

ESTRATÉGIA



DOES STRATEGIC PLANNING PAY? A STUDY OF THE BANKING INDUSTRY

QUAL O IMPACTO DO PLANEJAMENTO ESTRATÉGICO NO DESEMPENHO ORGANIZACIONAL? UM ESTUDO DE BANCOS BRASILEIROS

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RESUMO

Ainda existe muita controvérsia sobre o impacto do planejamento estratégico no desempenho das empresas. Este artigo investigou a relação entre os dois construtos em uma amostra de bancos operando no Brasil. Três dimensões de planejamento estratégico – importância, intensidade e sistematização – foram selecionadas e seu impacto sobre quatro medidas de desempenho foi avaliado. Efeitos diretos e mediados foram testados. Os resultados foram estatisticamente não significativos, mas tal não deve ser interpretado imediatamente como significando que planejamento não afeta o desempenho. O baixo poder do teste (em função do tamanho limitado da amostra), associado ao fato de que muitos bancos auto-reportaram níveis altos em diversas variáveis de planejamento (o que levou a pouca variação nas variáveis explicativas) sugere que os resultados devem ser interpretados com cautela.

PALAVRAS-CHAVE

Planejamento estratégico. Desempenho organizacional. Bancos.

ABSTRACT

There is still great controversy about the impact (if any) of strategic planning on performance. This paper investigated this relationship in a sample of banks operating in Brazil. Three dimensions of strategic planning – importance, intensity and systematization – were selected and their impact over four measures of performance was assessed. The effects were found to be non-significant. However, the small power of the test (due to small sample size) coupled with the fact that the great majority of banks reported to place great emphasis in several indicators of planning recommends that findings be interpreted with care.

KEYWORDS

Strategic Planning. Organizational Performance. Banks.

INTRODUCTION

More than 50 years ago Ansoff, Avner, Brandenburg Portner and Radosevich (1970) asked :“Does planning pay”?

After decades of conceptual discussion and empirical research, results about the impact of strategic planning on organizational performance are still not conclusive (BOYD, 1991; MILLER; CARDINAL, 1994; MCILQUHAM-SCHMIDT, 2010; PEARCE; FREEMAN; ROBINSON, 1987).

Such lack of consistency in empirical results may be due to several reasons, for example: diversity in research settings (countries, industries, firm sizes), variation in how the two key constructs (planning and performance) have been conceptually defined and operationally represented, diversity in the types of relationships modeled (e.g., direct, mediated, moderated), among others.

Several reasons can be pointed to expect a positive relationship between the emphasis placed on planning (as well as systematization of the planning process) and organizational performance, such as:

identification of opportunities and threats in the external environment, as well as strengths and weaknesses of the organization (ANDREWS, 1980); identification of distinct customer segments in terms of their needs and decision processes related to purchase and use of products / services (FERRELL; HARTLINE; LUCAS; LUCK, 1998); selection of strategic positioning that allows exploring possible associations between organization’s strengths and opportunities of the environment (BARNEY; HESTERLY, 2011; PORTER, 1985), identification of gaps between the attributes of products / services offered by competitors and substitutes, their cost to offer these attributes and the willingness of potential customers to buy (in terms of price and quantity) (KIM, MAUBORGNE, 2005; MATHUR; KENYON, 1998); adaptation of the company to react to changes in the configuration of environmental and competitive forces (ESOCBARI;SULL, 2004); and mutual reinforcement of value activities (PORTER, 1985, 1996) in implementing

the plan. In short, lack of planning can lead to a waste of efforts and to inconsistency between different areas of a company and to missing opportunities that could only be glimpsed through reflection and systematization of possible futures and possible configurations of markets and competition (MINTZBERG;WATERS, 1985).

On the other hand, it is also possible to conjecture about possible reasons why strategic planning could be detrimental to organizational performance. For example, strategic planning consumes resources that otherwise could be used in other areas or projects. Furthermore, an overemphasis on planning may lead to organizational rigidity and lack of adaptability to unforeseen situations, with the consequent loss of opportunities (MINTZBERG;WATERS, 1985).

So, the main objective of the present study is to investigate whether: *Is there a positive association between strategic planning and business performance?*

Our empirical study is delimited to the banking industry in Brazil in the years 2009-2011.

Literature Review

We will now briefly review what the meaning and content of strategic planning is. More space will be dedicating to discussing the controversial relationship between planning and performance in the aggregate of empirical studies. Finally, we present a few studies that have investigated the relationship of strategic planning and performance in the banking industry.

