance can also lead to inertia and hamper organizational changes (Staw et al., 1981). The inertia perspective emphasizes the organizational forces that hinder organizational adaptability and focuses on the role of organization specific attributes, such as firm history and previous or current organizational performance (Boeker, 1989; Cameron & Whetton, 1987; Dutton & Duncan, 1987).

Economic recession, an environmental condition which poses challenges to almost every firm, represents an interesting setting for investigating the power of the strategic choice and inertia perspectives in explaining strategic change. Because economic recession is a systematic environmental phenomenon, the threat rigidity-inertia (Staw et al., 1981) and success-inertia (Freeman & Hannan, 1984) arguments that are largely specific to a firm's own history, may not be a good explanation of a typical firm's strategic change under recession. Rather, as the macroeconomic environment moves from growth into recession, it is relatively evident to every firm that a strategic change may be necessary. According to the strategic choice perspective, firms adapt their resource allocations and deployment to match the economic reality of recession. We expect a systematic trend of firms changing their resource allocation decisions in response to economic recession. Therefore, we hypothesize:

H1: Firms undertake changes in strategic resource allocation decisions in response to economic recession.

Given the general tendency of firms undertaking organizational changes in response to the economic recession, do all firms respond to the recession in the same way? As suggested by the literature, especially by the inertia perspective (Staw et al., 1981; Freeman & Hannan, 1984), firm performance is an important determinant of the organizational changes of individual firms. Similarly, although not directly citing performance, Kraatz and Zajac (2001) demonstrated that a firm's excess resources could help buffer its technical core from environmental changes and reduce the tendency for change. It will be theoretically interesting and practically relevant to untangle the linkage between firm performance and its changes in strategic decisions

under changing economic conditions.

Firm Performance and Changes in Strategic Resource Allocation Decisions

Literature concerning the performance effects on strategic change remains controversial (Boeker & Goodstein, 1991). Cyert and March (1963) argued that a decline in performance led to corrective managerial actions. Following this argument, when poor performance signals a mismatch between an organization and its environmental conditions, organizational changes should take place. Previous studies on executive succession have shown that poor performance leads to organizational changes (Boeker & Goodstein, 1991; Salancik & Pfeffer, 1980). Other researchers found that poor performance was related to changes in business level strategies (Boeker, 1989; Zajac & Kraatz, 1993). This suggests a negative correlation between firm performance and its strategic change. Such a negative correlation is consistent with the prediction of the strategic choice perspective. Under an economic recession, poorly performing firms should have an added incentive to engage in strategic actions in order to achieve a better fit with the environment.

In contrast, other researchers argue that the implementation of organizational changes is not cost-free, and strategic actions are often characterized by irreversible commitment of resources (Caves, 1984). Organizations need a certain level of resources to initiate and implement changes, even though growth reinforces organizations to continue operations with relatively few changes (Hedberg, 1981). Conceptual work (Dutton & Duncan, 1987) and empirical studies (Cameron & Whetton, 1987) indicate that poorly performing organizations often lack the resources to implement changes, and they even resist change because of pessimistic perceptions of the situations when facing resource shortages.

Given the above conflicting arguments, an interesting question arises as to how poor the performance should be for a firm in order to resist change or undertake change. In other words, is the performance-strategic change relationship linear? Indeed, those who argue that poor performance leads to organizational changes, discuss the poor performance effects in comparison to the effects of satisfactory and/or good performance. Those who argue that poor performance can hinder organizational changes focus their attention more on extremely poor performers, such as firms whose situations were so discouraging that the managerial perception might have regarded the situation beyond repair. In either case, those researchers implicitly assumed a linear relationship between performance and organizational change, and focused their theorization on different levels but not on the whole range of firm performance.

