CORPORATE PLANNING IN ACTION
APPLICATION TO FREIGHT RATE STRATEGY

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ABSTRACT: *Reinforcement of the overall development of corporate planning in Westrail was sought by the application of the process to one aspect of Westrail activities: Variation in gazetted rail and road charges. The various concepts of the corporate planning process, particularly the ability to direct organisational effort by the explicit formulation of objectives, were put into the reference frame of the practising manager. The overall development of corporate planning is discussed with reference to the specifics of the rating strategy, including analysis of past strategies, the current environment of the organisation, and the interactive process between manager and analyst. The success of the strategy per se, and the associated shifts in manager orientation suggest that specific applications of the corporate planning process provide successful means of redirecting organisational effort, means which are also self-supporting, financially.*

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INTRODUCTION

For many years Westrail[1] has been seeking to make its operations more efficient. Technological change, notably through dieselization of the locomotive fleet, has already produced increased efficiency. In recent years, it has been recognised that further gains in productivity can come from more efficient use of the existing technology and from the aptitude and skills of the human resources dedicated to Westrail's activities.

In order to give more cohesive direction to the efforts of those in Westrail, the decision was made some five years ago to introduce corporate planning in a more systematic way, with a greater degree of integration of the planning that had gone on previously. The characteristics of the corporate planning developed and practised within Westrail were discussed in a paper by Grimwood and Brindal (1975) delivered at the 1975 Australian Transport Research Forum. The essential feature was that Westrail had explicitly stated objectives and associated measures of performance which it sought to have recognised and accepted. Internal to Westrail it was necessary to have means to project how well, or otherwise, these objectives would be achieved under conditions imposed from the environment or through strategies pursued by the organisation. Corporate financial models were developed to meet the need. Two distinguishing characteristics of corporate planning in Westrail are that it is designed to be dynamic, and so flexible and responsive, and that there is a hierarchy of planning in which each management level has objectives and performance measures related to the corporate objectives. In many respects

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1. Westrail was adopted as the organisation's business name in 1975. Legally the organisation remains the Western Australian Government Railways.

the development of corporate planning in Westrail has proceeded along similar lines to the development in the U.K. and the U.S.[1]. Unfortunately there is a dearth of literature on the developments in Australia, although many organisations are now practising some form of corporate planning.

Two matters central to the work reported in this paper were raised by Grimwood and Brindal. The first is that the W.A. Government, and not Westrail, sets rates and charges for Westrail services, excluding those services for which a state agreement is drawn up. The second is that one of the significant difficulties in implementing corporate planning is the reorientation of an organisation of approximately ten thousand people. Because applications for rate increases are within the existing reference frame of Westrail management, it was decided that the application in February 1975 would be explicitly linked to the development of corporate planning. Not only were increases in gazetted rail and road charges to be sought, but they were to be sought in such a way that a better appreciation of corporate planning by Westrail management could be engendered, if possible with accompanying attitudinal changes.

The emphasis in the paper is on the way in which the particular rate increase application served as a vehicle for further development of corporate planning. To Westrail, the outcome of the rate increase application was important in itself, and was one reason for associating the development of corporate planning with it. Accordingly, while the emphasis

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1. A number of papers report on the development in both countries. Those by Grinyer and Norburn ('74), Grinyer and Batt ('74) and Carson ('72) give an overview of the U.K. situation. An interesting perspective on the U.S. situation is given by Scott ('65).

is on the development of corporate planning, those aspects of the rate increase application which have particular significance for Westrail are described in some detail.

The success of the application is now a matter of record. The effect of this, and the associated activities in promoting corporate planning, are analysed. It is concluded that specific application of the corporate planning process provided an effective means of redirecting organisational effort.

CORPORATE PLANNING AND THE APPLICATION FOR RATE INCREASES

It has been indicated that the usual mechanism for adjusting the prices of Westrail's gazetted intra-state passenger and freight services, on both road and rail, is by application to the Western Australian Government. Westrail management elected to make an application in February 1975 for increases in intra-state rail and road charges for goods only, not passenger services. The increase, if granted, was to be effective from July 1, 1975.

The two increases previous to this application had taken effect in October 1973 and July 1974, i.e. about the beginning of the immediately preceding financial years.