Strategic planning

By building from several sources (e.g., ANDREWS, 1980;ANSOFF, 1991; MINTZBERG, 1994) one can define strategic planning as the set of mechanisms (especially if

explicit) that firms employ in order to delineate their long-term objectives, to collect external and internal information, to process that information in order to specify courses of actions to pursue those objectives, to allocate resources, and to monitor results. Hopkins and Hopkins (1997, p. 637) put it this way: "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." Pearce *et al.* (1987, p. 658) defined (formal) strategic planning as "the process of determining the mission, major objectives, strategies, and policies that govern the acquisition and allocation of resources to achieve organizational aims." McIlquhamSchmidt (2010, p. 6) considered that a good planning process should include, partly or fully, the following elements: "1) determine vision, mission and objectives, 2) analyze the environment, 3) analyze the internal resources 4) analyze and select strategic alternatives, 5) implement the strategies and 6) evaluate and control performance."

From these definitions, it is clear that strategic planning is a complex phenomenon, which can be conceived of from many complementary aspects. The literature suggests, among others, the following "dimensions": systematization, sophistication, standardization, structure, commitment, quality, intensity, importance, comprehensiveness, and flexibility of the planning process or of the planning programs (BOYD, 1991;ARMSTRONG, 1982; MILLER; CARDINAL, 1994; LEONTIADIS; TEZEL, 1980; PEARCE *et al.*, 1987; ROBISON; PEARCE, 1988).

Pearce *et al.* (1987) argued that this vari-

ety of measures would in fact relate to just two categories:

- Formalization of the planning processes, and
- Perceived importance of planning.

Instead of using “independent” dimensions to conceptualize strategic planning, such as the ones just cited, some authors have used categories of planning, plans or planners. In the studies reviewed for Boyd’s (1991) meta-analysis, the following categories could be found: planners vs. non-planners; high- vs. low-planners; unstructured, structured operational and structured strategic plans; unstructured, intuitive, structured operational and structured strategic plans; programmed planners and conventional planners; comprehensive formal planners, partial formal planners and not formal planners.

The controversial relationship between strategic planning and performance

Pearce *et al.* (1987) reviewed 18 studies that investigated the relationship between strategic planning and performance and found inconsistent and contradictory results. They argued that, in part, such state of affairs was a consequence of assuming (albeit implicitly) a universal relationship, whereas the relationship would supposedly be influenced by several contextual variables – firm-specific (e.g., size, scope) or industry-related (e.g., dynamism, intensity of competitive forces, degree of concentration, stage in life cycle; or, as suggested by other researchers, level of turbulence (MILLER; CARDINAL, 1994; MINTZBERG, 1994), capital intensity (MILLER; CARDINAL, 1994), industry growth rate (THUNE; HOUSE, 1970). Pearce *et al.* (1987:671)

urged researcher to “specifically and explicitly incorporate elements of industry, and corporate and business-level contexts into the analysis of planning effectiveness.”

In a meta-analysis Boyd’s (1991) found studies in which strategic planning had a positive effect on performance in some industries, but a null effect in others; besides, the effects on some measures of performance were negative in some studies. Results revealed that the overall effect of planning on performance was very weak ($r = 0.15$).

Much by the same token, in McIlquham-Schmidt’s (2010) meta-analysis, some studies found a positive relationship between strategic planning and corporate performance, while others showed that the relationship was inconclusive and some found a negative relationship. All in all, results indicated that there was a very small but positive relationship ($r = 0.08$).

The results of Schwenk and Shradler’s (1993, p. 53) meta-analysis on the relationship between formal planning and performance (sales growth and/or return measures – ROA, ROS, ROI) in small firms “suggest that even though the size of the effects for planning for individual studies is not large, the overall relationship between formal planning and performance across studies is positive and significant.”

Also, the results of Miller and Cardinal’s (1994, P. 1649, 1662) meta-analysis “suggest that strategic planning positively influences firm performance and that methods factors are primarily responsible for the inconsistencies reported in the literature” and that “planning affects performance equally in large and small and capital intensive and labor-intensive firms”.

Shea-Van Fossen, Rothstein and Korn’s

(2006) meta-analysis (which included all studies reviewed in the meta-analyses by Pearce *et al.* (1987), Boyd (1991) and Miller and Cardinal (1994), plus 39 other studies, including 17 unpublished works) indicated the existence of a small, but statistically significant, relationship between strategic planning and organizational performance. Interestingly, the authors found that the effect was statistically significant in the aggregate of studies that operationalized strategic planning by the level of sophistication or formalization, but not in studies that operationalized the construct as a dichotomous variable (e.g., planners vs. non-planners). Also, a bit surprisingly, the effects were found to be significant only in the studies of small firms, but not in the studies of large firms.

Miller & Cardinal (1994), as well as Hambrick (1983) argue that systematized and careful planning would be more relevant when the level of environmental turbulence is high. That is, in more predictable environments, maybe the effort to gather data and monitor the environment would not be worth the cost incurred. This argument suggests that the impact of planning on performance may depend on the characteristics of the external environment.