One exception is a study that found a curvilinear relationship between past performance and changes in corporate aggressiveness, as measured by the change in the firm's emphasis on product and market development and change in the firm's risk posture (Fombrun & Ginsberg, 1990). Low performers and high performers are less likely to change than firms with intermediate levels of performance. Another recent study found that firms in the personal computer manufacturing industry, with large deviations in performance from the norm, are most likely to adopt a new technological path. This usually occurs following a change in the technological environment with the advent of open-standard architecture that occurred in 1981 (Hendron, Bednar &

Henderson, 2005). To reconcile the conflicting arguments, we propose a nonlinear relationship between firm performance and strategic change through the whole spectrum of performance level. Therefore, we hypothesize:

H2a: The relationship between firm performance and changes in strategic resource allocation decisions is curvilinear.

We argue for a threshold level of performance, below which firms lack the minimal resources to initiate and implement changes. The further the performance runs below this threshold level, the more severe the lack of resources for change will be. Therefore, for firms below this level, we expect a positive association between performance and strategic change. That is, the worse a firm's performance is, the less likely it will be able to undertake the necessary changes.

Above that threshold level, even if the performance is poor, a firm may still have the resources to initiate and implement organizational changes. Poor performance drives firms into a problem-motivated search (March & Simon, 1958) and realignment of a firm with its environment, providing the necessary pressure for change. High performers either find their initial resource allocation to be in line with the changed environment, or find the performance level satisfactory enough to resist any change. The latter can happen even when general managers (Pettigrew, 1973) have detected the mismatch between an organization and its environment. Above the threshold level, we expect a negative relationship between performance and changes in strategic resource allocation decisions. Therefore, we hypothesize:

H2b: There exists a threshold level of firm performance:
1) Below which the relationship between firm performance and changes in strategic resource allocation decisions is positive, and
2) Above which the relationship between firm performance and changes in strategic resource allocation decisions is negative.

Method

The Empirical Setting

The commercial banking industry is the empirical setting for theory testing in this study. First, this industry bears the responsibility of generating and recirculating the flow of activity for the economy through deposits and loans to institutions and individuals. As an indicator of the growth of the economy as a whole, this industry is vulnerable to the fluctuations in the macroeconomic environment. Therefore, it is interesting to see how commercial banks in this important industry cope with recessionary conditions. Second, the commercial banking industry is a regulated industry. As per Federal regulatory agencies, such as the Federal Reserve Board and Federal Deposits Insurance Corporation (FDIC), every insured commercial bank in the U.S. is required to report in detail about their operations and financial status on a quarterly basis. Thus, data on this industry are consistently reported allowing us to observe the changes in banks' resource allocations under various economic conditions (economic recession for this study in particular).

Sample and Data

The sample of this study included all the commercial banks in the states of Kansas, Nebraska and Oklahoma; states that were severely affected by the economic recession of 2001. Kansas, Nebraska and Oklahoma were traditionally unit-branch banking states. Prior to deregulation, there were several restrictions on intrastate branching and interstate banking (Strahan, 2003). Even after deregulation, the commercial banks in these states were not under the ownership of bank holding companies that may have had corporate offices in other states or other countries. Consequently, our sample consists of firms that were relatively autonomous in their ability to make changes in their strategic allocation decisions. Such a homogenous sample is appropriate to test the hypothesized effects, thereby reducing the concerns of noise arising out of other factors that may contribute to changes in the firm.

Because our purpose is to understand how firms change their resource allocation in coping with economic recession, we set our first wave of data collection into the recession rather than at the advent of the recession. The standard index of economic conditions used in economics and by the federal government is the growth rate of GDP, published by the U.S. Department of Commerce. According to the *Economic Report of the President* (2002), the first three quarters of 2001 registered negative growth in GDP. The first quarter of 2000 (ending in March) was before the recession started, and the first quarter of 2001 in March marked the period when the economy was fully into recession. It is reasonable to assume that a period of one year allows enough time for the effects of recession to be obvious to the banks. We collected cross-sectional data for March 2000 and March 2001 in order to capture the period of interest for this study.

