Monetary Policy: The central bank, by its policy towards the cost and availability of credit, can significantly influence the savings, investments and consumer spending in the economy. Depending on the conditions of the economy and the general economic policy of the government, the central bank (called the Reserve Bank in India) may adopt an expansionary or contractionary or neutral monetary policy. *For example,* a one percentage point reduction in the Cash Reserve Ratio or Statutory reserve Ratio (SLR) will significantly increase the loanable funds with the commercial banking system. An increase in these ratios will have the opposite effect. Monetary policy may also be pressed in to action to influence the exchange rate of the currency.

ECONOMIC CONDITIONS

General economic conditions affect business. Economies pass through periods of boom and recession. A boom is characterised by high level of output, employment and rising demand and prices. A recession has the opposite of these characteristics.

If a region depends to a significant extent on any particular industry or sector, business in that region would be significantly affected by fortunes of that industry. The economic and business prospects in major oil exporting countries depend to a very great extent on the crude oil price. The economic condition of a region may be linked to the prices of major crops of the region. *For example,* because of the fall in the prices, the coconut farmers of Kerala were estimated to have lost about Rs. 10,000 crores between 1997 – 2000. Similarly, the rubber farmers lost an estimated Rs. 1,500 crores during the 5 year period ended 2000. The price of several other commercial crops also crashed. This situation has very adversely affected the general economic and business conditions in the State.

A particular economic condition may be widespread – international or national – or may be confined to a region. *For example,* during 1997-98 when several South East economies underwent a crisis, it affected the business of even firms in a number of other countries. The Indian steel exports to South East Asia, *for example,* suffered a severe set back This prompted the Indian steel industry to very seriously consider the US and European markets and it was largely successful in its export to these markets – in 1998-99 steel exports to the US surged by over 100 per cent and to Europe nearly 90 per cent.

As Table 3.1 indicates, the US economy accounts for well over one-fourth of the global economy. This implies that the growth trend of the US economy can affect the overall growth trend of the global economy by more than 25 per cent. *For example,* in an year even if the rest of the global economy remains stagnant, on the whole, if the US economy grows by two percent, it will have the effect of the world economy growing by about half a percent. A recession in the US economy will have the opposite impact. As the US economy is highly integrated globally, the economic conditions in the US can have repercussions in other economies. See *Box* 1.3 (Chapter1).

The current account and balance of payments positions of a country can significantly influence certain economic policies and business environment. *For example,* a sustained current account surplus may encourage the government to liberalise imports and capital movements.

Exports and imports of a country are generally affected by a number of domestic and international economic conditions. *For example,* analysis of empirical data reveals that India's export performance is affected by certain important factors. They include a set of external factors, a set of internal factors and the real exchange rate.

The external factors are:

- The rate of growth of the economies of the importing countries
- The rate of growth of the world trade
- The rate of change in the price level in the importing country

The internal factors are:

- The rate of growth of the Indian economy
- The rate of change in the domestic price level

The most favourable condition for the growth of Indian exports is a combination of the high growth rates for all the three external factors, a high growth rate with price stability for the Indian economy and a fall in the real exchange rate for exports (RERx). If some of the above conditions are satisfied and other conditions are not favourable, the export performance should be expected to be determined by the relative strengths of the favourable and unfavourable factors. We will have the worst situation when the reverse of the ideal combination of conditions occurs.

The analysis of the impact of the interrelationship of the above mentioned variables on India's exports for a period of nearly two decades by G.C. da Costa has revealed the following:[2]

1. Good growth in the economies of the industrial countries has been associated with good growth in India's exports. This has been very pronounced in those years characterised by good growth in the world trade, sharp fall in the RERx and relative price stability in India.
2. Low growth or recessionary conditions in the economies of the industrial countries, along with depressed world trade together with even moderate increases in the RERx did not provide any competitive edge to the country's exports—the volume of India's exports broadly kept pace with the growth in the economies of the industrial countries.
3. In some years, even when the growth in the economies of the industrial countries was low, the country experienced good growth in the volume of exports because of the sharp decline in the RERx.
4. During certain periods, despite modest growth in the industrial countries and in world trade, the volume of India's exports fell because of the rise in the RERx.

Besides import regulations, the important factors which determine the volume of India's imports are:[3]

1. The rate of growth of the Indian economy—high rate of growth, *ceteris paribus,* is associated with rise in imports.
2. The relative price of imports (*i.e.,* the relative change in the prices of imports and domestic goods). An increase in the imports, *ceteris paribus,* is associated with a fall in the relative price of imports.

From the above two factors, it can be inferred that the volume of imports tends be very high when there is a conjecture of high rate of economic growth and a sharp fall in the relative price of imports and vice versa.

There are, thus, a number of economic factors, many of which form a complex web, which affect the business.

SUMMARY

Business fortunes and strategies are influenced by economic characteristics and economic policy dimensions such as the structure and nature the economy, the stage of development of the economy, economic resources, the level of income, the distribution of income and assets, global economic linkages, economic policies etc. Important economic environmental factors are listed in Table 3.4.

