

STRATEGIC PLANNING-FINANCIAL PERFORMANCE RELATIONSHIPS IN BANKS: A CAUSAL EXAMINATION

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An integrative model of relationships among managerial, environmental, and organizational factors, strategic planning intensity, and financial performance was developed and tested using data from 112 banks. The results suggested that the intensity with which banks engage in the strategic planning process has a direct, positive effect on banks' financial performance, and mediates the effects of managerial and organizational factors on banks' performance. Results also indicated a reciprocal relationship between strategic planning intensity and performance. That is, strategic planning intensity causes better performance and, in turn, better performance causes greater strategic planning intensity. Finally, the results hold implications for other financial services institutions subject to similar conditions that banks must operate under. © 1997 by John Wiley & Sons, Ltd.

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INTRODUCTION

Commercial banks, mutual savings banks, savings and loan associations, and credit unions comprise a group of financial services institutions, collectively called depository intermediaries (Auerbach, 1985). The product/service offerings these institutions have in common binds them into an industry grouping that is subject to similar influences. Major regulatory influences on these institutions have been the Depository Institution Deregulatory and Monetary Control Act of 1980, and the Garn-St. Germain Act of 1982. These Acts have eased entry, location, and activity restrictions within the general financial services industry (Bush, 1987). According to banking experts (Auerbach, 1985; Gup and Whitehead, 1989), these Acts are responsible for allowing increased

competition from nonbank suppliers of financial services (e.g., Sears, Merrill Lynch, General Electric, and Kmart) as well as from contractual intermediaries (e.g., insurance companies).

It has been suggested that in service industries of this type, where competition can move very quickly and new players can enter easily, there is a constant need to think strategically about what is going on (Schmenner, 1995). This appears to be precisely what banks, in particular, have begun to do in recent years. In response to increasing complexity and change in the financial services industry, banks have turned to strategic planning. The relatively new trend toward strategic planning in banks is viewed as a move designed not only to help them negotiate their environment more effectively, but to improve their financial performance as well (Bettinger, 1986; Bird, 1991; Prasad, 1984). Inconsistent results of bank-related research, however, have not fully resolved the issue of whether strategic planning leads to improvements in banks' financial performance. In one study, for instance, it was found that banks that formally engage in the

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strategic planning process tend to have significantly lower ROIs than banks that engage in the process informally (Gup and Whitehead, 1989). In contrast, Clausen (1990) attributed BankAmerica's return to profitability to the bank's formal commitment to the strategic planning process.

Why have the results of studies that have focused on strategic planning-performance relationships in banks been mixed? The inconsistencies in these results might be attributed to spurious research findings, resulting from the researchers focusing on the wrong performance measures and not considering the length of time banks have been involved in formal strategic planning (cf. Hofer and Schendel, 1978; Fulmer and Rue, 1974), and extraordinary environmental pressures and other factors that are unique to banks (cf. Bird, 1991; Hector, 1991a; Kallman and Shapiro, 1978). We argue in this paper that a major reason results have been mixed is that researchers have neglected to study important aspects of the relationship between strategic planning and financial performance in banks. Specifically, we contend that past research has neglected exploring the impact of strategic planning intensity on financial performance.

We propose in this study that the intensity with which managers in banks engage in strategic planning directly affects financial performance. This direct effect has been suggested in strategic planning literature related to planning and performance in manufacturing firms (cf. Schwenk and Shrader, 1993; Steiner, 1979; Thompson and Strickland, 1987), as well as in literature related to planning and performance in banks (cf. Hopkins and Hopkins, 1994). We also propose in this paper that the intensity with which managers engage in strategic planning depends on managerial (e.g., strategic planning expertise and beliefs about planning-performance relationships), environmental (e.g., complexity and change), and organizational (e.g., size and structural complexity) factors. The effects of these factors on strategic planning intensity have been suggested by several studies (Kallman and Shapiro, 1978; Unni, 1981; Robinson and Pearce, 1983; Robinson *et al.*, 1984; Orpen, 1985; Robinson, Logan and Salem, 1986; Gable and Topol, 1987; Cragg and King, 1988; Shrader, Mulford, and Blackburn, 1989; Watts and Ormsby, 1990b).

Studies that have analyzed the relationship between strategic planning and financial perform-

ance in the banking industry have tended to focus on differences in performance between those banks with formal strategic planning systems and those with informal systems (cf. Bettinger, 1986; Gup and Whitehead, 1983, 1989; Prasad, 1984; Whitehead and Gup, 1985; Wood, 1980). And while these studies have alluded to a relationship between strategic planning intensity and financial performance, none have explicitly modeled and empirically tested the relationship. In this paper, we attempt to close this gap in the strategic planning literature by examining this relationship using LISREL causal modeling. By using this state-of-the-art technique to analyze the mediating effects of strategic planning intensity between certain factors (i.e., managerial, environmental, organizational) and banks' financial performance, we hope to explain the nature of the planning-performance relationship in banks. By explaining the nature of this relationship in banks, our findings should be relevant to all financial institutions in the depository intermediary grouping, as well as providers of financial services subject to similar conditions that banks must operate under.

STUDY BACKGROUND AND FOUNDATIONS

The guiding notion of this study is that the intensity with which banks engage in the strategic planning process intervene—that is, cause an indirectness and lack of one-to-one correspondence—between factors such as strategic planning expertise and beliefs about planning-performance relationships (managerial factors), environmental complexity and change (environmental factors), bank size and structural complexity (organizational factors), and banks' financial performance. As suggested by the inconsistent research findings, past studies have misspecified the relationship between strategic planning and financial performance in banks. Misspecification of this relationship might be attributed to past studies' lack of attention to the relationship among these managerial, environmental, and organizational factors and their potential impact on planning intensity and performance. Subsequently, the consideration of such factors in the present study is viewed by these authors as a significant issue that holds implications for future research as well as for planning practices

in banks and related financial institutions. The following sections of this paper provide the rationale for linkages between these factors, strategic planning intensity, and financial performance, and the research from which the rationale was derived. The linkages were tested using LISREL causal modeling, the results of which will be reported in a later section of this paper.

