STRATEGIC PLANNING SYSTEM CHARACTERISTICS AND PLANNING EFFECTIVENESS IN SMALL MATURE FIRMS

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INTRODUCTION

Over the past decade, a variety of researchers have investigated the effects of formal strategic planning on financial performance in small firms. Robinson and Pearce (1984) argued that formal strategic planning is a conceptual activity suited solely to larger firms and therefore has no effect on the financial performance of small firms. Following Robinson and Pearce, Wortman (1986) reviewed a set of small business planning-performance studies in the context of a broad survey of the methodologies employed in the small business literature. The purpose of Wortman's review was to develop typologies and not to focus on the particular issue of the effect of formal strategic planning on small firm performance. However, he clearly addressed the need for continued refinement in planning-performance relationships and recommended the use of sophisticated statistical techniques for addressing such substantive research questions.

One year later, Pearce, Freeman, and Robinson (1987) examined the perceived substantive contributions of eighteen existing studies. They concluded

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that empirical support for the normative suggestions that all small firms should engage in formal strategic planning has been inconsistent and often contradictory.

In a similar vein, Schwenk and Shrader (1993) recently meta-analyzed fourteen studies on formal strategic planning and performance in small firms. While they did not find that planning necessarily improves performance, they argued against the assertion that strategic planning is only appropriate for large firms. As such, they concluded that strategic planning promotes long-range thinking, reduces the focus on operational details, and provides a structured means for identifying and evaluating strategic alternatives. Since this was the first review that clearly demonstrated the planning-performance link across studies, it strengthened the case for recommending the use of strategic planning in all firms regardless of size.

Taken together, it seems evident that the relationship between planning and performance in small firms bears significantly on strategic management research and practice, and that strategy scholars should not abandon this line of inquiry altogether. This study seeks to reevaluate the relationship between planning and performance in small community banks. Drawing on the strategic planning literature, this article suggests not only that planning-performance research on small firms can produce meaningful results, but that it may be possible to reconcile apparent contradictions in previous studies. Specifically, the present study seeks to answer two questions:

1. Is planning effectiveness in small firms a multidimensional?
2. What characteristics of planning systems are central for planning effectiveness in small firms?

The remainder of the paper is divided into four sections. First, the research model and the theory and expectations regarding the preceding research questions are presented. Second, the methods section discusses the sample, measures, and analytical techniques. Third, findings are presented, followed by coverage of implications and limitations in the conclusion and discussions section.

REVIEW OF RELATED LITERATURE AND EXPECTATIONS

Strategic Planning System Characteristics

Empirical studies in small firms have generally employed single dimension measures such as the presence or absence of planning or its degree of formality to explain variations in organizational performance. Such conceptualizations are inconsistent with the multidimensional view of planning systems that is being viewed as more important in the recent literature (e.g. Dyson & Foster, 1982; King, 1983; Kukalis, 1991; Lorange, 1979, 1980; Ramanujam & Venkatraman, 1987; Rhyne, 1987; Veliyath & Shortell, 1993).

Although many strategic planning system characteristics have been presented in the literature, no consensus exists. For example, Ramanujam &

Venkatraman (1987) proposed six dimensions of planning systems: use of techniques, attention to internal facets, attention to external facets, functional coverage, resources provided for planning, and resistance to planning. In another attempt to categorize strategic planning, Veliyath & Shortell (1993) identified five dimensions for strategic planning systems: planning implementation, market research competence, key personnel involvement, staff planning assistance, and innovativeness of strategies. However, these studies focused on large firms. Thus, an expanded conceptualization of the notion of small-firm strategic planning is germane.

Following recent work (Ramanujam & Venkatraman, 1987; Veliyath & Shortell, 1993), the strategic planning system characteristics in the present study includes: (1) the degree of internal orientation of the system, (2) the degree of external orientation of the system, (3) the level of integration achieved within functional departments, (4) the extent of key personnel involvement in the planning process, and (5) the extent of use of analytical techniques in addressing strategic issues. These planning system attributes, in addition to being well-grounded in the existing literature (see Table 1), also appear to be problem areas in strategic planning within the banking industry.