TABLE 3.4 : IMPORTANT FACTORS OF ECONOMIC ENVIRONMENT

Structure & Nature of Economy	*Economic Conditions*	*Economic Policies*	*Global Linkages*
• Level of development of the economy • Sectoral composition of output • Inter-sectoral linkages	• Income levels • Distribution of income • GDP trends • Sectoral growth trends • Demand and supply trends • Price trends • Trade and Bop trends • Foreign exchange reserves position • Global economic trends	• Industrial policy • Trade policy • Monetary policy • Fiscal policy • Foreign exchange policy • Foreign investment & technology policy	• Magnitude and nature of cross-border • Trade flows • Financial flows • Membership of WTO, IMF, World Bank, trade blocs etc.

REFERENCES

1. Cited from different sources by World Bank, *World Development Report 2000*, New York, Oxford University Press, 2000, p. 33.
2. G. C. DaCosta, "Balance of payments: Pitfalls on the path of adjustments", *The Economic Times*, November 21, 1991 .
3. *Ibid.*

Peter Drucker in the *Management Challenges for the 21st Century* observes: "Even within transnational economic units, national politics still overrule economic rationality. Despite the European Economic Community, for instance, it has proven all but politically impossible to close a totally redundant plant in Belgium and shift the work to a French plant of the same company only thirty miles away, but on the other side of a national border."[2]

Indeed, important economic policies such as industrial policy, policy towards foreign capital and technology, fiscal policy and export-import policy are often political decisions.

Many political decisions have serious economic and business implications. The economic policy of the ruling party is very important. In the past communists and other leftists favoured state capitalism and were against private capital, particularly foreign.

BOX 4.2 : POLITICIANS LOBBY OVER FIXED VERSUS MOBILE SERVICES

It happened earlier. Now, its happening again—power-broker politicians currying favour on behalf of business barons. The history of corporate battles between warring business houses has been pockmarked by paper missiles fired by rival politicians inside Parliament and outside.

In the '80s, it first happened with NRI tycoon Swaraj Paul's attempted takeover of Swadeshi Escorts. Next, they shifted focus to the never-ending petrochemicals war between Bombay Dyeing and Reliance. In the '90s, netas pitched tents in the battle for bottles between Parle and Pepsi. Now, in the hi-tech new millennium, they are once again sniffing around the place where the action is — in the war of fixed telephony versus cellular service.

Recently, some members of Parliament from the ruling BJP raised their voices demanding limited mobility for fixed line telephone operators.

This time round, two high-profile politicians from Congress and BJP have joined four others to strongly oppose the grant of any such favour primarily to the state-owned basic telephone operators. They have pleaded with the government in favour of, among all people, VHP strongman BK Modi and others. Mr Modi heads the Sangh Parivar outfit, Overseas Friends of the VHB which hosted Prime Minister Vajpayee during his New York visit this autumn. He also operates cellular service Spice Telecom in Karnataka and Punjab. That's a good reason for Mr Modi to rope in Karnataka head honcho SM Krishna and BJP's hero from Jallandhar Vinod Khanna to put in a word with the government against state-owned fixed line operators.

Source : Sanjeev Sharma, "Politicians lobby over fixed versus mobile services", *The Economic Times*, 22 December, 2000.

FUNCTIONS OF STATE

There are very divergent perceptions of the functions of the state. On the one extreme is the view that "the government that governs is the best" and on the other extreme is the demand for government ownership or control of almost everything. Further, the philosophy regarding the state's role in the society has undergone significant changes over time in many countries over time. A number of countries are, in fact, transitioning from Marx to the market.

The economic role of the state has been recognised for several centuries now. "States have come in all shapes and sizes, depending on a mix of factors including culture, natural endowments, opportunities for trade and distribution of power."[3] Seventeenth century mercantilists wanted the state to play a major role in guiding trade. Adam Smith's *Wealth of Nations*, published in the late eighteenth century, however, popularised the view that economic growth and welfare are best achieved by the free market mechanism and the state should confine itself to certain core functions such as law and order defence etc. and enforcement of contracts, essential for the proper functioning of the market economy. "But even then, state intervention went on to play a vital, catalytic role in the development and growth of markets in Europe, Japan and North America."[4] Even in the United States, which is regarded as the citadel of market economy, State has been playing an active role in the development of several industries/sectors.

BOX 4.3 : STATE AND GOVERNMENT : SOME CONCEPTS

State, in its wider sense, refers to a set of institutions that possess the means of legitimate coercion, exercised over a defined territory and its population referred to as society. The state monopolises rulemaking within its territory through the medium of an organized government.

The term *government* is often used differently in different contexts. It can refer to the process of governing, to the exercise of power. It can also refer to the existence of that process, to a condition of "ordered rule." "Government" often means the people who fill the positions of authority in a state. Finally, the term may refer to the manner, method, or system of governing in a society: to the structure and arrangement of offices and how they relate to the governed. While keeping these distinctions in mind, we also use the terms *state* and *government* colloquially and sometimes interchangeably—as they are often used in discussion and writing around the world.

Government is normally regarded as consisting of three distinct sets of powers, each with its assigned role. One is the *legislature*, whose role is to make the law. The second is the *executive* (sometimes referred to as "the government"), which is responsible for implementing the law. The third is the *judiciary*, which is responsible for interpreting and applying the law.

Classifications of government are many but have tended to concentrate on two criteria: the arrangement of offices, which is more narrow in conception, and the relationship between government and the governed.

The first classification is based on the relationship between the executive and the legislature. In a *parliamentary* system the executive's continuance in office depends on its maintaining the support of the legislature. Members of the executive are commonly also members of the legislature. A prime minister may be the most powerful member of the executive, but important decisions within the executive are usually made collectively by a group of ministers. In a *presidential* system the executive's position is independent of the legislature. Members of the executive are not normally also members of the legislature, and ultimate decision making authority within the executive lies with one person, the president.

