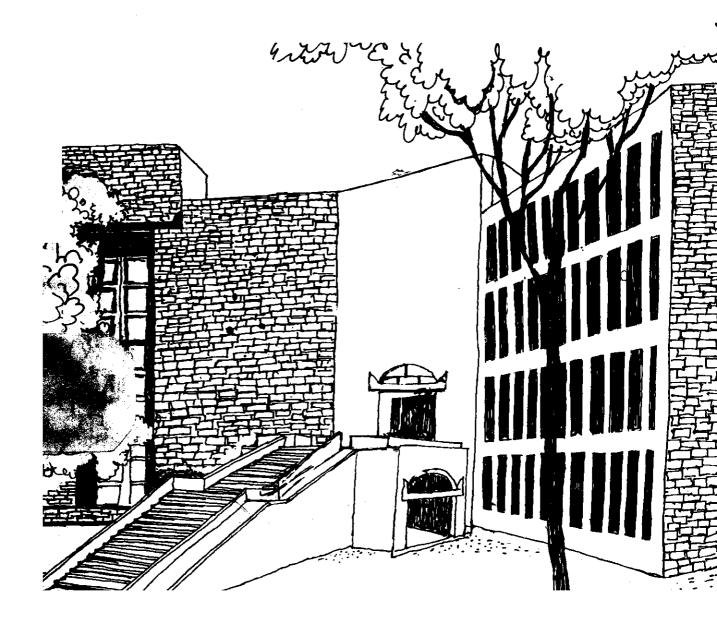




# Working Paper



## INTEGRATING ENVIRONMENTAL SCANNING INTO CORPORATE PLANNING NEED FOR A TOTAL VIEW

Ву

Mukund R. Dixit

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> INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD-380015 INDIA

#### INTEGRATING ENVIRONMENTAL SCANNING INTO CORPORATE PLANNING

#### - NEED FOR A TOTAL VIEW -

(Summary)

#### Mukund R. Dixit

The relevance and future of environmental scanning for planning has become a controversial issue. The studies of Fahey, King, Narayan and Charles Stubbort contend pessimistically that there is no evidence to warrant a conclusion that environmental scanning would become a regular element of Corporate Planning. Thomas, on the other hand, argues that systematic omnidirectional scanning for planning is on the threshold of rapid growth and development. It is the contention of this paper that what is missing in this controversy is the consideration of the stage of development of the planning system prevailing in the various corporations studied by them. This omission has lad to questionable inferences regarding the relevance and future of environmental scanning.

It can be hypothesised that the stage of development of the ··· scanning system is contingent on that of the planning system. As the planning system progresses from irregular and adhoc mode to continuous and comprehensive mode, the demand for comprehensive and systematic environmental information increases. In organizations where the planning system is not fully developed, the scanning system can also be expected to be underdeveloped and adhoc. On the contrary, in organizations where the planning system is fully developed and continuous. the environmental scanning system would also be fully developed and continuous. Hence, any judgment on the future of environmental scanning based on an analysis of data on the practice of environmental scanning, without relating it to the practice of planning prevalent in the sample organizations is questionable. There is a need for viewing the two in totality. In support of this hypothesis, this paper presents a case study describing the process of evolution of the link between formal scanning and planning system in a large multiproduct multi-unit corporation in India. It took nearly a decade. I acknowledge with thanks the financial support provided by the Research & Publications Committee for completing this study.

for this Company to spell out the objectives of scanning, allocate adequate resources for this activity, identify the sources of data, collect, interpret and report the developments in the environment and finally integrate them into the planning exercise. The case study shows that the link between scanning and planning becomes tighter as the planning system progresses from irregular mode to continuous comprehensive mode. In the initial stage of development of planning system, the Company tends to focus more on internal analysis and setting the planning system in order. An edhoc or less formal use of environmental information is made. Information on the environmental development is gathered more for keeping the management informed and for performance review. A detailed analysis, of the environment for identifying threats and opportunities, gains importance only when the planning system is fully established.