Three Perspectives of Organization Performance

Most researchers who have investigated small-firm strategic planning have used financial and marketing measures as indicators of performance. These performance measures are based on how a business has performed in the past, implicitly assuming that such success can be extrapolated into the future. However, financial superiority is only one element of organizational performance. Perhaps more attention should be attached to an organization's ability to adapt to changes that are occurring and will occur in its environment. A realistic model of organizational performance must reflect a highly complex paradigm and requires more than a single criterion (Brown & Laverick, 1994).

This study conceptualized organizational performance in multidimensional terms using three different perspectives. First, adopting a *system capability* approach to assessing organizational performance (e.g. Camillus, 1975; Shank, Niblock & Sandalls, 1973; Ramanujam & Venkatraman, 1987), the extent of improvement over time in both creativity and control aspects of the planning system was examined. This perspective reflects Lorange's (1979) suggested approach to the evaluation of planning system. The system capability as conceptualized here focuses on the process of planning such as internal communications and interaction, organizational learning, innovation, commitment and motivation, control, aptitude for change and improvements to the company's activities. Cumulative improvement along these aspects over time was treated as a distinct dimension of an organization performance in the current research.

Second, adopting a *goal-centered* approach to assessing organizational performance (Cameron & Whetten, 1983; Ramanujam *et al.*, 1986), the extent

of attainment of key planning goals was evaluated in the current research. The goal attainment measure is primarily concerned with the specific end results normally anticipated from a planning system. This view reflects King's (1983) suggested approach to the evaluation of planning and Steiner's notion of measurement against purpose (1979).

The third performance perspective follows the tradition of earlier studies that sought to examine the impact of planning on financial performance. Although performance objectives were included in the goal attainment dimension, there is a clear distinction between achieving performance goals and being a high-performance organization.

Propositions

Almost all previous small-firm research has examined relationships between strategic planning and organizational performance with unidimensional treatments. However, the issue becomes more complicated when both sets of variables are conceptualized in multidimensional terms, as some authors have recently argued (e.g. Ramanujam *et al.*, 1986; Ramanujam & Venkatraman, 1987). Hence, a positive relationship between strategic planning and performance dimensions among small firms is expected. Specifically, this paper tests two key propositions:

1. A multivariate measure of small-firm performance incorporates contributions from each of the three perspectives—system capability, goal attainment, and financial—and is not dominated by financial performance.

As discussed earlier, many small-firm studies have been solely preoccupied with the linkage between planning and financial aspects of organization performance, even though conceptual writings on formal planning systems stress several nonfinancial, intangible benefits (Camillus, 1975; Steiner, 1979). In this vein, Lorange (1979) noted that system capability should be viewed as the primary reference point for evaluating planning effectiveness. Hence, it was hypothesized that process benefits of a planning system rather than financial performance is a key indicator of a small-firm planning system's effectiveness.

2. Four dimensions of the strategic planning system—the degree of external orientation, the degree of internal orientation, the level of functional integration, and the extent of key personnel involvement—will be positively associated with organizational performance. The remaining dimension, the extent of utilization of analytical techniques will not be positively associated with organizational performance.

The importance accorded to four factors—external orientation, internal orientation, functional integration, and key personnel involvement are entirely consistent with normative strategic management theories; attention to

TABLE 1

Characteristics of Strategic Planning Systems

Characteristics	Description	Key supporting literature
Attention to internal factors	The extent of attention devoted to an organization's recent history and current situation, past performance, and analysis of strengths and weaknesses.	Camillus and Venkatraman (1984) Grant and King (1982); King and Cleland (1978); Lorange and Vancil (1977); Steiner (1979); Stevenson (1976)
Attention to external factors	Ability to obtain reliable and timely market research information in order to learn about external environmental opportunities and threats.	Andrews (1971); McDaniel and Kolari (1987); Ramanujam et al. (1986); Snow and Hrebiniak (1980) Veliyath and Shortell (1993)
Functional integration	The extent of coverage given to different functional areas with a view to integrating different functional requirements into a general management perspective.	Hitt, Ireland, and Palia (1982); Hitt, Ireland, and Stadler (1982); Lorange (1980); Snow and Hrebiniak (1980); Ramanujam et al. (1986); Ramanujam and Venkatraman (1987)
Key personnel involvement	The degree of involvement of top management, board members, line and staff managers in planning process.	Govindrajan (1986); Mowday et al. (1982); Ramanujam and Venkatraman (1987); Steers (1977); Swieringa and Moncur (1974); Veliyath and Shortell (1993)
Use of analytical techniques	The extent of reliance on appropriate planning techniques in order to solve ill-structured strategic problems.	Fredrickson (1984); Grant and King (1982); Hofer and Schendel (1978); Hax and Majluf (1984); Ramanujam and Venkatraman (1987)

these factors is stressed as a very important aspect of strategic planning in the current research. However, with regard to analytical techniques, several policy scholars have attacked against the technique orientation in management (Hayes & Abernathy, 1980; Kiechel, 1982; Peters & Waterman, 1982).