Strategic planning and performance

Strategic planning can be described as the process of using systematic criteria and rigorous investigation to formulate, implement, and control strategy, and formally document organizational expectations (cf. Higgins and Vincze, 1993; Mintzberg, 1994; Pearce and Robinson, 1994). Past studies of manufacturing firms (cf. Ansoff *et al.*, 1971; Eastlack and McDonald, 1970; Herold, 1972; Karger and Malik, 1975; Thune and House, 1970) have indicated that strategic planning results in superior financial performance, measured in terms of 'generally accepted' financial measures (e.g., sales, net income, ROI, ROE, ROS). Subsequent studies (Armstrong, 1986; Greenley, 1986; Mintzberg, 1990; Shrader, Taylor, and Dalton, 1984) have contradicted the notion of a strategic planning-superior performance relationship. However, more recent studies (Miller and Cardinal, 1994; Schwenk and Shrader, 1993) provide convincing evidence that strategic planning does indeed result in superior financial performance. The fact that these studies accounted for factors responsible for past research contradictions (e.g., methodological flaws, nonrobust statistical methods) provides additional support for their conclusions.

One stream of strategic planning research has raised the issue of whether the length of time a firm has been involved in the strategic planning process has any impact on performance. In the Fulmer and Rue study (1974), for example, the researchers compared financial performance of firms in the service industry over a period of 3 years. However, 50 percent of the firms studied indicated that they had implemented a strategic planning system only 2 years prior to the study. Because no positive relationships were found between strategic planning and financial performance in their sample of service firms, the researchers concluded that the firms had not yet reaped the benefits of their strategic planning

efforts. In their study of the banking industry, Gup and Whitehead (1989) tested the notion that strategic planning only pays off after a period of time. They found no statistically significant relationship between the length of time banks had been engaged in the strategic planning process and their financial performance.

Planning intensity and performance

Other strategy-related work (cf. Mintzberg, 1994; Selznick, 1957; Steiner, 1979; Thompson and Strickland, 1987) suggests that strategic planning has no value in and of itself, but takes on value only as committed people infuse it with energy. A strong conclusion to be drawn from this work is that strategic planning results in superior financial performance only when managers engage in the process with some intensity. In support of this position recent research (Miller and Cardinal, 1994) set forth and tested the notion, with affirmative results, that the amount of strategic planning a firm conducts positively affects its financial performance. For purposes of the present study, strategic planning intensity is defined as the relative emphasis placed on each component of the strategic planning process.

There is general agreement among strategic planning researchers (e.g., Armstrong, 1982) and theorists (e.g., Hax and Majluf, 1991; Higgins and Vincze, 1993; Pearce and Robinson, 1994) that the strategic planning process consists of three major components: (1) formulation, which includes developing a mission, setting major objectives, assessing the external and internal environments, and evaluating and selecting strategy alternatives; (2) implementation; and (3) control. The major focus of strategic planning activities in organizations is on these components. It has been argued that positive results from strategic planning are realized more times than not when managers place relatively equal emphasis on each component of the strategic planning process (Dimma, 1985). Lending empirical support to this argument, results of a study conducted by Hopkins (1987) indicated that financial performance tended to be higher in firms where only small differences existed between the amount of incremental emphasis (intensity) placed on various planning components contributing to the total strategic planning effort.

Planning intensity and performance in banks

With respect to firms in the banking industry, many have diversified into new markets in recent years. This has resulted in increased pressure for banks to offer new and better services to their customers, which has required them to become more focused on their market niche as well as their financial policies. Moreover, bank managers are focusing more intensively on their bank's external and internal environments, placing greater emphasis on setting direction (i.e., articulating a vision and a mission), and evaluating strategy alternatives more carefully (Hector, 1991b). These activities correspond precisely with the strategic planning process components (i.e., formulating, implementing and controlling strategy). The fact that bank managers are becoming more intensively engaged in these activities implies that they acknowledge (either consciously or unconsciously) a relationship between strategic planning intensity and improved financial performance. Indeed a recent study tested this relationship and found that banks that planned with greater intensity, regardless of whether their strategic planning process was formal or informal, outperformed those banks that planned with less intensity (Hopkins and Hopkins, 1994).

Managerial factors

A proposition set forth in this paper is that the extent to which banks engage in the strategic planning process, whether the process is formal or informal, depends on certain managerial factors. Although there may be several managerial determinants of strategic planning intensity, the studies cited in the next two sections of this paper suggest that strategic planning expertise and beliefs about planning-performance relationships are major determinants.

Strategic planning expertise

In his study of the evolution of strategic planning in major corporations, Henry (1980) suggested that while management involvement in strategic planning was devoted to ensuring that the process was carried out comprehensively, very little or no attention was paid to whether or not management had the expertise to effectively carry out the process. Steiner (1979) noted that superior

financial performance in firms is not the direct result of strategic planning, but the product of the entire range of managerial capabilities in a firm. These capabilities include knowledge and expertise to successfully engage in the strategic planning process. It has been suggested that competence in strategic planning may determine the degree to which firms become involved in the strategic planning process (Higgins and Vincze, 1993). In support of this assertion, Steiner (1979) suggested that firms do not engage heavily in the strategic planning process because their managers do not know what makes the process operate.

Generally, these studies imply that the reason strategic planning is not carried out with much intensity in some firms is because managers in these firms do not fully understand or have little experience in strategic planning methods. Such a view is supported by several studies (cf. Ringbakk, 1971; Steiner, 1969; Taylor, 1975), which are in agreement that in those firms where managers are not knowledgeable about or skilled in each step of the strategic planning process, the process is not likely to be engaged in with much intensity. Austin (1990) recognized that the expertise of managers in some banks to engage in the strategic planning process may not be as high as in others. We argue in this study that in banks where managerial strategic planning expertise is high, the bank managers are likely to engage in the strategic planning process with enough intensity to impact the bottom line.

Planning-performance beliefs

In their study of 211 firms, Eastlack and McDonald (1970) found that performance was better in those firms where managers were heavily involved in the strategic planning process. While their findings do not prove that strategic planning results in superior financial performance, the findings do indicate that the managers believed strategic planning produced enough benefits in their firms to devote a substantial proportion of their time engaging in the process with greater intensity. The relationship between perceived importance of strategic planning and financial performance has been the focus of several studies (cf. Burt, 1978; Guynes, 1969; Leontiades and Tezel, 1980). In spite of the mixed results, findings of these studies generally suggest that the greater the perceived importance of the strategic

planning process, the greater is management's satisfaction with the firm's financial performance.