We studied the effects of bank performance levels in March of 2000 on the changes in resource allocation decisions in March of 2001. In general, there are time lags between decisions made about resource allocation and changes in the actual patterns of resource allocation due to different durations of loans and different maturity periods of securities. Banks typically report and evaluate their operations on a quarterly basis and therefore, one year should be a reasonable time lag to observe a bank's ability to cope with the recession. The total number of commercial banks in the states of Kansas, Nebraska and Oklahoma in March 2001 was 935. This number included: 1) all of the banks in operation; 2) banks either under merger and acquisition or nonindependent banks that changed their names during this time period, and 3) banks with missing data on key variables of our interest. We removed the latter two types of banks from the sample due to missing data. However, this did not change the overall characteristics of the sample. The final sample size was 929. All of the data for this study was collected from the Call Reports filed quarterly by all insured commercial banks to the FDIC. The data set included all of the items in income statements, balance sheets, as well as financial ratios.

Measures

Strategic resource allocation decisions. One of the most important aspects in banking management is the management of assets and liabilities (Johnson & Johnson, 1984). In this study, strategic resource allocation decision refers to the strategic posture of

commercial banks in managing their asset resources (Deephouse, 1996, 1999). Major items in bank assets include cash, securities, loans and lease financing (hereafter referred to as loans), as well as premises (fixed assets), etc.

Loans and securities are the two major areas where banks hold their assets and derive income in the form of interest. Loans, though likely to provide higher interest than securities, are subject to default risk. Such loans are termed as nonperforming loans in the banking industry. Investment on government treasury bonds and other low risk securities represents a relatively secure source of income. Securities and loans account for a large portion of bank assets. Therefore, resource allocation decisions about the combination of security and loan assets reflects the strategic posture of the bank. The larger the proportion of loans relative to securities, the more aggressive the bank is in its operation. We measured resource allocation decision (S) as the following ratio:

S= *Securities* / (*Securities+Loans)*

Under a recession, the default risk of nonperforming loans is typically high. Holding assets in loans is therefore, a relatively unattractive alternative since many banks face the trouble of nonperforming loans and insolvency, which may lead to bank failure. In the golden years of the 1990s, many banks and Savings & Loans (S&L) institutions issued a tremendous amount of careless loans (possibly for good reasons like gaining market share) which contributed to their failure later on. The bailout of S&L associations warned the bankers to clean up the mess in their balance sheets rather than increase loan lending. Under this kind of recession, regulatory agencies also require stricter procedures in making loans, leading to more complicated credit inquiries and paperwork. This then restricts loan lending.

Bankers should be extremely cautious in making loans under an economic recession and must find other ways to make profits. In addition, in banking literature, Johnson and Johnson (1984) suggest that banks should collect more income from securities and restrict loans under recessionary conditions.

Change in Strategic Resource Allocation Decision. In this study, we define the dependent variable change in strategic resource allocation decision as a change in *S*, denoted as *CS*, measured as the change of *S* from 2000 to 2001:

$CS = S_{2001} - S_{2000}$

An increase in S during 2001 indicates a bank's adaptation to the economic conditions in the direction of a better resource deployment-environment match.

Performance. The performance measure in this study is return on assets (ROA) in March 2000. ROA is measured as the net operating income after tax as a percentage of the average total assets, which is a widely used overall performance measure in banking studies. It is also closely watched by bank management (Rhoades, 1985).

Control Variables

Initial pattern of strategic resource allocation. The initial pattern of strategic resource allocation of March 2000 is used as a control variable, simply denoted as S_{2000}. A low initial *S* may indicate a relatively poor match between a bank's aggressive strategic posture in resource allocation retained from the relatively high growth period in the 1990s and the onset of recessionary conditions during 2000. We expect that banks with a low initial S change more than banks with a relatively high initial *S* (a relatively better match).

