THE INTEGRATION OF FORECASTING AND STRATEGIC PLANNING *

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The paper analyzes the use of information in companies planning strategically versus those which are not. This contrast is used to build the case for developing strategic forecasting capability which focuses on a variety of environments, is proactive and interactive, and creates a need for different kinds of data bases and forecasting techniques.

Keywords: Strategic planning, Forecasting, Environment, Performance, Strategic forecasting system.

1. Introduction

The purpose of this paper is to outline the forecasting requirements for a firm which practices strategic planning. In the first section a distinction is drawn between strategic planning and other forms of planning and the critical dimensions of strategic planning are identified. In the second section the state of the literature on forecasting is briefly reviewed and its relationship to the notion of strategic planning is critically examined. In the third section a normative approach to the relationship between firm performance, environmental change, forecasting requirements and strategy development is discussed. In the final section the characteristics of a strategic forecasting system are outlined.

2. Strategic planning

Over the past ten to fifteen years an extensive literature has developed on formal planning systems; their characteristics, the extent of their adoption and the relationship between their adoption and performance [for a recent review see Lorange (1979)]. There has been considerable convergence across authors as to what constitutes 'formal' – a set of planning activities assigned to specific individuals, scheduled at specific times, using standardized methodologies and producing a written

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plan output [see for example Henry (1977,1979)]. There has been much less attention devoted either the level at which planning occurs or the type of planning involved.

As regards level, a standardized but decentralized system in which formalized plans are drawn u for each of a number of specific sub-units in the corporation, say product lines, and are employe primarily as an aid in managing those product lines, is clearly a very different system from one which the focus of the planning effort is at the business unit, divisional or corporate level. In the latter cases, the plans for all product lines are typically integrated as a major input into a set o business unit or divisional plans (or indeed a single corporate plan), and are employed f management of the larger unit(s). Although the formal planning literature frequently distinguish between different types of functional plans, and general plans in which the functional plans a integrated, the distinction between the various possible levels of the planning effort is less frequent made.

Of more concern to us in this paper, however, is the notion of type of planning. Irrespective o level, the type of planning involved in a formal planning system can range from one in which tl basic unit of analysis is considered fixed, in which case the planning task is largely extrapolative wi a heavy emphasis on future firm performance, to a system in which the basic unit of analysis considered variable, in which case the potential for change of the basic analytic unit becom important. Such potential for change at the level of the product line implies addition and deletion o product offerings and entry and exit from market segments; at the business level addition ar deletion of both product lines and markets may be implied, while at the corporate level such potenti change implies addition and deletion of businesses, and consequent major change in the nature of tl corporation.

The focus of the early literature on formal planning [Ringbaak (1968, 1972)] seemed generally lean towards the former type of planning, i.e., unit of analysis fixed – so that the focus was often c simple extrapolative forecasting of future firm performance, financial planning. However, in part du to a shift from the comparatively benign environments of the 1960's to the more turbulei environments of the 1970's and 1980's, in part due to the development of planning concepts ar models such as portfolio and policy analytic techniques [Day (1977), Hussey (1978)], at whose heart the notion of change in the firm's portfolio of products, markets and businesses, and finally i increased interest in strategy *per se*, the literature on planning has begun to shift focus and increasingly characterized by appending the adjective 'strategic' to the practice of planning – henc 'strategic planning'.

In a recent paper [Capon, Farley and Hulbert (1984)] we examined the extensive literature c 'strategic planning', but, somewhat surprisingly, found only limited agreement amongst authors as t the set of activities which was deemed necessary for planning to be considered 'strategic'. Presumab the term was appended to planning to indicate that planning activities should be focussed o developing strategy for it is a legitimate concern that formal planning *per se* does not necessari improve strategy. Based on a literature review and some empirical work, we concluded that the mo important indicator of the extent to which planning was strategic was information-gathering activit In the view of many authors [Lorange (1976), Gotcher (1977), Kudla (1978)] gathering environment information and adapting to environmental change are the primary characteristics which distinguis planning which is 'strategic' from other types of planning, and this also emerged in our empiric study. In constrast, much financial planning places relatively little emphasis on gathering enviro mental information and adaptation to environmental change is not a focus of the planning effo [Capon, Farley and Hulbert (1985)]. Since forecasting is the only means by which to develop a information base about future environments, however, this puts forecasting efforts in a position c central importance to strategic planning. We shall argue in the next section, however, that compan forecasting systems are often misaligned with the needs created by strategic planning.