These results, despite their inconclusiveness, imply that the stronger management's beliefs that strategic planning results in better financial performance, the higher the likelihood that the strategic planning process will be engaged in with greater intensity. In his evaluation of the Bank-America Corporation, Clausen (1990) suggested that management's quest to create value for both external and internal stakeholders renewed their commitment to the strategic planning process. The implication here is that this renewed commitment was influenced by management beliefs that a positive relationship exists between greater involvement in the strategic planning process (or greater strategic planning intensity) and Bank-America's financial performance.

Environmental factors

Linkages between environmental conditions and strategy have been proposed in numerous studies (cf. Andrews, 1980; Blau and Schoenherr, 1971; Burns and Stalker, 1961; Grinyer and Yasai-Ardekani, 1981; Hofer and Schendel, 1978; Lawrence and Lorsch, 1969; Lenz, 1981; Prescott, 1986). These and other studies (Armstrong, 1982; Pearce, Freeman, and Robinson, 1987; Pearce, Robbins, and Robinson, 1987) suggest that environmental conditions have an influence on organizational actions, including the extent to which organizations engage in the strategy-making process. This line of research also suggests that environmental complexity and change represent such conditions, and that these two conditions may be the strongest determinants of strategic planning intensity.

Complexity and change

Environmental complexity refers to the heterogeneity and concentration of elements in a firm's external environment (Keats and Hitt, 1988). What this implies is that firms must consider the number, diversity, and distribution of elements in their environment when formulating strategy (Aldrich, 1979; Dess and Beard, 1984). Moreover, it has been suggested that managers' perceptions of environmental complexity have the strongest association with their degree of involve-

ment in the strategic planning process, since it is perceptions that strategists act on (Bourgeois, 1980; Miller and Friesen, 1984).

Related yet distinct from environmental complexity is environmental change, which refers to variation in elements comprising a firm's external environment (Boeker, 1989; Miller, 1988). Romanelli and Tushman's (1986) external control model suggests that shifts in these elements over time strongly influence organizational changes, including the posture taken toward strategic planning. The works of Ansoff (1991) and Miller and Friesen (1983) suggest that the link between environmental change and strategic planning intensity is strong. Their rationale is that firms facing rapidly changing environments must rely on large amounts of strategic planning to cope with changing, unpredictable conditions.

Bird (1991) suggested that complexity and change in a bank's environment may influence the intensity with which the strategic planning process is carried out. Bird's contention is that the increasing number of banks that have adopted strategic planning systems demonstrates how a rapidly changing and complex environment encourages more intensive strategic planning. Such an argument is supported by several other studies of nonbanking firms. For example, research conducted by scholars such as Keats and Hitt (1988), Romanelli and Tushman (1986), and Dess and Beard (1984) suggest that the degree of firms' involvement in the strategic planning process may directly and indirectly be a function of the degree of complexity and change in their competitive environment. It has also been suggested that if an environment is characterized by low complexity and slow change, thereby exerting no or only weak competitive pressures on a firm, there will be no incentive to become very much involved in the strategic planning process (Steiner, 1979).

Interactive effects of environment

Logically, one might expect high levels of strategic planning expertise to exist in banks where the environment in which such banks operate is perceived to be highly complex and variable, and where beliefs are strong that strategic planning results in superior financial performance. Despite the logic, strategy-related literature suggests that

the relationship among these factors may not be a positive one. Mintzberg (1973) suggested that executives in firms facing complex and rapidly changing environments do not engage in the strategic planning process with much intensity, because future states of such environments are impossible to predict. Subsequently, executives of banks facing complex and rapidly changing environments may think it futile to invest in developing strategic planning expertise.

The overriding implication is that perceptions of a highly complex and rapidly changing environment may lead to a reduction in the levels of expertise in banks to properly conduct strategic planning. Such a view may also affect bank managements' beliefs about planning-performance relationships. Research (Clapham and Schwenk, 1991; Huff and Schwenk, 1990; Salancik and Meindl, 1984) suggests that executives tend to attribute poor financial performance to factors such as environmental complexity and change, which tend to negatively influence their beliefs about whether strategic planning actually affects financial performance under conditions of environmental complexity and rapid change.

Organizational factors

In her study of nonfinancial firms, Colon (1982) found that structural complexity (caused by increased diversification) and size were primary determinants of why organizations engage in strategic planning. Lenz (1981) also suggested that structural complexity can influence strategic adaptation which, in turn, affects performance. These organizational factors are also proposed to be determinants of the extent to which banks engage in the strategic planning process. In studies of the banking industry, for instance, it has been found that as banks expand into regional markets and in different lines of business they grow both in size and structural complexity (Gup and Whitehead, 1989; Wood, 1980). These studies concluded that the difficulty involved in managing increased size and complexity required bank managers to become more involved in planning for successful operations. In addition to being a proposed determinant of strategic planning intensity, firm size is also proposed to have a direct effect on financial performance in organizations, through economics of scale and market power (Shepherd, 1975; Winn, 1977).

As stated earlier, the guiding notion of this study is that strategic planning intensity intervenes between managerial, environmental, and organizational factors and banks' financial performance. Figure 1 summarizes this notion in the form of a causal diagram. Links in the diagram are as follows: first, managerial, environmental, and organizational factors are all expected to have a positive, direct effect on the intensity with which banks engage in the strategic planning process (Proposition 1); second, organizational factors and strategic planning intensity are expected to have a positive, direct effect on banks' financial performance (Proposition 2).

Banking-related literature (cf. Auerbach, 1985; Austin, 1990; Bettinger, 1986; Bird, 1991; Bush, 1987; Clausen, 1990; Earle and Mendelson, 1991; Gup and Whitehead, 1983, 1989; Hector, 1991b; Prasad, 1984; Whitehead and Gup, 1985; Wood, 1980), as well as nonbank-related research (cf. Cragg and King, 1988; Dess and Beard, 1984; Fulmer and Rue, 1974; Gable and Topol, 1987; Herold, 1972; Kallman and Shapiro, 1978; Karger and Malik, 1975; Keats and Hitt, 1988; Robinson *et al.*, 1986; Robinson and Pearce, 1983; Robinson *et al.*, 1984; Sheehan, 1975; Shrader *et al.*, 1989; Thune and House, 1970; Unni, 1981; Watts and Ormsby, 1990a, 1990b), provide support for these propositions and thus the linkages between the variables selected for inclusion in the hypothesized model. Finally, we expected mutual relationships between managerial and organizational factors and between environmental and organizational factors. And for completeness and testing purposes, we included negative relationships between environmental and managerial factors, even though its potential significance was doubtful.