At the time of deciding to make the February 1975 application, Westrail had developed corporate planning to a stage where most of the conceptual difficulties had been addressed and overcome, at least in part, and implementation was in progress. For a number of managers the question 'Why do it' had been answered, but they were faced with another: 'How is it done?' Top management in Westrail decided that the application for an increase in intra-state rail and road charges would be approached from within the framework of cor-

porate planning, directly involving line management who would be supported by specialist planners. The manager's question was to be answered by his own involvement in a specific application, one limited in scope but recognised as being most important for the organisation as a whole.

The relationship of corporate planning to the application for a freight rate increase.

For the application for a freight rate increase to have merit as a representative corporate planning effort, several conditions needed to exist:

- A clear relationship between the corporate objectives and what was being sought in the application for a freight rate increase.
- Identification of the constraints imposed on the organisation, constraints which would limit the strategy options available to Westrail.
- Evaluation, both qualitative and quantitative, of the strategy options available to Westrail.
- The data, and techniques, necessary for the evaluation.
- The ability to review performance. In general this would be for control purposes; in this particular instance it was also to provide positive reinforcement of the corporate planning efforts.

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Westrail, as a provider of transport services, aims to operate as a viable commercial organisation. Its two complementary objectives are to obtain a break-even, or better, financial result on the non social services provided and to undertake the social services required of it at minimum cost, the hope being that eventually social services will be met by subsidy. The associated measure of performance is the published set of Westrail accounts.

With these, the first and last of the conditions above are met to the satisfaction of management. There is no difficulty in perceiving the relationship between a financially oriented objective and an application for freight rate increases. Furthermore, management is in the position to review performance not only from the end-of-year accounting statements but also from monthly and cumulative progress reports. Bringing about the remaining conditions, i.e. identifying possible strategy options and evaluating them appropriately, is the corporate planning effort involving both line management and staff analysts. The processes gone through are discussed in subsequent sections.

The need for an increase in freight rates

Quite independently of its role in developing corporate planning in the organisation, Westrail's top management had recognised the need to make the February 1975 application for freight rate increases. The prevailing level of inflation was such that, despite the recent increases in rates and improvements in productivity over a long period, the loss situation would become increasingly worse without a further increase. Westrail management judged that increasing losses would not meet interest group, including Government, acceptance - and acted accordingly.

A detailed perspective of freight rate increases, and the considerations leading to the strategy finally adopted, are developed in the following section.

FREIGHT RATE INCREASES IN PERSPECTIVE

Looking Back

It has been the practice of the Government of Western Australia to set gazetted rates, for the rail and road services provided by Westrail, at irregular intervals. In the twenty-four years to June 30, 1975, the gazetted rates had been increased just five times, increasing the rates by approximately a factor of 2 overall. In the same period Australia had experienced continuous inflation. For most of the twenty-four years the rate has been relatively constant. In the past three years the rate has increased markedly. The effect in Western Australia has been an increase to the Consumer Price Index to 300% of what it was in 1951. The rate of increase in the cost of providing rail and road services has been exacerbated in recent years by the prevailing levels of inflation, and there have been only partially compensating increases in charges raised from gazetted rates. (Fig. 1 displays the level of Westrail Gazetted Rates and the level of the March CPI over the twenty-four year period). The gap between the cost of services and the charges raised from them has been kept to a minimum by increasing productivity. One measure of this, a measure which understates[1] productivity, is the tonne kilo-

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1. The reason for the understatement is that Westrail provides passenger services as well as freight services. The cost of all services is included in the productivity measure. The total cost of passenger services is small though not insignificant, relative to total expenditure, which includes depreciation and interest charges. All costs have been indexed to take account of inflation. Depreciation and interest charges have been computed on an historical accounting basis.

metres of paying traffic hauled per dollar of total expenditure. In the same period i.e. 24 years to June 30, 1975, this measure has increased to approximately 300% of what it was in 1951. The measure, indexed to the 1951 base, is shown in Fig. 1.