The paper concludes by urging that researchers studying the relevance, scope, and future of environmental scanning and the link between environmental scanning and corporate planning should take a total view and study the state of art of both scanning and planning before pronouncing their judgment and making recommendations.

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## INTEGRATING ENVIRONMENTAL SCANNING INTO CORPORATE PLANNING

#### - NEED FOR A TOTAL VIEW -

#### Mukund R. Dixit

#### The Controversy

The relevance and future of environmental scanning for Corporate Planning has become a controversial issue. The studies of Fahey and King<sup>1</sup>, Fahey, King and Narayanan<sup>2</sup>, and Charles Stubbort<sup>3</sup> have upset the normative stance that environmental scanning should be a key element of Corporate Planning. They contend pessimistically that there is no evidence to warrant a conclusion that environmental scanning would become a regular element of Corporate Planning. Themas's article on the other hand argues that systematic omnidirectional scanning for planning is on the threshold of rapid growth and development.

Fahey and King base their contention on the data collected from indepth interviews with vice-presidents of planning, managers of corporate planning, and individuals who possessed specific responsibility for environmental scanning or analysis in 12 large corporations belonging to eight different industries. The survey data, "demonstrate that while there is a general awareness of the importance of environmental scanning, the  $su_{-1}$  eyed corporations have not yet succeeded in developing sophisticated environmental scanning and integrating it into their strategic planning process."5 The study, however, does not look into the reasons for this discrepancy between the felt need and practice. They state that if firms merely establish scanning activities without integrating the results into their planning processes, the information would be useless to them. "Indeed in such cases the faddish collection of unused environmental information may be shortlived."6 They conclude that their results show that there is a significant gap between the conventional assumptions concerning environmental scanning and its implementation in large corporations, "although the trend is towards greater sophistication in scanning not enough demonstrated impact exists to warrant

a conclusion that environmental scanning will become a regular element of corporate planning." Fahey and King reiterated their stand in a subsecuent article with Narayanan. They collected data not only from indepth interviews but also from questionnaires mailed to the members of World Future Society. Their data showed that despite its perceived utility environmental scanning/forecasting was not regarded so important as to necessitate a major deployment of resources. Thus, this study reinforced the pessimistic future for environmental scanning.

As a kind of rejoinder Thomas presented a composite picture of the environmental scanning practices of nine largest corporations of the world. He collected data from published sources. On the basis of his analysis he contends, "It is evident that far from being in a state of neglect or decline, scanning for planning is alive and well, at least in the world's largest corporations." Based on an analysis of the scanning practices of the largest companies in the corporate world and the premise that a majority of those who watch and wait for a suitable opportunity to adapt the approaches of the pioneers will follow, he concludes that there is every reason to believe that a systematic omnidirectional scanning for planning is on the thresheld of rapid growth and devalopment. Charles Stubbort revisited the 12 corporations studied by Fahey and King after three years to find out whether the sample had tended towards greater use of resources in scanning, adoption of more formal method in scanning, and more continuous scanning methods. His data, collected from indepth interviews with the planning executives who in seven out of twelve cases were the same persons interviewed by King and Fahey, did not support the premise of Thomas that a majority of those who watch and wait for a suitable opportunity to adapt the approaches of the pioneers followed. Five out of the twelve corporations had not changed their mode of scanning from irregular to continuous. Movement towards continuous scanning had occured in three others.

In the remaining four corporations there was a movement in the reverse direction from regular scanning to an irregular one. Charles found that favourable attitudes of academic and business media, demonstrated success and selection of right people scanning were the factors that favoured a movement towards continuous scanning while changes in top management, decontralised organizations, budget cuts, troublesome information areas, stable business, Burraise and availability of environmental information from external agencies pushed firms away from continuous scanning. He noted serious discrepancies between, "the study of the twelve organizations, the Thomas study and the recommendations of some authorities towards organising an environmental scanning function."8 In the light of his finding he was reluctant to encourage top managers of diversified firms to establish corporate level environmental scanning units. After sounding a note of caution he raises the following questions:

"How can we define the information requirement for scanning?"
"What alternatives do we have in organising the scanning
function?"

