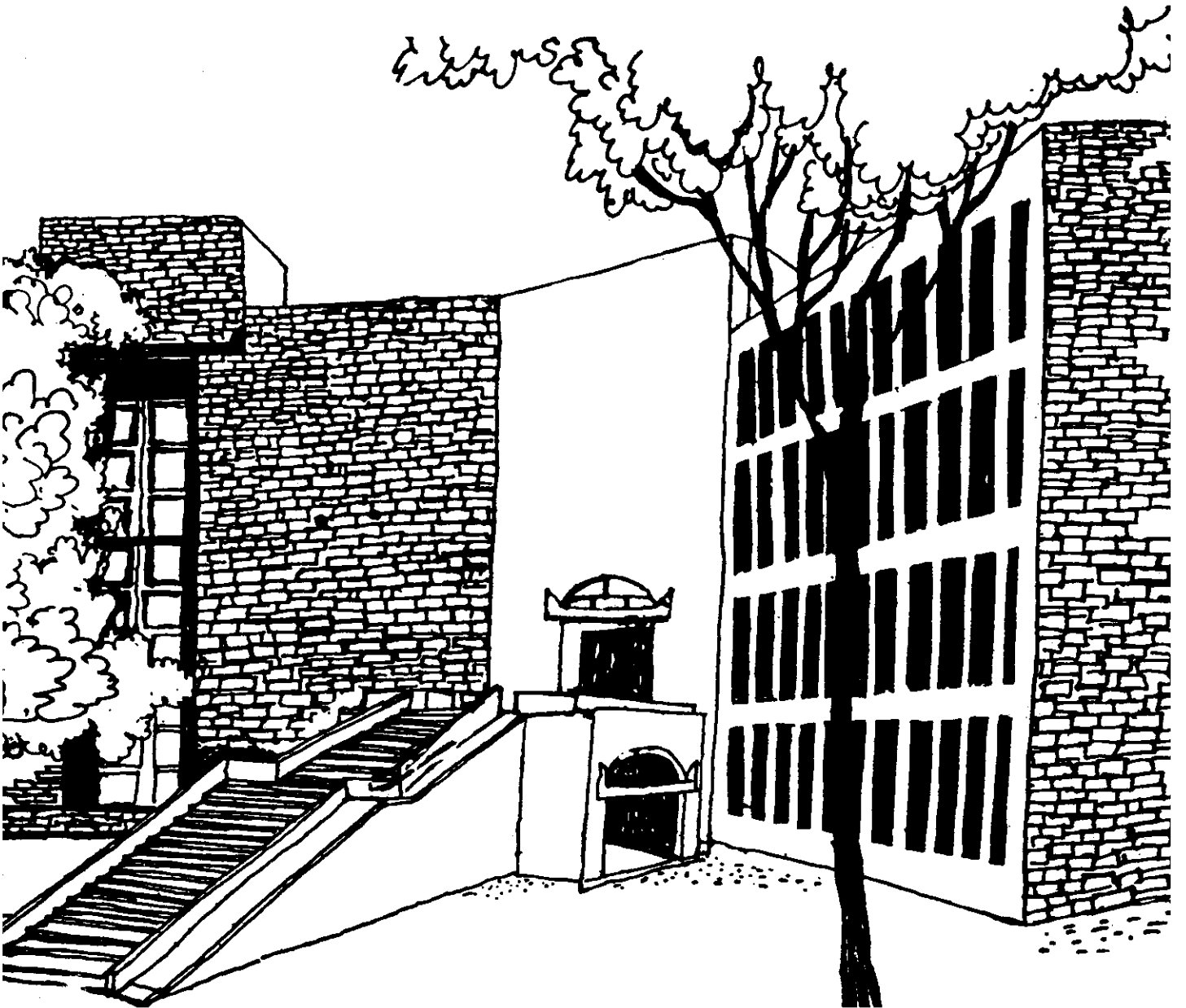




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Working Paper



RESHAPING STATE GOVERNMENT'S ROLE
IN INDUSTRIAL DEVELOPMENT

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Reshaping State Government's Role in Industrial Development

October 1991

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The state governments will have an important role to play in the new industrial policy framework. But they would have to rethink their role reflecting the changed scenario. Rather than distort market prices through subsidies and tax concessions, they would have to assist the firms in their states to secure competitive advantages over time.

This paper argues that such competitive advantages can accrue through actions to increase productivity overall for the whole range of industries and through careful targeting of strategically selected industries. Fundamental issues such as labour relations, careful appraisal of projects, functioning infrastructure and continually improving quality of labour force require attention. Innovations need to be encouraged through coordinated efforts among industries and between educational institutions and the industry.

Politically more visible actions of securing megaprojects and promoting non-resident Indian (NRI) investments might have had their attractions in the past. In the changed context, state governments will have to pay far greater attention to the fundamental issues for promoting industries. Sustained industrial development calls for a long-term view; it may take more than a decade for a state to build competitive advantages.

Introduction

Sweeping changes have taken place in the industrial policy in 1991. Elaborate regulatory system developed to implement the objectives of the earlier industrial policy framework are being gradually dismantled. Several measures have been taken in recent months to promote global competitiveness of Indian industry. Industrial licensing, for the most part, has been withdrawn and many sectors of industry have been opened for private investment. Asset limit for investment by groups falling under the Monopoly and Restrictive Trade Practices (MRTP) Act has been done away with, leaving only market concentration aspect for the attention of regulators. Location restrictions have been largely done away with. Foreign trade regime has been liberalized with the introduction of EXIM scrips; procedures for foreign collaborations and technology acquisition have been simplified. Policy changes have also been announced for small and tiny sectors of industry, increasing qualifying levels of investment and widening the definition of what constitutes an industry.