3. Forecasting

The past decade has seen a burgeoning of the literature on forecasting. However, it is probably fair to say that the locus of effort has been the development and testing of new quantitative forecasting methodologies, and the solution of short-term operating problems [Makridakis and Wheelwright (1979a,b), Brown (1982)]. The unit of analysis in such problems is typically a product or product line and the concern is accurately to forecast sales so that the appropriate inventory and production scheduling decisions can be made. The underlying assumption is that the product will be produced in its current form, and the basic problem to be solved is, how much to produce and inventory: the basic unit of analysis is the product, which is viewed as fixed. As Armstrong (1984, pp. 2–4) states

> 'Forecasting relates to *what will happen* if the firm tries to implement a given strategy in a given possible environment'. [1]

More recently a number of authors have begun to address the question of the relationship between forecasting and planning, where planning has a longer time horizon than is typically considered for the inventory and scheduling problem [Armstrong (1983), Hogarth and Makridakis (1981), Lasserre and Thanheiser (1982), Makridakis (1981), Naylor (1983), Utterback (1979)]. The impetus for this work has, in part, been the increasingly turbulent world environment [Drucker (1980)] and the difficulty of forecasting the impact of a set of environmental changes on the firm.

The changing environment is typically viewed as hostile and something that the firm must defend against. Thus, Utterback (1979, p. 135) argues:

> 'Changes that can revolutionize a firm's business and strategy will tend to come from unexpected directions and to be viewed as disruptive'.

However, it is rare for writers clearly to identify the critical environmental dimensions, rather there is major emphasis on the current demand environment and occasionally some concern for the technological environment. The essential model proposed in these papers is that to the extent that the firm is able to improve its forecasts of its environment, it will be better able to respond to these environmental changes and thus behave in a more effective manner. In much of the forecasting literature the level of analysis is that of a firm operating in a single industry and frequently the focus is on a single product line. Thus, Armstrong (1983) illustrates his strategic planning concerns by focusing on Ford's disasterous experience with the Edsel, while Makridakis (1981, p. 15) in dismissing diversification as a method of handling risk argues that firms should be specialists:

> '... natural selection favors specialization – thus those who are willing to take greater risks by specialization stand a better chance of success...'.

Other authors writing in the forecasting literature have noted the relevance of such concepts as portfolio and policy and policy matrices [Laserre and Thanheiser (1982)] and strategy matrices [Naylor (1983)] to strategic planning but have devoted little effort to developing relationships between use of these techniques and forecasting requirements.

Thus, the critical underlying assumptions of most of the literature which attempts to integrate strategic planning and forecasting appear to be:

- The firm operates in an increasingly turbulent and therefore problematic environment,
- To survive and prosper the firm should predict future environmental trends and react to them,
- The appropriate level of analysis for the firm is at the product or product line level.

[1] Armstrong (1982) does also consider environmental forecasting, but the major focus is on economic trends and cycles that are seen as an input into developing the sales forecast.

We believe that these assumptions which underly the strategic planning/forecasting problem a much too limiting for four reasons, which we now develop. First, for a given product line it insufficient to view the firm just as operating in a single environment, frequently identified as tl demand environment. Rather, the firm exists in environments of many aspects or dimensions, each which may be more or less important in its effect upon the firm. For example, the demar environment itself can be segmented in a number of different ways – by geography, by applicatio by customer type and so forth; various segments of which may be critical to the firm whereas othe may be relatively unimportant. In addition, other environmental sectors impinge upon the firn governmental, purchased materials and components, human resources, financial markets, competitiv technological and so forth.

While there appears to be a lack of adequate theory to guide selection of those environment aspects which are critical to the firm, Porter (1980) provides some guides, at least at the sing industry level. Certainly, it is useful to focus on the ways in which the firm may be affected. Thr such areas of impact may be discerned: that which affects the level of aggregate demand for particular product category, that which affects the competitive equilibrium and the proportion overall demand which is secured by the firm, and that which affects the firm's factor inputs. Son environmental variables will affect just one area, whereas the impact of other environmental variabl will be felt in more than one area. As indicated above, the impact of environmental variables will l more critical in some areas than in others, while in some cases the impact may be quite predictab whereas in others it may be very difficult to assess. The kinds of information necessary to perfor this type of analysis has been well developed by Montgomery and Weinberg (1979) and will not l discussed in depth here.