The second classification concentrates on the distribution of power between levels of government. In a *unitary* state, all authority to make laws is vested in one supreme legislature whose jurisdiction covers the whole country. Local legislatures may exist, but only with the sufferance of the national legislature. In a *federal state*, local legislatures are guaranteed at least a measure of autonomous decision making authority. In a *confederation*, a group of sovereign states combine for specified purposes, but each state retains its sovereignty.

Courtesy : World Bank : *World Development Report*, 1997.

In most modern economies the state's regulatory role is now broader and more complex than ever before, covering such areas as the environment and the financial sector, as well as more traditional areas such as monopolies. The design of regulation needs to fit the capability of state regulatory agencies and the sophistication of markets, and give greater emphasis to personal responsibility.

The first half of the twentieth century witnessed an increase in the state intervention in the economy. The Russian Revolution of 1917 and the consequent establishment of communist rule in the USSR had great influence across the globe on the thinking of the state's role. The *Great Depression* in USA (which eventually spread to other countries), that set in with the *Wall Street* collapse of 1929 and assumed terrific proportions in the early 1930s, brought to the fore the important role the state has in a capitalist economy. Shortage of entrepreneurship and other development resources and ideological flavour encouraged many developing countries to assign a very important role to the state in the socio-economic system.

The post second world war paradigm "coalesced around three basic themes, all of which commanded broad, if not uniform, agreement. This three-pillared consensus remained largely undisturbed until the first oil price shock of 1973. First was the need to provide welfare benefits to those suffering from transitory loss of income or other deprivation. Second was the desirability of a mixed public-private economy, which would often mean nationalizing a range of strategic industries. Third was the need for a coordinated macroeconomic policy, on the grounds that the market alone could not deliver stable macroeconomic outcomes that were consistent with individuals' objectives. In time, the goals of macroeconomic policy were made explicit: full employment, price stability, and balance of payments equilibrium.

States thus took on new roles and expanded existing ones. By mid-century the range of tasks performed by public institutions included not only wider provision of infrastructure and utilities, but also much more extensive support for education and health care."[5]

A reversal of this trend set in the 1980s. Communism collapsed in the USSR and East Europe. China started economic reforms in the late 1970s and widely opened the economy for foreign investment in the eighties. Privatisation caught on at an amazing speed in many developed market economies and developing economies.

However, the government expenditure as a percentage of the GDP increased substantially in the developed and developing countries. In the OECD countries (developed countries) total government expenditure as a percentage GDP increased from about 10 per cent in the beginning of the 20th century to nearly 20 per cent in 1960 and to nearly 50 per cent in 1995. In the developing countries the *central* government expenditure was nearly 15 per cent of the GDP in 1960. In 1990 it was almost double this figure.

CLASSIFICATION OF FUNCTIONS OF STATE

Functions of the state varies from basic minimum requirements to active participation in several other sectors. Figure 4.1 classifies the functions of government along a continuum, from activities that will not be taken at all without state intervention to activities in which the state plays an active role in coordinating markets or redistributing assets.

- The basic functions include the pure public goods such as the provision of property rights, macroeconomic stability, control of infectious diseases, safe water, roads, and protection of the destitute. In many countries the state is not even providing these. Recent reforms have emphasized economic fundamentals. But social and institutional (including legal) fundamentals are equally important to avoid social disruption and ensure sustained development.

- Going beyond these basic services are the intermediate functions, such as management of externalities (pollution, for example), regulation of monopolies, and the provision of social insurance (pensions, unemployment benefits). Here, too, the government cannot choose whether, but only how best to intervene, and government can work in partnership with markets and civil society to ensure that these public goods are provided.
- States with strong capability can take on more-activist functions, dealing with the problem of missing markets by helping coordination. East Asia's experience has renewed interest in the state's role in promoting markets through active industrial and financial policy.[6]

	Addressing market failure				*Improving equity*
Minimal functions	*Providing pure public goods* Defence Law and order Property rights Macroeconomic management Public health				*Protecting the poor* Antipoverty programmes Disaster relief
Intermediate functions	*Addressing externalities* Basic education Environmental Protection	*Regulating monopoly* Utility regulation Antitrust Policy	*Overcoming imperfect information* Insurance (health, life, pensions) Financial Regulation Consumer Protection		*Providing social insurance* Redistributive pensions Family allowances Unemployment insurance
Activist functions	*Coordinating private activity* Fostering markets Cluster initiatives				*Redistribution* Asset redistribution

Fig. 4.1 : Functions of the State (Adopted from World Bank, *World Development Report, 1997)*

Reinvigorating the State's Capability

Reinvigorating the state's capability can be achieved through the following.[7]

- ***Rules and Restraints:*** Mechanisms for enforcing the rule of law, such as an independent judiciary, are critical foundations for sustainable development. Along with appropriate separation of powers and the presence of watchdog bodies, they also restrain arbitrary behavior.
- ***Competitive Pressure:*** Competitive pressure can come from within the state bureaucracy, through recruitment of civil servants on the basis of merit. It can come from the domestic

private sector, through contracting out for services and allowing private providers to compete directly with public agencies. Or it can come from the international marketplace, through trade and through the influence of global bond markets on fiscal decisions.