In the earlier policy framework, different states competed with each other to attract investment to their states. They provided capital subsidies for new investments in the backward areas and sales tax exemption or deferment in their efforts to deconcentrate industries and develop backward regions. The drive for promoting industrialization led to setting up of several corporations, for providing credit, raw materials, land and other facilities. The states also took vigorous measures for augmenting power generation. They competed in getting licences for projects in their states. Many states also facilitated compliance of regulations through single-window clearances and the establishment of a single interface to service the clients who had to run from the proverbial pillar to post to secure the host of clearances required before commencing production. More recently they have been competing with each other in sending high-level teams overseas to attract NRI investments.

The above mentioned measures had some, albeit limited, success. Some backward areas developed and many industrial estates were set up. However, since states offered nearly the same set of incentives, each round of additional concession announced by the state was matched by others quickly, in the process distorting market forces, foregoing sizeable resources and incurring liabilities on their exchequer. With minor variations, promotional organizations were also similar. Where then, did they differ? The states only differed in terms of their quality of implementation rather than specialized instruments for industrial development based upon their unique situation. Although not always within their control, they also offered different environmental conditions such as labour peace, and law and order situation.

Responding to New Environment

Recent changes in the policy framework require that states would have to alter their responses

to promote industrial development. They may find that old methods of working no longer suffice. Ability of some of the states to weave their way through the maze of regulations will no longer provide the competitive edge. Persuasive presentation abilities at meetings of licensing committees will no longer be at a premium in the new era. The Political clouts of states to steer industry to their states will not yield desired results. Thus these instruments which have served so well in the past will soon be obsolete.

Rather than seeking investments through corridors of politics, they would have to submit to the harsh realities of the market place. States' role would have to be more market-conforming. Thus subsidies which distort factor prices would have to be eliminated. Instead industries would have to be enabled to operate efficiently by ensuring adequate and timely credit, infrastructure and skilled labour. Preempting licences through industrial development corporations and aggressive espousal of cases in licensing committees would no longer be as crucial. Letters of intent would required to be monitored not to secure industrial licenses but to shorten the time to reach stage of commercial production.

The states would have to look closely at their competitive advantages and think of ways to sharpen this competitive edge. The states' advantages are derived through the advantage that industries in their states enjoy (Porter 1990). The competitive advantage for an industry is derived from producing more efficiently and producing higher value added products, both contributing to productivity growth. Productivity growth, we know, stems from several sources. Generally competition spurs productivity growth. Quality of labour force and infrastructure (communication, transportation, power) contribute to productivity growth. Collaborative relationship between the employees and employers become important, not only for minimizing losses due to industrial unrest but also to jointly seek continual improvements in the operations (known as "KAIZEN" in Japanese).

It may be useful for each state to target strategic industries for special attention. Requirements of industries differ. For instance, special facilities for disposal of effluent and earmarking special areas for location of such plants usually promotes chemical and related industries. A large petrochemical plant generates many downstream activities. Electronics, the other growing segment of industry, requires availability of skilled manpower and research establishments. Therefore, specific efforts may be required to secure competitive advantage in a strategic industry. Formerly states with natural advantages were able to easily attract industries to their states. Access to raw materials was often a crucial factor in the location of industries. But these natural advantages can wither away. For instance, steel rerolling with using scarp iron and electricity can compete with traditional steel industry located near the sources of coal and iron ore.

Securing Overall Productive Advantage

If industry is to thrive in a state, it should generate enough value added to ensure a fair remuneration to its employees and a return to capital employed. When we subtract

emoluments of employees from net value added, the remainder can be utilized to provide a return for productive capital employed. Therefore, first step for a state would be to assess how its industry compares with other states on these measures. In table 1 we compare productivity ratios for different states based upon 1986-87 Annual Survey of Industries data¹.

Several observations can be made. First of all, Maharashtra has the advantage both in terms of net value added per employee and surpluses to service the productive capital. The other states are substantially behind. Thus industry in Maharashtra, on an average, is not only able to pay higher emoluments to its employees, but it also has more residual amount to service productive capital. Although industry in Gujarat, the nearest competitor, pays only about 60% emoluments per employee, it invests about the same capital per employee. Suggesting that it needs to increase productivity of its labour force. High net value additions per employee have been experienced both by Bihar and Rajasthan but the productive capital per employee is also correspondingly high.

Interestingly the states with low per capita state domestic product also have high capital intensity. Of the 10 major states, Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh have the highest capital invested per employee. This is partly a reflection of industrial structure in these states. If capital is scarce, then these states should examine their industry-mix and take suitable action to correct it. If there are other reasons such as low capacity utilization, low labour productivity or inefficient technologies, action would be required to correct them.

Industries, overall, vary considerably in generating surpluses to service capital. Rubber, food products, non-electrical and electrical machinery are high on the list. (Table 2). In Contrast, electricity and basic metals generate the lowest surpluses. As electricity forms a substantial share of each state's industrial output, the states seeking to improve their overall competitive advantage may begin by reforming this industry to become more productive.