Firm size. According to the inertia perspective, large firms may resist changes citing bureaucratization as a primary reason. Large firms are also capable of buffering themselves from any environmental changes owing to the slack resources. We therefore control for the effects of size on changes in resource allocation decisions. Firm size, *Z*, is measured as the log of total bank assets, a typical way of measuring size (Hansen & Wernerfelt, 1989).

Loan Quality. Given our method of measuring strategic resource allocation decisions, it may be possible that a certain *S* value is just an artifact of a bank's write-off policy and different loan quality. A high *S* value (i.e., a relatively small proportion of loans) may be caused by a bank's willingness to write off the nonperforming loans, while a low *S* value (i.e., a relatively large proportion of loans) may be due to the delay of a bank's write-off. Although we purposefully use net loans rather than total loans in measuring *S*, for a more accurate interpretation of *S*, we control for the loan quality effect *Q*, measured as the ratio of nonperforming loans to total loans. The more the loans are classified as nonperforming loans (i.e., a high *Q* value), the less the total amount of net loans. Thus, we predict a positive association between *Q* and *S*.

Data Analysis

Hypothesis 1 was tested by checking the direction of the change in S from 2001 to 2000 and by the comparison of the means of S_{2001} and S_{2000}. A significant positive change in resource allocation (*CS*) indicated support for Hypothesis 1. In general, firms undertake changes in their resource allocations to achieve a better fit with the economic conditions of a recession.

Hypothesis 2a was tested using multiple regressions with a multiplicative (quadratic) term of performance. The control variables were *S* (resource allocation between loans and securities), *Q* (loan quality), and *Z* (size of the bank) during the year 2000. *Y* in equation 1 below refers to the change in resource allocation pattern (*CS*) and *X* refers to performance (*ROA)*:

$$\mathbf{Y=a+b_1X+b_2X^2+S+Q+Z+e} \qquad \mathbf{(1)}$$

Since we only test the significance of unstandardized coefficient b_2 in the equation, multi-colinearity does not pose a severe problem (see Allison, 1977; Venkatraman, 1989). A significant b_2 indicated a curvilinear relation between performance and changes in strategic resource allocation decisions.

Hypothesis 2b was tested using the first order derivative of equation (1) over X:

$$dY/dX=b_1 + 2b_2X \quad (2)$$

This tested the monotonicity of the X-Y relationship and the potentially different effects of X on Y through the range of X (see Schoonhoven, 1981 for in-depth discussions of this technique in the context of interaction).

Results

Descriptive statistics and correlations are presented in Table 1. Results of hierarchical regression analysis are reported in Table 2. All the hypotheses were supported.

Table 1: *Descriptive Statistics and Correlations*

	Mean	s.d.	1	2	3	4	5	6	7
1. Change in resource allocation (CS)	0.036	0.059	1						
2. Resouree allocation S - 2001	0.339	0.005	.164**	1					
3. Initial Resource Allocations - 2000	0.303	0.005	-.193**	.936**	1				
4. ROA[2]	2.463	0.139	-.198**	-.039	.032	1			
5. Size	10.71	0.036	.125**	-.108**	-.153**	-.064*	1		
6. Loan Quality	0.814	0.039	.134**	-.113**	-.160**	.064*	-.066*	1	
7. ROA	1.238	0.032	.095**	.064*	.030	-.087**	.103**	-.196**	1

N =

* $p < .05$, two tailed tests

** $p < .01$, two tailed tests

All variables pertain to year 2000 unless mentioned.

Hypothesis 1. A systematic positive change in S was found (mean CS=0.036), which supports H1. In general, firms change resource allocations in response to environmental changes. In this case the change was economic recession. Paired samples t-test procedure was applied to the means of S_{2001} and S_{2000}, showing a significant difference ($p<0.01$). This indicates a significant and positive change in strategic resource allocations in response to recession as we predicted.