"How can we better position environmen but scanning or ganizationally?"

"How futuristic or creative should scanning be?"

He is of the view that research ought to be undertaken to determine whether the Thomas or results of the 12 organization study are borne out in a larger sample of organizations. He feels that until the above questions are better addressed it is unwise for a prudent academic or manager to make sweeping recommendations about the benefits of formal environmental scanning efforts.

#### The Missing Factor

What is missing in the above controversy is a discussion of the stage of development of the planning system itself in the organizations studied by the authors mentioned above. Like the environmental scanning system, the stage of development of planning system can also be classified as being irregular, regular, and continuous and the corporations can be expected to follow these stages. It can be hypothesized that with the transition from one stage of development of planning system to the other, the demands on the scanning for comprehensive and continuous information will increase. Therefore, the stage of development of the scanning system depends on that of the planning system. In organizations where the planning system is fully developed and continuous, the scarning system will also be developed and continuous. In such cases scanning will be an integral part of planning. Similarly, if the planning system is not fully developed, the scanning system will also not be fully developed. In view of this dependence of the development of scanning system on that of the planning system, any judgment on the future of environmental scanning based on an analysis of data on the practice of environmental scanning without relating it to the practice of planning prevalent in the sample organizations is questionable. There is a need for viewing the two in totality.

The studies of King and Fahey, King, Fahey and Narayan, and Charles Stubbort are inadequate to pronounce any judgment on the relevance and future of practice of environmental scanning for corporate planning because they do not provide information on the practice of planning in the selected organizations. Thomas's etudy provides very limited data on the state of planning in the nine organizations studied by him. Only in the case of IBM and General Electric, we have information on both the planning and scanning systems. Both are of continuous and comprehensive type. The relation between the two is explicitly stated as being "an integral part of the planning process" in IBM and "the first step in planning process" in General Electric.

#### A Case Study

With the above discussion in view, we describe below the process of evolution of the link between formal scanning and planning systems in a large multi-product, multi-unit corporation in India. This case study supports the hypothesis that the development of the environmental scanning system is contingent on the development of the planning system. Based on this hypothesis, we argue that one is likely to end up with a misleading inference on the future of scanning for planning if one does not study the stage of development of the planning system and its future along with that of environmental scanning. The study will also answer some of the questions raised by Charles Stubbort.

The sources of information for this study are the published reports of the Company and the personal experience of the author. The author was associated with the design and implementation of formal planning and scanning systems in this organization for five years from 1976 to 1981. He had opportunities to interact with all the senior executives of the Company.

#### About the Company

With a turnover exceeding Rs.3,000 million and manufacturing units spread all over the country, Diversified Manufacturing Company Ltd., (DMC) (a disguised name) is one of the largest manufacturing corporations in India. The Company which was started in the early fifties to manufacture quality machine tools has now diversified into production of timing devices, printing machinery, agricultural machinery, lighting equipments, and dairy machinery. With exports constituting nearly 15 per cent of the turnover, its international operations are managed by DMC(International) Ltd., a subsidiary of the Company.

#### Early Growth and Lessons of Recession

In 1961, the Company doubled its cap ity to produce machine tools by starting one more unit in the same location. In 1962, it diversified into the production of timing devices. It started another machine tool unit in a different location in 1963. While inaugurating this factory the chief executive of the Company announced an ambitious plan to set up one factory every year and finance alternate factory from internal resources. The plan was based on the demand estimate of the Planning Commission of India. As per this plan, machine tool factories were set up in 1964 and 1965 in two different locations. Further implementation of the plan was halted by the on-set of recession in the country during 1966—67 to 1968—69. The domand for machine tools declined and the Company which had been earning profits so far suffered a loss of Rs.6 million. Such an adverse unexpected economic performance forced the Company to review its growth strategy.