Both by the nature of industrial structure and its acknowledged weak management practices, the public sector generates the least surpluses. While emolument per employee in public sector is about 40% higher than that of private sector, the productive capital per employee is nearly three and a half times that of private sector (Table 3). It generated only Rs. 0.07 to serve a rupee of productive capital compared to Rs. 0.27 in private sector. So state governments seeking competitive advantage need to assist public sector in their states to improve the return on the capital (except in special cases) through reforming their managerial practices as well as encouraging labour participation in improving operations.

Is it possible to change the productive advantages over time? Table 4 compares the net surpluses available to service the productive capital (net value added minus emoluments as a proportion of productive capital) for 1982-83 and 1986-87. Several states enhanced their productive advantage including Maharashtra, Gujarat, Karnataka, Rajasthan and Uttar Pradesh.

¹ The latest year for which the results have been published.

Table 1. Productivity Ratios for States 1986-87

State	Productive capital per employee Rs. ,000	NVA per employee Rs. ,000	Emoluments per employee Rs. ,000	NVA/Productive capital	(NVA-EMO)/Productive capital
Maharashtra	121	51	23	0.42	0.22
Tamil Nadu	95	31	15	0.33	0.18
Gujarat	112	38	15	0.34	0.20
Uttar Pradesh	142	34	14	0.24	0.14
W. Bengal	69	26	19	0.38	0.10
Bihar	209	40	20	0.19	0.09
Andhra Pradesh	84	20	11	0.24	0.12
Karnataka	92	33	17	0.36	0.18
Madhya Pradesh	213	31	17	0.15	0.07
Rajasthan	171	40	17	0.24	0.14
India	120	34	17	0.29	0.15

Notes: In tables 1 to 5, definitions of the terms used are from the Annual Survey of Industries:

1. Productive capital (PRC) is the total of fixed and working capital.
2. Net value added (NVA) is the increment to the value of goods and services that is contributed by the factory and is obtained by deducting value of total inputs and depreciation from value of output.
3. Total emoluments (EMO) include wages and imputed value of benefits.

Table 2. Productivity Ratios for Different Industries 1986-87

Industry	Productive Capital per empl. Rs. ,000	NVA per Employee Rs. ,000	Emoluments per employee Rs. ,000	NVA/Productive capital	(NVA-EMO)/Productive capital
Electricity	367	51	22	0.14	0.08
Chemicals	210	59	24	0.28	0.17
Basic Metals	188	36	21	0.19	0.08
Food Products	48	21	9	0.44	0.26
Rubber	245	98	20	0.40	0.32
Transport	84	39	23	0.47	0.19
Non Elect.	83	43	21	0.52	0.27
Cotton Text.	32	18	14	0.58	0.14
Elec. Mach.	100	49	23	0.49	0.26
Non Met.Min	101	24	11	0.24	0.13
Woolen Text.	78	33	15	0.42	0.23
Paper	97	29	17	0.30	0.13

Table 3. Productivity Ratios by Ownership 1986-87

Ownership	Productive Capital per empl. Rs. ,000	NVA per Employee Rs. ,000	Emoluments per employee Rs. ,000	NVA/Productive capital	(NVA-EMO)/Productive capital
Public Sector	228	39	18	0.17	0.07
Joint Sector	174	49	21	0.28	0.16
Private	63	31	14	0.48	0.27

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Table 4: A Comparison of Productivity Ratios

State	EMO/NVA		(NVA-EMO)/PRC	
	1982-83	1986-87	1982-83	1986-87
Maharashtra	0.49	0.46	0.19	0.22
Tamil Nadu	0.43	0.47	0.24	0.18
Gujarat	0.45	0.39	0.15	0.20
U.P.	0.45	0.42	0.12	0.14
West Bengal	0.66	0.73	0.12	0.10
Bihar	0.39	0.50	0.13	0.09
A.P.	0.40	0.52	0.19	0.12
Karnataka	0.50	0.50	0.16	0.18
M.P.	0.35	0.54	0.13	0.07
Rajasthan	0.56	0.41	0.15	0.14
All India	0.47	0.50	0.15	0.15

Tamil Nadu seems to have lost its edge over this period and several other states such as Bihar and Madhya Pradesh seem to face a deterioration in their ability to generate adequate surpluses. The proportion of the share of net value added going for emoluments of employees and the surplus available to serve the productive capital has changed in many states. Only in Karnataka both show favourable trend during the period under consideration. It seems possible to improve the productive edge but persistent efforts are required over a long term perspective.

Although productivity is the first test of management's competence (Drucker 1983), it is also an end result of several factors beyond individual manager's competence: industry-mix, technology, infrastructure such as availability of power, communication facilities and quality and motivation of employees. Therefore, state governments would have to work with the industry associations and employees' unions to pay attention to these issues.

Targeting Strategic Industries

Often factors favourable for a firm to compete in the market place apply to the industry in the state as a whole. Therefore, a state may wish to seek such advantage for selected industries where it feels it has a demonstrated competitive advantage or is confident of creating such advantage.

Creating Competitive Advantage

Targeting specific industries based upon their comparative advantage, a practice quite often used, may not be appropriate. Comparative advantage need not necessarily result into competitive advantage. For instance, India by virtue of availability of iron ore and other raw materials, should have comparative advantage over Japan in steel industry. But it does not have a corresponding competitive advantage.