METHODS

Research sample

As a means of gathering data for this study, a strategic planning survey (Appendix 1) was mailed to the chief executive officers (CEOs) of 350 banks.¹ One-hundred and twelve of the sur-

¹ Because the CEO is the most significant factor that influences the strategic planning process (Hax and Majluf, 1991; Wrapp, 1984), we chose to target CEOs as our sample group. A

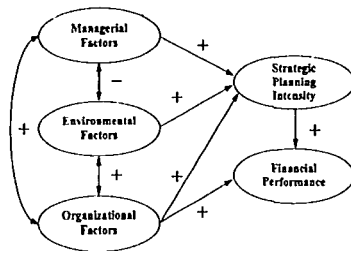


Figure 1. Model of planning-performance relationships in banks

veys were returned. Prior to mailing the surveys to the CEOs, 20 bank officers attending the Colorado Banker's Association Annual meeting were asked to complete and evaluate the survey. These responses were later used to test the reliability of survey items. A listing of the 112 banks whose CEOs completed and returned the surveys is provided in Appendix 2. Sixty-five, or 68 percent, of the CEOs indicated on the survey that their bank followed a formal (i.e., documented) strategic planning process. In a previous study of this same sample, Hopkins and Hopkins (1994) compared the performance of those banks that followed a formal strategic planning process with those banks that planned informally. Results of their study suggested that planning intensity, rather than planning formality, accounted for differences in bank performance.

Research variables

Managerial factors

Scales developed by Miller (1987) served as the model from which we derived the two observed variables, beliefs about planning-performance relationships and strategic planning expertise, used to measure the managerial factors latent variable. These scales, which focus on a measure of CEO personality, tap into a construct proposing that CEOs may provide overly optimistic performance estimates (based on their beliefs) while

concern we had, however, was whether the CEOs would personally complete the surveys or delegate this task to someone in the banks' planning department. While we could not control this aspect of our study, the 20-plus CEOs who included their business card with the completed survey, indicating that they would like to receive a copy of the survey results, boosted our confidence that most (if not all) of the CEOs did indeed personally complete the surveys.

attributing that performance to their ability to successfully engage in the strategic planning process (expertise). Items on our strategic planning survey (refer to Appendix 1) were designed to tap into this construct. To test item reliability, the bank officers, who initially evaluated the survey, were contacted several months later and asked to complete the survey again. Test-retest reliability coefficients of 0.86 (expertise) and 0.88 (beliefs) were derived after an item-by-item analysis of the two sets of surveys. Considering that there was a 9-month interval between the first and second administration of the survey, carry-over effects from the first administration were minimized.

Environmental factors

This latent variable was also measured by two observed variables: perceived environmental complexity and environmental change. Although there is some variation in the actual wording, Yasai-Ardekani's (1989) composite measure of perceived environmental pressures served as the model from which we derived our measure for perceived environmental complexity. A test-retest reliability coefficient of 0.79 was derived for this measure after an item-by-item analysis of our strategic planning survey (Appendix 1). Environmental change was measured as the number of years since a bank was incorporated. The use of this measure is supported by Carroll, who suggested that changes in a firm's approach to strategic planning are to a large extent a result of a firm's experience with environmental change. He states that 'organizational age will coincide roughly with the amount of environmental change experienced by an organization' (1983: 313), suggesting that aging may be a surrogate measure of a bank's exposure to environmental change.

Organizational factors

Bank size and bank structural complexity were the two observed variables used to measure the organizational factors latent variable. Bank size was measured as the natural logarithm of bank assets. This measure is an established way of accounting for differences in firm size when examining organizational outcomes (Montgomery, 1979), and has been used in other bank-related studies (cf. Williams and Dreher, 1992). Bank structural complexity was determined by the extent to which banks in our sample involved themselves in lines of business other than strictly banking (e.g., leasing, insurance, credit cards). Borrowing from the methodology employed by Gup and Whitehead (1989) in their study of banks, we categorized banks into three classes of structural complexity. For example, if a bank was a small unit bank (i.e., offers loans and deposits in one location) or was involved in no more than three other lines of business, it was assigned a 1 (low structural complexity). Banks involved in four to seven other lines of business were assigned a 2 (moderate structural complexity), and banks involved in eight or more other lines of business were assigned a 3 (high structural complexity).

Strategic planning intensity

The measures we used for strategic planning intensity are based on Armstrong's (1982) review of 12 strategic planning studies. His review included a detailed examination of components comprising the strategic planning process. The components included mission, objectives, internal and external environmental analyses, strategic alternatives, strategy implementation, and strategic control. Armstrong used the ratings of experts to assess the performance results of firms that considered these components during the strategic planning process. His conclusions suggested that firms benefited by placing emphasis on these components. In other words, the intensity placed on these components was a major determinant of firm performance. To measure strategic planning intensity, we asked respondents to indicate on the strategic planning survey—using a scale ranging from 1 (a weak emphasis) to 10 (a strong emphasis)—how much emphasis their banks place on each of the strategic planning components.

Financial performance

In an attempt to derive a more comprehensive and unique picture of banks' financial situations, three measures were used for the financial performance latent variable. First, profits (or net income) was used because of its extensive use in past studies (cf. Ansoff *et al.*, 1971; Eastlack and McDonald, 1970; Herold, 1972; Karger and Malik, 1975; Thune and House, 1970) that have examined the strategic planning–financial performance relationship. Thus, net income was considered by the authors of the present study as a general measure of banks' financial performance.

The second measure was return on equity (ROE), calculated as net income divided by shareholders' equity. The selection of this measure was based, partly, on Earle and Mendelson's (1991: 50) statement that 'The ultimate measure of the strength of any financial institution is not its asset size, the number of branches, or the pervasiveness of its electronics. The true measure is its return on shareholder equity (ROE).' Other banking-related articles (e.g., Bird, 1991; Hector, 1991a, 1991b) concur that ROE is the preferred measure of banks' financial performance. Channon (1978) also supports the use of ROE as an appropriate performance measure for service organizations, of which banks are typical (Heskett, 1986).