Reviewing the strategy, the Chairman and Marketing Director of the Company bemoaned the absence of commercial intelligence and statistics at the Company and said: "The plan of one factory every year was conceived in 1963 based on the forecast of demand for machine tools estimated by the Planning Commission at about Rs.600 million per annum and the indigenous production target of Rs.300 million by the end of 1965—66. While this may be right and it is so to a large extent, however, breakdown of the demand and of the target of indigenous production of machine tools in terms of size was not done."

"What one did not foresee then was the complex and the highly diversified pattern of demand for machine tools."

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"This could have also given the Company an opportunity to gauze the economic health of the country and the state of the machine tool market so that setting up of new units could have been suitably phased, depending upon the market and economic conditions."

The traumatic experience of the Company during the recession brought into the sharp focus the need to identify and interpret the relevant environment of the Company before taking strategic decisions.

## Early Attempts in Formal Scanning

In 1970-71, the Company recovered from the shock of recession and initiated two steps towards developing a data base for environmental scanning. The Central Industrial Engineering Department of the Company was entrusted with the task of collecting and analysing statistical information on the general environment. A Market Planning and Research Department was set up to develop marketing plans for the Company's products based on demand forecasts, and to conduct market surveys for new products. Three market planning and research officers from the business schools were recruited for this purpose. They did not have prior industrial experience. However, no addition to the staff of the Central Industrial Engineering Department was made. The Chief Industrial Engineer of the Company was to shoulder the additional burden.

#### Creating the Data Base

The Chief Industrial Engineer of the Company collected limited macro-economic data on gross national product, outlays on various sectors under the Five Year Plans of the country, output of major industries, and the revenue and expenditure of the Government of India from the publications of Central Statistical Organization of India, Planning Commission of India and Ministry of Finance.

The help of an external agency was sought to compile and interpret data on the performance of the corporate sector. The performance profiles of different companies were developed for making interfirm comparisons. The economic journals that published data on the performance of the Indian economy were identified and subscribed to. Subscriptions were sent to few international magazines also.

The initial efforts were directed towards identification and collection of data. No attempt was made to analyse the data so collected and report it formally to the top management. Some newspaper cuttings or abstracts of important articles were sent to the decision makers 'adhocly.' They served the purpose of keeping them informed.

The Market Planning Cell on the other hand, was creating a data base for gauging the environment affecting future of machine tools. It was recognised that the demand for machine tools was derived demand and the prospects of this industry depended essentially on the investment of the major machine tool user industries, namely, automobiles, two theelers, railways, defence, industrial machinery, machinery parts and other metal working industries. The data bank, set up under the supervision of Marketing Information Officer collected data on the performance and prospects of these industries. It made an attempt to collect comprehensive information on the letters of intent and licences issued to various companies, projects launched by the state and central governments and the progress of these projects.

The senior executives of the Company visited national and international exhibitions of machine tools, and kept the top management informed of the latest design and technological developments through tour reports.

To disseminate the information so collected, the data bank started publishing an in-house fortnightly called "Marketing belows." Very limited analysis of the information was attempted in it.

Thus the initial attempts at formal scanning were limited largely to identification of the information requirements and collecting the information. It was, however, not so comprehensive and systematic as advocated by academicians. To know the reasons for this we need to know how the planning system developed in the Company.

#### Efforts in Introducing Formal Planning System

Before 1974-75, the Company had a system of annual budgeting and production planning. While the former was a financial exercise, the latter an engineering one. Between 1970-71 and 1974-75, the Company had diversified into agricultural machinery, printing machinery, and lighting equipment. These diversification moves were contemplated on the basis of the feel of the market rather than a systematic exploration and evaluation of alternatives. The main objective of these moves was to utilise the excess capacity existing in various units of the Company. However, with every diversification move, the Company's management faced questions like which way the Company was moving, what new strengths were intended to be acquired, what was its contribution in exploiting the strengths of the Company and overcoming its weakness? The answers to these questions pointed to the need for introducing a formal corporate planning system that enabled the Company to define its business objectives, geals, and future direction of growth.