Comparative advantage, as traditionally understood, is derived from natural endowment of factors. However, competitive advantage can stem from several sources: investments in labour, productive capacity or infrastructure, technological innovations, availability of related industries, or market size through backward or forward integration, availability of entrepreneurial talents and discerning or demanding customers.

Porter (1990) suggests several sources of competitive advantage. In the first instance, competitive advantages usually flows from natural factors (table 5). However, for higher value additions, investments may be necessary. Firms would make such investments if they are highly motivated and there is rivalry among them. Sustained competitive advantages however accrue through a continual stream of innovations. Firms then think globally rather than serving only local or regional markets. They have demanding customers who insist on higher quality or sophisticated product attributes. The related and supporting industries are well developed and factor advantages get continually upgraded.

Table 5 : Evolution of Competitive Advantage

Sr. No.	Stages	Factor Conditions	Firm Strategy, Structure Rivalry	Related & Supporting Industries	Demand Conditions
1.	Factor Driven	Basic Factors Essential to competitive advantage			
2.	Investment Driven	More Advanced Factors	Motivation of Firms High, Domestic Rivalry		
3.	Innovation Driven	Specialized Factors, Upgrade competitive Advantage	Global Strategies	Well Developed	Support From Sophisticated demand

Therefore, while selecting strategic industries for targeting, several conditions, in additions to natural factor endowments, have to be kept in view. These would include states objectives, (relative emphasis on direct and indirect) employment generation, preferred locations for industries, environmental conditions and those where either it has and will continue to enjoy competitive advantage or it can create overall competitive advantage.

Examining Industrial Portfolio

The state's competitive advantages flow from the competitive advantages that its industries enjoy. These can be examined using techniques similar to what a multi-product company may use to examine its product portfolio. To derive insights in Maharashtra's industrial portfolio, we use portfolio² matrix which is often employed to examine a product in the overall portfolio of a large multiple-industry firm: its relative market share compared to the largest competitor generally signifying past competitive advantage and growth rate of the market generally signifying opportunities available in the market. Various product groups are classified as high and low on these two dimensions yielding a four-way classification (Hosmer 1982).

Market Growth Rate	Market Share Low	Market Share High
High	IV. If possible to create competitive advantage then high market growth can accelerate growth. Termed as 'Problem' industries?	I. Offer the best opportunities for industrial growth. Termed as 'Star' industries
Low	III. Lack of competitive advantage, growth largely due to reduction in competitor's share. Termed as 'Dog' industries	II. Enjoys competitive advantage but industry growth not rapid enough to absorb profits generated; these available for investment elsewhere. Termed as 'cash cow' industries

Maharashtra is a leading industrial state in India. With less than 10% of the population, it's

² Referred to as BCG matrix in the literature named after the Boston Consulting Group which used it to help companies examine their product portfolios. We have adapted it for examining a state's industry portfolio. The state's market share for an industry and its growth rate are measured by its share of production and growth rate respectively in that industry in India.

share in India's income from the secondary sector was 20.1% in 1980-81. But since then the industrial growth decelerated as other states began competing. Figure 1 shows its 1982-83 industry portfolio before industrial growth decelerated.

The state's competitive strength can be seen from its industrial portfolio in 1982-83. More than a quarter (27.3%) of its industrial production was accounted by industries in the 'star' category which include chemical and chemical products (18.3%), and electrical machinery including electronics (5.1%). More than a third of the share (36.3%) was accounted by industry in the 'cow' category. This shows that there was considerable competitive advantage that Maharashtra enjoyed in a whole range of industries - transport equipment, rubber and plastics etc. non-electrical machinery, wool-silk and synthetic fibres etc. Therefore, considerable amount of cash would also have been available for investment.

This posed three challenges. First, whether enough attractive opportunities would be available so that capital flight to other states does not occur. Second, whether growth rate of these industries could be expanded by reducing taxes or costs or seeking export markets. It should be noted that industries in this category differ considerably. Generally transport equipment is a consumer durable industry, rubber and plastics depend considerably upon raw material sources and non-electrical machinery depends upon industrial growth. Third, high profits in these industries should not be seen as a signal to labour to seek unfair remuneration levels by resorting to industrial unrest which may result in loss of competitive advantage. The strength of Maharashtra in the overall India's industry is also seen by the fact that only 2.1% of its portfolio was in industries classified as 'problem' category.