Second, the increasing turbulence of the environment should not necessarily be viewed something to be feared, for it may in turn create opportunities. For example, it may facilita changing the firm's product/market domain, and thus broaden the set of environments to which it exposed. The extent to which managers should be fearful of changing product/market scope shou arguably be a function of the firm's current and prospective strategic position in a particul product/market, and its ability to change. Herein may lie the Achilles' heel of success, however, for a firm has developed a successful strategy and is highly profitable, it may well become complacent even rigid [Abernathy (1974)]. Such a firm is likely to prefer a stable environment such that it c continue to implement its successful current strategy and reap continued profits. Marked changes critical environmental sectors, however, change the factors necessary for success. Thus, because of tl inertia often (although not always) associated with large organizations, it may be difficult for a fir with large investments in an existing strategy successfully to change course and develop a ne strategy to take account of these sectoral environmental changes. Examples abound, but Ford Mot Company's experience with the Model T in the late twenties, when consumers' tastes for automobil shifted from basic transportation, is perhaps the best known. Conversely, managers of other firn may view a turbulent or potentially turbulent environment very differently. Indeed, in many cas changes may work to the advantage of those other than the leader, for to the extent that tl environment is stable, it may be very difficult to compete successfully with the entrenched successf firm. A marked change or potential for change in critical environmental factors may represent tl wedge by which a firm can improve its strategic position. Thus, a turbulent environmental sector m well represent a positive, and not a negative, situation as previously foreclosed opportunities becon available. Clearly, managers' views of environmental changes should very much be a function of tl firms current strategic position and its key strengths and capabilities.

Third, the assumption that the firm must react to these environmental changes is not necessari correct. Of course many environmental factors may be beyond the firm's control, but the firm m also be able actively to change critical environmental factors to its advantage by various strateg

moves, in other words to shift from a passive to an active posture with respect to its environment. Indeed, it can be argued that a key purpose of strategy is to destabilize the environment, for example to develop new technology, to lobby for changes in regulation, to develop new sources of supply, to weaken the grip of unions, to effectively constrain competitor's actions and so forth in an attempt to gain competitive advantage. [2]

Finally, not only is the assumption that the firm can only react to environmental changes incorrect, the unidimensional level of analysis of the firm as a single product or at least highly specialized entity leads to an implicit and incorrect assumption that the firm is stuck with the environment which currently impinges upon it. Nothing could be further from the truth, for a firm may choose to diversify along a number of dimensions; geographically, technologically, customer type, product application, industry and so forth. In such diversification moves the firm in effect selects the environment within which it will conduct its business. Indeed, the experience of major United States companies over the past 30 years, both in geographical expansion to become multinational organizations and in their diversification away from the single business organization is testimony to a selection (by design or default) of new environments in which to operate, albeit with mixed success [Rumelt (1974)]. Furthermore, by divestiture, abandonment or other means the firm can exit from those environments which it deems to be too hostile and in which it fails to achieve an acceptable level of profitability. [3] Ideally, these actions may be taken early, before the situation deteriorates to the point where many options are foreclosed.

We believe therefore that a new set of assumptions must be developed with which to address the strategic planning/forecasting problem:

- The environment faced by a particular product is multifaceted. Changes in some environmental sectors will be more likely to occur than in others and may be more critical in some than in others as regards their impact on the success of the firm.
- The impact of environmental turbulence on the firm is not necessarily negative. Rather, the impact of environmental change is a function of the firm's strategic position and ability to change.
- Many environmental factors may be beyond the firm's control. However, the firm may, through its various strategic moves, actively be able to affect and manage certain key environmental sectors. [4]
- The firm is able to select the environment in which it operates. By various forms of diversification it can choose to operate with new environmental imperatives and by divestiture, abandonment and so forth it can exit from current environments.

4. Strategic planning and forecasting

In this section we take a much broader view of forecasting than is typically employed. We view forecasting as an activity that provides information about the future, both the future of the firm (sales forecasts, etc.) and the future of various environmental sectors, futures both that we expect to happen, ceteris paribus, and futures that we expect to occur given various strategic actions, 'what if' futures. Indeed, the inclusion of 'what if' forecasts if a key factor that distinguishes the forecasting

[2] See, for example, Harley Davidson's success in persuading the U.S. government to raise import tariffs on large motorcycles and Ford and Chrysler's efforts to block the GM/Toyota manufacturing agreement.