Planning and performance in the banking industry

Boyd's (1991) meta-analysis included three studies of the banking industry: Sapp and Seiler (1981) found that planners outperformed non-planners in three performance measures (including deposit growth and return on equity), out of four (but Boyd, 1991, did not report what the other two measures were). Wood and Laforge's (1979) study indicated that comprehensive

formal planners did better than non-planners. On the other hand, Whitehead and Gup (1985) found there were, in general, no differences in performance between planners and non-planners, but planners performed worse than non-planners in some measures.

Robinson and Pearce (1983, p. 197) found that “[s]mall banks without formal planning systems performed equally with small, formal planners.” It should be noted that a lesser degree of formalization does not mean necessarily less emphasis on planning. As the authors put it: “Regardless of formality, each set of banks placed equal emphasis on all aspects of strategic decision-making [i.e., risk assessment, distinctive competencies selection, definition of lines of authority, deployment of resources to carry out the strategy, monitoring and control of the implementation] except formalized goals and objectives”.

On the other hand, Gup and Whitehead (1989) found evidence that banks that have a higher degree of formalization of the strategic planning process tend to have significantly lower ROIs than banks that run the process in a more informal manner. Gup and Whitehead (1989) also argued that planning would need some time before better results could be attained, but they found no concluding evidence between the length of time banks had been engaged in the strategic planning process and their financial performance.

Hopkins and Hopkins (1997) found that, regardless of whether the strategic planning process was formal or informal, planning intensity was positively related with performance. Besides, their findings also suggested the existence of a recipro-

cal relationship between strategic planning intensity and performance.

Conceptual model and hypotheses of the study

Following Pearce et al. (1987) and Hopkins and Hopkins (1997), we initially considered three dimensions of strategic planning: Importance, Intensity and Sophistication. However, as we explain in more detail in the Methods section, our operationalization of the Sophistication dimension did not present good psychometric properties. So, we took one aspect of Sophistication for this study: the level of Systematization of strategic planning. Here are the four dimensions used in this study:

- **Importance** of planning – level of importance attributed to planning by the CEO (and top executives)
- **Intensity** of planning – the scope of aspects covered by the plan (e.g., mission definition, external analysis, internal analysis, monitoring of results etc.) and the effort that the firm dedicates to them; and
- **Systematization** of the planning processes – degree in the “very informal” – “very systematized” continuum.

Regarding Importance and the other two dimensions of planning, we argue that they are not “parallel” aspect of planning, but rather that Intensity would precede and influence the other two. In short, we contend that the importance firms attribute to strategic planning would affect (a) the level of intensity with which they engage in the strategic planning process and (b) the level of systematization of planning:

H_{1a}: There is a positive relationship between the **importance** firms attribute

to strategic planning and the **intensity** with which they engage in the strategic planning process

H_{1b}: There is a positive relationship between the **importance** firms attribute to strategic planning and the level of **systematization** of planning

Additionally, we argue that organizational performance would be positively affected by both the intensity and the systematization of planning:

H_{2a}: There is a positive relationship between the **intensity** with which firms engage in the strategic planning process and organizational **performance**

H_{2b}: There is a positive relationship between the level of **systematization** of planning and organizational **performance**

Given that the literature on organizational performance suggests that size of the firm might have an impact in its results, we included firm size as a control variable. Other variables that have been argued to moderate the relationship between strategic planning and performance – such as environmental turbulence, industry capital intensity, stage in product lifecycle – were not included in our analysis because all firms belonged to the same industry: banks. Figure 1 depicts the posited relationships.

One of the dotted lines in Figure 1 represents a direct relationship between importance of planning and organizational performance, but this is a relationship for which we do not advance any hypothesis. But it is necessary to test for its statistical significance in order to correctly assess the impact of the (supposedly) mediated relationships (between importance and, respectively, intensity and sophistication of planning). The other dotted line represents