Hypothesis 2a and 2b. The coefficient of ROA*ROA (square term) was significant at the 0.01 level. The quadratic ROA effects made a significant contribution to the R^2 (R^2=0.04; $p<0.01$). This suggests that performance affected changes in strategic resource allocation decisions in a curvilinear fashion. We then checked the monotonicity of this quadratic performance.

$$dCS/dROA= 0.006 - 0.006ROA=0; \quad ROA= 1.00\%$$

The inflection point of ROA effect was shown to be at ROA= 1.00%. If ROA falls below this point, the ROA effect on change in strategic resource allocation is positive. To further check the significance of this positive relationship, we did a correlation analysis for the subsample of banks (N=319) with ROA less than 1%. For this subsample, the correlation between ROA and CS was 0.225 ($p<0.001$). Above the inflection point, ROA was negatively associated with changes in strategic resource allocation decisions. The correlation of ROA and CS for this subsample (N=610) was -0.09 ($p<0.05$). Therefore, the relationship between firm performance and changes in strategic resource allocation decisions is curvilinear and nonmonotonic.

Table 1: *Descriptive Statistics and Correlations*

Dependent variable – Change in Resource Allocation (CS)

Variable	Step 1	Step 2	Step 3
Constant	-0.084** (0.02)	-0.087** (0.02)	-0.076** (0.019)
Initial Resource Allocation	-0.056** (0.012)	-0.057** (0.012)	-0.054** (0.011)
Size	0.006** (0.002)	0.005** (0.002)	0.005** (0.002)
Loan Quality	0.006** (0.002)	0.007** (0.002)	0.007** (0.002)
ROA		0.007** (0.002)	0.006** (0.002)
ROA^2			-0.003** (0.000)
R^2	0.06	0.07	0.11
ΔR^2		0.01**	0.04**
ΔF		12.89**	36.02**

Standard errors are reported in parentheses.
** $p < 0.01$
* $p < 0.05$
N = 929

Discussion

In summary, the findings from this study strongly support our theoretical arguments and hypotheses. In support of the strategic choice perspective, firms do initiate and implement changes in resource allocations in response to changes in economic conditions. Firms do this in order to improve the matches between their strategic postures and the environmental conditions. In general, the poorer the match between a firm's initial strategic resource allocation and the economic conditions, the larger the magnitude of changes in strategic resource allocation decisions to achieve a better fit. This is evidenced by the significant negative effect of the initial pattern of resource allocation S2000 on the change in the pattern of resource allocation (CS).

Given this general trend, however, individual firms respond to the same environmental stimuli somewhat differently. One important determinant of organizational change is the performance level of a firm. We hypothesized that the performance effect on organizational change was not linear. We proposed a threshold level of performance (more exactly, poor performance), below which, due to resource shortage and/or related pessimistic perception (Cameron & Whetton, 1987; Dutton & Duncan, 1987), organizations might actually resist changes. This assertion largely conformed to the inertia perspective (Staw et al., 1981) and finds support in our study.

Above the threshold point, poor performance might indeed motivate and pressure firms to initiate and implement strategic/organizational changes. Although, in a different context, the results of this study corroborated the findings in previous studies that poor performance leads to organizational (Salancik & Pfeffer, 1980) and board change (Boeker & Goodstein, 1991). Our results conformed to the earlier insights of Cyert and March (1963) and March and Simon (1958) in that firms with poor performance were more likely to engage in problem-motivated search and took corrective actions.

In summary, both the strategic choice and the inertia perspective may be valid in explaining firm changes in strategic resource allocation decisions during economic recession. The general tendency of firms to initiate and implement changes in response to the environmental conditions of recession and improve the resource employment-environment match, supports the argument of the strategic choice perspective. The inertia perspective plays an important role in explaining the different directions (e.g., the nonmonotonic effect of performance) and magnitudes of changes each firm takes in response to economic recession. This lends support to the previous arguments on the choice vs. inertia debate where it is not a question of which side is right or wrong but rather, the concern is about "which perspective is a better description of reality under certain circumstances?" (Child & Kieser, 1981) or "can both perspectives be valid simultaneously?" (Judge & Zeithaml, 1992). Both perspectives are well supported in this particular study.