Accordingly, the system was introduced in 1975—76 by
recruiting a Corporate Planning Officer at the Corporate Office
and Unit Planning Officers at the manufacturing units. Two of the
senior officers of the Company were sent for a training programme

abroad and a training programme on Corporate Planning was organised to educate the senior executives of the Commany on the concept and techniques of Corporate Planning. The Chief of the Corporate Planning Department in the Corporate Office reported to the Director of Finance and Corporate Planning and the heads of the units planning cells at the manufacturing unit reported to the General Manager of the respective units.

Having set up the Planning Department, the Company embarked on an exercise in defining the mission, objectives and goals of the Company. The goals were fixed at ten per cent growth in sales and a return on investment of 16.5 per cent. These goals were based on the past performance of the Company and performance of other companies. A three year plan was prepared to achieve these goals. figures in the plan were financial projections based on past performance. Very limited environmental information was requisitioned by the Planning Department in preparing this plan. The new product ideas incorporated in the plan were based on armchair thinking. However, the plan document contained a chapter on macroeconomic forecasts. The demand projections of the Planning Commission contained in the Five Year Plan document, were considered for affirming whether the targets set by the Company were within reach or not. This exercise helped the Company to prepare the ground for more systematic exercises. It brought to surface the problems in generating the requisite internal data and implementing the formal planning system. Even by 1978, not all units had formed a complete unit planning cell. The corporate planners from the Corporate Office had to fly down to the manufacturing units and stay there for months to enable the units to formulate their plan. Appropriate formats had to be designed to link the performance reporting system with the performance bodgeting system prevalent in the Company. Based on the experience gained, the three year plan was extended to cover a period of five years.

## Strengthening the Formal Scanning and Reporting System

Having set the base for systematic planning by constituting Corporate Planning Department in the Corporate Office and Unit planning Cells at the manufacturing units, the Company turned its efforts towards strengthening the formal environmental scanning and reporting system. Setting the stage for a systematic scanning and planning exercise, the Chairman wrote, "We are living in an age of exponential growth. The types of fundamental changes which used to take place over centruries are now telescoped within decades. In this context, naturally a company like ours should do some systematic long range thinking to identify the new challenges and the tasks it would face in the next two or three decades."

"If there is anything which can be said about future with certainty, it is that it would be quite different from the present and that in particular the pattern of demand of tomorrow would be quite different from the pattern of demand of today."

With this in mind, two staff experts one in 1976 and the other in 1977 were **recruited** at the Corporate Office for monitoring, interpreting and reporting the development in the economic and technological environment. They reported to the Chief of the Corporate Planning Cell.

A team comprising executives from Corporate Planning, R & D, and Marketing Planning departments was formed to forecast the machine tool technology by 2000 A.D. This forecast was to be supported by an economic forecast by 2000 A.D. External assistance was taken to induct the appropriate methodology. As the study progressed, the Delphi exercise concentrated on the future of metal cutting technology. Based on the results of this study, a ten year Research and Development Plan was formulated.

In their attempt to develop a comprehensive formal scanning system, the staff experts identified the indicators of general economic, technological and product related environment that has to be monitored to spot the opportunities and threats and the source of information on these indicators.

Though the services of the external agency that supplied macroeconomic data on weekly, monthly and annual basis were retained, efforts were made to collect additional data by increasing the number of journals subscribed by the Planning Department. It was recognised by the staff experts that environmental scanning was a multi-level activity that pervaded throughout the Company, and that its effectiveness would increase if those who were better informed about and came frequently in contact with a given type of environment, say, marketing or technical, collected and reported the information to those who needed it. These departments were identified, efforts were also made to integrate the environmental scanning efforts being carried out by them. Norms for avoiding unnecessary duplication of efforts and sharing the information collected at various levels were evolved.

## Strengthening the Marketing Data Bank

The data bank of the Marketing Planning and Research Department was strengthened by the recruitment of a data analyst, whose main job was to analyse the data collected and report implications of the developments in the environment to the Marketing Planning team.

