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ALFRED P. SLOAN SCHOOL OF MANAGEMENT

EPISTEMOLOGY, CORPORATE STRATEGY, AND ACADEME

By
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The corporate organization chooses its environmental domain(s), essentially product/markets, determines the nature of the interactions with these domains, and makes internal adjustments suggested by these choices. Some writers about corporate strategy focus primarily on the first of these (domain choice), some on the first and second (interaction with the domain), and some cover all three.

The manager and the student of management attempt to make this strategic process a rational one, moving the corporation toward goals having to do with survival, and theory and practice have now supplied ideas and concepts to this rationality.

As pointed out by Talcott Parsons, organizations have various classes of responsibilities and problems associated with their activities, i.e., "technical", "managerial", and "institutional", and the institutional deals essentially with the relationship between the organization and its environmental domain(s). This is the area of corporate strategy.

Academe

Corporate Strategy and/or Business Policy, as an academic field, is treated by most business schools and schools of management as an "integrative" and "professional" course. This has major effects, not only on what is taught and
how it is taught, but also on the kinds of research which have been done
(which by comparison with other fields of management has been rather meager).
An attempt to pull together much of what has been contained in a student's
previous courses and make this material relevant to the major decisions
which top management will make about the nature and role of the firm has
special affects on the use of both theory and practice.

For instance, more as synthesis rather than analysis, corporate
strategy's ability to draw on theory, especially as developed and tested
from competent empirical research, is somewhat constrained. Theory in the
social sciences and related fields, and perhaps all fields, is partial. A
special aspect of a problem, or a particular segmented view of a set of
phenomena, must by necessity be the subject of the theoretical concern.
"Other things being equal", or rather closely bounded analysis, are
beneficial and accepted approaches to theoretical development, especially
where there is any hope for empirical testing.

Synthesis or design, especially in the policy of an organization, how-
ever, require the consideration of most/many of the aspects of the situation.
In addition to the rather imperfect mapping of partial/particular theory to
wholistic practice, much material which may have some importance to the
analysis and decisions may have little or no theory associated with it.
Though not quite the same thing, "institutional" is an encompassing label
given to at least some of this material. Many facts about the world and
about a firm are important for making decisions about corporate strategy.
To attempt many generalizations, independent of this institutional material,
in a field as imperfect as corporate strategy, is rather difficult. Much
of what now exists as an academic field of corporate strategy (and business
policy) should probably be thought of as "contingency theory". The ideas,
recommendations, or generalizations, are rather dependent (contingent) for their truth and their relevance on the specific situational factors.

In light of these qualifying statements, however, there are a number of different ways to approach the task of understanding corporate strategy, and the recommendation given here is to adopt them all. One way of trying to group these various approaches may be presented as the following table:

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Neither the particular labels for these approaches, nor more particularly the persuasion that there is a clean separation between them, will be strongly defended here.

**Cases** - An investigation of practice may supply much very useful information. Successful practice and troublesome practice, large companies and small ones, centralized organizations and decentralized ones, rapidly changing industries and stagnant ones, local companies and multinational ones, all supply ideas useful to the student and the manager.
Cases or case studies are an accepted form of capturing this practice (see Business Policy: Text and Cases, by E. P. Learned, C. R. Christensen, K. R. Andrews, and W. D. Guth; R. D. Irwin, Inc. 1969).

Since management as an activity or profession is probably more of a craft than anything else, it is well to point out that managers learn most/much of what they know from practice, both their own and others. Where problems are new and/or puzzling, a common (and worthwhile) question is - what are other managers doing about it? Alfred Chandler in Strategy and Structure (to be cited formally following) describes how Standard Oil of New Jersey in its long and arduous transformation from a functionally centralized, committee-run organization to a more divisionalized-decentralized, executive-run organization several times sent executives to visit, counsel with and investigate how other petroleum companies were solving these problems.