Conclusion

In this study, we examined the effects of firm performance on changes in strategic resource allocation decisions under the environmental condition of economic recession. Hypotheses were generated based on both the strategic choice perspective (Andrews, 1971; Child, 1972; Miles & Snow, 1978) and the inertia perspective (Freeman & Hannan, 1984; Staw et al., 1981). The findings of our study suggest that both the strategic choice perspective and the inertia perspective could be useful in the study of firm strategic changes.

Perhaps the most interesting finding and contribution of this study was the curvilinear relationship found between firm performance level and changes in strategic resource allocation decisions. Previous theories which argued that poor performance leads to organizational change (March & Simon, 1958; Cyert & March, 1963) and theories which suggested that poor performance results in resistance to organizational changes may be both correct, though they focus on different ranges of

the performance levels. Across the whole spectrum of firm performance levels, the performance-organizational change relationship could be curvilinear. Our findings were consistent with that of Fombrun and Ginsberg (1990), who found a curvilinear relationship between prior firm performance and strategic posture of firms. However, the focus of the Fombrun and Ginsberg (1990) study was on business level strategies that involved changes in resource allocations and the context was the volatility of industry environment, not the macroenvironment.

This is the first study we are aware of which attempts to theoretically reconcile the previous controversial arguments on the performance-organizational change relationship (Cyert & March, 1963; Staw et al., 1981; Freeman & Hannan, 1984; Dutton & Duncan, 1987) and empirically demonstrate that the performance effect on strategic/organizational change is not monotonic. This suggests that future research should form specific hypotheses and further investigate the effects of various determinants of organizational/strategic changes (Schoonhoven, 1981).

Given the contribution of this study, we must conclude with caveats on the limitations of this study and shall suggest directions for future research. First, this study was performed on a sample drawn from the commercial banking industry in three states in the environment of an economic recession. Due to different banking regulations across state lines and different extents of recession, the results may not be generalizable to banks in other states. A key assumption of our study was that all banks recognize changes in the economic environment and the banks in the sample, in contrast to larger banks, may not be actively managing their securities portfolio by making interest rate bets. This supports our contention that securities (many of which are government) are chosen to reduce default risk and in recessionary times, interest rates tend to fall, which raises the value of debt securities. The assumptions of our study may not be valid in a sample with large banks.

Secondly, further research can test our theoretical arguments in other environmental conditions (e.g., high growth-inflation) and use samples from multiple industries. Third, as a first step towards testing our hypotheses, we focused on one particular area of strategic change in this study (i.e. strategic resource allocation). Multiple attributes and measures of strategic decisions should be adopted as dependent variables in future research for a more extensive capture of the complexity of the phenomena involved in strategic/organizational change (Venkatraman & Grant, 1986).

In terms of managerial implications, the evidence of curvilinear relationship between firm performance and change provides caution to managers from avoiding the past performance trap. It also appears that past performance can be a trap for high performers due to lack of motivation, while the past performance trap for poor performance is due to lack of ability in terms of resources. While numerous prescriptive suggestions are in order for managers of both categories, we would like to underscore the importance of resources especially that of slack resources. In the case of high performers, unwillingness to make changes may result in a decrease in the level of slack resources that are required for day-to-day operations due to the negative impact of environmental change. Because past performance is not a trigger to change for high performers, other organizational mechanisms should be in place to enable

change. As far as the poor performing firms are concerned, it is clear that it is not performance triggers, but rather, resources that enable. Therefore, maintaining a healthy level of slack resources is paramount to avoiding the past performance trap for poor performers.

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