- *Voice and Partnership:* The means to achieve transparency and openness in modern society are many and varied—business councils, interaction groups, and consumer groups, to name a few. Institutional working arrangements with community groups can contribute to greater state effectiveness by giving citizens a greater voice in the formulation of government's policies. And partnerships between levels of government and with international bodies can help in the provision of local and global public goods.

THE STATE, INSTITUTIONS, AND ECONOMIC OUTCOMES

The State sets the formal rules—laws and regulations—that are part and parcel of a country's institutional environment. These formal rules, along with the informal rules of the broader society, are the institutions that mediate human behavior. But the state is not merely a referee, making and enforcing the rules from the sidelines; it is also a player, indeed often a dominant player, in the economic game. Every day, state agencies invest resources, direct credit, procure goods and services, and negotiate contracts; these actions have profound effects on transactions costs and on economic activity and economic outcomes, especially in developing economies. Played well, the state's activities can accelerate development. Played badly, they will produce stagnation or, in the extreme, economic and social disintegration. The state, then, is in a unique position: not only must it establish, through a social and political process, the formal rules by which all other organizations must abide; as an organization itself, it, too, must abide by those rules.[8]

TABLE 4.1 : IMPACT OF STATE

Ways of State Promoting Development	Harmful Impact of State
• By providing a macro-economic and a micro-economic environment that sets the right incentives for efficient economic activity	• The wrong kind of rules can actively discourage the creation of wealth. For example, the state may penalize private wealth by distorting prices-through an overvalued currency, for example, or by creating agricultural marketing boards that tax farmers' output and give them little in return.
• By providing the institutional infrastructure-property rights, peace, law and order, and rules-that encourages efficient long-term investment, and	• Even if the rules themselves are benign, they may be applied by public organizations-and their employees-in harmful fashion. They may, for example, impose huge transactions costs, in the form of red tape or bribery, on entrepreneurs setting up new businesses or restructuring old ones.
• By ensuring the provision of basic education, health care, and the physical infrastructure required for economic activity, and by protecting the natural environment.	• But potentially the largest source of state-inflicted damage is uncertainty. If the state changes the rules often, or does not clarify the rules by which the state itself will behave, businesses and individuals cannot be sure today what will be profitable or unprofitable, legal or illegal tomorrow. They will then adopt costly strategies to insure against an uncertain future-by entering the informal economy, for example, or sending capital abroad-all of which impede development.

Courtesy : World Bank, *World Development Report, 1997*

ECONOMIC ROLES OF GOVERNMENT

The Government plays an important role in almost every national economy of the world.

Even in the countries described as capitalist economies or market economies, "a substantial share of the nation's product goes to satisfy public wants, a substantial part of the private income originates in the public budget and public tax and transfer payments significantly influence the state of private income distribution. Moreover, the budget policy affects the level of employment and prices in the private sector."[9]

In the predominantly private enterprise economies, government interference is necessitated by the fact, besides the socio-political ideological reasons, if any, "that the market mechanism alone cannot perform all economic functions. Public policy is needed to guide, correct and supplement it in certain respects. It is important to realize this fact since it implies that the proper size of the public sector is, to a significant degree, a technical rather than ideological issue."[10]

While the state control of economy is a universal phenomenon, the extent and nature of the control vary widely between nations, depending upon the nature and stage of development of the economy, the behaviour of the private sector, the political philosophy, social attitudes, administrative system etc.

Governments normally play four important roles in an economy, *viz.*, regulation, promotion, entrepreneurship, and planning.

As stated above, the extent and nature of these roles in a given situation depend on a number of factors. Some salient features of these roles are outlined below:

Regulatory Role

Government regulation of the business may cover a broad spectrum extending from entry into business to the final results of a business. The reservation of industries to small scale, public and co-operative sectors, licensing system etc. regulate the entry. Regulations of product mix, promotional activities etc. amount to regulation of the conduct of business.

Results of business operations may be regulated by such measures as ceilings on profit margins, dividend etc. The State may also regulate the relationship between enterprises. Examples of this include restrictions on intra-corporate investments, interlocking of directors and appointment of sole selling agents.

Government regulation of the economy may be broadly divided into direct controls and indirect controls.

Indirect controls are usually exercised through various fiscal and monetary incentives and disincentives or penalties. Certain activities may be encouraged or discouraged through monetary and fiscal incentives and disincentives. For instance, a high import duty may discourage imports and fiscal and monetary incentives may encourage the development of export-oriented industries.

The direct administrative or physical controls are more drastic in their effect. The distinguishing characteristic of direct controls is their discretionary nature. They can be applied selectively from firm to firm and industry to industry, at the discretion of the State.

Regulation of the business had been rampant in the developing countries. Since the late 1980s, however, a deregulation trend has set in. This has drastically transformed the competitive environment and has given an impetus to globalisation.

Promotional Role

The promotional role played by the Government is very important in developed countries as well as in the developing countries. In developing countries, where the infrastructural facilities for development are inadequate and entrepreneurial activities are scarce, the promotional role of the Government assumes special significance. The State will have to assume direct responsibility to build up and strengthen the necessary development infrastructures, such as power, transport, finance, marketing, institutions for training and guidance and other promotional activities.

The promotional role of the State also encompasses the provision of various fiscal, monetary and other incentives, including measures to cover certain risks, for the development of certain priority sectors and activities.

