

PITFALLS IN RAIL'S STRATEGIC MANAGEMENT

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ABSTRACT: *A notable effort by government-owned railways in Australia in recent years has resulted in the development and implementation in operations of a wide range of initiatives aimed at enhancing market and financial performance. Yet persistence of high deficits in the industry suggests the continued existence of some major problems.*

Partial progress in identifying these problems has already been made. It may be argued, however, a prerequisite to their effective solution is the elimination of existing deficiencies of the strategic management process. The paper discusses a model of strategic management appropriate for this purpose and it reviews its application in practice.

PITFALLS IN RAIL'S STRATEGIC MANAGEMENT

AN OVERVIEW

Few times in the past have government railways in Australia experienced more change than since the mid-70's.

New ideas and methods have pervaded all facets of railway activities and are exemplified by actions to achieve administrative re-organisation, rationalisation of unprofitable services, enhancement of customer service and corporate image, technological innovation in operations and maintenance and adoption of modern management techniques.

As is to be expected, given the economic and political differences between individual railway systems, the impetuses for such change have been diverse. Foremost among them though appear to have been a growing support of the view that railways should operate as efficient commercial entities and the consequent wish of rail management to arrest financial and marketing deterioration.

Persistence of high deficits by railways, however, inevitably suggests some major problems still have a hold on the industry and their solution is a prerequisite to attaining the above aims in the future. In a recent review, the Australian Railway Research and Development Organisation identified a range of problems in rail concerned with staffing, organisation, pricing and investment and it recommended corrective action (ARRDO 1981). However, it may be suggested these problems are not independent, but to a large extent a reflection of a more fundamental shortcoming in the industry, namely, the existence of deficiencies in the design and functioning of the strategic management process. The main implication of this argument is that the efficiency of the recommended structural and policy changes will depend largely on action to enhance the effectiveness of strategic management in rail.

A MODEL OF STRATEGIC MANAGEMENT IN RAIL

Since the early 1950's the literature has recognised that organisations operating in a market environment are confronted with a "strategic problem", namely, the potential for a mismatch between the range and cost of products provided by the organisation and the demands of the market place. It has also been noted that the relationship between the organisation and its environment is dynamic and holistic, so that a change in external economic circumstances will have an impact not only on the products demanded by customers but also on internal structural conditions and managerial action (Ansoff et al 1976). Thus, strategic planning was developed as a means of assisting the organisation to carry out a systematic analysis of external opportunities and threats and internal strengths and weaknesses for the purpose of formulating the range of strategies necessary to attain desired objectives.

In more recent years, however, there has been a recognition that strategic planning provides only a partial solution to the strategic problem of the firm and a more multi-dimensional approach is required. The result has been a shift from strategic planning to strategic management which Kotler et al 1980 describes as "the managerial process of developing and maintaining a viable relationship between the organisation and its environment through the development of corporate purpose, objectives and goals, growth strategies and business portfolio plans for company-wide operations". (p.48). More simply, according to Tabatoni and Jarniou (in Ansoff et al, 1976, p.33) it is the development by the organisation of "a critical appraisal of its own management conception and practice" The concept is shown diagrammatically in Figure 1.



Figure 1 - Strategic Management Process in Business
(adapted from Kotler et al 1980)

The above model of strategic management relates to the majority of large organisations in a competitive environment. But the view of government-owned railways as commercial entities also renders the approach applicable to individual rail systems. In this regard, the model may be used as a yardstick for identifying deficiencies of current practice.

One such major deficiency results from the usual tendency to identify the specification of a railway's functions in the governing Act with its definition of business purpose. This aspect of legislation is useful in delineating a rail system's powers and duties. However, for strategic management purposes it is inadequate for two main reasons: first, it fails to provide satisfactory answers to the basic questions of "what business are we in?" and "what business should we be in?" Notably, railways in Australia have been inclined so far to define their business in rather narrow terms (rail or ground transport) with the possible consequence of foregoing new profitable market opportunities (eg. in leisure industry); and secondly, such definition is a poor focus of corporate efforts and aspirations. It provides little guidance to railway management in deciding on, say, the markets and customers to be served, the technology to be adopted in operations or what ought to be a desirable level of performance.