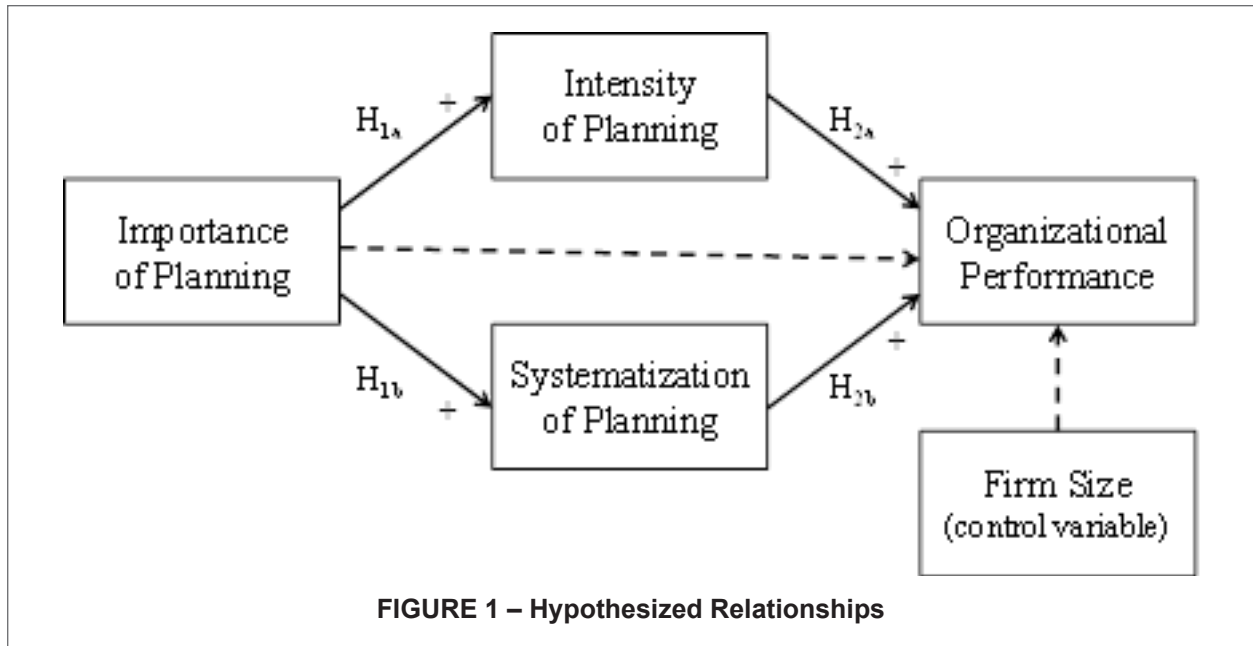


FIGURE 1 – Hypothesized Relationships

the impact of size, also a relationship which is not in the scope of our arguments, but which we want to control for.

Methods and data

Measures

We followed Boyd's (1991) advice of not treating planning as a categorical (e.g., planners vs. non-planners) or ordinal variable (e.g., short-term forecasting, budgeting, operational planning, long-range planning, strategic planning). As suggested by him, we selected dimensions from which to characterize the conceptual domain of the strategic planning construct and then chose operational indicators to operationalize those dimensions.

Some studies also have employed a "dimensional" approach to the conceptualization of planning. Pearce *et al.* (1987) suggested two dimensions: formalization of the planning processes and perceived importance of planning. Armstrong (1982) employed five components of (formal) strategic planning: specification of objec-

tives, generation of strategies, evaluation of strategies, monitoring results, and seeking commitment to these plans from organizational members. Hopkins and Hopkins (1997) selected seven components to operationalize intensity of planning: (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) controlling the implemented strategic options.

Much by the same token, Robinson and Pearce (1988) operationalized Sophistication of planning by six indicators ("Which one of the following best describes your company's strategic planning activities over the last 5 years?"): (a) The company has a short-range (approximately 1 year) profit plan; (b) The company has a planning process such that the final plans are accepted by those responsible for their attainment; (c) There is a person or group whose time responsibility is to coordinate

a company-wide strategic planning effort; (d) The company's top management has developed a climate in the company which supports the planning effort; (e) The company's top management has developed a formal statement of what business the company is in, or wants to be in; and (f) The company's plans are used to judge managerial performance.

Rudd *et al.* (2008) adapted Boyd and Reuning-Elliott's (1998) operationalization of the strategic planning construct as follows: (1) mission statement, (2) analysis of competitor trends, (3) analysis of supplier trends, (4) analysis of market trends, (5) internal analysis, (6) long term, corporate level strategies, (7) medium term, business level strategies, (8) short term, functional level strategies, (9) barriers to strategy implementation, (10) analysis of contingencies, and (11) on-going evaluation and control.

For this study, we chose three dimensions of planning:

- Importance
- Intensity
- Systematization

Importance of planning was measured by a single indicator through a self-reported 7-point semantic-differential scale ("How much importance does your company give to strategic planning in comparison with other activities?"; response options: very low ... very high).

Intensity of planning was operationalized as a formative construct composed of seven indicators (the wording was just slightly adapted from Hopkins & Hopkins, 1997): definition of company's mission, establishment of long-term objectives, analysis of external opportunities and threats, analysis of company's strengths and weak-

nesses, evaluation of different courses of action, execution of strategic planning, and monitoring of results of strategic planning. Each indicator was elicited from the same question ("How much emphasis does your company place in each of the following aspects of strategic planning") in a 7-point response format (very low ... very high). The value of the construct was calculated as the simple average of the answers to the seven indicators.

Regarding the third dimension of strategic planning, we initially chose Sophistication of planning, and operationalized the construct with four indicators in a reflective measurement perspective, that is, we expected that the four indicators would tend to co-vary together. The first three indicators were measured in 7-point scales: level of systematization of planning (very informal ... very systematized), degree of involvement of the Board of Directors (very low ... very high), and frequency of revision of the strategic plan (very infrequent ... very frequent). The fourth indicator – temporal horizon of strategic goals (in years) – was freely reported by the respondent.