In many ways Westrail's position has been similar to that of a number of organisations in the private sector in recent years. These organisations have needed to justify to the Prices Justification Tribunal a proposed increase in prices. For Westrail, the Western Australian Government has been the counterpart of the Prices Justification Tribunal. Like the PJT, Government has not laid down precise guidelines or criteria as 'pass or fail' tests, but has preferred to use its full discretionary power to choose and apply criteria most appropriate to the particular case. Comparatively speaking, the Western Australian Government, in its application of the principles of price restraint, appears to be far tougher than the PJT. It has approved only five price increases in twenty-four years, while the PJT has approved 88% of price notices unchanged[1]. Table 1 lists the date and size of price increases obtained by Westrail from 1951 to 1974.

Table 1 : Westrail Gazetted Rate Increases 1951-1974

Date of Increase	Size	Index
May 1951	Base	100
October 1953	30%	130
September 1960	8%	140.4
October 1965	5%	147.4
October 1973	15%	169.6
July 1974	17.5%	199.2

1. E.W. Easton (1975).

The rising trend of the productivity index shows that Westrail's primary output (measured in tonne kilometres) per dollar expended has been increasing consistently, and more rapidly in recent years. Factors contributing to this productivity can be associated with the shape of the curve. The factors include: the change over to diesel traction which commenced in 1955 and was completed in 1973; construction of the standard gauge line which was initiated in 1962 and took six years to complete; mechanisation of track maintenance equipment initiated in the mid sixties; faster freight handling through the Kewdale-Forrestfield complex opened in stages from 1968; and finally the increases in the volume and nature of bulk traffics (including the haulage of large volumes of Bauxite (commenced 1963), Iron Ore (commenced 1966), Alumina (commenced 1972), and grain). The increase in the productivity is not matched by a corresponding improvement in the financial situation of Westrail. Even if not explicitly stated, Government seems to have adopted a pricing policy designed to keep Westrail results within a relatively narrow, but unspecified, loss range. The benefits of productivity increases have been passed to rail users as a group. Comparative figures on productivity, physical and financial performances are shown in Table 2.

In Table 2, the years 73 and 74 are noteworthy, particularly when coupled with the increase in the 75 year. Rate increases were granted, the productivity index continued to rise, but losses were higher, numerically if not in constant price terms, than ever before. Productivity increases coupled with rate increases were not sufficient to "contain" the loss, despite productivity increases comparable with previous years, and significant rate increases (15% and 17.5%) in the years concerned.

Table 2 : Westrail Results 1951-1974

Year Ending June 30	Gross Productivity Index	Tonne Kilometre Millions	Loss ($) Millions
51*	100	752	5.4
52	104.3	768	5.7
53	88.2	670	9.0
54*	120.8	879	11.8
55	109.7	910	7.6
56	109	995	9.2
57	116.2	1092	10.6
58	105.9	936	10.8
59	115.7	1034	10.1
60	126.3	1153	8.8
61*	137.2	1222	6.5
62	150	1359	4.8
63	138.4	1246	6.9
64	143.4	1330	6.7
65	147.4	1377	6.8
66*	168.8	1669	4.0
67	191.3	2034	4.5
68	232.3	2570	4.8
69	219.7	2495	10.1
70	235.3	2860	9.6
71	273.4	3448	10.7
72	270	3398	12.1
73	287.4	3686	17.1
74*	300.1	4143	16.7
75*	-	-	- +

* Years in which Government adjusted gazetted rates.

\+ Results not known at time of February 75 application for increase.

For Westrail management the implication was clear. Continuation of the way in which gazetted rates had traditionally been adjusted by Government would lead to rail losses increasing, at rates approaching that of inflation. Associated with this would be uncontrolled changes in levels of cross subsidization and unperceived changes in income redistribution. A revised approach to rate adjustments was deemed necessary, not only if losses were to be contained but also if Westrail were to achieve its corporate objectives.

Looking Ahead

Having decided in November 1974 that the February 75 application should be made, and that the strategy for making it was to be sought through the corporate planning process, Westrail management looked ahead to what was required of the application for it to meet the informational requirements of Government and to have a reasonably high probability of acceptance. Westrail needed to identify rating adjustment options available to the organisation within the constraints imposed on it, to evaluate these both quantitatively and qualitatively, and to do this in such a way that Government would be likely to approve the application.