Entrepreneurial Role

In many economies, the State also plays the role of an entrepreneur – establishing and operating business enterprises and bearing the risks. A number of factors such as socio-political ideologies; dearth of private entrepreneurship; neglect of certain sectors, like the unprofitable sectors, by the private entrepreneurs; absence of or inadequate competition in certain segments and the resultant exploitation of consumers, etc. have contributed to the growth of State owned enterprises (SOEs) in many countries.

There was a tendency in many developing countries to assign a dominant place to the public sector. Public sector dominance was usually established in capital-intensive projects like steel, capital goods, petrochemicals and fertilizers for which investment requirements were very large and the expected private returns, at least in the short-run were too low to provide an incentive for private profitability. In many cases even when the private sector was prepared to undertake the risk and invest. State ownership of such industries existed for one reason or other.

However, recently many governments have resorted to privatisation in varying degrees, and have redefined the role of the public sector.

Planning Role

Especially in the developing countries, the State plays a very important role as a planner.

The importance of planning to a less developed economy was often emphasised by Jawaharlal Nehru, the chief architect of Development Planning in India. He rightly observed: "Whatever it may be in other countries, in under-developed countries like ours, which have to develop fairly rapidly, the time element is important and the question is how to use our resources to the best advantage. If our resources are abundant it will not matter how they are used. They will go into a common pool of development. But where one's resources are limited, one has to see that they are directed to the right purpose so as to help to build up whatever one is aiming at".

ECONOMIC SYSTEMS

The scope of private business depends, to a large extent, on the economic system which indeed is rooted in political philosophy. At one end, there are the free enterprise / market economies or capitalist economies, and at the other end are the centrally planned economies or communist countries. In between these two are the mixed economies. Within the mixed economic system itself, there are wide variations. The freedom of private enterprise is the greatest in the market economy, which is characterised by the following assumptions:

1. The factors of production (labour, land, capital) are privately owned, and production occurs at the initiative of the private enterprise.
2. Income is received in monetary form by the sale of services of the factors of production and from the profits of the private enterprise.
3. Members of the free market economy have freedom of choice in so far as consumption, occupation, savings and investment are concerned.
4. The free market economy is not planned, controlled or regulated by the government. The government satisfies community or collective wants, but does not compete with private firms; nor does it tell the people where to work/or what to produce.

The completely free market economy, however, is an abstract system rather than a real one. Today, even the so-called market economies are subject to a number of government regulations. Countries like the United States, Japan, Australia, Canada and member countries of the EEC are regarded as market economies.

The communist countries have, by and large, a centrally planned economic system. Under the rule of a communist or authoritarian socialist government, the state owns all the means of production, determines the goals of production and controls the economy according to a central master plan. There is hardly any consumer sovereignty in a centrally planned economy, unlike in the free market economy. The consumption pattern in a centrally planned economy is dictated by the state.

China, East Germany Soviet Union, Czechoslovàkia, Hungary, Poland, etc., had centrally planned economies. However, recently several of these countries have discarded communist system and have moved towards the market economy.

In between the capitalist system and the centrally planned system falls the system of the mixed economy, under which both the public and private sectors co-exist, as in India. The extent of state participation varies widely between the mixed economies. However, in many mixed economies, the strategic and other nationally very important industries are fully owned or dominated by the state.

The economic system, thus, is a very important determinant of the scope of private business. The economic system and policy are, therefore, a very important external constraint on business.

TRENDS IN POLITICAL/ECONOMIC PHILOSOPHIES/OUTLOOK

While there are not radical differences in the philosophies of major political parties in some countries, the situation is quite different in some others. The government system in a number countries, including several countries which are making rapid economic progress and having liberal policies towards foreign capital and technology, is not very democratic. That does not mean that they are not good to make business with. As a matter fact, in several such countries the procedures are simpler and decisions are quicker than in some of the democratic countries.

Until the political and economic changes ushered in the late 1980s and in the early 1990s in the Eastern Europe, and erstwhile U.S.S.R, these countries were a separate block by themselves with several common characteristics. Private enterprises were very limited and State trading, particularly counter trade, was the rule. There were a lot of restrictions on imports and foreign business. This did not, of course, mean that the communist system was insurmountable for multinationals or other foreign firms. Under such a system, in several instances, winning over the top brass of the party or government was a strategy to obtain business. It may be noted that although companies like PepsiCo were kept out of India they were going better with countries like USSR.

In the past, public sector was assigned a very important role in many non-communist, particularly the developing, countries too. In India, *for example,* where the industrial policy wanted the public sector to gain *control over the commanding heights* of the economy limited the scope of the private enterprise, both domestic and foreign. Even in areas where foreign capital was allowed, there was ceiling on the foreign equity participation.

Further, in the past, foreign firms in many developing countries were under the fear of nationalisation.

The clock, however, has turned a full circle in most of the communist and many other countries. Privatisation has progressed at an amazing speed. The erstwhile communist countries and the Peoples' Republic of China where the communist party is still in power, are on the rapid road from Marx to the market.

As against the past suspicion of and antagonism against foreign capital and technology, a large number of the developing countries, including the former communist ones, are in a competition to woo foreign capital and technology. As a result there has been an influx of foreign investment to these countries.

Although the trend of the direction of government policies across the world appears to be broadly one of convergence, there are lots of differences in the restrictions and regulations of business, scope of foreign business, trade policies, procedures, incentive systems and so on.

