WORKING PAPER
ALFRED P. SLOAN SCHOOL OF MANAGEMENT

EXCELLENCE, PLANNING AND PERFORMANCE

Vasudevan Ramanujam
and
N. Venkatraman

August, 1986 WP#1813-86

MASSACHUSETTS
INSTITUTE OF TECHNOLOGY
50 MEMORIAL DRIVE
CAMBRIDGE, MASSACHUSETTS 02139

EXCELLENCE, PLANNING AND PERFORMANCE

Vasudevan Ramanujam
and
N. Venkatraman

August, 1986 WP#1813-86

EXCELLENCE, PLANNING, AND PERFORMANCE

VASUDEVAN RAMANUJAM

The Weatherhead School of Management
Case Western Reserve University
Cleveland, OH 44106
(216) 368-5100

and

N. VENKATRAMAN

Sloan School of Management
Massachusetts Institute of Technology
E52-553
Cambridge, MA 02139
(617) 253-5044

Forthcoming in
Interfaces - Second Special Issue on Strategic Management
Arnoldo C. Hax (Editor)

A preliminary version of this paper was presented at the Fifth Annual Strategic Management Society Conference, Barcelona, Spain, October 2-5, 1985. Ari Ginsberg and John H. Grant provided useful comments on an earlier version.

ABSTRACT

In an effort to empirically test three propositions linking excellence, planning, and performance, 41 of Peters and Waterman's (1982) excellent companies were compared and contrasted with two benchmark samples —matched according to size and industry groupings— of North American companies. Our results indicate that excellence and performance are not synonymous, and planning processes of excellent firms are generally not significantly different from those of the two benchmark samples. In addition, based on an analytical comparison of four "traits" of excellence, we show that the popular traits of excellence are not the exclusive preserve of the so-called "excellent" companies.

Peter's and Waterman's (1982) widely acclaimed book In Search of Excellence reached several provocative conclusions (and normative statements) regarding the nature and causes of organizational excellence. Although serious doubts have been expressed about their research methodology by both academics (see, for instance, Van de Ven, 1983) and practitioners (Carroll, 1983), the widespread acceptance of this book in the managerial community attests to the intuitive appeal of its conclusions and implicit prescriptions for achieving excellence.

Rather than take issue with their methodology, we provide an exploratory test of some of Peters and Waterman's conclusions. Specifically, we seek to examine three propositions derived from Peters and Waterman's (1982) work. These specifically focus on the notion of "excellence" (as defined by Peters and Waterman), key characteristics of formalized strategic management processes (termed "planning), and organizational performance.

This paper is divided into three sections. We develop the three propositions in the first section and discuss the research method in the second section. In the third section, we present the results and discuss them in the light of the support received for the three propositions.

Excellence and Performance

After a reading of Excellence, one is left with the impression that excellence and performance are synonymous. In selecting the sample of firms for inclusion in their study, Peters and Waterman considered sustained long-term performance as the defining criterion for "excellence." Yet, a recent cover story in Business Week[1] uncovered moderate to severe performance problems in many of the excellent companies subsequent to the publication of the book. Simultaneously, academic research has reported that excellent firms are not necessarily high performing companies, (see Chakravarthy, 1986, for this discussion in the context of computer manufacturers). In the end, one is left with an unclear notion of what is meant by "excellence", "performance", and the underlying link between them. To address this issue, we focus on an important question of the nature of the relationship between "excellence" and "performance". Based on Peters and Waterman's (1982) work, our first proposition to be examined is:

Proposition 1: The performance of "excellent" companies will be significantly higher than a matched benchmark sample.

Difference in Planning Processes

Peters and Waterman attack the rationalistic paradigms that are alleged to dominate management thinking in U.S. companies and emphasize instead the paradoxes and ambiguities inherent in human organizations. Analytic detachment, emphasis on quantification and formalized planning are severely criticized, while such "softer" aspects of management as personal values and culture are spotlighted as among the key influences on enduring organizational success or excellence. Indeed, one can detect a tone of skepticism and disagreement as far as strategic planning is concerned.

Our purpose here is neither to get into a debate regarding the role and benefits of strategic planning nor to argue about the relative roles of formal and analytical planning approaches versus softer issues of superordinate goals and shared values. Our focus is more limited, namely, to examine if there are significant differences in the planning process between excellent companies and a matched benchmark sample of U.S. corporations.