Westrail is faced with three kinds of constraint which limit the strategy options available. These are the various political, economic and social constraints imposed in some form on all organisations. In considering the specific constraints applicable to Westrail, which were discussed by Grimwood and Brindal, management recognised that a strategy likely to succeed would need to have at least the following attributes:

* Political acceptability

In general, increases in prices for services provided by Government are not especially palatable to the electorate. For Westrail services, the electorates which would feel most the impact of the proposed increases were country electorates. Westrail judged that this imposed an upper bound on an increase in any one year. The upper bound had not been specified by Government, but it was recognised by Westrail that it was likely to be time dependent, rate increases in some years being more acceptable than in others.

At the same time, large and again unspecified Westrail losses become unacceptable to the electorate overall, but especially so to city dwellers who collectively contribute to any loss significantly more than country residents because of the population distribution. However, because the impact of changes in losses are not as directly linked to the electorate as increases in rates to the users, increases in losses are not as strong an influence as the population ratio might lead one to expect. Westrail judged that loss projections imposed a lower bound on what was an acceptable increase in any one year. As with the upper bound, it was unspecified but time dependent. Together with the upper and lower bounds in any one year there was identified a third characteristic of acceptability, one associated with the time dependency of the bounds. The characteristic was that any initial constituent antagonism needed to be minimized, and the residual dissipated as much as possible over time. Electors normally go to the polls for the state houses once in three years. Westrail judged that accompanying the application with a rationale sensitive to the constituent viewpoint would

enhance the application's prospects.

* Economic and financial credibility

Economic advice on the transport sector, including Westrail, reaches the Government from many sources. The most apparent of these in the public sector, and logically so, are the Director-General of Transport and Treasury. Other government departments, for example the Department of Industrial Development, also play significant roles. In addition private sector representation is made through interest group representatives, elected representatives at shire and state levels, and individual approaches to Government. For the application to succeed, it needed to be credible to the advisors influential in the decision process so that neutrality, at least, was achieved from advisors outside the sector and, if possible, support achieved from advisors in the transport sector.

To the managers of the state's finances, led by the Premier in his capacity of State Treasurer, the state budget and the associated cash flows are of vital importance. The effect of Westrail's remaining with the status quo, and of any changes proposed, would need to have credibility for Treasury, if for no other reason than Westrail is the largest government trading organisation in W.A., with a corresponding effect on state cash flows. Westrail judged that sufficiently detailed evaluation, especially in financial terms, would meet this requirement.

* Attractiveness to the Government

The attributes already identified are, to a large extent, "satisfiers". Having them would not necessarily

promote a positive response, but their presence would help to inhibit a negative one. Additional elements were sought so that the application's recommendation would have an attraction to the Government. It was recognised initially that the appeal may lie only in the avoidance of large losses. Nevertheless, a strategy was to be sought which had more positive elements:

- Government's role as a prices justification tribunal would be more widely perceived.
- The price of Westrail services in real terms would be constant over time.

To meet these conditions, the approach adopted was to project for five years the Westrail profit and loss statement, in detail, for each rating strategy alternative judged to have, prima facie, a reasonable degree of acceptability. For credibility, the profit and loss statements needed to reflect Westrail results for the alternative futures possible over the five year period.

Three strategies were identified for detailed analysis:

1. Per annum increases, at a fixed level per annum (the effects of various levels to be identified in the analysis).
2. Increases in selected years only.
3. Indexation.

Strategies 1 and 2 were extensions of the adjustment mechanism of the past, the first one being one to control the loss level and the second being one which has appeal for political reasons. Strategy 3 is a radical change from past practice. It was not identified in the initial strategy selection but was stimulated by

the analysis of 1 and 2, the results of which were not beneficial to Westrail. Interestingly, the indexation strategy was identified prior to the national debate on wage indexation. Almost inevitably the two have become linked. How strongly they are coupled, and how much the fate of one is tied to the other, is a matter of conjecture.

To give credibility to the forecasts of Westrail activity over the five year period considered, two scenarios were identified, and future histories developed. From these, two activity levels were developed which were judged to encompass the actual level over the five year period:

- the base case, identified as the best estimate of the lower bound on the traffic task to be accomplished;
- a median case, which included traffic additional to that in the base case; for the additional traffic Westrail has a high degree of confidence that some, though not necessarily all, will eventuate.

A third level, an optimistic one, was mooted. However the nature of the median case and the prevailing economic climate led to the conclusion that the optimistic case would not be distinguished from the median case with any confidence.