An example of business purpose with some potential application to railways is provided below by the statement of corporate purpose of the Lockheed Aircraft Corporation (Steiner 1969, p.146). Clearly, the task of preparing such specification must be seen as one of senior management's prime responsibilities.

PITFALLS IN RAIL'S STRATEGIC MANAGEMENT

"The basic purposes of Lockheed are:

- 1.. To be the major company satisfying in the highest technical sense the national security needs of the United States and its allies in space, air, land, and sea..
- 2.. To employ technical resources in meeting the non-defense needs of governments and the requirements of commercial markets..
- 3.. To achieve continuous growth of profits at a rate needed to attract and retain stockholder investment..
- 4.. To recognize and appropriately discharge our responsibilities for the welfare of our employees, the communities in which we do business, and society as a whole..
- 5.. To maintain a large proportion of sales in advanced technical products bearing the Lockheed name..
- 6.. To maintain continuity of the enterprise by holding relatively low rates of change of ownership, management, and employees.."

Turning to the second stage of the strategic management process, the establishment of performance objectives and goals, its existence is encountered amongst almost all railways in Australia, albeit at varying levels of development..

Generally, aims are set for elements of performance like deficit and expenditure reduction, productivity improvement and business increase, just to mention a few. It must be evident though that in the absence of a well defined business purpose, such objectives and goals are of necessity determined in a vacuum and they lack a focal point. Another related criticism, discussed later in more detail, may also be mentioned here. Customarily, objectives and goals set have the tendency to look at a railway system as a homogeneous entity. However, both intuition and evidence suggest a railway comprises several activity centres or strategic business units (SBUs), each capable of making a sufficiently independent contribution to overall performance. It follows, therefore, that a more fruitful approach to goal setting in rail will involve the establishment of objectives and goals relating not only to the corporate level but also that of individual SBUs..

It is evident this observation also has implications for strategy formulation. Over the years, railways in Australia have developed and implemented, either intuitively or in the context of formal corporate planning, varying strategies for meeting environment demands and established objectives. For the most part, they have concerned growth, resource utilisation and finance..

A look at subsequent performance, however, suggests these strategies have been largely unsuccessful in dealing with the industry's "strategic problem" and attaining original expectations. The reasons are likely to be diverse, but the main ones are deemed to be two-fold: first, in the market and product areas there has been over-reliance on higher penetration strategies, despite the potentially large proportion of railway products and markets being in late stages of their life-cycle. Consequently, new marketing initiatives have failed to generate commensurate improvements. One may reasonably speculate a more balanced mix of penetration, new product and market development and diversification strategies could have led to significantly better performance. The second and related reason is that railway strategies by and large take the form of blanket-type courses of action for adoption by the whole organisation. However, as the foregoing have suggested, a railway comprises a number of SBUs which are likely to exhibit different conditions (eg. environment, future prospects, resource requirements, risk). Clearly, under such circumstances, varying strategies are more appropriate for individual SBUs and pursuit of a uniform course of action will lead to sub-optimal results by the railway as a whole. It should be noted in this regard Kotler et al 1980 (p.284) distinguish between four basic forms of SBU strategy, also potentially applicable to railways:

- Building strategies, appropriate for SBUs with market growth potential and heavy investment requirements
- Holding strategies, aimed at providing only the resources necessary to enable an SBU to maintain its cash generating capacity
- Harvesting strategies, seeking to skim the resources available in an ailing SBU for re-allocation to a stronger SBU, and
- Withdrawal strategies, having the purpose of progressively transferring all resources from one SBU to another.

The notion of railways as a system of SBUs finds its highest application though in the final stage of the strategic management process postulated here, the development of a business portfolio.

In the literature, the key characteristics of an SBU are identified as follows (Hofer and Schendel 1978, p.60, Kotler et al, ibid, p.56)

- operation as a single business or collection of related businesses incorporating a small number of similar product/market segments
- existence of own competitors
- assignment by management of a distinct mission to perform
- operation under the direction of an accountable manager
- ability to plan independently of other SBUs
- some technological interdependence.