Clearly the use of cases in the study of corporate strategy involves more than a noncritical survey of corporate situations. Analysis of these situations, a search for the important elements, estimates of cause and effect relationships, construction of feasible alternatives given the many facets of the situation, and making some action-choices are all involved. The structure to support these intellectual activities is supplied, normally in an indirective fashion, by the instructor, by considerations and alternative analyses from other students, (and perhaps from more formal ideas and structure derived from the approaches of "Methodology" and "Theory" to be described in the following pages). A succession of such analyses is held to improve the ability to "... identify, evaluate, and recommend." (Learned, et al, op. cit.).
History - Studies by professional historians of corporations and their developing strategies, usually including many related or at least simultaneous changes in society, is a further, and broadening, approach to the study of practice. Alfred Chandler's *Strategy and Structure, Chapters in the History of the Great American Enterprise*, (M.I.T. Press, 1962), is the exemplar of this approach. While many firms and industries are briefly examined, the backbone of the book is the detailed histories of four major American companies, DuPont, General Motors, Standard Oil of New Jersey, and Sears Roebuck, in the early part of this century as they grew, modified their strategies, and modified their structure to serve these strategies. Many issues are explored in these histories and are particularly interesting reading in conjunction with the books on behavioral theory. For instance, one of the great problems seemed to be the arrangement of a new "articulation of the qualitative breaks" (Parsons) between technical, managerial, and institutional levels of management. It happened quickly under Alfred P. Sloan at General Motors with its decentralized organization with centralized control, and very slowly, ("disjointed incrementalism" - Braybrooke and Lindblom), at Standard Oil. One of the more interesting conclusions of Chandler is that changes frequently come about only when preceded by trauma ("problemistic search", Cyert and March) and only with a new group of managers. Historical continuity in an organization and its domains, which is both a strength and a potential weakness, is easier to break with a change in people.

One of the more interesting recent books in the area of organizational decision making in institutional and strategic areas is Graham T. Allison's *Essence of Decision, Explaining the Cuban Missile Crisis* (Little, Brown &
Co., 1971). While stretching a bit to classify this as history - in fact it overlaps several of the boxes in our taxonomy table - it very interestingly compares "history" with "rational" models of decision, "bureaucratic" models of decision, and "political" models of decision, in one context. After describing, in what might be called a journalistic fashion, the decisions and accompanying situation, Allison systematically fits three quite different models with their appropriate data or information to explain what happened:

Model I: The Rational Actor (the Nation-State)
Model II: Organizational Process (Various Agencies)
Model III: Governmental Politics (Key Powerful Men)

Management Science - (The Analytical Approach, the less formal methodology in the taxonomy table, will be described last and in somewhat more detail). Methodology in the area of corporate strategy may be, and is, borrowed from management science. When one searches the journals reporting such applications, however, the truth is that there are few reported applications. Applications of mathematical modeling tend to be more in the areas of operating (technical) and administrative (managerial) problems rather than strategic (institutional) problems. Where an application is reported it tends to deal with a rather small aspect of a corporation's strategy, or an implementation of one element of the strategy. Forecasting would be an example of the first, and R & D budgeting an example of the second.

A reasonable estimate might now be made that more formal/mathematical modeling will be used in connection with corporate strategy decision making; (to stress an obvious point, mathematical modeling is virtually never used as a substitute for decision making, and this would be particularly true in
corporate strategy). Simulation, Statistical Decision Theory, and Mathematical Programming (and various techniques of forecasting) will perhaps be the methods applied. (Some examples for classroom use can be found for all of these).

The American Management Association (AMA) sponsored and published a study, *Advanced Techniques for Strategic Planning* by Ernest C. Miller (1971), which reports on some of this current practice. It is clear from this survey that some mathematical modeling for strategic decisions is taking place in American industry. The interviews conducted in conjunction with the survey strongly support this point. Miller points out that "... the techniques reported in this study are not widely used by companies for strategic planning, but they have been used by at least a few companies for a long enough period to indicate that they are making worthwhile contributions ... what probably happens, it seemed, is that companies first began using innovative techniques on smaller operational problems ... (and this) seems to be a leading indicator."