METHODS

Sample

Sixty-nine U.S. commercial banks in the state of North Carolina were examined, representing the entire population with fewer than $500 million in total deposits. Researchers have suggested that banks with greater than $500 million in deposits are too large and thus, should be excluded to increase homogeneity (see also Aghimien, 1993).

Surveys were sent to the senior executives (presidents and/or CEOs) of all the 69 banks. To improve response rate, the North Carolina Commissioner of Banks asked that each bank president and/or CEO cooperate by completing a questionnaire that would be sent to them. Forty-seven of the 69 banks completed and returned the research questionnaire for a response rate of 68 percent. Forty-one of these banks were chosen for further analysis to eliminate banks less than five years old as well as those that did not provide complete information. These criteria ensured that sample would not be biased toward banks with inadequately developed strategic planning systems, reducing the effective response rate to 59 percent.

North Carolina's small community banks provide an excellent opportunity to apply evaluation processes that are normally employed to study strategic planning in small businesses because they historically have had broad powers to engage in various businesses traditionally not necessarily associated with commercial lending (North Carolina Banking Commission 1991). Challenges requiring strategic management by small community banks go beyond establishing new branches and typically include introducing new products/services, offering competitive personalized services, meeting the needs of small businesses, and altering racial lending patterns. The relative stability of the North Carolina commercial banks in an industry under turmoil also provided for a strong population from which to draw sample. Further, there was only one bank failure each in 1991 and in 1993 in North Carolina.

Measures

Strategic planning system characteristics. The specific strategic planning system characteristics are summarized in Table 2 and based on five-point Likert scales ranging from *no emphasis* (=1) to *a great emphasis* (=5). Internal orientation was measured through the perceived degree of attention devoted to customer services, efficiency of operations process, attracting and retaining high-quality employees, and analysis of financial strengths and weaknesses. External orientation was measured by four items relating to the analysis of investment and deposits opportunities, competition and market analysis. Functional integration was measured by Ramanujam and Venkatraman's (1987) 4-item scale relating to the perceived degree of emphasis accorded to functional involvement, coordination, and integration in planning activity. Key personnel involvement was measured by the degree of CEO,

TABLE 2

Planning System Characteristics[a]

	Factor Loadings
Internal orientation **(alpha = 0.79)**	
— Customer services	0.57
— Efficiency of operations process	0.91
— Attracting and retaining high-quality employees	0.86
— Analysis of financial strengths and weaknesses	0.80
External orientation **(alpha = 0.66)**	
— Analysis of investment opportunities	0.75
— Analysis of deposits opportunities	0.87
— Analysis of competition	0.73
— Performing market research	0.71
Functional coverage **(alpha = 0.75)**	
— Marketing function	0.77
— Finance function	0.86
— Personnel function	0.77
— Operations function	0.72
Involvement of key personnel **(alpha = 0.51)**	
— Time spent by the CEO in strategic planning	0.93
— Involvement of line managers in strategic planning	0.54
— Involvement of board members in strategic planning	0.77
Use of planning techniques **(alpha = 0.63)**	
— Financial models	0.90
— Forecasting and trend analysis	0.86
— Portfolio analysis techniques	0.71

[a] All scales were (1–5) Likert scales: no emphasis to a great emphasis

board member, and line manager involvement in the strategic planning process. Finally, the use of analytical techniques was measured by the degree of emphasis devoted to the application of financial models, portfolio analysis, and forecasting analysis techniques.