For each strategy and activity level the profit and loss statements needed to reflect possible changes in gazetted rates and the costs of activity levels. It was decided that 6 levels of increase in gazetted rates and 3 levels of activity costs would be analysed.

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The approach to finding an appropriate rating strategy had been identified, but the data gathering, data processing and analytical requirements posed by it were immense. For 2 activity levels, a 5 year projection, 3 levels of rate adjustments and 6 levels of cost increases, 180 profit and loss statements were being called for, approximately twice the number that had been published in all of the organisation's history. A factor magnifying the task is that Westrail expenditure during a year is entered under approximately six thousand accounting classifications and sub-classifications. Considering that the profit and loss statements were to be produced in about 3 months, Westrail recognised that to give substance to its approach to the rating strategy identification departure from the established method of preparing profit and loss statements was necessary. The adopted methodology is discussed in the following section.

THE STRATEGY - IDENTIFICATION AND APPLICATION

Methodology

The way in which the required profit and loss statements were produced was to make use of one of Westrail's corporate models - the profit and loss simulator[1]. The model was developed in anticipation of such requirements as the one posed in this study. Its capabilities at the time of the study were such that, for given expenditure and revenue projections in current values over the five year period, the model could produce detailed profit and loss statements for

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1. Organisations in which corporate planning is practised have adopted simulation models more than any other. Representative coverage is given by Grinyer and Batt (1974), Gershefski (1969), Hamilton and Moses (1974), Krueger and Kohlmeier (1972), and Anderson (1973).

each year, in the values of that year. The data processing capabilities made the data gathering requirement more manageable. Provided the operating expenditure and revenue projections could be derived for each of the two activity levels identified, all the required profit and loss statements could be produced.

The effort required to produce these projections, though minimal was not small[1]. Westrail marketing and operating managers developed forecasts of the tonneages to be hauled, the associated tonne kilometres and the revenue derived from it at current freight rates and monetary values. Three data bases were used in the development: operational history; client information; and the experience of Westrail traffic operators with clients. Based on these projections line management developed operating expenditure projections, again in current values.

The revenue and expenditure data were the inputs to the model, from which a profit and loss statement for each year to 1980 was derived for each alternative, and each pair of values of the parameters cost increase and rate increase. Output from the model also included an analysis of expenditure detailing the major expenditure by cost centres; and an analysis of income detailing by major commodity groups, the sources of revenue.

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1. The capabilities of the profit and loss model are continually being expanded. Some work necessary for modelling expenditure, and so reducing the effort required in the derivation, is reported in the paper by Russell and Stevenson at this Forum.

Evaluation Results

The information contained in the profit and loss statements was collated in a number of ways, depending on the requirement of the analysis. An example of the results is shown in Fig. 3. It is emphasised that the information in that figure has been adjusted to safeguard the commercial position of Westrail. The vertical scale has also been normalised. However, the essential features of the results have been retained.

The fundamental result from the simulation studies was that, unless rates were adjusted regularly (annually or more often[1]) by amounts close to the prevailing level of inflation Westrail's net financial result would change markedly from year to year, reaching unacceptable levels in a few years. The degree of change and the time to reach unacceptable levels depended on such factors as the inflationary levels and what the Government considers to be unacceptable profit/loss levels. Some indication of the prospects confronting Westrail come from the following results. Assuming the prevailing level of inflation continued,

- no increase in gazetted rates for three years would increase losses by a factor of five (in the period of 1950 to the end of 1973, three years was the shortest time between increases).

- with rates adjusted annually, but at a rate 5%

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1. As part of the ongoing corporate planning process the strategy was evaluated in more detail in November 1975. The relative merits of yearly versus half yearly indexation was considered in the context of the uncertain future using risk analysis techniques.

less than that of inflation, losses would increase in five years by a factor greater than four.

- with rates adjusted annually, but at a rate 5% more than that of inflation, the profit in five years would be twice the current loss level.

Even without specific guidelines from the Government, it was clear to Westrail that neither of the first two rating strategies (section 3) would be acceptable. Fixed increases per annum would not cater for inflationary changes without meeting the upper and lower bounds established for political acceptability. Similarly, increases in selected years only would, in three or four years, meet the bound imposed by loss acceptability. Hobson's choice would then be available: accept a loss identified previously as unacceptable, or impose rate increases at a level previously judged to be unacceptable.