"... the ability to ask (what-if) questions and obtain answers that are an approximation of what would happen if the series of events actually occurred in the real world, with some measure of the range of results that might actually be obtained, is the major contributions of the models ... the availability of such (newer) techniques makes it possible for companies to experiment with new strategies and policies before they select the one they will adopt."

**Behavioral Science** - The theory, or "positive theory", approach to corporate strategy deals with descriptions of how organizations cope with and make decisions about their environments (and themselves). Much of this theory, drawn more from political science, sociology, and social psychology than from economics, deals with the realities of organization
decision making, with the way goals received in part from the environment are factored into subgoals, with information processes and filters of hierarchical structures, with power and coalitions, and most importantly with the concept and effects of bounded rationality (Herbert Simon, Administrative Behavior, Macmillan Co. 1945). The books by Cyert and March, A Behavioral Theory of the Firm, (Prentice-Hall, 1963) and Braybrooke and Lindblom, A Strategy of Decision (Free Press, 1963) present these ideas in theoretical fashion with supporting illustrations.

Faced here with the difficulty of offering a too cryptic summary of the many concepts developed in these books, and books like them (e.g., Thompson, Organizations in Action, McGraw-Hill, 1967), a few examples are offered:

a) Goals are treated as constraints, with decision rules controlled by "satisficing" and aspiration levels, with feasibility being the main test. (Cyert and March).

b) Serial Analysis and Evaluation - There exists a long series of policy steps, where analysts return again and again to the same problems of yesteryear, looking for appropriate moves in a series which they expect to continue. (Braybrooke and Lindblom).

c) The establishment of domain cannot be an arbitrary, unilateral action. Only if the organization's claim to domain are recognized by those who can provide the necessary support can a domain be operational. (Thompson).

Economics - To step into economic theory, as it may relate to corporate strategy, is a somewhat difficult exercise. Much of it from a "professional" viewpoint (meaning in this sense for the top management of the firm) is probably irrelevant, but the same point can be made for behavioral theory and management science.
Though the division is overly simplistic, economics can perhaps be factored into: a) the axiomatic assumptions, b) the theoretical derivations based on these assumptions, and c) the empirical work associated with the output from these theoretical models. It is some of the associated empirical work, published as economic literature, which is probably the area of economics most relevant to the student of corporate strategy.

For a general idea of the kinds of topics developed by economists of some interest to corporate strategy can be included entrepreneurship, innovation and diffusion, portfolio selection and capital asset pricing, international trade, industrial organization and concentration, oligopoly and game theory, monopolistic competition, discretionary behavior, input-output analysis, capital budgeting and investment, and the growth of the firm.

The economics for corporate strategy is more micro than macro, but not entirely so. Further, much of it has been labelled more "managerial", "industrial", or "institutional" economics rather than economic theory per se. It can be noted with some interest that most of the literature and textbooks addressed to corporate strategy directly, and to be paraphrased in the following section on "Analytical Approach", pays very little if any attention to the economics literature. If one major criticism can be levelled at the corporate strategy literature, this is perhaps the major one.

Analytical Approach - The sixth approach to corporate strategy to be described here, given the two dimensional scheme of a) practice, methodology, and theory, and b) less formal and more formal, is the less formal methodology labelled "Analytical Approach" - it
could also be called the "Craft". It supplies an analytical framework along with normative statements. A set of considerations, a sequence of questions and methods to supply answers to these questions is presented. An archetypical amalgam of the methodologies presently offered in the literature is offered here. Books supplying such frameworks include *Corporate Strategy* by H. Igor Ansoff (McGraw Hill, 1965), *Business Strategy and Policy* by J. Thomas Cannon (Harcourt, Brace, and World, 1968), and the text sections of *Management of the Total Enterprise* by Robert L. Katz (Prentice Hall, 1970), and *Business Policy, Text and Cases* by Learned, Christensen, Andrews, and Guth (R. D. Irwin, Inc., 1969).