Organizational performance. Organizational performance was measured via three aforementioned perspectives: planning system capability, goal attainment, and financial performance. Planning system capability was operationalized utilizing nine items from the Ramanujam and Venkatraman (1987) planning system capability instrument. The original instrument consisting twelve items demonstrated an item reliability of .87 Cronbach's alpha

(Cronbach, 1951). Goal attainment was measured with a modified version of an instrument developed by Ramanujam *et al.* (1986), including items addressing the prediction of future trends, improving short-term performance, improving long-term performance, evaluating alternatives, and enhancing management development. Respondents were asked to indicate on a 5-point scale, ranging from *much deterioration* (=1) to *much important* (=5), on each criteria as their primary goal.

Finally, consistent with Veliyath and Shortell (1993), financial performance was measured by a survey item concerning profitability (i.e., net revenues minus direct operating costs and administrative overhead, before taxes) over the most recent three fiscal years. This measure was then validated on a subset of 23 banks for whom complete accounting data was available for the past three years. The correlation between this measure was computed as a test of the validity of the subjective measure. The correlation was 0.49 ($p < 0.001$). The details of the various indicators representing each performance dimension are provided in Table 3.

TABLE 3

Organizational Performance Dimensions

	Factor loadings
System capability (alpha = 0.93)	
1. Flexibility to adapt to unanticipated changes	0.78
2. Role in identifying key problem areas	0.85
3. As a tool for managerial motivation	0.88
4. As a means to stimulates new ideas	0.51
5. As a tool for managerial control	0.79
6. As a means to increase commitment	0.90
7. As a means of fostering organizational learning	0.86
8. As a means to enhance communications	0.70
9. Ability to integrate functions and operations	0.79
Goal attainment (alpha = 0.82)	
1. Improvement in short-term performance	0.78
2. Improvement in long-term performance	0.78
3. Predicting future trends	0.78
4. Evaluating alternatives	0.71
5. Enhancing management development	0.76
Financial performance	
1. Profitability	

TABLE 4

Descriptive Statistics and Correlations

No.	Dimension	Mean	S.D.	1	2	3	4	5	6	7	8
1.	Internal orientation	3.99	0.87	1.00							
2.	External orientation	3.86	0.75	0.46	1.00						
3.	Functional integration	4.16	0.73	0.45	0.78	1.00					
4.	Key personnel	3.91	0.65	0.46	0.58	0.47	1.00				
5.	Use of techniques	2.59	0.85	0.40	0.40	0.42	0.27	1.00			
6.	System capability	3.31	0.92	0.57	0.57	0.41	0.56	0.37	1.00		
7.	Goal attainment	3.24	0.53	0.43	0.58	0.54	0.59	0.46	0.79	1.00	
8.	Financial performance	3.41	0.99	0.02	0.30	0.17	0.10	−0.05	0.02	0.06	1.00

[a]All correlations above 0.31 are significant at $p < 0.05$

Factor loadings (see Tables 2 and 3) indicate that all the factors tapped characteristics measuring states of planning system and organization performance. Factor loadings in each scale were above 0.50 and eigenvalues for each factor were well above 1.0. Internal consistency of each scale was also assessed and judged strong using Cronbach's alpha (Cronbach, 1951; Van de Ven and Ferry, 1980). These assessments provide adequate support for the reliability of the measures employed. Factor scores were computed for each of the planning system characteristics and organizational performance dimensions to serve as composite measures for hypothesis testing.

Table 4 presents descriptive statistics and correlations among the dimensions. Each planning system characteristics was positively and significantly correlated with only *system capability* and *goal attainment* (at .05 level). These results are consistent with the conceptual literature from which dimensions were distilled. The presence of the expected bivariate relationships between the planning system characteristics and these two effectiveness variables is certainly encouraging, but the main focus of this study is on the multivariate relationship between the planning characteristics and organizational performance dimensions. Having established the existence of appropriate measurement scales, hypothesis testing can be pursued.

RESULTS

Proposition I

Canonical correlation was used to examine the interrelationships between a set of planning system characteristics and a set of organization performance dimensions. The attractiveness of the canonical correlation approach lies in its multivariate (and integrated) treatment of the effectiveness and predictor

TABLE 5

Results of Canonical Correlations

Function	Canonical Correlation	Eigenvalue	F	Significance
1	0.750	1.285	3.344	0.000
2	0.472	0.287	1.780	0.096
3	0.346	0.137	1.593	0.208

dimensions. As Table 5 depicts, only the first canonical correlation is significant. While the size of the canonical correlation for this function is quite high (0.750), a canonical correlation is merely one summary measure of the relationship between the planning system characteristics and the indicators of planning effectiveness. Some have argued that it is an inflated measure of the underlying relationship, since it is the purpose of canonical analysis to maximize the correlation between linear combinations of the two sets of the variables (Fornell, 1982). It is therefore necessary to examine the nature of the canonical variates themselves, and the extent to which they capture the information in the original variables. This is done by examining the additional statistics shown in Table 6.