Their accounts of the "excellent" companies would appear to suggest that planning and excellence are antithetical to each other. In other words, when we compare key characteristics of the planning processes and the planning orientations of excellent companies with those of a benchmark sample of randomly drawn companies, we should expect to uncover some significant differences. Based on this argument, we develop our second proposition to be examined. Thus,

<u>Proposition 2:</u> The characteristics of the planning processes would be significantly different between "excellent" companies and a matched benchmark sample.

Examining Characteristics of Excellence

A related objective of this research is to examine the validity, a subset of Peters and Waterman's characteristics of excellence (1982: pp. 13-16). Using inductive reasoning for the most part, Peters and Waterman derived eight characteristics of excellent companies. These are: "a bias for action"; "close to the customer"; "autonomy and entrepreneurship"; "productivity through people"; "hands-on, value driven"; "stick to the knitting"; "simple form, lean staff"; and "simultaneous loose-tight properties". Four of these traits (viz., "a bias for action"; "productivity through people"; "hands-on, value driven"; "simple form, lean staff") were, by their nature as well as the limitations of our data -- which were originally collected as a part of a study on Strategic Planning Systems -- not amenable to deductive empirical testing. The remaining four could be inferred (albeit only indirectly and partially) by examining data on a set of observable operational variables.

Peters and Waterman's discussion would imply that it is these traits of excellence that distinguish the so-called "excellent" companies from the rest. It would not be far-fetched to note that the normative guidelines derived by the managerial community relate to these traits, and that managers are likely to direct their efforts at "improving" their positions along these characteristics. We sought to analyze the extent to which these characteristics are more pronounced in the excellent companies by comparing their traits with benchmark samples. Thus, the third proposition to be examined is:

> Proposition 3: The scores on "excellence" traits will be significantly higher for the "excellent" companies than a matched benchmark sample.

Method

Data. The data for this study were collected in two separate stages during the spring and summer of 1984 using a structured questionnaire covering different characteristics of strategic planning. In the first stage, questionnaires were sent to the Chief Planning Officers of 600 randomly chosen Fortune 1000 companies. Some of the excellent companies of Peters and Waterman's study were contacted in this mailing. Two hundred and ten companies, including 24 excellent companies, responded to the first mailing, which represents a response rate of 34 percent, generally considered to be above average for the target population used in this study.

In the second stage (which followed two months after the first), questionnaires were sent to the chief executives of all but nine of the remaining excellent companies[2] listed by Peters and Waterman. This mailing increased the total number of responses from excellent companies to 41. Because of assurances of confidentiality accompanying the questionnaire, the identities of this sample cannot be disclosed.

Measurements. "Excellence" was categorized as 1 or 0 based on whether the particular firm belonged to Peters and Waterman's study sample or not. However, the four "traits" of excellence selected for detailed comparisons were measured using multiple variables, which are presented later. "Performance" was measured using four indicators--five-year sales growth, five-year net income growth, market share changes, and current return on investment. These indicators, taken together, reflect both long-term (growth) and short-term (profitability) characteristics of performance. We relied on managers' self-evaluations of their own performance relative to their identified key competitors along each of the above indicators. To ascertain the validity of such self-assessments, we tested for and found a close correspondence (for a subset of the original study sample) between objective secondary data and manager's judgments of relative economic performance (see Venkatraman and Ramanujam, 1986).

Planning process was captured through seven important dimensions, such as:

- o the capability of the strategic planning system (CAPABILITY)
- o the level of resources provided for planning activities (RESOURCES)
- o the level of anti-planning feeling reflecting resistance to planning (RESISTANCE)
- o the degree of attention to internal (INTERNAL) and external (EXTERNAL) facets in planning
- o the level of functional coverage (FUNCTIONS), and
- o the extent of use of analytical techniques (TECHNIQUES).

Table 1 is intended to provide a brief overview of these dimensions, while detailed descriptions and assessments of the measurement properties of these dimensions are provided in Ramanujam, Venkatraman, and Camillus (1986).

(INSERT TABLE 1 ABOUT HERE)

Benchmark Sample. As noted earlier, the study seeks to compare certain characteristics of "excellent" companies with those of a carefully selected benchmark sample, was chosen from our larger database (see Ramanujam, Camillus, and Venkatraman, 1986). Each firm in the "excellent company group" was matched with a firm from the benchmark group along two key criteria, namely the broad industry class and sales groupings. In a majority of cases, firms selected for the benchmarch sample along both criteria. Where an exact match along both criteria could not be found, firms that matched exactly with respect to industry groups but drawn from an adjacent sales group were elected. Whenever multiple matches were found, a random selection was made for inclusion in the benchmark group.