Coalition governments of different political parties are becoming common. Sometimes the constituents of the coalition are parties with very different economic ideologies, making the scenario complex or confusing/uncertain.

BOX 4.4 : INDIAN ECONOMIC REFORMS A HOSTAGE TO COALITION POLITICS

Despite upbeat assertions by the economy managers about the resolve to apply immediate correctives, serious and irreconcilable differences within the ruling National Democratic Alliance (NDA) could make success of these efforts problematic.

While a series of legislative measures like the Electricity Bill and the amendment in labour laws for removing the rigidities to the economy could not capture Parliament's attention because of the outrageous state of affairs of the House, parties have placed their political agenda over matters relating to economy. What is worse, the allies of the prime minister have come upfront opposing reforms initiatives.

Mamata Banerjee, the self styled champion of the cause of working class to the NDA took her opposition to the government's moves outside the government and told a trade union rally in Calcutta that her party would not allow divestment of government equity to state-run PSUs. Unmindful of the collective responsibility of the Cabinet, the railway minister has vowed to put hurdles on the path of disinvestment. "We will not allow public sector companies to be wound up", Ms Banerjee, who won the hearts of Union members with her Statement, said. Evidently, Ms Banerjee cannot alienate her labour constituency in this election season. With the Left parties making every effort to trip the Trinamool Congress, she is unlikely to lend her support to the government's moves till the elections are over in her home turf. That she would not allow her party in reasoned dialogue with the government over the issue was dear when the railway minister termed the move as one aimed at hurting the interests of the working class.

Ms Banerjee is not the only one within the alliance, who is pursuing a short-run political agenda. While the actions of many Union ministers have demonstrated that Atal Bihari Vajpayee's reforms message has not percolated through their fiefdoms, there is also fresh trouble from the principal opposition, the Congress.

On her part, Sonia Gandhi has announced in Parliament that her party would not offer blanket support for the legislations planned by the government. Congress members, who were critical of the disinvestment policy and other pro-reforms measures, even wanted the government to shelve many of these initiatives. That the party has opted for political expediency at the Centre is quite clear from the fact that the Congress-run government in Delhi has begun the privatisation of the Delhi Vidyut Board, its Karnataka government has sought financial assistance from the ADB for a VRS scheme to reduce workforce in state PSUs; and Madhya Pradesh is upfront about retrenching surplus labour.

The goings on in the political arena do not augur well for the government. Mr Vajpayee, who had appealed to the Opposition not to allow political considerations to come in the way of positions on economic matters, however, has to first ensure that his ministrial colleagues do not put roadblocks before his government's plans.

Courtesy : The Economic Times, 25 December, 2000.

Some political leaders are so powerful that they wield enormous control over the party. The vision and ideology of such leaders have stupendous implications for business. For example, Chandra Babu Naidu, the Chief Minister of Andhra Pradesh is popularly known as the Chief Executive Officer (CEO) of the State because of his perspective vision for the development of the State. His contribution to the industrial and economic transformation of the State is commendable.

Changes in the nature of State's role or extent of State's involvement in the economy can affect the business environment. When public sector was assigned a major role in the industrial development and industrial licensing was very widely applicable, the Central Government in India had an imposing position in deciding the location of projects and type and size of enterprises. However, the substantial reduction in the role of the public sector and delicensing drastically changed the situation and now State Governments have a much greater role and freedom than in the past in the industrial development, including promotion of FDI.

There is a universal trend towards political decentralization. This indicates some shifts in the power centres firms have to deal with.

The number of politically independent nations has been on the increase as a result of the splitting up of what was once a single country in to several ones. A major reason for this is the rise of what Naisbitt calls tribalism which is defined as "the belief in fidelity to ones' own kind, defined by ethnicity, language, culture, religion, or, (now) the profession."[11] Universally, the desire of ethnic groups to become independent of the supremacy of others is growing. Naisbitt observes that democracy greatly magnifies and multiplies the assertiveness of the tribes; repression does the opposite. And the anguished drama of the tribalism is most pronounced where they are repressed the most brutally. According to Naisbitt, it may be a long time before there are 1,000 countries in this world, but by the middle of this century we should be close to that number because: [12]

Hostilities between some countries affect business of firms even in third countries. Arab nations, *for example,* did not do business with firms having dealings with Israel. These countries even insisted that third country firms who wanted to do business with them must produce an Israel boycott certificate. Because of the political ties with Israel, the U.S. government had adopted countervailing laws to prevent the U.S. firms from complying with this boycott. Some times, there are also economic sanctions.

GOVERNMENT AND LEGAL ENVIRONMENT

Several aspects of the government environment have already been referred to in the previous chapter and preceding section of this chapter. A detailed description of the governments role in the economy is given in a subsequent chapter.

In most countries, apart from those laws that control investment and related matters, there are a number of laws that regulate the conduct of the business. These laws cover such matters as standards of product, packaging, promotion, ethics, ecological factors etc.

In many countries, with a view to protecting consumer interests, regulations have become stronger. Regulations to protect the purity of the environment and preserve the ecological balance have assumed great importance in many countries.