These results stimulated the identification of the third strategy, indexation of rates. To the analyst, the choice of the index is of little concern, provided that it keeps Westrail's net financial result within bounds. To Westrail management, however, the choice of index was an important one. One with obvious appeal to Westrail management is an index based on Westrail costs. It is especially attractive when demand is relatively inelastic to price changes, as it is under the current transport regulations in Western Australia, and when the industry is labour intensive, as Westrail is. However, it was recognised that such an index would not have the attribute of economic credibility which was sought in the strategy. Nor would it, in the long run, motivate Westrail

to fulfil its aim of being a viable commercial organisation. In a competitive environment it would have "priced Westrail out of the market".

An index was sought which reflected in some way price movements generally in the state economy, which was well publicised, and was neutral in how it would place Westrail relative to its competitors, actual or potential. In addition it needed to be applied in such a way that Westrail losses were contained, and that it was within Westrail control to approach a break even situation or better, through productivity increases especially.

The Perth C.P.I. was selected as the index to purpose, not because it had unique features but because it was judged by Westrail to best meet the political, economic and social requirements of the strategy. The rating strategy proposed to the Government was that:

> Westrail gazetted charges for intra-state rail and road goods services be adjusted on July 1 each year by the amount that the W.A. consumer price index had changed in the year ending March 31 immediately preceding the date of adjustment.

The effect on Westrail gazetted rates if the strategy had been adopted in 1950 is shown in Fig. 2. The projected financial effect on Westrail of the strategy in the years 1976 to 1980 can be seen in Fig. 3. The strategy is approximated by coupling a given cost increase percentage with a rate increase percentage that is 5% lower. From these results it can be seen that, while losses are contained in the five years, a downturn is still evident. The differential between Westrail cost increases and price increases in the

state overall is becoming evident. Westrail management, given its objectives, still has strong motivation to manage effectively and increase productivity - a point made strongly to the Government.

Response to the application

The case for indexation was put before Government. In putting the case, it was recognised that any strategy, including indexation, could not usurp the right of the Government to modify the strategy should it deem fit to do so at any time. The application was judged by Westrail to be a success when approval was given subject only to verification by Treasury of the appropriate C.P.I. level and submission of each proposed increase for formal approval.

Within a view days Government announced that the increase was to be 17.5%.

The effects to date

Over a year has passed since the February 75 application was made, and information is available on Westrail performance in the meantime. The results in Table 2 for 1970 and later are repeated in Table 3, where the more recent information is also given.

THE INFLUENCE ON WESTRAIL OF THE CORPORATE PLANNING EFFORT

The influence on Westrail of the corporate planning effort is difficult to assess. At best, it is subjectively judged, by the authors and others. However, there are some factors which are clear cut; it is only the value placed on them that is subjective.

Table 3 : Westrail results 1970 - present

Year Ending June 30	Gross Productivity Index	Tonne Kilometre Millions	Loss ($) Millions
70	235.3	2860	9.6
71	273.4	3448	10.7
72	270	3398	12.1
73	287.4	3686	17.1
74	300.1	4143	16.7
75	321.6	4269	11.6
76	*	*	9.4 +

* Results not yet available.

\+ Budget estimate only.

Note: Results from 75 and 76 are not directly comparable with earlier years, though they are with each other, because 75 and 76 are years in which financial responsibility, and the costs of Westrail suburban passenger services, have been transferred to the Perth Metropolitan Transport Trust. (The figure of the productivity index computed on the same basis as earlier years for 75 is 294.6).

Perhaps the most outstanding of these was that for the first time managers across Westrail were individually and collectively looking at the whole of their responsibility areas for more than one year ahead, for a purpose visibly linked to the organisation's objectives and for which the outcome was known in a short time. In the past, one year projections of all of a responsibility area were commonplace - budget preparation, for example. Likewise, cash flow projections for individual activities were commonplace - rail construction projects,

for instance. But in corporate planning and specifically the freight rate study, managers were looking five years ahead, planning all their activities and projecting expenditure for them.