Deposit growth (Gup and Whitehead, 1989; Lenzner and Mao, 1995) was the third measure of financial performance that we used. We selected this measure because it is unique to banking and related financial services industries (e.g., credit unions, savings and loans). Deposit growth was measured as the percent change in consumer demand deposits for each bank between 1993 and 1994. This measure was used primarily because it represents the largest and most important funds-providing function for banks. Deposits account for approximately 70 to just under 90 percent of a bank's sources of funds, and thus a considerable amount of strategic activities are dedicated to supporting this function (Johnson and Johnson, 1989). Data used to calculate all financial measures used were obtained from Compustat and Disclosure data bases, and the annual reports of banks.

LISREL analyses

Originally, LISREL was designed as a linear structural equation model for latent variables

(Goldberger and Duncan, 1973). As a structural equation model, LISREL has been used extensively in the social and behavioral sciences. LISREL has been used to develop and analyze measurement models of constructs such as individuals' attitudes, motivation, and behavior (Anderson, 1987), and to analyze response errors in survey research (Alwin and Jackson, 1980). LISREL causal modeling addresses structural and measurement issues such as these in survey-designed research, and thus was used to analyze and test the hypothesized model set forth in Figure 1. LISREL is appropriate for such an analysis because of its ability to (1) estimate unknown coefficients of a set of linear structural equations, (2) accommodate models that include latent variables, (3) accommodate measurement errors in both dependent and independent variables, (4) measure the direct and indirect effects of independent variables on dependent variables, and (5) accommodate reciprocal causation, simultaneity, and interdependence (Joreskog and Sorbom, 1989). The two components of LISREL are measurement and structural. The measurement component identifies latent variables, and the structural component evaluates hypothesized causal relationships among latent variables in the causal model and provides an overall hypothesis test of the model as a whole. The full LISREL model, used to test the hypothesized model of Figure 1, is shown in Figure 2.

The η latent endogenous variables in this model are strategic planning intensity and financial performance, and the ξ latent exogenous variables are managerial factors, environmental factors, and organizational factors. As shown in the model, the first measurement variable of each latent construct was specified as having a factor loading of $\lambda = 1$ in order to assign units of measurement to the unobserved variables. And ϕ , the variance-covariance matrix of ξ , was specified as diagonal, indicating that we did not expect managerial, environmental, and organizational factors to be significantly interrelated.

Because latent variables are 'theoretical constructs that cannot be observed directly' (Byrne, 1989: 3), they are operationalized by variables that are observable and measurable. As indicated in the LISREL model, the managerial factors latent variable is measured by strategic planning expertise (EXPT) and beliefs about planning-performance relationships (BELIF); the environ-

mental factors latent variable is measured by perceived environmental complexity (COMPX) and environmental change (CHNGE), and the organizational factors latent variable is measured by bank size (BSIZE) and bank structural complexity (STRUC). Based on the components of the strategic planning process, the seven measures of the strategic planning intensity latent variable were: MISSN (mission), OBJCT (objectives), INNAL (internal analysis), EXNAL (external analysis), ALTRN (alternatives), IMPMT (implementation), and CONTL (control). Finally, the three measures used for the financial performance latent variable were: INCOME (net income), EQUIP (return on equity), and DGWTH (deposit growth). Table 1 presents the means, standard deviations, and correlations among the measured variables.

RESEARCH FINDINGS

The hypothesis-testing capability of LISREL allowed us to determine the likelihood that the relationship among the latent variables actually fit the relationship defined in the hypothesized model. LISREL first analyzes the data collected on the observed variables for evidence of model specification quality (i.e., whether or not the model is correctly specified), and then conducts a chi-square likelihood ratio test of the null hypothesis that the sample covariance matrix S is drawn from a population characterized by the hypothesized covariance matrix Σ . An overall χ^2 goodness-of-fit test with a p -value exceeding 0.05 would indicate that the model is correctly specified. Elsewhere (Keats and Hitt, 1988) it has been suggested that correctly specified models are indicated when the value of p exceeds 0.10. As a rule of thumb, a χ^2 value that is less than five times the degrees of freedom indicates a correctly specified model (Wheaton *et al.*, 1977). Table 2 presents the results of the LISREL analysis for our banking model.

The LISREL 8 computer program was used to solve the structural equations, and the generalized least squares (GLS) method was used to derive parameter estimates for the initial and modified models shown in Table 2. As indicated by the t -values, most of the parameter estimates for both models are statistically significant at $p < 0.05$. The initial model shows a χ^2 value of 114.79

