Does It Pay to Plan?: Strategic Planning and Financial Performance

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ABSTRACT

Previous research on the effects of strategic planning on firm performance has yielded inconsistent and inconclusive findings. In this study, we use a recently validated measurement model of strategic planning to examine the planning-performance relationship in the California processing tomato industry. Results indicate a strong correlation between the degree of emphasis firms place on strategic planning and financial performance. Moreover, several specific strategic planning tools, specifically, the use of a mission statement, long-term goals, and ongoing evaluation, were also more heavily emphasized by high-performing firms. These results suggest that strategic planning does pay off in terms of improved financial performance and that some planning tools may have a significant impact. [Econ-Lit citations: L100, L660] © 2001 John Wiley & Sons, Inc.

1. INTRODUCTION

The widespread acceptance of strategic planning as a management tool is evidenced by the emergence of strategic planning departments, the growth in strategic planning staff, and the boom in strategic management consulting. These trends have roughly paralleled the rapid development of the strategic management literature since about 1980, starting with the publication of Porter's widely cited book, Competitive Strategy (1980), and have occurred despite the inconclusive and conflicting evidence linking the use of strategic management and firm performance (Shrader, Taylor, & Dalton, 1984).

Numerous studies have been conducted examining the relationship between formal strategic planning processes and firm performance. While most published research has found a positive link between formal planning and performance (Thune & House, 1970; Rhyne, 1987), many studies report no discernable benefit (Kudla, 1980; Hogarth & Makridakis, 1981), and a few studies report a negative benefit to formal strategic planning (Fulmer & Rue, 1974).

In an effort to draw some conclusions from the many studies conducted on the subject, several studies have reviewed the numerous published articles. In 1982, Armstrong compared the results of 15 studies examining the link between formal strategic planning and firm performance. He found that 10 studies reported a positive impact, with two and three

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studies indicating null and negative benefits, respectively. Pearce, Freeman, and Robinson (1987) reviewed 18 papers that studied the relationship between formal strategic planning and a firm's financial performance. They concluded that the results of these empirical studies were "inconsistent and often contradictory." In another, more comprehensive study undertaken in 1991, Boyd analyzed the results of 29 studies and concluded that, "While some studies have found significant benefits from planning, others have found no relationship, or even small negative effects."

Interest in exploring and understanding the relationship between strategic planning and firm performance has waned in recent years; the great majority of published research in this area was published prior to 1990. Possibly, this is because interest in the topic may have diminished out of frustration with methodological tools that were insufficient to address the problem.

In support of this view, Boyd and Reuning-Elliott (1998) argue that inadequate measurement of the planning variable has been a major limitation in conducting empirical research on strategic planning. Specifically, they claim that the use of inconsistent terminology, the lack of agreement on the scope of strategic planning, and measurement problems have substantially limited researchers' ability to integrate empirical work and obtain consistent results because they have not consistently defined and measured the key operational variable. In response to this deficiency, they developed and validated a multiple-indicator measure of strategic planning.

The implications of having a reliable measure of the core construct of the strategic management discipline are profound. It invites the application of the measure to further study the impact of strategic planning on firm performance. Furthermore, because the measure is comprised of multiple indicators, it may be possible to identify which strategic planning tools have the largest impact on performance. A better measure of the strategic planning construct should make it possible to better understand the impact of strategic planning on performance.

The primary purpose of this research is to examine the impact of strategic planning on firm performance in the agribusiness sector. Relatively little research has been conducted on this topic; a study by Katz (1997) that examined how managerial behavior affected the strategic choices and performance of agricultural cooperatives is one of the few examples. The specific objectives of this study are to:

- Determine the extent to which firms utilize strategic planning tools;
- Evaluate the relationship between the use of strategic planning and firm financial performance;
- evaluate the relationship between the use of specific strategic planning tools and firm financial performance; and
- Determine the relationship between characteristics of firms' strategic planning processes and their financial performance.