However, subsequent analysis revealed that the four indicators did not comprise one single factor (KMO Measure of Sampling Adequacy was low (.555) and the Bartlett Test of Sphericity indicated that there was little correlation among the variables and that one could not reject the null hypothesis that the correlation matrix would be the identity ($p < .241$)).

Therefore, we decided to select only one indicator that seemed, from a conceptual standpoint, to be closer to the meaning

of what we wanted to convey and which showed better statistical properties (normality). This indicator was: Systematization of planning.

We reviewed performance measures of banks that had been employed in studies of strategic planning. Robinson and Pearce (1983) used: (1) profit margin, (2) return on assets, (3) loan growth, and (4) return on equity. Sapp and Seiler (1981) chose: (a) deposit growth rate, (b) return on equity, (c) capital-to-risk assets ratio, and (d) interest as a percentage of loans. Whitehead and Gup (1985) employed: (i) deposit growth, (ii) return on assets, and (iii) return on equity. Wood and LaForge (1979) chose just net income growth and return on investments. Hopkins and Hopkins (1997) used three measures: net income, return on equity, and deposit growth.

Our study employed the following performance indicators, all referring to corporate-wide measures, which were collected from a secondary source (Brazil's Central Bank (Banco Central do Brasil), 2012):

- Deposit growth (GUP; WHITEHEAD, 1989; HOPKINS; HOPKINS, 1997) – compound annual average (over a three-year period, 2009-2011) of variation in deposits, that is
$$\left[\frac{((\text{Dep}2011 - \text{Dep}2008) / \text{Dep}2008) + 1}{3} - 1 \right]$$
- Growth in intermediation results (HOPKINS; HOPKINS, 1997; LEONTIADES; TEZER, 1980; MILLER, 1994; THUNE; HOUSE, 1970) – compound annual average (over a three-year period, 2009-2011) of variation in revenues from interest paid by borrowers minus interest paid to lenders – this indicator resembles gross profit change in non-financial firms;

- Return on equity (ROE) (HOPKINS; HOPKINS, 1997; LEONTIADES; TEZER, 1980; ROBINSON; PEARCE, 1983; SAPP; SEILER, 1981; WHITELAND; GUP, 1985) – three-year average (2009-2001) of net profit divided by average equity, that is
$$(\text{ROE}2011 + \text{ROE}2010 + \text{ROE}2009) / 3;$$

- Efficiency index (suggested in the pre-test phase by a specialist in the banking industry) – three-year average of revenues (from intermediation and services) divided by cost.

When we collected the data, all the information was updated only until Sept 2011. So, our one-year data in fact means Oct year $t-1$ thru Sept year t .

Regarding organizational performance, it was also not possible to reduce the four indicators into a single factor (a low KMO Measure of Sampling Adequacy (.530) coupled with a non-significant ($p < .163$) Bartlett Test of Sphericity indicated that data reduction by factor analysis would not be appropriate).

As performance has been argued to have a formative perspective regarding its indicators (DIAMANTOPOULOS, 1999), we calculated a simple average of the z-scores of the four indicators. But, as the statistical relationships with the explanatory variables turned out to be nonsignificant, tests were run for each indicator of performance separately. That is, we decided to test the hypotheses H_{2a} and H_{2b} for each of the four performance measures separately.

The control variable Firm size was operationalized by total assets.

Sample and respondents

According to Brazil's Central Bank (2012), as of end of 2011, there were 137

banks in Brazil (this includes operations of multinational banks that have an affiliate in Brazil). From this population, we removed development banks and also banks that did not have all historical data for our analysis, leaving out a sampling frame of 116 banks. A telephone contact was tried with all 116 banks, inviting them to participate in the survey. For those that agreed, the questionnaire in Word format was sent as an annex to an e-mail. Out of the 116, 30 responded all questions in the survey instrument (plus one that provided incomplete answers and was discarded), for an effective response rate of 25.9% (=30/116).

A two-tailed test indicated that the average of firm size in the sample was not statistically different ($p < .171$) from the average firm size of the target population. Similar tests were run to compare the sample averages with the target population averages regarding deposit growth ($p < .513$), growth in intermediation results ($p < .017$), return on equity ($p < .034$), and efficiency index ($p < .001$). Thus regarding firm size and deposit growth the sample can be regarded as reasonably representative of the population at the 5% significance level. However, differences in averages are statistically significant for growth in intermediation results, return on equity and efficiency index.

Almost the totality of respondents was composed of senior managers and directors or else of staff members with responsibility over strategic planning.

It is important to note that this study tried to control for extraneous influences by using a sample of firms from a single industry and a single country. As reported in Shea-Van Fossen et al.'s (2006) meta-analytic study, the aggregate effect of strate-

gic planning on organizational performance was significant only in studies that controlled for industry.