It was indicated in section 2 that some managers had answered the question "Why do Corporate Planning?" to their satisfaction, but were faced with the question of "How is it done?" Their involvement in the freight rate strategy evaluation provided the answer, at least in part. They found it necessary to: formulate their objectives in relation to the corporate objective; formulate alternative views of the future; assess the impact of each alternative on their own operations; and generate projections of their expenditure. Managers at senior levels were also involved in the process of evaluating the results of the simulation model, of defining the strategy to recommend to Government, and of formulating the proposal to Government. In executing these tasks managers became increasingly aware of the needs of other managers who were affecting or being affected by their own operations, and of the interrelationships of the various operating functions with each other. Formulation of the freight rate strategy had the effect of bringing home to managers how much the performance of the organisation as a whole was dependent not simply on the operations of individual sections but also on the way in which these were integrated with each other. Subsequent to the freight rate strategy formulation and due in part to it, Westrail's senior managers have initiated the process of revising the performance measures they use for evaluating their own operations, and importantly, for reporting progress to top management. The process is not complete, by any means.

In implementing these activities managers have at times encountered problems that require, in part, input from

specialists for their solutions. The number of interactions between managers, analysts and specialist planners is increasing. Interaction and the results from them are far from ideal. As Forrester (1961) contends, the manager's task is far more difficult and challenging than the normal task of the specialist:[1]

The Manager:

- must take many more significant factors into account;
- considers more complex interrelationships between factors;
- deals with significant non-linear relationships that control the course of events; and
- deals with change and uncertainty.

On the other hand the specialist seeks to:

- abstract the problem from the real world;
- derive linear and/or deterministic relationships where possible;
- reduce the number of factors to be considered;
- find a solution to the abstracted problem.

These differences were apparent in the development of the freight rate strategy. Each group was in a good position to gain insight into the viewpoint of the other. Increasingly, managers are identifying planning options, and seeking analytical support in evaluating them. Likewise, analysts are becoming increasingly aware that they do not generate "the" solution, but have techniques, and the skill to apply them,

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1. These aspects are discussed in greater depth by Higgins (1972), Gentle (1973) and Forrester (1961).

which can help the managers determine an appropriate course of action.

A further factor which can inhibit the process of corporate planning is the diverse backgrounds of managerial and specialist groups. Within Westrail, management has been practised on the basis of a sound experiential grounding, with each generation learning the art of management from the previous generation. The specialists within Westrail come from diverse backgrounds, with varying levels of "on the job" experience. Some have degrees in the numerate disciplines; others have Westrail backgrounds with qualifications in transportation, engineering or accounting. With such diversity there is a need to develop effective communications between the two groups.(1)

The freight rate strategy exercise proved to be a catalyst for improving this interactive process. Neither group was dominant. The successful albeit inperfect meshing of the two groups on this occasion provides an indication that such productive interaction might be continued within Westrail.

CONCLUSION

In deciding to make the February 75 application for increases in gazetted charges for intra-state rail and road goods services, Westrail had two goals:

- to obtain the increase, thereby moving towards fulfilling the corporate objectives; and

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1. Wagle (1971) refers to this communication difficulty. He notes that a Managing Director was attributed with defining operations research as "an expensive way to invite insults from inexperienced people half your age."

. to do this through the corporate planning process, thereby enhancing Westrail's ability to direct organisational effort.

Both goals were achieved. The granting of the increase, the actual result for 1975 and the estimated result for 1976 indicate the degree of achievement of the first goal. The degree of achievement is underlined by the fact that the upturn in Westrail financial performance comes in a period when other Government railways in Australia are subject to severe downturns in financial results.

While it is concluded that the second goals was achieved also, there remains the problem of identifying how well it was achieved. There is no doubt that the techniques of corporate planning were used to identify the appropriate strategy: objective formulation, identification of alternative futures, resource implications and their evaluation, performance measures and feedback from them for control purposes were all in evidence. In addition, there are definite indications of attitudinal changes on the part of managers and analysts alike. In the particular exercise, Westrail's top management ensured that organisational effort was directed efficiently by requiring integration of expenditure projections for complementary functions, and by having available means to analyse the large volume of information produced. In the course of the strategy formulation, role ambiguity between individuals in Westrail was lessened in the interactive processes, and has reinforced Westrail's decision to adopt corporate planning as a means of more cohesively, and more efficiently, directing organisational effort.

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