Column 1 in Table 6 shows the *canonical weights (W)*, or the coefficients of each variable in the canonical variate for the criterion and predictor sets. Column 2 shows the *canonical loadings or structure correlations (L)* which represent the correlation of the canonical variate with each variable in their respective set. The L^2 values shown in column 3 represent a measure of the variance which the observed variables share with the (unobserved) canonical variate. Their values range from 0.06 to 0.84 in the criterion set, and from 0.31 to 0.79 in the predictor set. Column 4 shows the proportion of explained variance accounted by each variable in the criterion and predictor batteries. Finally, column 5 shows the *canonical cross-loadings*, or correlations of each variable in the criterion set with the canonical variate of the predictor set and vice-versa. These cross-loadings are believed to be a more direct measure of the relationships between the criterion and predictor dimensions (Fornell, 1982).

Although no definitive rules exist as to what constitutes evidence of strong relationships, some guidelines have been established. The canonical weights are sometimes regarded as being indicative of the relative importance of the variables, but this interpretation has been criticized as an inappropriate one, particularly in cases where the variables sets are multicollinear (Fornell, 1982). Canonical loadings are considered more meaningful as indices of relative importance in contributing to the observed canonical relationship. Lambert and Durand (1975) claim that for purpose of comparison, loading

TABLE 6

Relationships Between Canonical Functions and Original Variables

Variables	Canonical relationships function 1[a] W (1)	L (2)	L^2 (3)	Percentage (4)	Canonical cross-loading (5)
Criterion set					
System capability	0.554	0.919	0.845	48.60	0.689
Goal attainment	0.948	0.911	0.830	47.70	0.683
Financial performance	0.256	0.256	0.065	3.70	0.192
Total			1.740	100.00	
Predictor set					
Internal orientation	0.253	0.691	0.477	17.30	0.518
External orientation	0.738	0.891	0.794	28.90	0.668
Functional integration	0.105	0.711	0.505	18.40	0.533
Key personnel involvement	0.574	0.817	0.667	24.30	0.612
Use of analytical techniques	0.199	0.553	0.306	11.10	0.414
Total			2.749	100.00	

[a] Only the first canonical function was statistically at a p-level better than 0.01

values of 0.30 and above are sufficient for drawing inferences about criterion-predictor relationships. On this basis it can be noted that with the exception of *financial performance,* all the canonical loadings, as well as the canonical cross-loadings in this study are in excess of this limit. In other words, the multivariate measure incorporates contributions from *system capability* and *goal attainment* perspectives, with little contribution from *financial perspective.* Hence, the first proposition was supported. There is evidence of a strong multivariate relationship between the planning system characteristics and both system capability and goal attainment dimensions.

Proposition 2

Further analysis also provided support for the second proposition. An examination of the canonical loadings in the predictor set revealed that *external orientation*, and *involvement of key personnel* in planning process are the most important contributors to planning effectiveness. *Functional integration* and *internal orientation* ranked third and fourth important planning system dimensions, respectively. *Use of analytical techniques* appears to be the least important dimension as far as planning effectiveness is concerned. It is interesting to note that the magnitude of the cross-loadings of the predictor

set dimensions suggests the same importance ranking of the dimensions as the canonical loadings.

CONCLUSION AND DISCUSSIONS

Contrary to the frequently encountered notion that strategic planning is solely a large firm phenomenon, this study suggests that a small firm is also an important arena for strategic planning research. The research presented in this article examined the multidimensional conceptualizations of planning effectiveness in a number of small community banks. An examination of the canonical loadings of the three dimensions reflecting planning effectiveness indicates that the multivariate measure incorporates contributions from two of the three perspectives. This supports the multidimensional conceptualization of planning effectiveness (King & Cleland, 1978; Ramanujam & Venkatraman, 1987; Steiner, 1979).