Procedures for data collection

A straight-forward questionnaire with clear questions and response options was designed to collect information about the planning variables and about the demographics of the respondents. A pre-test was run with two experienced professors (one with extensive experience in the banking industry, and the other a specialist in market research and questionnaires) and also an executive of the banking industry with a masters' degree. The pre-test helped refine the wording, check the sequencing of questions and estimate the time needed to respond. It should be noted that one of the authors of this paper has also had professional experience in the banking industry and was knowledgeable enough about performance measures and organizational structures in banks.

All banks were phoned and the name of a senior executive was searched. Upon acquiescence by the firm, the questionnaire was sent by e-mail or fax. The responses came by e-mail or fax also. As a token of appreciation for their time, all respondents were promised a copy of the consolidated results.

No specific time period was suggested in the questionnaire, so the respondents probably considered the "recent" past in their answers to questions on strategic planning. The secondary data on organizational performance referred to the 2009-2011 period – that is, also the "recent" past. Given that there should be a time lag between the efforts in planning and the performance results accruing from those efforts, it would have been advisable to

collect data on strategic planning variables from an earlier period. However, recollecting retrospective data may be troublesome for executives (cf. Golden, 1992; Huber & Power 1985). On the other hand, it seems reasonable to consider that strategic planning processes are relatively stable over short periods of time, that is, firms do not go about changing frequently the emphasis they dedicate to planning. So, it might be acceptable to consider that the data on strategic planning collected from the questionnaire (“recent” past) would reasonably reflect the data of an earlier (not too distant) period in the past.

Statistical technique

By using dimensions of planning, it might be possible to investigate the impact of individual dimensions on specific performance measures (Boyd, 1991).

We took the independent effects approach, as a way to estimate the (supposedly) independent effects of importance of planning on intensity and sophistication and the independent impact of these two variables on performance.

A multiple linear regression analysis (with minimum least squares estimation technique) was used.

Given that the dependent variables were measured in scales distinct from the independent variables, all variables were standardized before they entered the regression equations.

LIMITATIONS OF THE STUDY

Some limitations of this study ought to be recognized. Social desirability bias should not be overruled, since managers might not wish to tell the truth about the strategic planning process of their firms,

especially if they believe their firms ought to do better.

The fact that there was no time lag between independent and dependent variables is also a limitation.

The sample was rather small (although it represented more than $\frac{1}{4}$ of the target population), so the statistical power of the tests was low. This means that only relationships that were really strong in the population would be found as significant. Besides, the sample is not homogeneous: there are retail banks, investment banks, diversified banks etc.)

FINDINGS AND DISCUSSION

Regarding normality of the independent, only the distribution of Intensity of Planning was not statistically different from a normal distribution (Kolmogorov-Smirnov test with $p < .176$ and Shapiro-Wilk test with $p < .184$), but a visual inspection of the QQ plot for Systematization indicated a reasonable fit with a normal distribution.

AS for the dependent variables, the distribution of three of them (Deposit Growth, ROE and Efficiency) was not statistically different from a normal distribution, but Growth in Intermediation Results departed from the normal distribution.

From a theoretical standpoint, Importance of Planning would not be expected to exert a direct impact on Performance, but it would be expected to influence both Intensity of Planning and Systematization of Planning, which would be posited to have an effect on (each indicator of) Performance.

So, we evaluated (i) the separate impact of Intensity and of Systematization on (each of the four indicators of) Performance, (ii) the impact of Importance on Intensity and on Systematization, and (iii) the joint im-

Impact of Importance and Intensity (also of Importance and Systematization) on (each indicator of) Performance – always controlling for Firm Size.

We first assessed the impact of Intensity on Performance. The first set of regression equations, related to the effects of Intensity on Deposit Growth, is presented here:

$$1a) \text{ DepGrowth} = b_0 + b_1.\text{Intensity} + z_1.\text{Size} + e_b$$

$$2a) \text{ Intensity} = a_0 + a_1.\text{Import} + y_1.\text{Size} + e_a$$

$$3a) \text{ DepGrowth} = c_0 + c_1.\text{Intensity} + c_2.\text{Import} + x_1.\text{Size} + e_z$$

For a full mediating effect (as we expected) to be detected, four conditions would have to be met: (i) $b_1 \neq 0$ in the first equation, (ii) $a_1 \neq 0$ in the second equation, (iii) $c_1 \neq 0$ in the third equation and $c_2 = 0$ (in fact, statistically not different from zero) in the third equation.