A survey of these various books reveals a sequential process of investigation and decision something like that shown in the following chart:
One possible modification of the chart is that strategy and implementation are so closely related that it is useful to think of them as composed of the three interrelated steps of 1) choice of domain, 2) interaction with the domain, and 3) internal adjustment. Because the analytical process suggested in the chart is recursive and exploratory, no insistence is made that it follow a particular order - writing, as here, however is not given this option. Strategy is an integration of the goals of the firm, the nature and competence of the firm, and the opportunities and risks in the environment.

Goals - From both a normative and a descriptive viewpoint the goals of the firm can be held to include:

1) Profit
2) Growth
3) Risk-aversion
4) Social

Following Herbert Simon's argument as elaborated in Cyert & March (op. cit.), the distinction between goals and constraints is oft times a rather fine line, especially in the process of trying to understand the decisions of organizations. If the economist finds it more comfortable to view the first two goals as "goals" and the last two as "constraints" - so be it. The sociologist would be less inclined to make this distinction, especially where the organization is viewed as various people and groups, rather than a "unitary actor".

Profit, the goal of traditional economic analysis, reflects efficiency, and generates the surplus for new investment and/or distribution to the shareholders. Return on investment (R.O.I.) is the traditional measure
of this goal. Managers are interested in it, stockholders are interested in it, courts assume it as a legitimate goal, and society depends on it for market mechanisms and resource allocative efficiency. Why not then stop here, with profits as the only goal?

The reason is that both observation and theory suggest that there is more. For instance, economists, such as J. K. Galbraith and W. Baumol, hold that growth is a (the) goal of the firm. Even a cursory investigation of practice—firms, managers, plans, annual reports—reveals growth as a very important goal for most firms. What kinds of growth?—growth in sales, growth in assets, growth in geographical scope, growth in numbers of employees, growth in number of shareholders, and then in a more particular sense, growth in market share, growth in earnings per share (note here—not necessarily "maximum"), growth in product line.

Because profits or "profit maximization" require a calculation for the various decisions which in turn require specific numerical estimates which in the longer run are subject to great variance (or error), the concept of "bounded rationality" substitutes growth as a surrogate or substitute for profit. Where profit calculations are difficult to make, the assumption considered reasonable is that under ordinary conditions, growth is directly correlated with profits and can be used in lieu of it.

The next goal, risk aversion, also labelled flexibility, may in fact represent a potential conflict with both profit and growth. Though there are "returns to risk" according to economic theory, and firms by both choice and circumstance experience the risk and the returns, they normally seek to limit risk, and in a number of ways. Analysis, and its cost, are clearly one way to both choose and limit risk, but this is not the point under discussion here.
Ansoff (op. cit.) develops the concept of flexibility at some length, and separates its attainment into two types, external and internal. Both types of behavior or adaptation, however, are essentially addressed to risk aversion, and some risk-aversion is assumed to serve the generic goal of survival.

External flexibility includes such ideas as products in a number of industries, customers of a wide variety, markets in a number of countries, and products and processes dependent on various technologies. With all or some combination of the above, things can unexpectedly go sour in one place due to any number of reasons, and the basic life and health of the firm is not threatened.

Internal flexibility is addressed more to the concept of the "cash box" (though students of organizations point out that certain individuals and structures also serve this goal). Capital structure and debt to equity ratio, ratio of current assets to current liabilities, cash and cash equivalents - all of these have relevance to the basic liquidity of the business. Once again with unexpected adversity, internal flexibility as illustrated above, will reduce the threat to the survival of the firm.

Some combination of external and internal flexibility should reduce the risk of bankruptcy, or even its lesser sisters - stringent requirements by banks, forced divestments of desirable divisions, replacement of management, etc. Related, but not quite the same thing, earnings fluctuations may not be as pronounced. Earnings fluctuations which will ordinarily be reflected in stock prices are the major form of risk as measured by present finance theory.