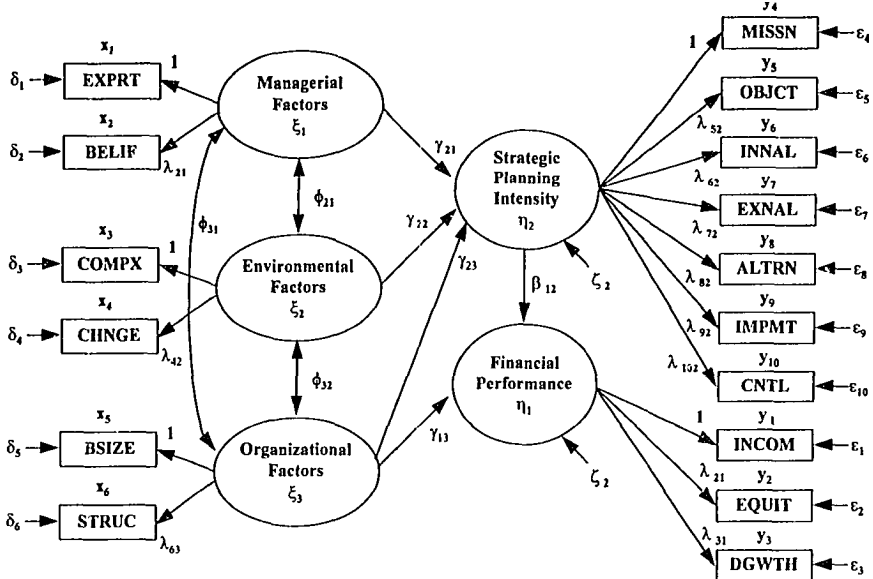


Figure 2. LISREL model of planning-performance relationships in banks

(d.f. = 95), with $p = 0.093$. The adjusted goodness-of-fit index (AGFI) of 0.82 is a measure of the relative amounts of variances and covariances jointly accounted for by the model. Values of this index range between 0 and 1, with higher values indicating a good fit. We also looked at the root mean square error of approximation (RMSEA) as another indicator of model fit.² Browne and Cudeck (1993) suggest that a value of RMSEA which is less than 0.05 is an indication of a close fit. The RMSEA for the initial model is 0.042. Based on the $p > 0.05$ rule, this model provides an adequate fit. However, based on the $p > 0.10$ rule (Keats and Hitt, 1988), an alternative model is suggested—the p -value for this model is 0.093.

In an attempt to obtain a better fit, we made several modifications to the initial model. Only when we added a reciprocal link between strategic

planning intensity and financial performance (β_{12}) did the model improve. As shown in Table 2, χ^2 for the modified model was reduced to 112.03; the p -value increased to 0.11; AGFI stayed the same, and RMSEA decreased to 0.04. Based on the strength of these fit indicators and the χ^2 value of 0.11, which exceeds the critical value of 0.10, a conclusion to be reached is that the model provides a good fit and that most of the relationships in the revised model are correctly determined.

However, the relationship between environmental factors and strategic planning intensity was not statistically significant ($\gamma_{22} = -0.44$, $t = -0.40$). Also, the reliability estimate of 0.02 for CHNGE (refer to Table 1), the observed variable measuring environmental factors, is extremely low. Moreover, the parameter estimate for this variable (λ_{x42}) is not statistically significant ($t = -0.57$). Because of its lack of statistical significance, the environmental factors latent variable was not considered in subsequent analyses. These results suggest the revised model shown in Figure 2. Table 3 shows the direct and indirect effects of statistically significant relationships expressed in the revised model.

² Although many studies (in error) have used the root mean square residual as a measure of fit, this measure works best if all observed variables are standardized (Joreskog and Sorbom, 1989). None of the observed variables used in this study were standardized.

Table 1. Means, standard deviations and correlations among variables^a

Variables ^b	Means	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>Performance</i>																		
1. INCOM	34.30	58.58	(71)															
2. EQUIT	12.75	4.10	48	(37)														
3. DGWTH	3.50	1.61	76	60	(78)													
<i>Intensity</i>																		
4. MISSN	6.70	1.95	51	46	54	(84)												
5. OBJCT	7.10	1.65	-06	-09	01	31	(18)											
6. INNAL	7.00	1.62	-17	-21	-16	04	44	(04)										
7. EXNAL	7.10	1.55	-26	-06	-16	-19	16	27	(06)									
8. ALTRN	7.00	1.52	52	32	44	66	23	07	-24	(72)								
9. IMPMT	7.05	1.64	52	40	51	76	26	19	-15	76	(88)							
10. CONTL	7.20	1.96	49	27	43	64	17	10	-21	77	81	(77)						
<i>Managerial</i>																		
11. EXPRT	7.20	1.88	12	16	09	28	18	24	07	36	41	35	(24)					
12. BELIF	7.30	1.78	34	24	27	64	31	23	-01	56	67	57	45	(76)				
<i>Environmental</i>																		
13. COMXP	7.45	1.54	23	08	16	07	09	16	-01	28	30	27	29	30	(45)			
14. CHNGE	21.50	12.87	03	02	04	-07	-05	-03	-05	06	-06	03	01	-07	03	(02)		
<i>Organizational</i>																		
15. BSIZE ^c	3.54	0.56	20	32	22	09	-24	-33	05	-02	-07	-08	02	05	-23	-03	(41)	
16. STRUC ^d	2.35	0.67	15	06	11	-03	10	13	16	13	07	06	16	19	21	13	16	(26)

^aDecimals have been omitted. Correlations of 0.19 or greater are significant at $p < 0.05$. Numbers in parentheses are reliability estimates.

^bINCOM = income, EQUIT = return on equity, DGWTH = deposit growth, MISSN = mission, OBJCT = objectives, INNAL = internal analysis, EXNAL = external analysis, ALTRN = alternatives, IMPMT = implementation, CONTL = control, EXPRT = strategic planning expertise, BELIF = planning-performance beliefs, COMXP = environmental complexity, CHNGE = environmental change, BSIZE = bank size, STRUC = structural complexity.

^cNatural logarithm of bank assets

^d1 = Low structural complexity, 2 = moderate structural complexity, 3 = high structural complexity.

Results shown in Table 3 indicate that managerial factors (i.e., strategic planning expertise and beliefs about planning-performance relationships) have the strongest direct effect (0.53) on strategic planning intensity. Although the indirect effect of organizational factors (i.e., bank size and structural complexity) on strategic planning intensity is positive (0.03), the direct effect is negative (-0.14), resulting in a negative (-0.11) total effect. What this suggests is that as banks increase in size and structural complexity, strategic planning intensity becomes weaker rather than stronger. Table 3 also shows a strong direct effect (0.64) of strategic planning intensity on bank financial performance, confirming a strong causal link between intensity and performance. The results also show a positive, direct effect (0.06) of organizational factors on financial per-

formance. Finally, the direct effect (0.47) of performance on intensity suggests that improvements in a bank's financial performance cause banks to plan with greater intensity.