2. METHODOLOGY AND DATA COLLECTION

A key research design question was whether to study a broad or narrow group of firms. Generating a sample that has broad industry representation has the advantage of producing results that are more easily generalized. On the other hand, by limiting the scope of the study to one relatively homogeneous industry, it is possible to eliminate many of the

confounding factors (such as differences in the application of strategic management tools or firm performance associated with differences between industries) that have resulted in inconclusive results in previous studies. For this reason, we decided to focus our efforts on one industry: the California processing tomato industry. This industry fit our criteria because firms in this industry are affected by similar external factors and face similar competitive environments. While this necessarily limits the ability to draw general conclusions based on the results of the research, the depth of knowledge gained from a comprehensive study of one industry should be enlightening.

The questionnaire contained 29 questions and was designed to obtain information on the firms' use of strategic planning tools, strategy processes, and financial performance. Respondents were also asked to provide descriptive information regarding themselves and their companies.

The questions regarding the use of specific strategic management tools mirrored those used by Boyd and Reuning-Elliott (1998). Respondents were asked to rate their business unit's utilization of the following strategic management tools:

- Mission statement
- Trend analysis
- Competitor analysis
- Long-term goals
- Annual goals
- Short-term action plans
- Ongoing evaluation

A 5-point scale was used with 1 signifying "No Emphasis," 3 signifying "Moderate Emphasis," and 5 signifying "Very Strong Emphasis."

A second set of questions was developed to obtain information relative to the firms' strategic planning processes. Respondents were given six pairs of terms that described typical strategic planning processes. They were asked to circle the term from each pair that best described the planning process employed by their firm. Respondents were given the following choices:

- Formal/Informal
- Top down/Bottom up
- Line/Staff
- Functional areas involved in planning/Functional areas not involved in planning
- Ongoing/Periodic
- Used primarily by top management/Used by entire organization

Financial performance was measured as the average annual pretax return on assets (ROA) over the last 3 years for the respondent's business unit. Because the surveys were returned anonymously, this information was self-reported.[1] This measure was chosen over other indicators of performance such as sales growth or return on equity because it was a

[1]Because the ROA was self-reported, the ROA responses came from various levels of aggregation within the firm and from various underlying accounting assumptions and cost allocations. However, this was the best measurement attainable.

TABLE 1. Descriptive Statistics for Survey Respondents, California Tomato Processing Industry

Organizational form		Firm size: employees		Firm size: sales		Profitability: ROA	
Form	No. of firms	Full-time employees	No. of firms	Sales (millions $)	No. of firms	Return on assets	No. of firms
Sole proprietorship	3	1–50	8	1–50	5	0–5%	2
Partnership	3	51–100	0	51–100	4	6–10%	3
Closely-held corp.	4	101–300	4	101–300	3	11–15%	1
Publicly traded corp.	5	301–1000	4	301–500	4	16–20%	5
Cooperative	1					21–25%	2
						26–30%	3

comprehensive financial performance measure that was not sensitive to the firms' financial structure.

An attempt was made to survey all tomato processors in the state of California. A list of the names and addresses of 25 tomato processors operating in the state was obtained by contacting the California Tomato Growers Association, Inc., and the California League of Food Processors. In most cases, the questionnaire was sent to the CEO of the company. For the few diversified companies, the questionnaire was sent to the manager responsible for the tomato processing division.

The questionnaire was mailed in September 1998, along with a cover letter and a return post card that was to be mailed back to the study's authors when the survey was returned. The purpose of the return post card was to identify those companies that had completed the questionnaire while providing confidentiality by not identifying the company on the completed survey. Follow-up reminders were sent approximately 1 month after the initial mailing to those firms that did not return a completed the survey. In order to further maximize the response rate, phone calls were placed to those CEOs or division managers who did not respond to the follow-up reminder.

A total of 16 of the 25 firms surveyed responded, for a response rate of 60%. Descriptive statistics for the firms returning the survey are presented in Table 1. Firms in the sample represented every form of business ownership, both small and large companies, and exhibited good variability in their level of profitability as measured by the ROA.

Despite the high response rate, it should be noted that there is still the possibility that the results may be skewed due to nonresponse bias. For example, it is possible that the managers of larger firms were less likely to respond to the survey than managers of smaller firms. This may have led to biased results if size effects were present such that either small or large firms were substantially more likely to effectively utilize strategic planning tools. Moreover, a serious bias might have occurred if those managers who had successfully utilized formal strategic planning systems were more likely to respond than those who had unsuccessfully implemented such systems. This would have made it more likely to find a positive relationship between planning and financial performance. Although we note the potential for nonresponse bias, we have no evidence that it occurred in this study.