Social goals and/or constraints, sometimes labelled corporate social responsibility, to be justified, especially to the skeptical, are beyond
the scope of this paper. Three points however can be briefly made:

a) Companies are run by people, and people are received from and conditioned by their many environments and roles.

b) Markets, as traditionally defined, in our society only constrain corporate behavior within rather broad limits.

c) Corporations must "exchange", bargain, and negotiate with many different constituent blocks holding power in some form in our pluralistic western society in order to survive.

Environment - An analysis of the environment will potentially include many facets, with predictions and trends being perhaps more important than the present state. Economics, statistics, technology, and even social literature are replete with methodologies for prediction. The methodologies include various kinds of extrapolation of the past and present into the future. Some methodologies, especially derived from statistics are largely structure-free (e.g., serial multiple correlation) - a set of numbers are combined in various ways, and the combination which best (re-) predicts the past is used to predict the future.

Other methodologies include substantial search for causal structure (e.g., some simulations and econometric models would be included here), and use this structure as the important element for predicting the future. Finally other predictive methods are more subjective in their orientation, often pooling various "experts" in their attempt to tell the future (e.g., scenarios and the Delphi method).

Prediction of the longer run, and for the more important questions, is a remarkably imperfect art however. For strategic decisions (which are essentially important decisions taken now, but with a future orientation),
a thorough analysis of the recent past, a careful look at the present environment, and an evaluation of the several possible futures may be the most sensible approach. A misunderstanding of the past may be more critical than ignorance about the future.

Even the idea of possible futures, though useful, is troublesome. Herman Kahn and Anthony Weiner in their interesting book, *Toward the Year 2000: A Framework for Speculation* (Macmillan, 1967) take some pains to explain and justify their methods for predicting (or talking about) the events which may occur in the last third of this century. Having done this, they then discuss how many and vital things such methods of prediction would probably have missed in the first third of the century from the vantage point of 1900, or the second third from 1933.

Another problem of course is the required scope of the analysis or prediction. The scope might start with the present and near product/market(s) - product lines, customers, competition, technology, and economic structure. General statements about such analysis falls short of what it is possible to accomplish in individual circumstances. Though the relative importance will undoubtedly vary between such items for separate companies, at least some literature available suggests the prime importance of the customer, and a "functional" understanding of his demand. Why does he buy the products or services, and how will he and his population change, and what other needs and options will possibly be open to him? Other literature (e.g., the Boston Consulting Company) suggests the importance of market share, experience cost curves, and product life cycles.

In addition to the present and near (product lines, customers, competition, technology, and economic structure) should be added the potential. By and large it is the potentials which add both the opportunities and the
risks, and as mentioned previously, the scope of such potentials (much less the predictions themselves) can be very wide.

In addition, however, to these more "commercial" aspects of the environment, should be added legal, social, and political trends of potential importance. And for many firms it is the international face of these questions which must be emphasized. Once again, the idea of a contingency theory or contingent analysis is necessary. A petroleum company with its major crude sources in foreign countries, a paper company with many older (polluting) plants, a labor intensive company in an industry with patch-work tariffs, an international company with many joint venture operations in developing countries, a utility with regulated rates (and/or factor costs), a financial intermediary subject to changing regulations - all of these have important relationships to the changing world which they must try to understand.

**Company** - The third item in the conceptual chart for an analytical consideration of strategy in the company itself. What is it now and how did it get there? The major question to try to answer is the one of "comparative advantage" or "distinctive competence". It should be acknowledged immediately that this is not independent of the environment, nor of the previous strategic choices made, nor of their implementation, (two of the items in the analytical scheme still to be described). Because most companies cannot hope to do everything (or even many things), they must try to decide what they can do particularly well. This analysis is termed by a number of authors as the analysis of strengths and weaknesses. Though in many cases it may be well to improve the weaknesses (especially if they are administrative or operating), most analysts prefer to focus on the strengths of the company.
Strengths may of course be in many guises including patent protection, raw materials ownership, location, reputation, present market share and cost structure, manufacturing facilities, and finally and perhaps most importantly, particular groups of people and their skills. These last could include engineers and scientists, marketing people, manufacturing and operations people, general management and others.