The second set of regression equations, related to the effects of Intensity on Growth in Intermediation Results, is presented here:

$$1a) \text{ IntermGrowth} = b_0 + b_1.\text{Intensity} + z_1.\text{Size} + e_b$$

$$2a) \text{ Intensity} = a_0 + a_1.\text{Import} + y_1.\text{Size} + e_a$$

$$3a) \text{ IntermGrowth} = c_0 + c_1.\text{Intensity} + c_2.\text{Import} + x_1.\text{Size} + e_z$$

The third set of regression equations, related to the effects of Intensity on ROE, is presented here:

$$1a) \text{ ROE} = b_0 + b_1.\text{Intensity} + z_1.\text{Size} + e_b$$

$$2a) \text{ Intensity} = a_0 + a_1.\text{Import} + y_1.\text{Size} + e_a$$

$$3a) \text{ ROE} = c_0 + c_1.\text{Intensity} + c_2.\text{Import} + x_1.\text{Size} + e_z$$

The fourth set of regression equations, related to the effects of Intensity on Efficiency, is presented here:

$$1a) \text{ Efficiency} = b_0 + b_1.\text{Intensity} + z_1.\text{Size} + e_b$$

$$2a) \text{ Intensity} = a_0 + a_1.\text{Import} + y_1.\text{Size} + e_a$$

$$3a) \text{ Efficiency} = c_0 + c_1.\text{Intensity} + c_2.\text{Import} + x_1.\text{Size} + e_z$$

Results indicate that Intensity of Planning had no statistically significant impact over any of the four Performance indicators (none of the regression coefficients were significant and the adjusted R^2 of the four regression equations were all near zero). In the equations relating only Intensity with Performance (controlling for Size), some regression coefficients were relatively high in absolute value (maximum = .30, though not statistically significant due to the low statistical power of the test, as will be discussed ahead) and three out of four were negative, suggesting that, maybe, too much planning might be detrimental to performance.

After inclusion of the direct effect of Importance, the direct impact of Intensity on Performance changed a lot, but this effect is difficult to interpret since it does not seem to be clear, from a theoretical standpoint, why Importance might have a direct impact on Performance. In fact, if this relationship were always negative (which was the case only with Deposit Growth and ROE), then one might interpret that there might be a reverse causal path, that is, the more dissatisfied firms are with performance, the more they would resort to planning as a way to try to improve results.

On the other hand, Importance of Planning has a positive and significant impact on Intensity of Planning (standardized regression coefficient = .672, $p < .001$, adjusted $R^2 = .432$), as expected. Also, as expected, Importance had no statistically significant direct impact on Performance, and, unlike expected, it had no indirect impact (through Intensity) on Performance.

We then assessed the impact of Systematization on Performance. The first set of regression equations, related to the effects of Systematization on Deposit Growth, is presented here:

$$1a) \text{ DepGrowth} = b_0 + b_1 \cdot \text{Systemat} + z_1 \cdot \text{Size} + e_b$$

$$2a) \text{ Systemat} = a_0 + a_1 \cdot \text{Import} + y_1 \cdot \text{Size} + e_a$$

$$3a) \text{ DepGrowth} = c_0 + c_1 \cdot \text{Systemat} + c_2 \cdot \text{Import} + x_1 \cdot \text{Size} + e_z$$

The second set of equations relating Systematization with Performance is:

$$1a) \text{ IntermGrowth} = b_0 + b_1 \cdot \text{Systemat} + z_1 \cdot \text{Size} + e_b$$

$$3a) \text{ DepGrowth} = c_0 + c_1 \cdot \text{Systemat} + c_2 \cdot \text{Import} + x_1 \cdot \text{Size} + e_z$$

The third set of equations is:

$$1a) \text{ ROE} = b_0 + b_1 \cdot \text{Systemat} + z_1 \cdot \text{Size} + e_b$$

$$3a) \text{ ROE} = c_0 + c_1 \cdot \text{Systemat} + c_2 \cdot \text{Import} + x_1 \cdot \text{Size} + e_z$$

And the fourth set of equations is:

$$1a) \text{ Effic} = b_0 + b_1 \cdot \text{Systemat} + z_1 \cdot \text{Size} + e_b$$

$$3a) \text{ Effic} = c_0 + c_1 \cdot \text{Systemat} + c_2 \cdot \text{Import} + x_1 \cdot \text{Size} + e_z$$

Our findings indicate that Systematization of Planning seems to have little impact on Performance. In fact, the relationship was significant only for Growth in Intermediation Results ($p < .011$; standardized regression coefficient = .465; R^2 adjusted = .162). However, once we inserted Importance in the equation, the relationship between Systematization and Performance was no longer statistically significant and, surprisingly, there could be found a direct significant impact of Importance over Growth in Intermediation Results. This finding is hard to explain in theoretical terms.

We also tested the following regression equation, with the joint effect of Intensity and of Systematization:

$$1a) \text{ DepGrowth} = b_0 + b_1 \cdot \text{Intensity} + b_2 \cdot \text{Systematization} + z_1 \cdot \text{Size} + e_b$$

But the results were not statistically significant either.

In short, hypotheses H_{1a} and H_{1b} were supported by the data, but H_{2a} and H_{2b} were not.