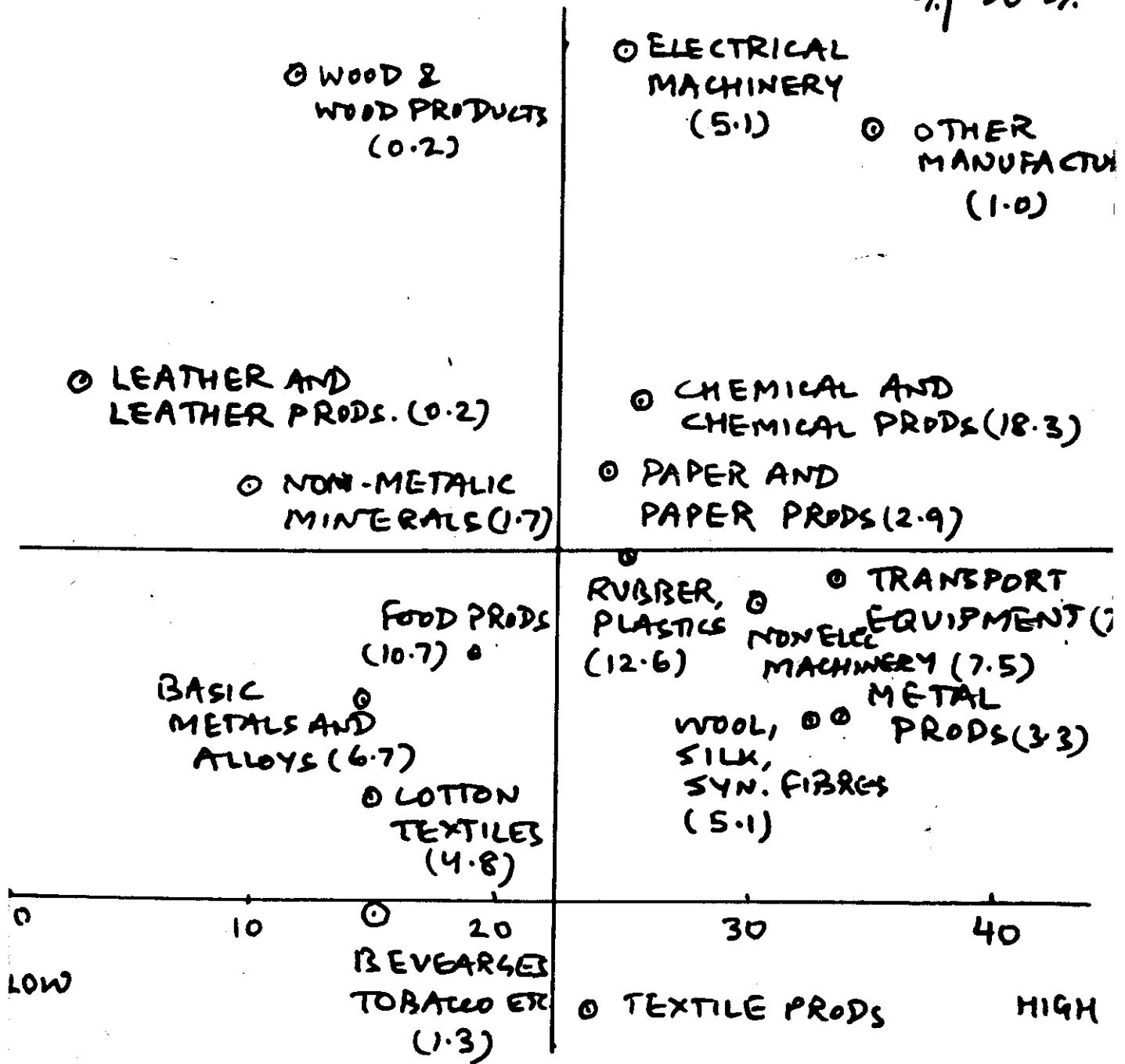
By 1985-86 (the latest year for which data is available), the situation changed. Figure 2 shows the new portfolio. Only 1% of its portfolio is now in 'star' category and the state seemed to have lost its competitive advantage in high growth industries of chemicals and electrical machinery including electronics. Instead of seeking higher share in growing industries, the state has used its overall industrial competitive advantage for a low growth industry - food products. It has to decide which strategic industries would it target to reverse the trend in decelerating growth.

Gujarat's industrial growth rate during the period 1976-77 to 1984-85 was nearly twice that of Maharashtra. Fig.3 shows Gujarat's industry portfolio. Chemicals and chemical products accounted for 17.6% of the total industrial output. Indeed Gujarat's portfolio is not as diversified as that of Maharashtra, Chemicals, rubber, plastics, etc. and cotton textiles accounted for 55% of its industrial output. While it has grown rapidly, it is also more vulnerable to competition from other states.

Obviously much more analysis would be necessary before a state can select its strategic industries. But one implication for states' industrial policy is clear. The strategic industries for each state may differ and therefore, its industrial growth strategy could differ. Use of general instruments such as incentives for backward area industries, development of growth centres, attracting NRI investments and seeking megaprojects have been a part of the strategy of all