In part, as was mentioned previously, any of these comparative advantages at a given point in time are probably a function of and derived from aspects of the environment (perhaps influenced in important ways by the company itself), and previous strategy choices and implementation steps taken. This point is important enough to suggest the descriptive statement that strategy does not normally change either quickly or easily because the comparative advantage (or distinctive competence) of the firm, on which a new strategy may partially depend, is itself a function of previous strategies. A normative comment would follow that big changes in strategy should normally be taken with great caution, preparation, and expectation of many unanticipated problems and consequences.

One of the more difficult things for many firms to do is to gain an appropriate evaluation of their own strengths (and non-strengths). Many times a market position which is itself a strength, and perhaps due to causes no longer present or relevant, is interpreted as an ability to capture what appears to be a similar market, held now by others. While the ability to retain, maintain, and even improve and increase the present market may exist, it is far from a guarantee of the ability to penetrate successfully the new market.

Comparative analysis of some kind is probably the best way to evaluate the comparative advantage or potential comparative advantage of the firm.
Three kinds of comparison are suggested: 1) against other firms, 2) against itself earlier, 3) against more abstract standards, as elaborated in the textbooks previously referenced.

**Strategy** - Strategy and its implementation, as mentioned earlier, include the choice of domain, the nature of interaction with this domain, and what is perhaps more clearly in the nature of implementation, internal adjustments. The firm does not (often) start de novo in its choice of strategy. Where product/market is perhaps the major element of strategy choice, the firm already is involved in a product/market domain. The questions then are how to expand, add to, modify, or eliminate some aspects of this domain.

In addition to product/market scope, the nature of the competitive thrust of the firm must be determined. Because a number of alternatives may be feasible, including a simultaneous selection of many, a choice of focus and a set of priorities should be made.

Strategy as an organizing idea for coordination, for reinforcement, for allocation, and for control is also relevant. Note that while the usual assumption is that the "right" choice of product/market domain, and domain interaction, is implied, many of the potential advantages of an explicit corporate strategy hold irregardless of the particular choice.

The ideas associated with the interaction with the product/market domain are myriad. They include concepts of specialization and niche (a concept drawn from both natural history and sociology), of market segmentation, of product differentiation, of innovation and timing, of leadership and domination. By these actions the corporation, in the language of economics, is seeking for a time a "localized monopoly",
makes the market "less perfect", disturbs the "equilibrium", and earns for a time "excess profits". While stretching economic concepts a bit, corporate strategy can be conceived of as a continuing search for rent, where rent is taken in the sense of returns to a "unique place". It is beyond the scope of this paper to discuss the various conceptual and empirical aspects of these issues presented in the literature, as our purpose here is to give the broad framework of the issues and the various settings in which they are discussed.

Implementation - Following the strategy decisions, and derived from them, are the many aspects of implementation and "internal adjustments". An interesting dichotomy appears here in the literature. Some authors do not treat implementation as a part of corporate strategy; others give major emphasis to implementation. Over half of the Learned et al book is devoted to implementation.

It is difficult to separate the internal adjustments of the firm which are essentially derived from strategic choices from a general discussion of all aspects of the firm, - e.g., is a particular personnel policy highly dependent on the strategy of the firm; some clearly are. However, the list might include at least organization structure, people choice, programs, budgets, facilities and financial structure.

The main thrust of Chandler's study (op. cit.) is that structure follows strategy, and though the work is largely descriptive, one gets a strong normative flavor as well. Especially with growth and diversification, a profit center divisionalized organization becomes almost mandatory. Oliver Williamson (Corporate Control and Business Behavior, Prentice Hall) derives
an economic theory justification for this form, the "M-Form" of organization. According to his analysis, the M-Form is the more efficient one, and accordingly it will then become the dominant one.