The low adjusted coefficients of determination (R^2) and the non-significant regression coefficients found in this study deserve some reflection. First of all, it should be noted that the vast majority of firms reported to have a high emphasis in each of the seven variables of Intensity of Planning and also reported high values of Systematization. Such low variation in the independent variables makes it a poor explanatory variable of the variance of the dependent variable (Performance). This is not to say that planning does not matter. But the non-significant findings may be an idiosyncratic result of particular sample of this study and its small variance.

Second, a remark about the statistical power of the tests is necessary. Given that the sample is relatively small (30 observations), the probability of detecting as significant a specific level of R^2 , at a 5% significance level, would be at least .80 only if the R^2 were at least .42 (these calculations were based on a simple extrapolation from Hair, Black, Baben and Tatham's (2006) table 4-7 (p.195)). So, the fact that it was not possible to detect a significant R^2 in the regression equations does not mean that there is no such relationship in the population, but may have been due to the fact that the sample was small and, thus, the power of the test was low.

Third, given the use of secondary data, the magnitudes of the effects measured in this study are expected to be lower than if we

had used self-reported data (*cf.*, SHEA-VAN FOSSEN *et al.*, 2006), because of a tendency of executives to inflate the relationship once they sense that the questionnaire is about a relationship between strategic planning (which they may believe to lead to better performance) and performance outcomes.

Conclusion

The impact of Strategic Planning on Performance has met equivocal evidence in the literature. This study is an attempt to shed new light into the phenomenon.

By using just one industry (banks) and just one country (Brazil) we were able to remove some possible confounding effects.

Instead of using a categorization of types of planners (or types of planning), this study followed Boyd's (1991) advice and used dimensions of strategic planning – this would be a way to verify possible relationships of particular dimensions of planning with performance. Three dimensions of Planning were used – Importance, Intensity and Systematization – and four indicators of Performance were employed – Deposit Growth, Growth in Intermediation Results, ROE, and Efficiency. Firm Size was used as a control variable.

The findings of this study indicate, as expected, that the Importance firms give to planning affects the Intensity with which they engage in planning and also affects the level of Systematization. However, unlike expected, results indicate that Intensity and Systematization would bear no statistically significant influence on Performance.

Our results contradict those of Hopkins and Hopkins (1997), who found a positive and significant effect of Intensity on Performance. But they somehow corroborate the findings in Gup and Whitehead's (1989), in which a negative relationship was

found between Formalization (which is not equal to, but in some aspects, is related to Systematization) and Performance.

It is difficult to make a direct comparison of our findings with those of some other studies of the banking industry that used a categorical (*i.e.*, planners vs. non-planners) approach instead of a dimensional approach to planning.

It should be noted that several authors (*e.g.*, BOYD, 1991; HREBINIAK, 2005; KAPLAN; NORTON, 2005) argue that planning by itself is not enough for better results, given that implementation of the planning would be paramount. Although we included two implementation-related indicators (execution of strategic planning, and monitoring of results of strategic planning) in our operationalization of Intensity of Planning, this may not have been enough to capture all the effect of execution.

A reversal relationship between Planning and Performance has also been advocated, which would tend to lead to a negative relationship. As Rhyne (1986, p. 426) has put it: "Lindsay *et al.* (1981) offered the explanation that perhaps companies do not plan until performance is unsatisfactory; therefore planners' results likely would be lower than non-planners who have not yet encountered significant difficulties."

A reflection about deliberate vs. emergent strategies (MINTZBERG; WATERS, 1985) can also illuminate the debate about the impact of planning on performance. While relying only on emergent strategies would mean no control, resorting only to deliberate strategies may mean no learning. So, it is possible that overplanning may lead to high costs and to organizational rigidity and less adaptability – and, as a possible consequence, lower performance.

Our sample was overpopulated with firms that reported high emphasis on strategic planning. Such low variation in the independent variable may explain, in part, the null results. Related to this “planning trend”, Pearce et al. (1987:671-672) have put forward an interesting argument: “It may be that FSP [formal strategic planning] has become a necessary but not sufficient condition for longterm corporate performance.” So, instead of using a linear approach (e.g., regression) to the study of the relationship between planning and performance, maybe researchers should consider a set-theoretic approach (RAGIN, 2008) based on QCAfs (Qualitative Comparative Analysis fuzzy set).

It also may be possible that Strategic Planning is related to some aspects of Performance, but not to others. In McIlquham-Schmidt’s (2010, p. 12) words: “The determination of whether there is a relationship between SP [strategic planning] and CP [corporate performance] will therefore depend on the performance measure selected.”

We believe that the publications of studies that have not found significant statistical results is a way to avoid the so called file drawer problem: “journals are filled with the 5% of the studies that show Type I errors, while the file drawers are filled with the 95% of the studies that show nonsignificant results” (ROSENTAHL, 1979, p. 638).

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