DISCUSSION OF FINDINGS

Results of this study suggest that the issue is not whether strategic planning affects financial performance in banks, but rather under what conditions banks' financial performance is enhanced by strategic planning. We found the extent to which banks engage in the strategic planning process to be both a major condition of banks' financial performance and a mediator of the strategic planning-financial performance relationship. Moreover, statistical results reported in this study

Table 2. Parameter estimates for LISREL model

Parameter	Initial LISREL model		Modified LISREL model	
	Unstandardized estimates ^a	<i>t</i> ^b	Unstandardized estimates ^a	<i>t</i> ^b
λ_{y21}	0.04 (0.01)	3.01***	0.05 (0.01)	5.34***
λ_{y31}	0.04 (0.01)	4.15***	0.03 (0.00)	8.78***
λ_{y52}	0.62 (0.12)	5.21***	0.32 (0.09)	3.73***
λ_{y62}	0.48 (0.13)	3.82***	0.14 (0.09)	1.56
λ_{y72}	-0.08 (0.12)	-0.68	-0.19 (0.09)	-2.07***
λ_{y82}	0.71 (0.09)	8.05***	0.70 (0.07)	10.51***
λ_{y92}	0.93 (0.09)	0.17***	0.86 (0.07)	13.19***
λ_{y102}	1.01 (0.12)	8.21***	0.95 (0.09)	10.38***
λ_{x21}	1.48 (0.34)	4.40***	1.74 (0.39)	4.48***
λ_{x42}	-0.80 (2.69)	-0.30	-1.86 (3.26)	-0.57
λ_{x63}	0.04 (0.30)	1.32	1.07 (0.49)	2.18**
γ_{21}	1.25 (0.52)	2.41**	1.67 (0.74)	2.27**
γ_{22}	-0.31 (1.23)	-0.25	-0.44 (1.10)	-0.40
γ_{23}	-1.18 (1.49)	-0.79	-1.88 (1.05)	-1.80*
γ_{13}	-5.80 (11.47)	-0.51	41.81 (23.08)	1.82*
β_{12}	-	-	12.96 (3.32)	3.91***
β_{21}	0.02 (0.00)	3.42***	0.01 (0.01)	2.94***
χ^2	114.79		112.03	
<i>p</i>	0.093		0.110	
AGFI ^c	0.82		0.82	
RMSEA ^d	0.042		0.040	

^aStandard errors are in parentheses

^bThe *t*-values are based on a one-tailed test

^cAGFI = adjusted goodness-of-fit index

^dRMSEA = root mean square error of approximation

p* < 0.05; *p* < 0.01; ****p* < 0.001

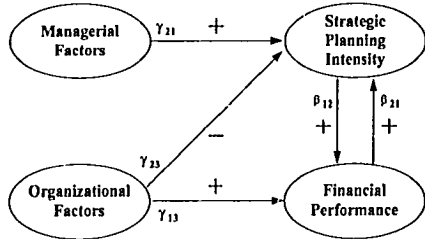
Table 3. Direct, indirect, and total effects in revised LISREL model

Paths	Descriptions		Direct effects	Indirect effects	Total effects
γ_{21}	Managerial factors	→ Intensity	0.53	0.00	0.53
γ_{23}	Organizational factors	→ Intensity	-0.14	0.03	-0.11
γ_{13}	Organizational factors	→ Performance	0.06	-0.09	-0.03
$\gamma_{21}-\beta_{12}$	Managerial factors	→ Performance	0.00	0.34	0.34
β_{12}	Intensity	→ Performance	0.64	0.00	0.64
β_{21}	Performance	→ Intensity	0.47	0.00	0.47

indicate that the relationship between strategic planning intensity and financial performance is not only strong, but also suggest the importance of strategic planning intensity to the financial success of banks and related financial services firms.

Proponents of strategic planning (e.g., Schwenk and Shrader, 1993; Steiner, 1979; Thompson and Strickland, 1987) have argued that the value of

strategic planning is that it generates information, promotes long-range thinking, forces the firm to evaluate its environment, provides a structured means for identifying and evaluating strategic alternatives, stimulates new ideas, increases motivation and commitment, and reduces focus on operational details, all of which improve firm performance. These strategic planning accruals might be viewed as products of strategic planning



*All paths are significant at $p < .05$.

Figure 3. Revised model of planning-performance relationships in banks^a

intensity. That is, planning with greater intensity generates more information, stimulates new ideas, increases motivation and commitment, etc. Viewed as such, these accruals represent some sort of 'black box' intermedating strategic planning intensity and financial performance. Though these accruals may play a mediating role between strategic planning intensity and financial performance, we would argue that the direct relationship between intensity and performance remains cogent due to the amorphous nature of these accruals.

For the most part, the intensity with which banks engage in the strategic planning process was found to be a function of managerial factors. The positive relationship we found between strategic planning intensity and managerial factors suggests that if bank managers possess the expertise to engage in the strategic planning process, and if they believe that strategic planning leads to superior financial performance, they will tend to focus on the strategic planning process with greater intensity.

The literature (cf. Colen, 1982; Gup and Whitehead, 1989; Whitehead and Gup, 1985) suggests that as organizations grow in size and become more structurally complex, more planning would be required. However, our findings were not consistent with the literature; we found a negative, direct relationship between organizational factors and strategic planning intensity. Our negative findings might be partly explained by suggestions that because larger banks tend to have competitive advantages through economies of scale and market power, they may feel less pressure to engage in planning with much intensity. Another possible explanation is that the task

of strategic planning may become overwhelming because of rapid growth and expansion into other types of business, and the required strategic planning expertise may not be commensurate with this pace. We would expect a negative relationship to exist under such conditions.

Our findings were consistent with past findings that organizational factors, particularly size (as indicated by the squared multiple correlation of 0.41 in the diagonal of Table 1), directly affect performance in organizations (Shepherd, 1975; Winn, 1977). However, our findings indicated that this effect was relatively weak. This finding, too, may be due to rapid growth and expansionary activities in the financial services industry. Rapid growth in bank size (and the attendant structural complexity) through diversity and mergers has resulted in less efficient operations, which has affected their financial performance. Such an interpretation is supported by Frank Gentry, a diversification strategist for NCNB Corp., who states that 'Once we get to the point where we have 1,000, 5,000, or 10,000 branches, we'll learn how to run them better' (Hector, 1991b: 71). This implies that the direct relationship between bank size and performance would normally be stronger under conditions of low or moderate growth.

Finally, a surprising result was that environmental factors had no statistically significant effect on strategic planning intensity. Since all firms in this study operated in the same industry and thus were under similar influences, it is possible that perceptions of environmental complexity among the banks were so similar that environmental concerns played a weak role in determining strategic planning intensity. Another possible explanation might be found in the CHNGE variable used to measure the environmental factors construct. The squared multiple correlations (SMC) of 0.02 for this variable (refer to the diagonal of Table 1) suggest that aging may not be a very good surrogate measure of banks' exposure to environmental change. It might be expected that the low reliability of this measure would lead to statistical insignificance in the relationship between environmental factors and strategic planning intensity. However, the fact that low SMCs for other measured variables did not lead to statistical insignificance among other relationships in the model suggests that the previous explanations are more cogent. The relatively

small standard deviation for the COMX variable (refer to Table 1) supports the notion that environmental concerns do not play a significant role in determining strategic planning intensity.