The benchmark group was then split into two effectiveness groups, by using the median value of the composite performance criterion as the cut-off value. Thus, this study compares three groups of firms -- excellent companies (E), high effectiveness benchmark (HEB), and low effectiveness benchmark (LEB).

Results and Discussion

Table 2 presents the results of t-tests conducted to examine performance differences between (a) excellent companies and high effectiveness benchmarks companies, and (b) excellent companies and low effectiveness benchmark companies.

INSERT TABLE 2 ABOUT HERE

The first proposition relating excellence and performance is not supported. As Table 2(a) indicates, the E companies and HEB companies differ significantly along three of the four measures of relative competitive performance and the performance composite used in this study. Results in Table 2(b) indicate that excellent companies outperform our LEB sample along all the performance variables. Thus, it appears that excellent companies fall in the middle of a continuum of companies positioned along the performance dimension. This implies that had Peters and Waterman considered the 1979-1984 period (that we considered in this study) instead of the 1961-1980 period, many of the companies in their current sample may not have merited the categorization of "excellent companies". As Daniel T. Carroll (1983) has noted, there is a great danger in categorizing a company as excellent on the basis of financial performance alone. Excellence and financial performance do not appear to be synonymous. The former typifies an approach to management and is an aspect of "process", whereas performance is a reflection of "outcomes"—which are arguably influenced by a complex set of factors including the management process and environmental (sometimes uncontrollable) conditions.

The second proposition sought to examine differences in management processes between excellent companies and the two benchmark samples. Table 3 summarizes the results of one-way analysis of variance across the three groups—the E, HEB, and LEB companies—along the seven planning system characteristics that are summarized in Table 1.

INSERT TABLE 3 ABOUT HERE

The ANOVA results indicate that five analyses revealed statistically significant differences across the three groups, and the implication is that there are observable differences in the seven planning system characteristics across the groups.

In order to investigate the specifics of the differences within the groups, pairwise comparisons were done in accordance with the Scheffe procedure. It was found that only one of the comparisons involving the E companies was statistically significant. Thus, it is not that the excellent companies shy away from allocating resources for formalized planning activities, and instead focus on developing their culture and management values. It appears that they do emphasize planning as much as the HEB firms and may also focus on the "culture-related" requirements of human organizations. Generally, the scores of the E companies were intermediate between those of the LEB and HEB companies. It appears that excellence is characterized by moderation rather than extremeness. Balance rather than dominance of any characteristic would seem to typify the excellent companies. Interestingly, our study indicates that the resources provided to planning are significantly higher in the case of E companies than LEB companies, although the E companies and HEB companies do not differ in this respect.

Another interesting result from this analysis is that no significant differences were observed between HEB and E companies, although in four cases, the HEB and LEB companies differed along their positions on the planning characteristics. But the differences between HEB and LEB are not germane to the present study. It appears that excellent companies provide at least as much emphasis on their planning processes as the HEB sample. Thus, the proposition that excellent companies differ from the benchmark on planning characteristics is not supported by our study; and our analyses seem to challenge the idea that planning and excellence are antithetical.

The third proposition focused on some of the "traits" of excellence identified by Peters and Waterman. We sought to examine if scores on these traits differed significantly between E and the two benchmark samples. Table 4 presents the summary of the analysis carried out for examining this proposition.

INSERT TABLE 4 ABOUT HERE

Results summarized in Table 4 indicate that eight out of ten ANOVA runs are not significant, implying that the traits of excellence are not significantly different across the three groups. Even in the two cases of overall differences, the significant contrasts based on Scheffe procedure were between E and LEB in the case of participation from lower-level managers and between LEB and HEB in the case of emphasis on enhancing innovation.

The trait of "close to the customer" was captured using two observable variables--emphasis on the marketing function, and on the customer/end-user preferences. The results reported in Table 4 indicate no significant differences in this trait across the three groups. Thus, it is interesting that the excellent companies are no more close to their customers than the LEB companies in our benchmark sample! The second trait of "stick to the knitting" was captured through two variables--degree of emphasis on diversification opportunities and on joint venture opportunities. Again, our analysis indicated no significant differences across the groups.