System capability was the most important dimension in the multivariate index of effectiveness and explained over 48 percent of the variance in effectiveness (see column 4, Table 6). This finding strongly supports Lorange's (1979) view that *system capability* should be viewed as the primary reference point for evaluating planning effectiveness. The second important dimension of effectiveness was *goal attainment*, loading at 0.911 and accounting for about 47 percent of the variance. Financial performance contributed less than 4 percent to the explained variance.

Two reasons may be offered for the extremely low level of variance explained by the financial performance index. First, perhaps financial performance is not a key indicator of a planning system's effectiveness for small firms, and that more direct assessments of a system's benefits and effects are appropriate (Greenley, 1983; King, 1983). Second, strategic planning in a highly regulated industry such as banking may be widespread and a strategic necessity to survive rather than a key source of competitive advantage. For example, Powell (1992) found that strategic planning was a source of advantage in an industry where few firms planned, but not a source of advantage in an industry where planning was disseminated. However, more research is needed before firm conclusion can be drawn.

This finding supports the current view that the benefits of strategic planning are more of a process nature, which may be a necessary but not sufficient condition for improving financial performance. A main implication for small firm executives concerned with the design of their firms' strategic planning systems is that few financial benefits—but significant process benefits—may be expected from employing a formal planning process.

This research also examined the relative role and importance of five planning system characteristics as influences on planning effectiveness. An examination of the canonical loadings of these dimensions (see Table 6) indicates that *external orientation* is the most important contributor to planning effectiveness in small firms, contributing about 29 percent to the explained vari-

ance. This is entirely consistent with normative strategic management theory where attention to external analysis is stressed as a very important aspect of strategic planning.

The remaining four planning system characteristics—key personnel involvement, functional integration, internal orientation, and use of analytical techniques (in the order of importance)—together accounted for the remaining 71 percent of the variance. The second most important dimension of planning system was the *Key personnel involvement*, loading at 0.82 and accounting for 24 percent of the variance. This finding supports the earlier writings which have emphasized the importance of a planning climate and a planning culture (e.g. Hall, 1977; King and Cleland, 1978). It also supports the recent finding that the quality of advice and counsel provided by the board of directors to the CEO significantly add to the explanation of financial performance of small firms (Daily and Dalton, 1994).

Functional integration, and *internal orientation* ranked almost equally, with each contributing over 17 percent to the explained variance. These findings are also consistent with normative strategic management theory where attention to internal analysis and participation of functional departments in planning are stressed as important aspects of strategic planning. These findings support the increasing trend toward participation of line managers in planning and the greater need for functional involvement, coordination, and integration. *Use of analytical techniques* emerged as the least important contributor to planning effectiveness, contributing less than 11 percent to the explained variance. This supports the recent attacks against the technique orientation in management (Hayes & Abernathy, 1980; Kiechel, 1982; Peters & Waterman, 1982).

Limitations and Future Research

Although this study has overcome some of the limitations of the previous small-firm research in strategic planning, its own limitations should be noted. First, self-reported data presents an opportunity for the consideration of intervening variables, which is a limitation of field studies such as this study. Second, the study relies on data from a single respondent from each participating bank. Future studies could collect data from a number of different functions and hierarchical levels within the organization so as to assure representativeness of the data (Golden, 1992). Third, there is also the problem of historical bias due to dependence on the memories of the bank president respondents.

Three avenues for extending the research on small-firm strategic planning systems remain. First, the identification of important planning characteristics should provide an impetus to further efforts at reconceptualizing planning in more realistic terms than the unidimentional treatments common in the previous small-firm empirical research. Similarly, the results support a multidimensional treatment, which argues against the use of narrow conceptualizations of

planning effectiveness in future studies. In general, these findings suggest the need for future research to explore not only the degree of emphasis and perceived effectiveness of various strategic planning dimensions but also the reasons for these choices. Such research will help to provide a better understanding of why managers of small firms choose various strategic planning system approaches, as well as how these approaches give rise to possible changes in organizational strategies.

Second, the present study involved a relatively small number of banks in the study. Future investigations into process and content dimensions unique to small firm strategic planning processes could focus on large industries.

Finally, small-firm researchers may wish to abandon the use of wide variety of financial measures as dependent variables in favor of a more parsimonious collection of appropriate performance criteria. Such a modification would allow for greater generalization and comparison among studies by utilizing common measures.

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