INDUSTRY PORTFOLIO
MAHARASHTRA: 1982-83

2.1%	27.3%
23.6%	36.3%

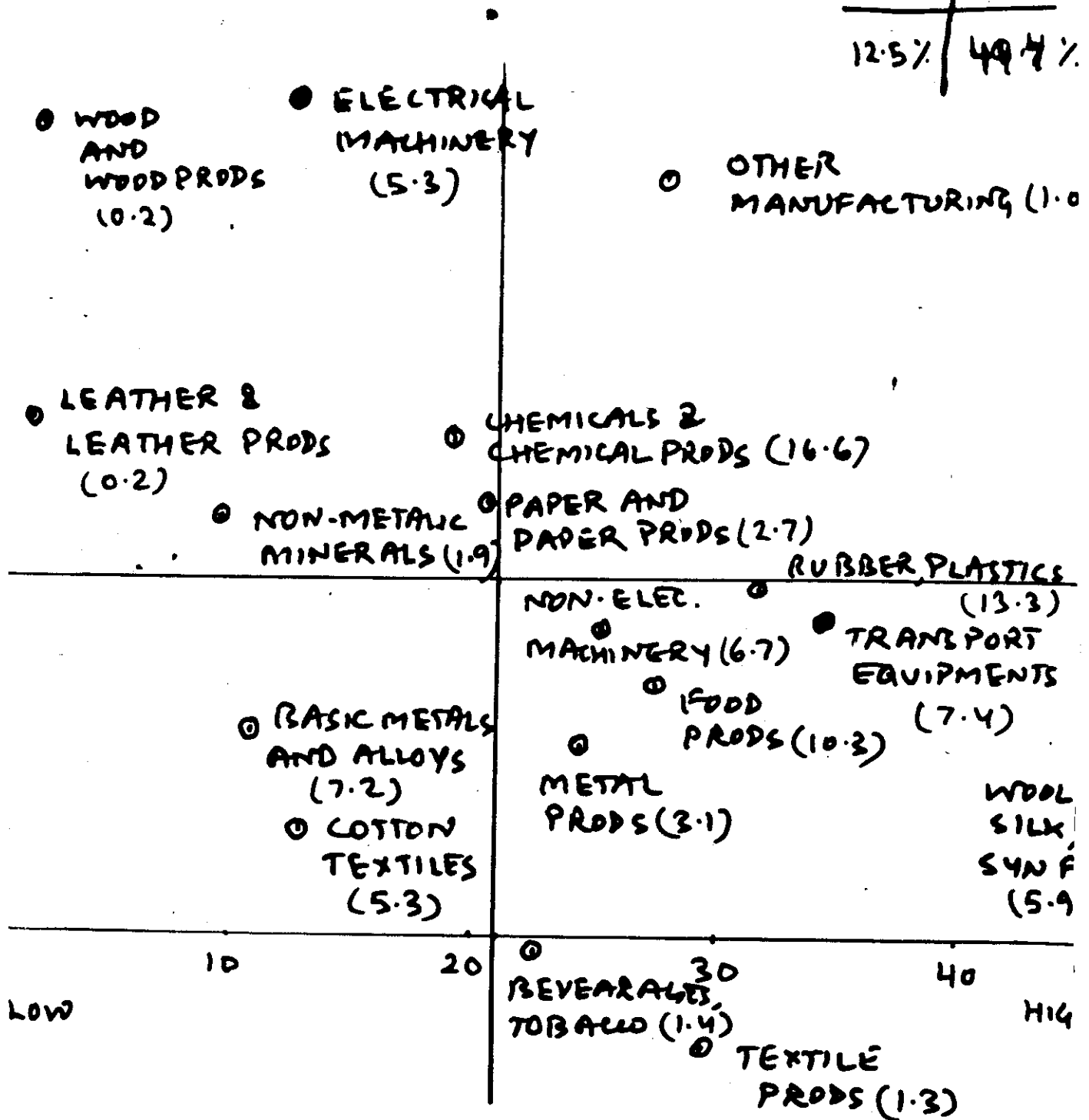


MARKET SHARE OF MAHARASHTRA
 (%) →

Fig 2

INDUSTRY PORTFOLIO
MAHARASHTRA: 1985-86

26.8%	1%
12.5%	49.4%

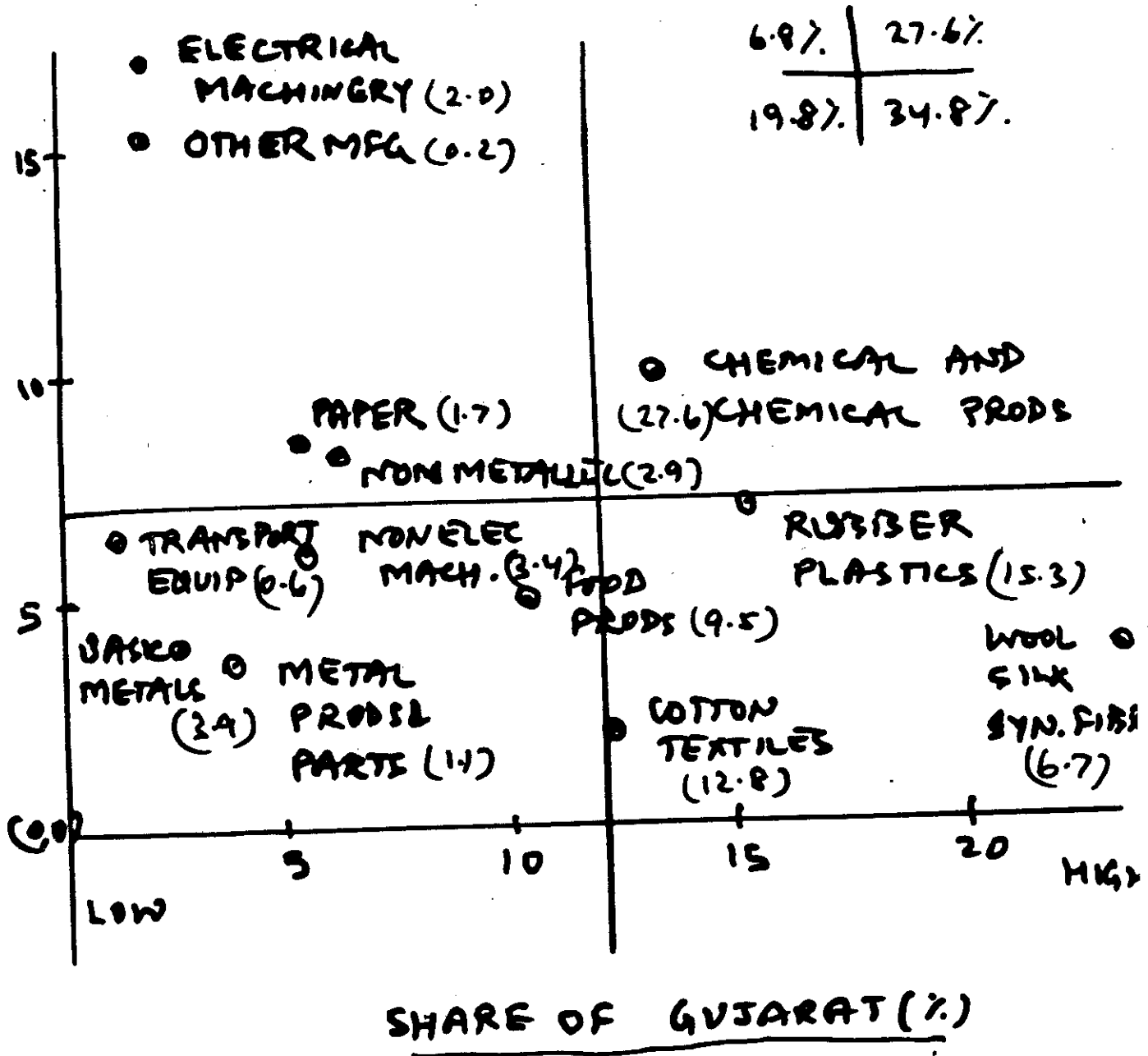


MARET SHARE OF MAHARASHTRA

(%)

Fig 3.

INDUSTRY PORTFOLIO
GUJARAT 1984-85



the states but their use for competitive advantage is limited; the state need to think beyond them.

Targeting strategic industries would succeed only if appropriate industries have been selected for growth and policy instruments are available to provide thrust to strategic industries. Both of these may not happen. For instance, it is reported that Japan's strategic thrust in software industry did not succeed. (Porter 1990). So also Gujarat's efforts in electronics only brought modest success. Therefore, considerable care needs to be exercised in selecting industries for targeting and continuous monitoring of actions to promote competitive advantages in these industries would be required.

Lessons from Japan and Korea

Much has been written about success of Japan, and more recently, of Republic of Korea (or for brevity Korea). It would be instructive to discuss the roles governments in these countries have played. Indeed, one can rhetorically ask, will India now begin to achieve what Japan achieved in the fifties. Or more specifically, is a Japan in the making in the western corridor of Maharashtra and Gujarat, the two leading states together having about a third of India's industrial output.

Japan's success defies any single explanation. Obviously many factors have acted synergistically. Clearly Japan was well developed before the second world war and therefore, had necessary human resources for industrial development. But this does not detract from the 'miracle' which Japan performed. There are basic values of consensus and group solidarity which Japan is credited with but others have argued that these emerged from specific situations. By far, the most discussed causes belong to unique structural features - life time employment system, seniority wage system and enterprises unionism. However, these interconnected systems are a product of post war situation. For instance Japanese employment system in 1890 was quite similar to market oriented system of Britain. The free-ride explanation of Japan's growth asserts that Japan is the beneficiary of its post war alliance with USA resulting in very low defence expenditure, ready access to its major export markets and relatively cheap transfers of technology. Although true, Japanese growth did not depend nearly so much on export as it did on the development of domestic markets. Japan's export was about 11.3% of its GNP and its import at 10.2% during the period 1953-72. Technology transfers were not exactly free although they were crucial for national development.