PITFALLS IN RAIL'S STRATEGIC MANAGEMENT

Adoption of these criteria in practice can help identify individual SBUs in a railway. But in addition, the resulting classification defines the railway's business portfolio.

Planning of this business portfolio may take a form analogous to investment management. It implies railways should encourage the expansion and growth of business activities with favourable profitability prospects while they restrict and/or phase out those less promising and unprofitable. As mentioned previously, rail systems have taken several steps in recent years to reduce loss-making activities. However, such efforts have been devoid of an optimising behaviour and, with a few exceptions, outside a co-ordinated framework of action.

Two analytical tools most frequently used in portfolio planning are the Growth/Market Share (or BCG) Matrix and the Market Attractiveness/Business Position Matrix (Lineman and Thomas 1982, Abell and Hammond 1979). Both techniques can provide managers with assistance in deciding on the roles to be assigned to and corresponding strategies for SBUs in the portfolio. As shown later, however, each method involves varying assumptions and data requirements and, consequently, it may be of different potential application to rail.

In concluding the discussion of the strategic management process, the foregoing comments and details may be shown diagrammatically in a revision of Figure 1. The outcome is shown in Figure 2.

AN EMPIRICAL APPLICATION

Thus far, consideration of strategic management in railways has been in theoretical terms. However, the usefulness of the proposed model and its contribution to enhancing rail performance in the future will depend on the extent to which it is capable of implementation in practice. Some insight into this aspect may be gained from experience in the Australian National Railways Commission (AN).

AN emerged officially in March 1978 following a government decision to amalgamate the Commonwealth Railways with the non-urban railways in South Australia and the Tasmanian Railways. This action culminated in a network of about 7 640 route-km which in 1981/82 involved some 5 700m net tonne km of freight, about 610 000 journeys of passengers and approximately 11 000 staff. The freight task comprised some 25 major commodities of which 7 accounted for about 80% of total business.

As with other government-owned railways in Australia, AN's activities are governed by legislation (the Australian National Railways Act). The latter is currently under review and a relevant amendment Bill has been drafted.