Note time, the scope of the data bank expanded from collecting and storing machine tool information to that related to other products as well.

#### Communicating the Environmental Developments

To communicate the developments in the environment to the management the Corporate Planning Cell brought out two in-house journals, namely, the Monthly Review of Indian Economy and Corporate Planner. The Monthly Review recorded events and policy developments in the Indian economy during the previous month. Its objective was to draw the attention of the planners to significant developments in the economy and their impact on the performance of the Company.

Corporate Planner, a quarterly, reported in detail the developments in the economic and technological environment, their implications for the future of the Company, new planning tools and techniques and the studies published by renowned futurologists in its sections on Economic Environment, New Products and Processes, Management World and Future. Its Feedback Section provided a forum for an exchange of views, information and opinions among the planners of the Company located in various units.

With the increase in the flow of information on technological trends and systematization of the process of collecting and analysing the same, and need was felt to report this exparately. So, in 1980, the Corporate Planging Cell brought out a bi-monthly called, Science and Technology Review.

Thus the process of collecting and communicating the information on environmental developments was systematised.

#### Special Studies

Besides the aforementioned mode of communicating the developments in the environment, the staff experts undertook special studies to analyse in depth the implications of selected environmental developments. For example, after the oil price hike in 1978, a study was carried out to review the developments in the energy scene

and identify the threats and opportunities. The study entitled, "Oil Sheikhs and the Price Shock," presented a historical perspective of the oil crisis, and the attempts to develop alternative sources of energy. It analysed the likely effects of these on the expansion plans of the Company's major customers and stated that there was not an immediate threat of an adverse business situation, but the years 1983—84 and 1984—85 were the critical years. It also made a point that it was imperative for the Company to be associated with alternative energy development programmes. The report was sent to all the senior executives and planners of the Company. Such event—based special studies came to centre around the launching of the Five Year Plans of the Central and State Governments and the announcements of the Central budget and key economic policies of the Government of India.

A separate cell was set up in the international subsidiary of the Company to monitor and report the development in the global environment. Similar reports were published by other departments that monitored the environmental developments. The title, content, objectives and target audience of these reports are given in Annexure I.

These reports are primarily descriptive in nature. Very limited use of statistical tools and techniques is made in analysing the data. Discussion is on to develop an econometric model to explain the casual linkages.

#### Developments in the Planning System

Changes in the planning system took place along with the increasing systematization of the environmental scanning and reporting system. Planning Cells in each of the manufacturing units were fully constituted in 1978. These cells were advised by the Corporate Office to initiate studies to evaluate their respective units environment,

strengths and weaknesses, and identify the gap that needed to be bridged. Interaction between the planners at the Corporate Office and units was facilitated through mutual consultation and joint studies. The Corporate Office published a Corporate Planning Guidelines series to explain to the unit planners the concepts, tools and techniques of Corporate Planning and the role of individual functions like Finance, Marketing and Production in Corporate Planning. Data formats were developed to facilitate consolidation and comparison across units. The formats required the units to mention the growth from old and new products separately.

#### Linking the Planning and Scanning Systems - The Corporate Plan 1981-82 to 1985-86

The first attempt towards linking the planning and scanning systems effectively was made when it was decided by the Corporate Planning Cell in 1980-81 to project the environmental developments in the next five years from 1981-82 to 1985-86. This study was sent to the unit planning cells for analysis and appreciation. To enable them to analyse the implications of the forecasts, productindustry matrices, giving information on which product of the unit was demanded by which industry and what was he importance of each industry to the unit in terms of order inflow were developed jointly by the corporate and unit planning cells. A chapter on the analysis of the environment was to be a part of the plan document to be prepared by the unit.