3. EMPIRICAL RESULTS

3.1. Use of Strategic Planning Tools

Results describing the use of strategic planning tools by California tomato processors are presented in Table 2. The results indicate that the emphasis on the use of strategic planning tools by California tomato processors closely mirrors that of hospital executives in the Boyd and Reuning-Elliott study (1998).

The degree of emphasis placed on strategic planning by the two groups was compared in two ways: by comparing a composite index of the strategic planning tools for each group, and the ranking of specific tools within each group. The composite index of strategic planning was developed to measure the extent to which firms utilized strategic planning tools in general. This was done by averaging the degree of emphasis scores for the seven strategic planning tools for each firm. The mean composite index for the California tomato processors and the hospital executives was very similar, 3.80 and 3.83, respectively (a score of 1 indicated "No Emphasis"; a score of 5 indicated "Very Strong Emphasis").

The ranking of the degree of emphasis placed on the seven planning tools between the two groups was compared by calculating Spearman's correlation coefficient. The correlation coefficient of .823 was significant at the 5% level, indicating that both tomato processors and hospital executives tend to be similar in the degree to which they emphasize the usage of the strategic planning tools.

For both groups, the most heavily emphasized strategic planning tool was annual goals, followed by long-term goals. It is not surprising that the use of these two types of goals received the highest emphasis among all of the strategic management tools. The use of goals has been emphasized for many years as a way to achieve intended results and is one of the easiest of the strategic planning tools to implement.

TABLE 2. Emphasis on Strategic Planning Tools Among Hospitals* and California Tomato Processors

	California tomato processors (N = 16)		Hospitals (N = 60)	
Strategic planning tool	Degree of emphasis**	Rank	Degree of emphasis	Rank
Mission statement	3.53	6	3.93	4
Trend analysis	3.47	7	3.69	6
Competitor analysis	3.80	5	3.22	7
Long-term goals	3.93	2	3.97	2
Annual goals	4.13	1	4.12	1
Short-term action plans	3.87	3.5	3.93	4
Ongoing evaluation	3.87	3.5	3.93	4
Composite index	3.80	—	3.83	—

*The source of this data is a mail survey of hospitals in an eastern state in the U.S. (Boyd, Reuning-Elliott, 1998).

**A score of 1 indicated "No Emphasis" on the strategic planning tool; a score of 5 indicated "Very Strong Emphasis" on the tool.

Note: The Spearman rank correlation value between the rankings of the two groups is .823, significant at the 5% level.

It was also interesting that the two analytical tools, trend analysis and competitor analysis, both received relatively little emphasis by both tomato processor and hospital executives. There are several possible explanations for this finding. One explanation is that the low emphasis place on analytical tools simply reflects the relative newness of these management tools relative to the longstanding emphasis on goals and objectives.

Alternatively, the similarities in the use of planning tools may reflect underlying similarities between the two industries. For example, there may be some fundamental industry conditions that are common to both the processing tomato and hospital industry that render some strategic planning tools more important than others. In the case of processing tomato firms, the industry is stable, mature, and characterized to a large extent by commodity-type products. This may explain why the use of competitor and trend analysis received relatively little emphasis. Tools that help predict competitor behavior are of little value in a stable, predictable industry. Likewise, trend analysis is not very insightful in a mature industry that is not heavily influenced by major socioeconomic trends.

3.2 Relationship Between the Use of Strategic Planning and Performance

The second and principal objective of this research was to examine the relationship between the use of strategic planning tools and firm performance. This was done by first classifying firms as either high or low performers. Low performers were defined as those firms that had an ROA of 10% or less. High performers had an ROA of greater than 10%. The 10% cutoff was used because there was a big break in the reported ROA among the sample firms, with no firms reporting an ROA in the 11% to 14% range. The low-performing group included five firms that had an ROA ranging from 0% to 10%. The high performing group was comprised of 10 firms that had an ROA ranging from 15% to 30%.