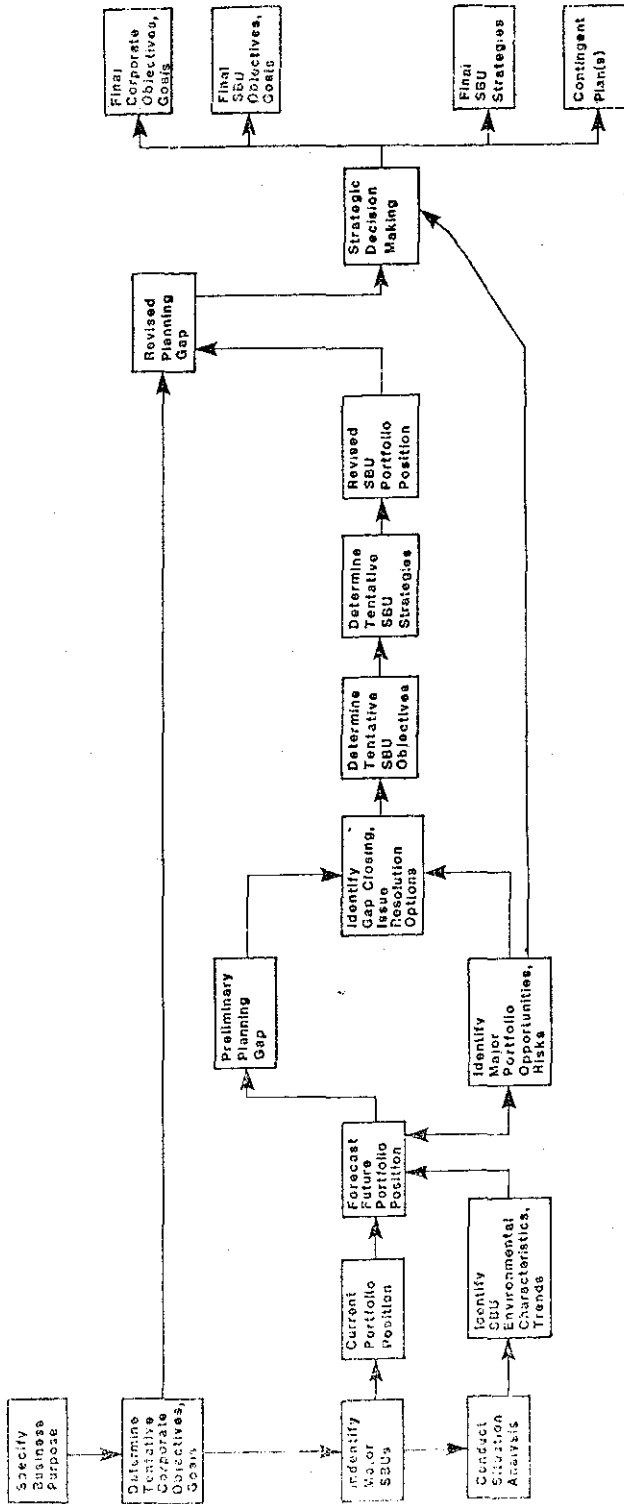


Figure 2 - A Model of Strategic Management Process in Rail
(adapted from Hofer and Schendel 1978)

PITFALLS IN RAIL'S STRATEGIC MANAGEMENT

In its present form, the legislation specifies AN's major powers and duties as follows:

"The Commission may provide to Australia and authorities of Australia for reward, land transport and engineering services and such other services as can conveniently be provided by the use of the resources of the Commission (S.31A).

Without limiting the powers of the Commission to transport passengers and goods on the railways, the Commission may (as incidental or supplementary to, or in association with, the transport of passengers or goods on the railways) transport passengers and goods for reward by land, otherwise than on the railways, between -

- (a) a place in a Territory and another place in that Territory;
- (b) a place in a State and a place in another State;
- (c) a place in a Territory and a place outside that Territory;
- (d) to the extent necessary to carry out an arrangement under section 31C, places in the one State; or
- (e) to the extent provided by sub-section (2), places in the one State.

The powers of the Commission by virtue of paragraph (1)(e) may be exercised only for the purposes of the efficient, competitive and profitable exercise of the other powers of the Commission under this Act or any other Act or otherwise as incidental to the exercise of those powers. (S.31B (1)(2)).

The Commission shall pay to Australia, out of the profits of the Commission such amounts as the Minister determines (S.56)."

In conjunction with the above functions, the Federal Government requested the Commission in July 1978 to break-even on commercial operations within 10 years, i.e. in 1987/88. To attain this objective, AN has instituted formal procedures for the preparation of an annual 10-year Corporate Plan.

Since the early establishment of AN the need for a corporate ethos, which reflected features of the merged railways and yet was unique to the new organisation, was recognised. Efforts were thus made to develop an appropriate corporate philosophy, the statement of which appears below. This outcome is equivalent to the specification of business purpose discussed in the previous section.

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"To provide freight and passenger customers with a swift, punctual and reliable service.

To provide the country with the benefits of the most fuel efficient method of transporting goods.

To be organised and have the resources so as to meet the needs of Australia's rail dependent economy.

To gain the reputation for being a good place to work where opportunity for advancement is a part of the organisation's policy.

To be innovative and responsive to the needs of freight and passenger customers.

To be competitive in all aspects of the organisation's operations.

To be an integral part of Australia's defence strategy.

To strive continuously to be one of the world's most modern and efficient railway systems."

Two notable characteristics of this statement are the identification of market(s) in which AN operates and the setting of standards of desirable performance towards major stakeholders (e.g. public, customers, staff). It may be argued the concentration on passengers and freight restricts AN's business domain and hence the prospects of future growth. However, segments of those markets still provide avenues for new product and market development and, therefore, opportunities for new business.