Some governments specify certain standards for the products (including packaging) to be marketed in the country: some even prohibit the marketing of certain products. In most nations, promotional activities are subject to various types of controls. Several European countries restrain the use of children in commercial advertisements. In a number of countries, including India, the advertisement of alcoholic liquor is prohibited. Advertisements, including packaging, of cigarettes must carry the statutory warning that "cigarette smoking is injurious to health". Similarly, baby foods must not be promoted as a substitute for breast feeding. In countries like Germany, product comparison advertisements and the use of superlatives like *best* or *excellent* in advertisements is not allowed. In the United States, the Federal Trade Commission is empowered to require a company to provide sufficient evidence to substantiate the claim concerning the quality, performance or comparative prices of its products

There area host of statutory controls on business in India. Although the controls have been substantially brought down as a result of the liberalization, a number of controls still prevail.

Many countries today have laws to regulate competition in the public interest. Elimination of unfair competition and dilution of monopoly power are the important objectives of these regulations.

Certain changes in government policies such as the industrial policy, fiscal policy, tariff policy etc. may have profound impact on business. Some policy developments create opportunities as well as threats. In other words, a development which brightens the prospects of some enterprises may pose a threat to some others. *For example,* the industrial policy liberalizations in India have opened up new opportunities and threats. They have provided a lot of opportunities to a large number of enterprises to diversify and to make their product mix better. But they have also given rise to serious threat to many existing products by way of increased competition; many seller's markets have given way to buyer's markets. Even products which were seldom advertised have come to be promoted very heavily. This battle for the market has provided a splendid opportunity for the advertising industry.

ECONOMIC ROLES OF GOVERNMENT IN INDIA

THE CONSTITUTIONAL ENVIRONMENT

The Indian Constitution incorporates a number of matters that are economically very significant and have far-reaching implications. The socio-economic and political objectives of the Indian Republic and the basic guiding principles of state functioning have been clearly laid down in the *Preamble* to the Constitution, the *Fundamental Rights* and in the *Directive Principles of State Policy*. The Constitution also outlines the economic powers and responsibilities of the Union Government and the State Governments.

The economic responsibility bestowed on the state by the Indian Constitution is so enormous that it calls for great government interference in the functioning of the economy. In fact, a number of constitutional amendments, including the first amendment, were effected to enable the state to implement its economic policies and programmes.

It is indeed paradoxical that though the government, in the past, had proclaimed that certain policy measures had been taken and laws had been enacted to give effect to certain Constitutional provisions, some of these very policies have been given up or reversed and Acts repealed since the liberalisation ushered in 1991 while those Constitutional provisions continue unchanged.

The Preamble

The Preamble to the Indian Constitution states that,

THE PEOPLE OF INDIA have solemnly resolved to constitute India into a SOVEREIGN SOCIALIST, SECULAR*, DEMOCRATIC REPUBLIC to secure to all its citizens:

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity;

and to promote among them all —.

FRATERNITY assuring the dignity of the individual and the unity and integrity* of the Nation.

[*The words "Socialist Secular", and "and integrity" were inserted by the Constitution (42nd Amendment) Act, 1976.]

The Preamble of a statute conveys the general object and intention of the legislature in enacting it. Although not an essential feature, whenever a Constitution contains a Preamble, it expresses the political, religious and socio-economic values which it envisages to promote. But, it does not control the meaning and scope of the other provisions of the Constitution. However, the Preamble may be a guide when the statute is vague. Otherwise, full effect should be given to the express words of the enactment.

The Preamble to the Indian Constitution lays down that the attainment of social, economic and political *justice,* and *equality of* status and of opportunity should be among the most important basic guiding principles of the functioning of the State. As if this were not enough, the Constitution was amended in 1976 to add, among other things, that India should be a socialist state. In fact, as early as December 1954, the Indian Parliament had accepted the *socialist pattern of society* as the objective of social and economic policy. As if to give this objective more prominence, it was incorporated in the Preamble to the Constitution in 1976 under the controversial 42nd Amendment.

As the Preamble conveys the general object and intention of the Constitution and would be a guide in the interpretation of a statute when it is vague, the above mentioned aspects of the Preamble to the Constitution give some indications of the need and scope for state intervention in the functioning of the economy with a view to discharging its duties and responsibilities for the realisation of economic and associated objectives.

The Fundamental Rights

It has been claimed that the Indian Constitution offers all citizens, individually and collectively, the best fruits of democracy and those basic freedoms and conditions of life which alone make life significant and productive. The rights enumerated in Part III of the Constitution cover a wide range and are declared to be fundamental and justiceable.

The theory of fundamental rights implies limited government. It aims at preventing the government and the legislature from becoming totalitarian, and in doing so it affords the individual an opportunity for self-development. But these rights are not absolute; they are subject to limitations imposed by the state in order to secure rights for all individuals or to promote the greater interests of the community or the state, or to serve the ends of a planned society.

The Fundamental Rights enumerated in Part III of the Constitution are:

1. Right to Equality
2. Right to Freedom
3. Right against Exploitation
4. Right to Freedom of Religion
5. Cultural and Educational Rights
6. Right to Constitutional Remedies

The Constitution had also guaranteed, under Article 19(1)(*f*), the Fundamental Right to Property; and Article 31 had prohibited the deprivation of property of any person save by authority of law; and for the deprivation of property compensation had been payable. But, in 1976, the 44th Amendment of the Constitution abolished the fundamental right to property by deleting Articles 19 (1)(*f*) and 31. However, Article 300 A of the new Chapter IV added to Part XII of the Constitution provides that "no person shall be deprived of his property save by authority of law". Thus, though the right to property is no longer a fundamental right, it has been retained as a Constitutional Right.