Limitations and implications

Results presented in this paper have helped to explain the nature of planning-performance relationships in banks. At least one factor, though, may have limited our ability to explain even more of this relationship. This limitation has to do with self-reported data concerning the use of strategic planning. The banks with good financial performance, for instance, would likely be pleased with their strategic planning system and would probably rate their beliefs about planning-performance relationships and their strategic planning expertise highly. Moreover, they might attribute greater importance to planning in determining the components of strategic planning intensity. Schwenk refers to this phenomenon as 'biases in causal attributions.' He contends that self-reports are not always reliable because executives cannot always recall the details of complex strategic processes. He further states that 'What is worse, they tend to reconstruct events in a way that makes the processes seem more purposeful in logical than they actually were' (1995: 488). Elsewhere, Clapham and Schwenk (1991) and Huff and Schwenk (1990) suggest that these biased attributions are part of CEOs' attempts to make sense of the complexity they perceive in their competitive environment. Subsequently, the attributions they make do not represent attempts to deceive but represent the actual beliefs of the CEOs who make them.

Considering the significant research findings reported in this paper, this limitation did not seem to substantially influence the outcome of our study. Implications for research, though, are clearly indicated by this limitation. A major implication concerns the accuracy with which CEOs describe strategic processes and identify the factors that affect such processes. For example, if CEOs cannot always accurately describe strategic processes and identify the factors which affect them, laboratory-designed experiments may be required to directly assess the effects of specific variables which have been operationalized within the laboratory context (Schwenk, 1995). In terms of practical implications, what this study contrib-

utes is an exposition on the importance of organizational buy-in and commitment to strategic planning, if it is to be effective. This implication can be generalized to other depository intermediaries (e.g., savings and loans, credit unions), as well as other financial services institutions subject to similar conditions as these intermediaries. The ultimate practical implication is that if these financial institutions want to succeed financially they must engage in the strategic planning process with greater intensity.

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APPENDIX 1: Explanation of the Strategic Planning Survey

Status of strategic planning in banks

The CEOs were provided with the following definition of strategic planning: 'A process of using systematic criteria to formulate, implement, and control strategic alternatives and formally documenting expectations concerning the process'. They were then asked to indicate on the survey whether or not their bank was actively involved in strategic planning, and how long they have had a strategic planning system in place.

Strategic planning intensity

On a scale ranging from 1 (a weak emphasis) to 10 (a strong emphasis), the CEOs were asked to indicate how much emphasis their bank placed on each component of the strategic planning process. The components included (1) determining the banks' mission, (2) developing major long-term objectives, (3) assessing the external environment, (4) assessing the internal environment, (5) evaluating strategic options, (6) implementing strategic options, and (7) con-

trolling the implemented strategic options. Detailed information about each component was made available to the CEOs for clarity.

Complexity, beliefs, and expertise

A complex environment was described to the CEOs as being characterized by rapid change and containing a large number of factors to be considered during the strategic planning process. On a 10-point scale ranging from very simple (1 point) to very complex (10 points), the CEOs were asked to indicate how complex they perceived their banks' environment to be. Beliefs about planning-performance relationships were measured by asking the CEOs the following question: 'How critical do you feel strategic planning is (or can be) to a bank's financial success?' The CEOs indicated their beliefs on a 10-point scale ranging from not critical (1 point) to very critical (10 points). Strategic planning expertise was measured by asking the CEOs to indicate the level of expertise that exists in their bank to perform strategic planning. On a 10-point scale, their choices ranged from very low (1 point) to very high (10 points).

APPENDIX 2: Banks in Research

Sample

Alden State Bank	Continental Bank	Midatlantic
Alpine Bank	Corestates Financial	National City
American Bank	Crestar Financial	NBD Bancorp
American Fidelity Bank	Dauphin Deposit	Northern Trust
American Heritage Bank	Dominion Bankshares	Norwest
American Savings Bank	Farmers State Bank	Old Kent Financial
American State Bank	Fifth Third Bancorp	Omni Bank
Ameritrust	First Alabama Bancshares	Pioneer Bank
Amsouth Bancorporation	First American	Puget Sound Bancorp
Arlington State Bank	First Bank System	Republic New York
Ashland State Bank	First Chicago	San Diego First Bank
Auburn State Bank	First City Bancorp of Texas	Santa Fe National Bank
Aurora National Bank	First Empire State	Shamut National
Bank of Buffalo	First Fidelity Bancorporation	Signet Banking
Bank of Commerce	First Florida Banks	Society
Bank of the West	First Hawaiian	South Carolina Bank
Bank South	First Interstate Bancorp	South Central Bank
Bank One	First Maryland Bancorp	Southeast Banking
Bankcorp Hawaii	First National Cincinnati	Southtrust Banks
Banker's Trust New York	First of America Bank	Southwest Banks
BankFirst	First Security	Star Banc
Barnett Banks	First Tennessee National	Star Financial Bank
Boatman's Bancshares	First Union	State Bank
Capital Bank	First Virginia Banks	State Street Boston
Centennial Bank	First Wachova	Sterling Bank
Central Bank	Firststar	Stockmans Bank
Central Fidelity Banks	Fourth Financial	The Peoples' Bank
Citizens Bank	Gulfcoast Bank	Tri-state Bank
Citizens Bank and Trust	Heritage Bank	Union Bank
Citizens Federal Savings Bank	Huntington Bancshares	Union Bank & Trust Co.
Citizens First Bank	Integra Financial	United Savings Bank
City National	Keycorp	U.S. Bancorp
Colonial Bank	Manufacturers National	Valley State Bank
Colorado Savings Bank	Merchants National	Western Bank
Colorado Valley Bank	Mercantile Bancorporation	Western State Bank
Comerica	Mercantile Bankshares	Wilmington Trust
Commerce Bancshares	Meridian Bancorp	Young Americans Bank
	Michigan National	