In terms of the foregoing model, the above corporate philosophy is also the source of AN's hierarchy of corporate objectives and goals. Corporate goals have been established in connection with financial and marketing performance, labour and capital productivity, training, industrial relations and employee and corporate development. They derive in turn from the following corporate objectives:

"To provide efficient, competitive and profitable land transport of passengers and goods and such other services as can conveniently be provided for reward by the use of the resources of the Commission.

To achieve financial breakeven and subsequently to make an annual profit sufficient to pay to the Government an amount equal to a stipulated percentage of its capital.

To improve the level of job satisfaction, personal development and welfare of all employees."

However, the relative absence of business segmentation within rail systems noted earlier may also be observed here. Although action in AN has resulted in the establishment of certain separate businesses (e.g. L.C.L., Passengers), goal setting and strategy formulation are carried out predominantly at a corporate level.

PITFALLS IN RAIL'S STRATEGIC MANAGEMENT

It is possible though to combine the comments of the previous section with present arrangements in AN to construct a practicable business portfolio. It will comprise the following 5 SBUs:

- F.C.L. (Full Container Load) freight (A)
- L.C.L. (Less than Container Load) freight (B)
- Intra-state passengers (C)
- Inter-state passengers (D)
- Consulting services (E)

The relative position of these SBUs in the business portfolio is illustrated in Figure 3 with the aid of the BCG Matrix. Variations in the size of individual SBUs correspond to differences in their share of total revenue. It must be emphasized, however, all measurements are approximate due to the paucity of existing data. For the same reason, the matrix reflects largely current circumstances despite the fact that future conditions are more appropriate for strategic decision making.

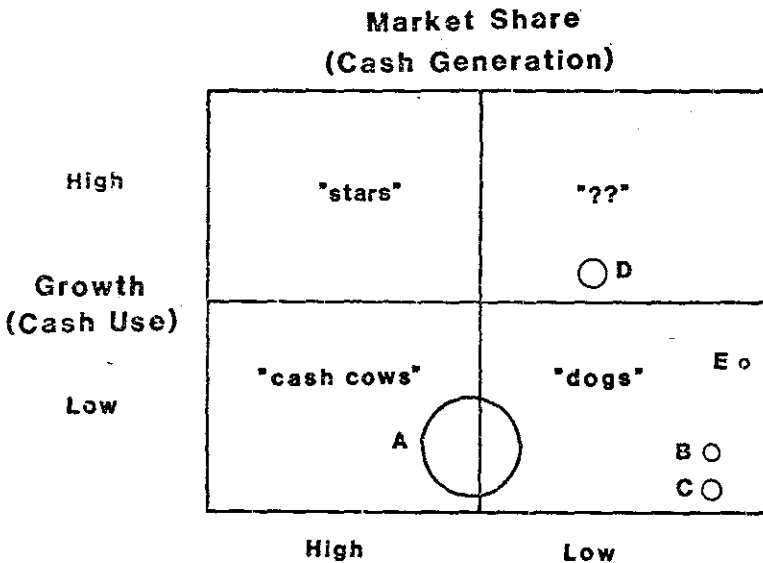


Figure 3 - AN's "Likely" Present Business Portfolio

Bearing in mind the above qualifications of the analysis, some notable implications become evident. To a lesser or greater extent they are believed to apply to all railway systems.

A major feature is the absence of high business growth/high market share SBUs from the portfolio ("stars"). This largely explains the modest business increases (exclusive of seasonal fluctuations) attained in recent years. To overcome this weakness, increased emphasis is required on new product and market development strategies indicated by environmental conditions. In addition, there is need for re-allocation of strategic resources (i.e. building strategies).

This observation also has some significance for rail's main cash and business generating SBU ("cash cow"): F.C.L. freight. Traditionally, this SBU has attracted the majority of new marketing and investment initiatives. However, such action has two inherent dangers: first, the frequent concentration of freight on few commodities, some of which are subject to seasonal fluctuations, renders financial and marketing performance very volatile; and secondly, advancement in the product life-cycle will cause this SBU to shift slowly towards either the upper or lower right quadrants ("?" or "dogs") associated with poor results. This implies that strategies for this SBU should aim to only maintain cash generating ability (i.e. holding strategies). As a consequence, some resources should also be released for re-allocation to "star" SBUs.