Table 3 presents the statistical analysis comparing the planning scores of the high-and low-performing firms. The composite strategic planning index for high performers was 3.99 as compared with 3.43 for low-performing firms. The t statistic was significant at the .013 level, indicating that firms with strong financial performance were more likely to place a higher degree of emphasis on the use of strategic planning tools than were firms with weak financial performance.

To explore the relationship between size, profitability, and the use of strategic planning tools, firms were classified as small or large based on their annual sales. Small firms were defined as having sales of $100 million or less; large firms were defined as having sales of more than $100 million. The relationship between firm size and profitability was evaluated by constructing a two-way contingency table with firm size as one variable and performance (high or low) as the other variable. Because of the small sample size, Fisher's exact test was used. The result indicated that there was no relationship between firm size and profitability. To determine the relationship between firm size and the use of strategic planning tools, a t statistic was calculated based on the composite strategic planning indices for small and large firms. This result also indicated that there was no statistically significant difference in the planning scores of small and large firms. Because we have controlled for the most important profit drivers, including type of industry and firm size, we conclude that the results suggest that the use of strategic planning tools can enhance a firm's profitability.

TABLE 3. Degree of Emphasis Placed on Strategic Planning Tools by High- and Low-Performing Firms in the California Tomato Processing Industry

	Planning scores		
Strategic planning tool	Performance	Degree of emphasis mean score	*t*-Statistic (level of significance)
Mission statement	High	4.00	2.537
	Low	2.60	(.025)
Trend analysis	High	3.50	.276
	Low	3.40	(.788)
Competitor analysis	High	3.80	.000
	Low	3.80	(1.000)
Long-term goals	High	4.20	2.020
	Low	3.40	(.065)
Annual goals	High	4.20	.387
	Low	4.00	(.706)
Short-term action plans	High	4.00	.787
	Low	3.60	(.446)
Ongoing evaluation	High	4.20	2.602
	Low	3.20	(.022)
Composite index	High	3.99	2.899
	Low	3.43	(.013)

Note: The degree of emphasis mean score reflects the degree of emphasis that firms in the respective performance categories placed on each strategic planning tool with 1 indicating "No Emphasis" and 5 indicating "Very Strong Emphasis."

3.3 Relationship Between the Use of Individual Strategic Planning Tools and Performance

The third objective was to examine the relationship between the use of each of the individual strategic planning tools and their relationship to firm performance. Again, firms were classified as either high or low performers using the criterion described above. For each of the seven strategic planning tools, the mean degree of emphasis placed on each planning tool was calculated for high and low performers, and a *t* statistic was calculated. The results are presented in Table 3.

Three of the strategic planning tools exhibited a strong correlation with superior financial performance, the use of a mission statement, long-term goals, and ongoing evaluation. It is notable that greater emphasis on the use of longer-term planning tools, including the mission statement and long-term goals, was associated with firms with greater profitability. However, there was no difference in the emphasis placed on the shorter-term planning tools, including annual goals and short-term action plans, between high- and low-performing firms. One might speculate that longer-term planning tools have a greater impact on profitability because they influence the strategic direction of the firm and have a broad impact on corporate culture and the institutionalizing of corporate objectives. Another interpretation is that managers may tend to emphasize longer-term planning tools

over the shorter-term tools because the impact of longer-term tools is more readily observed since results are more easily and directly measured.

An increased emphasis on ongoing evaluation was also associated with more profitable firms relative to the emphasis placed on this tool by firms exhibiting lower profitability. Again, this appears to be an indication that the use of this tool is particularly important to a firm's financial performance. We hypothesize that ongoing evaluation has a large impact because it is a continuous improvement process that allows firms to monitor the progress of their strategic plans and take corrective action, thus increasing the likelihood of success. Moreover, firms that emphasize ongoing evaluation are more likely to view strategic planning as an ongoing process as opposed to the periodic preparation of a strategic planning document. This philosophy is consistent with an approach whereby strategic plans are continually updated and therefore responsive to changing industry and competitive conditions.