[3] See, for example, National Industries exit from the steel industry, Banker's Trust's sale of its consumer banking operations and the recent withdrawal of both Northwest Industries and Gould Inc. from those businesses that previously formed their corporate raison d'être, the railroad and battery businesses respectively.

[4] The concept of environmental control resembles Ackoff's (1981) notion of 'interactive planning' which he distinguishes from 'preactive planning' whose focus is on predicting the future environment.

which is important for strategic planning from more typical operational forecasting [Naylor (1983)]. In operational forecasting strategic moves are typically assumed away – strategies have already been set and the forecasting job is to determine the expected future. In strategic planning, one of the key activities is the generation and examination of various alternative strategies and the forecasting of the likely results of those actions.

In order to explore the relationship between strategic planning and forecasting we focus first on a single product firm and later aggregate to a multi-product, diversified organization. The basic model upon which we shall focus is that of a multifaceted single product firm interacting with a multifaceted environment. We define strategy as that set of decisions which relates to the allocation of resources, ultimately to sustain or improve competitive position in markets which are attractive to the firm.

As a first step, the strategic planner must identify which environmental sectors are most critical to influencing the performance of the firm. [5] Of all the various relationships between the firm and its environment, some subset will typically have a more important impact than others. Typically such environmental sectors as customers, competitors, suppliers and so forth will be critical but legal, regulatory, unions, stockholders and others may at some time enter the critical set. The strategic forecasting problem here is thus to forecast the future of various aspects of the environment, those that are critical for success. Such forecasting may be highly quantitative, such as industry demand or numbers of customers, or it may be highly qualitative such as identifying the political or regulatory environment across the planning horizon. Often particularly important is a forecast of the presence of future competitors and their actions. Given that strategy exists to maintain or gain competitive advantage, an ability to forecast competitive moves better enables managers to develop acceptable strategies.

In developing its own strategy the firm must address the predicted futures in critical environmental sectors. For simplicity we shall assume that these critical sectors are predicted to be either basically stable or unstable. If a stable environment is predicted and the firm is a leader satisfied with its position, the strategic elements of the forecasting job are over, for continuation of the current strategy will, ceteris paribus, bring continued success. Indeed, strategy may well focus on fortification and further stabilization of business position. In such circumstances the remaining forecasting tasks are operational and conventional.

If, however, the firm is not satisfied with its performance in these circumstances it may seek to destabilize aspects of its environment. Thus, it may be able to corner a key source of supply, effect a key regulatory change, reposition a key product, acquire a firm with new technology and so forth. The result of such an aggressive destabilizing move would be to bring about disequilibrium such that when the dust eventually settled, the instigator had gained ground and improved its performance at the expense of its competitive targets. The forecasting problem here is of the 'what if' variety, for a firm which has the ability to destabilize critical environmental sectors will have a number of options, results of the implementation of which must be forecast before a course of action can be chosen.

Where critical environmental sectors are forecast to be destabilized, the strategic forecasting task is both more complex and more important. While a variety of possible scenarios may exist, a destabilized critical environmental sector often means that continuation of the current strategy will not produce satisfactory performance. The firm has to address these changes by implementing new strategic actions. These actions themselves will result in a different set of environmental factors than had the firm continued with its present strategies. The firm must thus identify a set of strategic options and investigate the results of implementing a feasible subset of them. The forecasting job here is again of the 'what if' variety, but involves both environmental and strategic change. Feasible

[5] See Jemison (1981) for a review of that aspect of strategic management research which deals with the relationship of an organization to its environment.

actions designed to take account of the destabilizing effect of exogenous environmental factors must be tested to identify those whose forecast results best enable the firm to defend or improve its current position. Of course, within any individual environmental sector the forecaster may believe that particular futures will occur with probabilities that can be assigned. In such cases contingent strategies should be developed. [6]

The implementation of a forecasting system which requires (1) key environmental sectors to be identified, (2) key environmental sectors to be forecast, (3) conditional forecasts to be made for alternative strategic options, addresses the strategic planning/forecasting problem at the business or product line level. At these levels strategic planning implicitly assumes a relatively narrow scope of resource allocation. Those environmental sectors which the firm faces are established by the scope of the sub-unit's mission and changes at this level are likely to be highly related to the current environment. More extreme changes might include geographic expansion to different national environments, siting of a new production facility or use of different production facilities which require interaction with a different union environment, but nonetheless the degree of relationship between any such modification and the original is typically likely to be relatively high.