The third trait of "autonomy and entrepreneurship" was captured through four different variables--participation from lower-level managers, use of a top-down planning process, emphasis on new idea generation, and emphasis on enhancing innovation. Two of the four indicators revealed no significant differences across the groups. Participation from lower-level managers was higher in the E companies when contrasted with the LEB companies, while the other contrast did not involve the E companies. Thus, the overall pattern is again strikingly similar to the earlier traits, and to the fourth trait of "simultaneous loose- tight properties". This trait, which focuses on balancing creativity and control, was captured through two indicators--emphasis on creativity and on control. Both variables did not differ across the three groups of companies.

Overall, our study does not suggest that the "traits" of excellence identified by Peters and Waterman (1982) are the exclusive preserve of the so-called "excellent" companies.

Summary

A book as successful as Excellence runs the risk of being perceived as a gospel even though its authors may not have intended for it to be so regarded. It has been noted, for example, that in many companies eager to emulate excellence, managers are carrying around the eight characteristics of excellence printed on index cards.[3] We believe that such unqualified and slavish acceptance of any idea does more harm than good.

We sought to reexamine some of the generalizations of the book as well as some of the overgeneralizations that have resulted from its phenomenal success. We found, contrary to expectation, that the excellent companies are not among the highest performing companies in America, and that the key characteristics of planning are not different from the benchmark samples chosen from the American corporations. Further, a detailed comparative examination of the trraits of excellence between "excellent" companies and two "matched" samples (differing along key effectiveness criteria) showed no consistent patterns to indicate that these traits are the exclusive preserve of the so-called "excellent" companies.

NOTES

1. See, "Who's excellent now?", Business Week, November 5, 1984, p. 76; other stories of stumbling "excellent" companies abound. For a sampling, see "How Steve Ross's hands-off approach is backfiring at Warner," Business Week, August 8, 1983, p. 70; "The big shrink is on at Atari," Fortune, July 9, 1984, p. 23; "How DEC got decked," Fortune, February 20, 1984, p. 113; "Avon tries a new formula to restore its glow," Business Week, July 2, 1984, p. 46; "Dana: Repairing its profit machine by pushing replacement parts," Business Week, May 7, 1984, p. 63; "Hughes Aircraft's tarnished image," Business Week, July 30, 1985, p. 118; "A shaken Caterpillar retools to take on a more competitive world," Business Week, November 5, 1984, p. 91; and "Problems in Walt Disney's Magic Kingdom", Business Week, March 12, 1984, p. 50.

2. The one foreign and seven privately held subsidiary companies in the Peters and Waterman sample were excluded. Another company, Disney Productions, was excluded because they were in the midst of a takeover attempt during the conduct of this study.

3. See, "Who is excellent now?", Business Week, November 5, 1984.

REFERENCES

Carroll, D.T. 1984, "A disappointing search for excellence," Harvard Business Review, Vol. 61, No. 6, (November—December).

Chakravarthy, B.S. 1986, "Measuring Strategic Performance," Strategic Management Journal, (forthcoming).

Peters, T., and Waterman, R. 1982. In Search of Excellence: Lessons From America's Best Run Companies. Harper & Row, New York.

Ramanujam, V., Venkatraman, N., and Camillus, J.C. 1986, "Multi-objective assessment of the effectiveness of strategic planning: A discriminant analysis approach," Academy of Management Journal, Vol. 29, No. 2 (June), (forthcoming).

Ramanujam, V., Camillus, J.C., and Venkatraman, N. 1986, "Trends in strategic planning," in Handbook of Strategic Planning and Management, ed. D.I. Cleland and W.R. King, Van Nostrand, New York.

Van de Ven, A.H. 1983, "Book review of In Search of Excellence: Lessons from America's Best Run Companies," Administrative Science Quarterly, Vol. , No. 4 (December), pp. .

Venkatraman, N., and Ramanujam, V. 1986, "Measurement of business economic performance: An examination of method convergence," Journal of Management, in press.