The state played an important role in technology transfer and directing flow of investments. Without entering into controversies on different explanations for Japanese growth, let us examine the role of government since this is our concern (Johnson 1982).

In the fifties, the major focus was on industrial rationalization. An Industrial Rationalization Council was formed comprising originally of 45 committees and 81 subcommittees covering every industry in the country and bringing together several hundred business executives and

specialists. It served as a liaison between government and business community and helped government refine its proposals. It carried out many reforms in management practices including life-time employment and raising of the productivity of Japan's industrial worker through educational activities in the area of scientific management. An enterprises rationalization law provided for subsidies for modernization tax exemption for R&D, faster depreciation write-off for selected industries, and committed the government to build necessary infrastructure for approved industries. Thus rationalization was attempted, as complete as possible, to reduce production cost.

Income doubling plan of 1960 saw the creation of Industrial Structure Investigation Council. The concept was simply a shorthand term for comparing Japan's industry with those of USA and Western Europe in terms of their capitalization, export ratios, concentration, economies of scale and other indicators of international competitive ability. If it was found that the structure of an industry was such that it detracted from its competitive ability then measures were taken to reduce the number of enterprises and to enlarge the remaining few. Administrative guidance mechanisms - a via media between bureaucratic control and self-coordination - was sought. It meant committees coordinating bureaucrats, industrialists and financial agencies that would set investment rates, promote mergers, discourage new firms from entering given industries and in general try to build an industrial structure on par with those of USA and West Germany. The administrative guidance mechanisms led, latter on, to coining the term 'Japan Incorporated'.

In the seventies, Japanese faced oil shock by creating cartels in the structurally depressed industries, increasing energy efficiency and increasing use of nuclear power. In short, Japan sought optimum level of competition and cooperation to derive maximum efficiency. By and large, the government's actions were market friendly but not always liked by industrialists.