At the corporate level a much broader scope of resource allocation is appropriate. The firm has more degrees of freedom for it has a broader mission focus than any individual sub-unit and has much greater ability to select the set of environmental sectors with which it deals. If overall anticipated corporate performance from the set of sub-units does not meet corporate objectives, the firm may well seek to diversify (or divest), usually within the scope of its existing mission. Such diversification, whether internally generated or by acquisition, we argue, must be planned, for the record of scattershot changes in corporate portfolios is not encouraging. The firm will need to develop an environmental scanning ability to identify opportunities [Aguilar (1967)], a forecasting capability able to predict the future of the set of key environmental factors surrounding each opportunity, and a 'what if' forecasting capability, given that the firm accepts the opportunity and makes alternative strategic moves.

At the corporate level then, an extra environmental forecasting resource is needed – a scanning mechanism to identify options, options which might well include those raised by existing sub-units which are outside the current or future mission. The environmental forecasting and 'what if' forecasting capability are no different in concept from that required at the product line level, but they are different in nature since the firm has less information on new areas of opportunity than it does when planning for its existing sub-units.

5. The concept of strategic forecasting

Our argument to this point can be simply summarized as follows. The bulk of companies' existing forecasting effort is devoted to the prediction of the results of a set of predetermined strategic actions in an existing environmental structure. The purpose of such forecasting is to enable better operating decisions to be made and we might call these efforts operational forecasting. While such approaches may be sufficient for successful firms positioned in slow changing or uncompetitive environments, they are certain to be found both ineffective and inefficient in the fast changing and competitive environments characterized by high degrees of oligopolistic concentration which are common in many sectors today. Under these conditions forecasting efforts must begin to focus much greater attention on changes in the very elements which, in the past, have been treated as unchanging. In other words, *strategic* planning needs strategic (not operational) forecasting. Furthermore, concern must be given

[6] For further discussion of industry experience with scenarios and contingency planning, see O'Connor (1978).

not only to forecast those areas in which the signals are strong, but also those areas in which signals are both weak or non-existent [Milutinovich and Mankelewicz (1983)], for it may be that significant potential for competitive advantage lies in these domains, where environmental signal is most difficult to detect. Such forecasting is quite different from operational forecasting and in this section we build on our previous discussion to develop the key elements of a strategic forecasting system.

5.1. Environmental emphasis

A major preoccupation of a strategic forecasting system must be the prediction of the structural environment within which the firm's business will be conducted. Strategic forecasters must identify critical environmental elements, those for which any change would upset the competitive equilibrium. It is on these structural elements that the strategic forecasting emphasis must be placed. [7] This environmental emphasis must far outstrip a focus on economic forecasts which are routinely included in long range plans, and include such areas as technology, social, political, cultural and so forth, the forecasting of which is highly complex, often interactive, and which are frequently today not systematically included in the strategy formulation process.

5.2. Long-term time horizons

Strategic decisions are concerned with changing the nature of the business and often, its environment, so that relatively long periods of time are involved. Such a long-term focus contrasts sharply with short-term operational forecasting efforts. What is 'long term' will be a function of an individual business but it is useful to think in terms of that period of time during which all assets may be varied; this time span varying from just a few months for some service businesses to as long as 15 years for a major capital goods manufacturer.

5.3. Conditional forecasting

Since strategic decisions involve the allocation of significant quantities of resources, corporations should investigate the results of alternative strategic actions before committing those resources. Since strategic actions may influence critical environmental factors the firm must be able to forecast the future of those factors as well as the ultimate results that the firm itself will achieve. These forecasts are 'what if' forecasts, not futures that the firm expects to happen but futures that the firm would expect to happen conditional on some set of strategic actions. It is the critical importance of 'what if' forecasts in strategic planning that renders strategic forecasting neither an input to, nor an output from, but rather an integral part of, the strategic planning process.

5.4. Database requirements

The data bases required for strategic forecasting are qualitatively and quantitatively different from those of most companies' forecasting systems. Few companies are committed to such areas as social forecasting or technological forecasting, yet we argue that it is forecasting of just this type, dealing with structural parameters of the industry, that is central to much of the job of strategic forecasting. The firm perhaps should develop a data base of key social indicators, or technological indicators which it may use as the basis for making social or technological forecasts. However, it is insufficient

[7] See Klein (1973,1979) for discussion of selection of the environmental variables to forecast and Klein (1983) for the results of a study which indicate an increased investment by major corporations in resources to perform environmental assessments.

just to forecast a set of indicators, for it is the *effects* of trends and events that are both more important to understand, and to predict, than the primary changes themselves [Utterback (1979)].