Table 1

Dimensions of Planning Systems

Dimensions	Description
(A) Organizational Context of Planning	
Resources provided for planning (RESOURCES)	The degree of organizational support in the form of number of planners, involvement of top management in planning, etc.
(B) Design Elements	
Use of techniques (TECHNIQUES)	The degree of emphasis given to the use of planning techniques to structure ill-defined, messy, strategic problems.
Attention to internal facets (INTERNAL)	The degree of attention to internal (organizational) factors, past performance, and analysis of strengths and weaknesses.
Attention to external facets (EXTERNAL)	The level of emphasis given to monitoring environmental trends.
Functional coverage (FUNCTIONS)	The extent of coverage given to different functional areas with a view to integrating different functional requirements into a general management perspective.
C) Systems Capability	
Systems capability (CAPABILITY)	The ability of a formal planning system to balance creativity and control; adaptive flexibility of a system and its capability to support strategy formulation and implementation.

Table 2

Comparison Between "Excellent Companies" and "Benchmark Samples" Along Performance Indicators

(a) Excellent Companies Compared With High Effectiveness Benchmark Companies

Relative Competitive Performance Variable	Excellent Companies Mean	Excellent Companies s.d.	High Effectiveness Benchmark (HEB) Companies Mean	High Effectiveness Benchmark (HEB) Companies s.d.	Significance Level
1. Sales growth	3.70	1.02	4.03	0.59	ns
2. Net income growth	3.64	0.96	4.30	0.59	**
3. Market share changes	3.27	0.76	4.12	0.55	**
4. Return on investment	3.30	0.95	4.39	0.64	**
5. Performance composite	3.48	0.67	4.19	0.39	**

(b) Excellent Companies Compared With Low Effectiveness Benchmark Companies

Relative Competitive Performance Variable	Excellent Companies Mean	Excellent Companies s.d.	Low Effectiveness Benchmark (LEB) Companies Mean	Low Effectiveness Benchmark (LEB) Companies s.d.	Significance Level
1. Sales growth	3.70	1.02	2.76	0.75	*
2. Net income growth	3.64	0.96	2.85	0.94	**
3. Market share changes	3.27	0.76	2.88	0.65	**
4. Return on investment	3.30	0.95	2.64	0.86	**
5. Performance composite	3.48	0.67	2.78	0.50	**

Table 3

Planning Process Differences Across Samples: One-Way Analysis of Variance Results

Planning System Characteristics

	CAPABILITY	TECHNIQUES	INTERNAL	EXTERNAL	FUNCTIONS	RESOURCES	RESISTANCE
1. Group mean scores							
LEB	3.39	3.07	3.13	3.41	3.44	3.11	1.98
HEB	3.79	3.20	3.36	3.68	3.69	3.74	1.54
E	3.59	2.97	3.37	3.71	3.59	3.64	1.56
2. Significance of overall model (F-ratios)	*	ns	ns	*	*	**	*
3. Significant contrasts (Scheffe pairwise comparisons, p=0.05)	LEB and HEB	None	None	None	LEB and HEB	LEB and HEB; LEB and E	LEB and HEB

LEB: Low Effectiveness Benchmark Group
HEB: High Effectiveness Benchmark Group
E: Excellent Companies
*: Significant at $p < 0.05$
**: Significant at $p < 0.01$

Table 4

Testing the Validity of Four of Peters and Waterman's Traits of Excellent Companies

Peters & Waterman "Traits" of Excellence	Capturing the Trait	LEB	HEB	E	Significance of Overall Model	Significant Contrasts
1. "Close to the Customer"	1. Emphasis on Marketing Function	3.97	4.22	3.97	ns	None
	2. Emphasis on Customer/End User Preferences	3.61	4.06	4.00	ns	None
2. "Stick to the Knitting"	1. Emphasis on Diversification Opportunities	3.63	3.88	3.56	ns	None
	2. Emphasis on joint venture opportunities	3.59	3.28	3.58	ns	None
3. "Autonomy and Entrepreneurship"	1. Participation from lower level managers	3.12	3.45	3.88	*	LEB and E
	2. Planning as a top-down process	2.88	2.61	2.33	ns	None
	3. Emphasis on generation of new ideas	3.24	3.70	3.47	ns	None
	4. Emphasis on enhancing innovation	3.16	3.73	3.30	**	LEB and HEB
4. "Simultaneous Loose-Tight Properties"	1. Emphasis on creativity	3.38	3.64	3.69	ns	None
	2. Emphasis on control	2.70	3.12	2.91	ns	None

LEB: Low Effectiveness Benchmark Group
HEB: High Effectiveness Benchmark Group
E: Excellent Companies
**: Significant at $p < 0.05$

Date Due