It attempted to project the trends in the environment by studying the past performance and programmes and projects that could be taken up during 1981-82 to 1985-86. Use was made of a macroeconometric model and data contained in the draft Five Year Plan 1978-83, published by the Planning Commission, Government of India. The scenario emerging from this exercise was divided into two parts. The first part presented the forecast of general macro-economic

factors such as the availability of key inputs, prices and costs, industrial relations, public sector performance and industrial trade. Two sections were devoted to socio-cultural, political, and technological environment focused on the growth of electronic technology, and the inroads it was expected to make in the business lines of the Company. The need for acquiring capabilities in applied electronics and systems was stressed.

The guidelines for formulating the Corporate Plan 1981-82 to 1985-86 and the study of the environment were discussed in a conference of the general managers of all the units and an approach to the plan was finalised. In the context of this approach, the units formulated their objectives, set up goals, forecasted their sales and costs to check whether the goals could be achieved, identified new products looking at the opportunities discussed in the study of the environment, if the present products could not achieve the goals. The assistance of the Marketing Planning Department was taken by them to conduct a survey and obtain more information on the likely acceptable price, likely demand, type of technology and the existing and potential manufacturers of these products in India and abroad. Only those products that enabled the Units to achieve their goals were included in the final plan of the unit. The unit plans were consolidated into a corporate plan after checking for the achievement of the corporate goals and introduction of new ousiness lines to bridge the gap. Thus, in this exercise the movironmental input was well integrated into the splanning process.

## Looking Beyond 1985 - A Brainstorming Session

While formulating the corporate plan for the period for 1981-82 to 1985-86, it was realised by the management that the products and projects included in the plan would keep the resources of the Company utilised optimally till 1985-86 and that thinking on products after 1985 should start in 1981 if the Company did not want to be caught in a vacuum. With this in mind, the Corporate Planning Department

organized a brainstorming session for generating new product ideas. The session was participated by the young executives of the Company who were expected to have a stake into future. A document on the future of the Indian economy by 2000 A.D. was prepared as a basis for analysing the future environment and generating new ideas. This was another way of integrating environmental scanning exercise into long range perspective planning.

#### A Concluding Comment

Above description of the development of scanning and planning systems in a large corporation brings out the fact that a closs  $\cdot$ link between scanning and planning systems evolves as the Company gains experience in both. The planning system progresses from an irregular mode to a continuous comprehensive mode. The demand for systematic and comprehensive information on the developments in the environment increases as the planning system progresses from one phase to the other. It took nearly a decade for the Company to spell out the objectives of scanning, allocate resources for the activity, identify the sources of data, collect, interpret and report the developments and finally integrate them into the planning exercise. It also shows that corporations take considerable time to sort out the problems relating to various aspects of environmental scanning, namely, identification of the factors and the sources of information to be scanned, collection and analysis of data and communication. The link between the two systems becomes tighter as the Company moves from one stage of planning to the other.

In the initial stages the Company tends to focus more on internal analysis and setting the planning system in order. An adhoc or less formal use of the environmental information is made. Information on environmental development is gathered more for keeping the management informed and for performance review, i.e., to answer "What went wrong" kind of questions. A detailed analysis of the environment for identifying threats and opportunities gains importance only when the planning system is fully established. Therefore

researchers studying the relevance, scope and future of environ—
mental scanning and the link between environmental scanning and
corporate planning should take a total view and study the state of
art of both scanning and planning before pronouncing their judge—
ment, and making recommendations.

#### <u>Footnotes</u>

- 1. Fahey and King (2, 1977)
- 2. Fahey, King and Narayan (3, 1981)
- 3. Charles Stubbert (1, 1982)
- 4. Thomas (5, 1980)
- 5. Fahey and King (opcit p.70)
- 6. Fahey and King, P.62
- 7. Fahey and King, p.71
- 8. Charles Stubbort, p.11

#### References

- Charles Stubbort, "Are Environmental Scanning Units E ffect Long Range Planning, Vol.15, No.3, June 1982, pp.139-45.
- Fahey Liam and King William R. "Environmental Scanning for Corporate Planning", <u>Business Horizons</u>, August 1977, pp.
- Fahey Liam and King William R, and Narayan Vadake, K.
  "Environmental Scanning and Forecasting in Strategic Planning: The State of the Art," Long Range Planning, Vol. 14, No. 1, February 1981, pp. 32-39.
- 4. Thomas Philip S, "Environmental Scanning for Corporate Planning," <u>Business Horizons</u>, 1974, pp.27—38.
- 5. Thomas Philip, S. "Environmental Scanning: The State of the Art," Long Range Planning, Vol. 13, No. 1, February 1980.