Just as significant was the finding of no difference in how high- and low-performing firms emphasized the two analytical planning tools (trend analysis and competitor analysis) and the shorter-term planning tools (annual goals and short-term action plans). One interpretation, discussed above, is that some strategic planning tools have a greater impact on firm performance than other tools. An alternative interpretation is that the results are reflective of the industry in which the sample firms compete. As noted previously, the California processing tomato industry is a relatively stable, mature industry comprised of predominantly commodity-type products. One might expect that in such an environment, where external factors are relatively unimportant, an emphasis on those planning factors that address the external environment (competitor and trend analysis) would not result in improved performance.

This finding is similar to Powell's (1992) conclusion that the impact of strategic planning on performance is dependent on industry conditions. Specifically, he found that strategic planning had a larger effect on performance in industries where strategic planning systems are not widely used. It is a logical extension of that reasoning that the impact of certain strategic planning tools is determined not only by the pervasiveness of the strategic planning concept within an industry, but other industry factors that render some tools more useful than others.

3.4 Relationship Between Strategic Planning Processes and Performance

The last objective was to examine the relationship between firms' strategic planning processes, as described by some common descriptors, and firm performance. The mean scores for each of the six descriptors for both high- and low-performing firms and t statistics are presented in Table 4. The results indicate that there is no statistically significant difference in how high- and low-performing firms describe their strategic planning processes with respect to any of the six descriptors.

This is particularly noteworthy in view of our finding that there are strong differences in the degree of emphasis that high- and low-performing firms placed on the use of strategic planning tools. In light of Boyd and Reuning-Elliott's (1998) argument that many researchers have used strategic planning variables that are too loosely defined to be adequately measured, our result suggests that in conducting planning-performance research it is important to carefully choose and define strategic planning variables so that they accurately measure the strategic planning core constructs.

TABLE 4. Emphasis on Strategy Planning Processes by High- and Low-Performing Firms in the California Tomato Processing Industry

Strategy process descriptor	Process scores: Performance	Process scores: Mean score	*t*-Statistic (level of significance)
Formal (1) vs. informal (0)	High	.70	1.087
	Low	.40	(.297)
Top down (1) vs. bottom up (0)	High	.10	.694
	Low	.00	(.500)
Line (1) vs. staff (0)	High	.80	.000
	Low	.80	(1.000)
Functional areas involved (1) vs.	High	.20	1.041
functional areas not involved (0)	Low	.00	(.317)
Ongoing (1) vs. periodic (0)	High	.30	.387
	Low	.20	(.706)
Used by entire organization (1) vs.	High	.60	.694
used by top management	Low	.40	(.500)

Note: The mean process scores reflect the degree to which the high- and low-performance groups utilized the two alternative descriptors for each strategy process. For example, for the first measure, the mean score of .70 for "High Performers" and .40 for "Low Performers" indicates that 70% of High Performers characterize their strategy process as formal as compared to 40% of Low Performers.

4. CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

In this study of the California processing tomato industry, we found a strong relationship between the use of strategic planning tools and firms' ROA. Because the scope of the study was limited to one relatively homogenous industry, thus eliminating many of the potential sources of variation in profitability, this suggests that strategic planning may be one management tool that firms use to increase profitability.

Three specific strategic management tools were also found to have a strong positive correlation with firm profitability. Firms with a high level of profitability tended to place a greater emphasis on the use of longer-term planning tools, including the use of a mission statement and long-term goals, and ongoing evaluation of the strategic management process, than did firms with relatively low levels of profitability. There was no difference in the emphasis placed on the shorter-term planning tools, including the use of annual goals and short-term action plans, or the use of analytical tools, including competitor analysis and trend analysis, between high- and low-profitability firms. This may be an indication that some strategic management tools are more important in shaping the strategic direction of the firm and achieving profitability than are others. Alternatively, the importance of specific strategic management tools may be indicative of industry or competitive conditions.

Future research should concentrate on confirming the hypothesis that the use of the strategic planning and specific strategic planning tools influences a firm's profitability and seek to develop a better understanding of how strategic planning influences performance. Additional insight could also be gained into the impact of industry conditions on

the use and effectiveness of strategic management tools. A cross-industry study which controlled for important factors that affect profitability, including the external environment and industry competitive conditions, would help to further the understanding of the impact that strategic planning has on firm performance.

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