A more complex aspect of the portfolio concerns inter-state passengers. This SBU is generally a heavy cash user due to efforts to improve passenger patronage through new services or service features. At the same time, it involves low market share and cash generation because of strong competitor activity and often inappropriate market positioning. It is evident, therefore, a decision is required on the future role of this SBU ("?"). One option should involve appropriate marketing and investment strategies to help develop it into a "star". The alternative should be to divest this SBU of the corporate portfolio (e.g. through offering as a "community service obligation") and divert released resources to other uses (i.e. harvesting/withdrawal strategies).

Similarly, a divestment decision appears appropriate for LCL freight and intra-state passengers. Both these SBUs concern high-cost, uncompetitive activities which generate neither enough business nor enough cash to justify their operation on economic criteria ("dogs"). As previously mentioned therefore, they should be divested of the commercial business portfolio and have their resources transferred.

IMPLEMENTATION DIFFICULTIES

The previous discussion has highlighted some important deficiencies in the strategic management practices of government railways in Australia. Acceptance of the proposed model, however, can be expected to help remove such inadequacies and thus provide support to the view of railways as efficient commercial entities.

It should be recognised though the implementation of the model in practice may be hindered by certain difficulties. Some of these are conceptual shortcomings of the analytical techniques involved. Others relate to peculiarities of the rail industry itself.

The frequent criticisms in the literature of the business portfolio techniques may be summarised as follows (Hofer and Schendel 1978, pp 31-32, Linneman and Thomas 1982, pp 91-92):

PITFALLS IN RAIL'S STRATEGIC MANAGEMENT

- The four-cell BCG Matrix is too simplistic, since in the real world there are not only highs and lows but middle positions as well. This weakness is overcome by the Market Attractiveness/Business Position Matrix which also includes middle positions. But this technique does not depict as effectively as it might the evolution stage of new businesses.
- Growth rate and market share in the BCG Matrix are inadequate descriptors of industry attractiveness and overall competitive position respectively. The Market Attractiveness/Business Position Matrix takes into account a larger number of factors, but they are subjectively determined.
- The BCG Matrix assumptions of cash flow varying with market share and growth rate may not hold true in practice, or the relationship may be a weak one.

The above criticisms raise some questions about the theoretical justification and analytical power of these techniques. Nonetheless, the application of the tools in portfolio planning and strategic management remains widespread. The main explanation is that the strategy prescriptions which follow the analysis are normally tempered with the managers' own judgement on practical problems.

Perhaps a greater limitation to the use of the proposed model is imposed by characteristics of the rail industry. One possible obstacle arises from the existing scarcity in railways of properly designed management information systems capable of generating data for timely assessments of environmental conditions and formulation of relevant strategies. Coupled with this is some shortage of managerial expertise in strategic analysis and decision making. Both difficulties, however, are expected to abate in the longer term as a result of measures currently adopted or proposed. A more intractable problem is posed by the lack of consensus over the basic role to be played by government-owned railways. Implicit in the suggested model is the view of railways performing predominantly an economic role, evidenced by the implementation of market-oriented strategies to achieve primarily economic ends. More frequently in practice though railways are bound to socio-political functions which give rise to economic and administrative controls by government. Clearly, the latter role is fundamentally at odds with the approach to strategic management advocated here. As in overseas countries, however, there are signs in Australia that government-owned railway operations in the future will be increasingly more deregulated.

CONCLUSIONS

Financial performance of government railways in Australia in recent years has deteriorated, despite the widespread adoption of measures to reverse this result.

Although several factors may be put forward as having contributed to this outcome, it is believed an important cause has been deficiencies of the strategic management process. In broad terms, such shortcomings have taken the form of an inadequately defined business purpose, consequent weaknesses in the specification of corporate objectives and goals and the failure to develop and implement a diversified strategy mix.

The model of strategic management discussed in the paper avoids the above deficiencies and is capable of application to individual rail systems. Its adoption in practice will be assisted by present improvements in management information and expertise and a more widespread acceptance of rail's economic role.

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