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INHO PUBLICATIONS REPORTING DEVELOPMENTS IN THE ENVIRONMENT	
THE ENVIRONMENT	

			ANNEXURE - I	To the manufacture of the control of		
	Reports	Circulated by	Contents	Periodicity	<b>O</b> bjective	Circulated Among
1.	Abstract of Important Articles Published in professional journals, in Economics, Management Science & Theology.	Corporate Planning Department, Centre for Manpower Develop- ment and Research	Important Conclusio- ne of the Articles	As and when deemed Appropriate.	To keep the top management informed of the various articles appearing in the professional journals.	Top Mana gement
_		•				
2•	Corporate Planner	Corporate Planning Department.	Topics relating to all the as- pects of the environment	Quarterly	To keep the Plann- ers abstract of the development in the environment and provide a forum for the exchange of views	Top Management and executives atta-ched to the vari-ous planning cells of the Company.
3.	Executive Brief	Technical Infor- mation Centre.	Nation <b>sl</b> Inter- national Deve- lopments in Machine Tool	Fortnightly	national and inter~	Senior Executives of the Company
ı	•		Industry.		national develop— ments in <b>Rechine</b> Tool Industry.	
•	Machine Tool Engineer.	Technical Infor— mation Centre.	Developments in the machine tool industry (This is a priced technical	Quarterly	To provide a forum for discussing the developments in the Machine Tool	Engineers and Engineering Students.
			journal the contri- butions of authors other than the company executives are also included).		Industry.	
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		·	included).			••••

## INHOUSE PUBLICATIONS REPORTING DEVELOPMENTS IN THE ENVIR MENT

## ANNEXURE - I

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	Reports	Circulated by	Contents	Periodicity	Objective	Circulated Among
5.	Marketing News	Marketing Planning Department	Issue of Licence, letters of intent, launching of major projects and key developments in the corporate sector.	Monthly	To keep the Marketing executives abreast of the developments in the economy.	Top Management and marketing executives
6.	Mot hly Review of Indian Economy•	Corporate Flanning Department.	Major developments in the Indian Economy During the previous month.	Mon† ly	To report the develop- ments in the Indian Economy during the previous month and analyse the implica- tions of the same for the performance of the company.	Top Management and Executives attached to the various planning cells of the company.
7.	Reports of visits to exhibition and participation in Conferences celagations and seminars.	The visiting teams or individuals.	Relevent Obser- Vations• ↑	As and when visited•	To share the Experieneces and developments with Company executives	;
8.	Science and Technology and Review.	Corporate Planning Department.	Major products and processes developed in the world.	Si-Monthly	To report the major products developed in the world and identify the opportunities open to DMC Limited.	Top Management and executives attached to the various planning cells of the company.

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## INHOUSE PUBLICATIONS REPORTING DEVELOPMENTS IN THE ENVIRONMENT

	Reports	Circulated by	Contents	Periodicity	Objective	Circulated Among
	9. Special Studies	Corporate Planning Department.	A detailed analysis of the impact of major developments in the environment on the performance and future of the company.	As and when deemed appropriate	To study the impact of major developments in the environment on the performance and future of the company and suggest alternative course of action.	Top Management and executives attached to the various planning cells of the company.
:	10. Weekly Informa- tion Bulletin.	Centre for Man- power Develop- ment and Research.	Topice relating to all the aspects of Management.	Weekly	To disseminate information on the developmen's in the field of managements in capsule form.	Senior and Middle Executives of the company.