Korea, in contrast, owes its growth neither to innovation-driven strategies nor support from a demanding domestic market or a very diversified industrial structure. Porter attributes Korean success to two main strategies - factor driven advantage from highly educated, disciplined and motivated workforce and high capital investments in sophisticated infrastructure and in selected industries³.

The most remarkable advantage Korea has enjoyed is a high level of productivity growth. During the period 1962-87, Korean industry had an annual total factor productivity growth rate of 3.7 %. Compared to India's near negligible productivity increase. Such sustained high rates when translated in terms of total output would imply that had Indian industry

³ Eprime Eshag (1991) concurs, "the principal factors which see to have made a significant contribution to the success of a dirigiste economic regime in the case of Korea were: the competence, strength and determination of the government; the traditions, social attitudes and work habits of the population; the standard of education, including technical, professional and business skills; the land tenure system; and the quality of civil service machinery.

experienced similar growth, it should produce about two and a half times what it does today. Thus to be competitive, Indian industry needs to increase its productivity considerably.

Although not well documented, the government in Korea played an important role. It directed the available capital (first from foreign aid and then from high domestic savings of about 32% of GNP) to selected industries and to building an infrastructure comparable to Western Europe and Japan. This resulted in the creation of considerable modern capacity. Coupled with highly productive labour force, the Korean industry enjoyed a tremendous cost advantage which it used to compete in the global market.

Role of the State Governments

In the new industrial policy framework, the states would have to draw up action plans to promote industries in their areas. As lessons from Japan and Korea indicate, these actions, in addition to existing strategies, would consist of securing general productive advantage and specific competitive advantages in selected strategic industries.

The state governments will have an important role to play in the new industrial policy framework. Withdrawal of licensing regulations and other restrictions means that the Centre's role would no longer be regulatory or allocational in nature. The decisions on investments are much more likely to be made in terms of their financial benefits. However, even when market forces prevail, the lessons from Korea and Japan suggest that the government can assist industries derive competitive advantage.

New role will differ from that of the past. In the past, the state governments competed with each other by incentives and subsidies as well as some development of infrastructure. But mainly they also competed to secure licences and zeal in converting letters of intent to industrial licences. In the new framework, states will have a market-conforming role instead of distorting market prices through subsidies. The states together may even consider the possibility of a moratorium on incentives given the resource constraint on the one hand and successive rounds of escalation this entails on the other hand.

It would involve more collaboration among employees, employers and government. The state government would have to assist the firms in the selected industries in their states to secure competitive advantages over time through productivity growth derived from providing higher quality of products or services or by producing more efficiently. Industry Councils or Panels would have to be activated. Diffusion of superior technologies would have to be accelerated. Besides making available adequate infrastructure, creation a high quality labour force through facilities for industrial training, upgrading of training equipment and trainers, and invigoration of the apprentice system to fill gaps between class-room and the work situations would also be required .

The government would need to be better informed. It would need to understand industry

structure and patterns of changes in it. It must know what are the sources of competitive advantage and how can they be strengthened for strategic industries. It would need to monitor performance of firms to ensure that they are able to compete in the market place. For this purpose an appropriate management information system would need to be developed.

The state governments would need to prepare themselves for performing such a role. The state governments would need to develop an information and knowledge base for industries in the state. It will, therefore, have to build expertise. Such expertise would be of two types: one generalist-type which would help to secure overall productive advantage and the other specialist expertise mainly through teams of technologists in selected industries which can help achieve competitive advantage in these industries. Some specialization in industries in the civil services may also be desirable to benefit from learning through past experiences; civil servants with such backgrounds might be better suited to bring together the efforts different agencies engaged in industrial relations, financial services and technical education.

A long term view will be needed. The Japanese, Korean and other experiences suggest that it may take more than a decade to secure competitive advantages. Actions for securing megaprojects and attracting NRI investments might be more visible politically; but sustained competitive advantage can only be derived by attention to fundamental issues of productivity and value addition.

The success of the new industrial policy, at least in part, would depend upon how effectively the state governments can infuse goal oriented strategic thinking into formulation and implementation of their public policies. They would have to abandon their traditional ways of ever-increasing rounds of subsidies and tax concessions. Those who take early cognizance of the implications of these changes and set in motion the changes needed in terms of strategies, organizational forms and personnel would have a head start in benefitting from the new policy framework.

Acknowledgements

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References

- Drucker, Peter F. 1983. "Management", Pan Books Limited. pp. 103.
- Eshag, Eprham 1991, "Successful Manipulation of Market Forces: Case of South Korea, 1961-78", Economic and Political Weekly, Vol XXVI Nos 11 and 12 pp. 629-644.
- Government of India, "Annual Survey of Industries, 1982-83 and 1986-87", Central Statistical Organization, Department of Statistics, Ministry of Planning, Government of India, New Delhi..
- Hosmer, LaRue T. 1982. "Strategic Management, Text and Cases on Business Policy", Prentice Hall Inc.
- Johnson, Chalmers 1982. "MITI and the Japanese Miracle: The Growth of Industrial Policy, 1925-1975", Stanford University Press, Stanford, California, U.S.A.
- Porter, M.E. 1990. "The Competitive Advantage of Nations" The Free Press, New York.

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