Alternatively, the firm may be able to forecast such areas as the impact of government regulation in a particular national environment by analogy with similar changes in some other national environment. This implies that the firm may wish to build up a multi-nation data base for some particular environmental areas. Indeed, some experts argue that time-series forecasts have limited usefulness for strategic planning and that greater insight into feasible strategic actions can be obtained by cross-sectional forecasting, the use of analogy from similar historic strategic situations [Schoeffler (1983)].

5.5. Forecast methodologies

No doubt some of the advanced quantitative techniques that have been developed for the operational forecasting problem will prove to be useful in the environmental forecasting area. However, other techniques such as delphi [Roman (1970)] and the nominal group method [Delbecq, van de Ven and Rustafson (1975)] will probably prove to be more attuned to the strategic forecasting problem than to operational ones. [See Martino (1983) for a broad coverage of techniques.]

5.6. Forecast accuracy

Whereas in the operational forecasting problem a heavy premium is typically set on forecast accuracy, high degrees of accuracy in forecasting for strategic planning are both unlikely to be obtained and unnecessary to achieve [Beck (1983)]. What matters is that the broad thrust of the forecast is in the right direction, for strategy formulation is concerned with setting the appropriate general course, not in deciding the fine details which are the concern of tactical planning. Furthermore, rather than focus on the development of single point estimates, strategic forecasting should focus on the development of a range of possible outcomes such that the decision maker can ultimately make the risk/return tradeoffs. As one company puts it, 'a key point is to be more concerned with perspective than prediction.' [O'Connor (1978).]

5.7. Forecast availability

The prototypical large organization today is a multibusiness activity typically organized in some form of divisionalized structure. Irrespective of the degree of diversity in technologies and markets across the corporation there will doubtless be areas of overlap of critical environmental factors. In this area then it is particularly important that the firm develop a library and access system so that forecasting performed at lower levels in the organization can be made available across departmental and divisional lines. No doubt some forms of global environmental forecasting will be performed at corporate and made available to the various divisions, perhaps as part of the corporate planning effort, but it is for forecasts at the lower level that transorganizational access is important. Such dissemination of course applies both to forecasts themselves and to models or approaches to solving particular environmental forecasting problems.

6. Summary and conclusions

In this paper we have attempted to address the issue of integration of forecasting with strategic planning. In order to address this issue we first attempted to distinguish strategic planning from other

forms of planning. We then noted that much of the effort in forecasting is concerned not with strategic planning but rather with operational planning. Furthermore, to the extent that researchers have addressed the problem of the interrelationship of forecasting with strategic planning, a set of questionable assumptions were typically employed. Rather than viewing the firm as a specialized entity reacting to a set of environmental changes, we identified strategy as involving major shifts of competitive equilibrium such that the ability to cope with structural change is a crucial requirement of the forecasting system. We also believe that the generation of 'what if' forecasts is a crucial part of the development of strategy. Such a system we dubbed a strategic forecasting system and suggested a number of ways in which it would be different from typical operational forecasting systems.

We doubt that many organizations have yet developed fully a strategic forecasting system, though without question some are further ahead than others [Dino, Riley and Yatrakis (1982)]. Indeed, it is easily argued that unless a strategic orientation is firmly embedded in organization – perhaps akin to Glueck's et al. (1980) notion of strategic management – attempts to upgrade forecasting efforts will be foredoomed. The shift of management outlook necessary at a number of organizational levels involves not so much forecasting methodology as it does *management* methodology. Thus, the implementation of the changes elaborated in this paper will necessitate a carefully planned collaborative effort, involving both forecasters, planning staff and line managers. The history of attempts to proceed otherwise, with inadequate attention to implementation of required changes, should deter all but the most foolhardy [Schultz (1984)].

Clearly, a system such as we have discussed cannot be built up overnight, rather a sustained effort over a period of time will be necessary. However, though the development of strategic forecasting capability is clearly an expensive proposition for a corporation, since the ultimate purpose of strategy is to configure the competitive equilibrium in such a way that it is more advantageous to the firm, it is our belief that the investment of resources in developing better forecasting capabilities to achieve those ends is justified. Forecasters and planners alike share an interest in broadening the narrow context within which managers so often view forecasting so that it might better serve the strategic needs of the firm.

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