With a move into substantial international operations, a sequence of organization structures seem to follow. John Stopford's research ("Growth and Organizational Change in the Multinational Firm") shows that an early stage will include an "International Division" handling (all) of the corporation's business abroad as an early step. Then with continued international growth, the company is reorganized with the "Product Divisions" becoming worldwide and reabsorbing their own businesses. Based on Stopford's research in 170 companies he is able to draw a parameterized boundary line when this seems to occur.

Here is an appropriate point to discuss one philosophical question. If particular behavior can be shown to be rather common to most successful companies, can this particular behavior be recommended as appropriate? The position taken here is that, subject to strong contra evidence and analysis, well documented and consistent behavior of successful companies is a strong normative guide. Remembering that in the admittedly composite area of corporate strategy, which is synthesis more than analysis, and design more than theory, practice (especially that widely documented by careful analysts) is ignored with some folly. It is a moot point whether this position is academically respectable, but it is based essentially on a Darwinian concept of survival.

Programs and budgets are instruments for spelling out the detail of strategic decisions. They include the specifications of tasks, resource allocation, schedules, places and group assignments. It is out of place in a general discussion of corporate strategy to attempt a more particular
discussion of these activities. What should be emphasized, however, is that they are vital for the accomplishment of strategy, and that they should essentially be serving and derived from the strategic decisions.

Control - Control for corporate strategy is as yet a poorly developed concept both academically and industrially. If decisions are made, presumably the firm is interested in whether they are carried out and whether, at a somewhat later stage, the assumptions on which they were based are still justified.

Such control is sensibly addressed to at least four aspects of the beginning chart of this section for an analytical approach:

1) A continuing measurement of goal performance, e.g., profit, growth, flexibility (risk aversion), and social, or their surrogate variables is desirable. This can be for the firm as a whole and/or its individual divisions. This is clearly not enough, because strategic decisions taken currently will ordinarily be very poorly correlated with goals measured currently. In addition, variances on goal measurements (given some "standard") will ordinarily supply little direct clue as to what to do about the variances, nor their root causes.

2) A second kind of control is a check of programs, budgets, and other instruments of implementation. This is a process control comparing these to the strategic choices. Because these may well be found at different levels in the organization hierarchy and developed by different people, a sensible control check should include the test of consistency - do they flow from, and are they serving the strategic choices.
3) A third type of strategic control should be the outcome or performance of the programs versus the programs (standards) themselves. While this may be virtually identical to "administrative control", there may also be important distinctions. Administrative control is often focussed on the budget, which essentially maps the organization structure. Projects may be lost within the ordinary budgets, and yet be quite important to strategy. Some companies require a dual reporting periodically on "Major Action Programs".

4) Finally because certain assumptions or predictions have been made about some aspects of the environment (industry) which may be judged as critical, it makes sense to monitor these on a continuing basis. Control in this sense is essentially addressed to largely "uncontrollable" variables, not for the purpose of changing them as such, but for the purpose of modifying the strategy of the firm in some manner if and when it is judged advisable.

Summary

Epistemology is defined by Webster as, "the theory or science of the method and grounds of knowledge, especially with reference to its limits and validity". The view taken here is that knowledge about corporate strategy, imperfect as it may be, is available to us in highly different forms and style. While science (e.g., behavioral theory and economics) is our most formalized and trustworthy means of generating and testing knowledge, practice as captured in cases and histories yields a more particular and sometimes more relevant or useable form of knowledge. The normative methodologies of the analytical approach and management science offer us knowledge-based procedures
for grappling with new situations. All of the approaches to understanding and knowledge have their advantages and their limitations. Validity must be in part in the eye of the beholder - i.e., what pragmatic difference does it make to him?

To repeat, our organized taxonomy is as follows:

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At this stage in the development of managerial education and investigation, the mixed strategy of using all approaches is probably better than the reliance on only one or two, especially where students and managers may differ markedly in their ability to learn from the different approaches. A mixed strategy not only allows the possibility for reinforcement and/or a productive dialectic, but given the explicitly different perspectives, offers the chance for a future response to issues of corporate strategy which is robust.
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