The Fundamental Rights also have economic significance.

The Right to Equality prohibits discrimination against any citizen on grounds of religion, race, caste, sex or place of birth. In public employment, it ensures equality of opportunity to all citizens. This is, however, subject to certain limitations, such as the right of the state to reserve posts for backward classes which, in the opinion of the state, are not adequately represented in the services.

The Constitution guarantees the citizens the fundamental right to freedom to practise any profession, carry on any occupation, trade or business. This right is subject to reasonable restrictions in the interest of the general public. Under the First Amendment to the Constitution (1951), the State is empowered to make laws relating to professional or technical qualifications necessary for practising any profession or carrying on any trade, business, industry or service, whether to the exclusion, complete or partial, of citizens or otherwise.

The Fundamental Right against Exploitation prohibits traffic in human beings, and beggary and other forms of forced labour; and any contravention of this provision shall be an offence punishable in accordance with the law. However, this does not prevent the state from imposing compulsory service for public purposes. In imposing such service, the state shall not make any discrimination on grounds only of religion, race, caste or class, or any of them.

Thus, the Fundamental Rights enumerated in the Constitution guarantee a number of economic rights to the citizens; but at the same time, the State has the power to impose reasonable restrictions on such rights in the public interest. A very important thing to be noted is that this power of the state to impose reasonable restrictions in the public interest had resulted in a remarkable increase in the statutory control over the business and a substantial expansion of the entrepreneurial or participative activities of the state. Consequently, there has been an abridgement of the economic liberty of the citizens embodied in Article 19 (l)(g).

BOX 4.5 : FUNCTIONS AND POWERS OF PARLIAMENT

As in other parliamentary democracies, Parliament of India has the cardinal functions of legislation, overseeing of administration, passing of budget, ventilation of public grievances and discussing various subjects like development plans, international relations and national policies. The distribution of powers between the Union and the States, followed in the Constitution, emphasizes in many ways the general predominance of Parliament in the legislative field. Apart from a wide range of subjects, even in normal times Parliament can, under certain circumstances, assume legislative power with respect to a subject falling within the sphere exclusively reserved for the States. Parliament is also vested with powers to impeach the President and to remove the Judges of Supreme Court and High Courts, the Chief Election Commissioner and the Comptroller and Auditor General in accordance with the procedure laid down in the Constitution. All legislations require consent of both the Houses of Parliament. In the case of money bills, however, the will of the Lok Sabha prevails.

Delegated legislation is also subject to review and control by Parliament. Besides the power to legislate, the Constitution vests in Parliament the power to initiate amendment of the Constitution. A list of laws made by Parliament during 1998 is given in Appendices.

The functions of Parliament are not only varied in nature, but considerable in volume. The time at its disposal is limited. It cannot make very detailed scrutiny of all legislative and other matters that come up before it. A good deal of its business is, therefore, transacted in committees.

Both Houses of Parliament have a similar committee structure, with a few exceptions. Their appointment, terms of office, functions and procedure of conducting business are also more or less similar and are regulated under rules made by the two Houses under Article 118(1) of the Constitution.

Broadly, parliamentary committees are of two kinds – standing committees and *ad hoc* committees. The former are elected or appointed every year or periodically and their work goes on, more or less, on a continuous basis. The latter are appointed on an *ad hoc basis* as need arises and they cease to exist as soon as they complete the task assigned to them.

Among standing committees, the three financial committees – Committees on *Estimates, Public Accounts and Public Undertakings* – constitute a distinct group and they keep an unremitting vigil over Government expenditure, and performance.

Courtesy : Government of India, *India 2000.*

Fundamental Duties

By the 42nd Amendment of the Constitution, adopted in 1976, Fundamental Duties of the citizens have also been enumerated. These enjoin upon a citizen among other things, to abide by the Constitution, to cherish and follow noble ideals which inspired our national struggle for freedom, to defend the country and render national service when called upon to do so and to promote harmony and spirit of common brotherhood amongst all people of India transcending religious, linguistic and regional or sectional diversities.

The Directive Principles

The Directive Principles of State Policy is a unique feature of India's Constitution. The Directive Principles are in the nature of directions to the legislature and executive that they should exercise their authority in such a manner as to ensure due respect for, and observance of, these principles. Although these directives are not justiceable, the courts cannot altogether avoid taking cognizance of them. They are the imperative basis of state policy and the Constitution directs the state to apply these principles in making laws.

The Directive Principles that are economically very significant are quoted below:

(a) The State shall strive to promote the welfare of the people by securing and protecting as effectively as it may a social order in which justice, social, economic and political, shall inform all the institutions of the national life [Article 38(1)].

(b) The State shall, in particular, strive to minimise the inequalities in income, and endeavour to eliminate inequalities in status, facilities and opportunities, not only among individuals but also amongst groups of people residing in different areas or engaged in different vocations [Article 38(2)].

(c) The State shall, in particular, direct its policy towards securing:

1. That the citizens, men and women equally, have the right to an adequate means of livelihood.
2. That the ownership and control of the material resources of the community are so distributed as best to subserve the common good.
3. That the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment.
4. That there is equal pay for equal work for both men and women
5. That the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter a vocation unsuited to their age or strength.
6. That children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against moral and material abandonment (Article 39).

It may be noted that sections of Article 39 were quoted as the basis of certain policies and Acts.

(d) The state shall ensure that the operation of the legal system promotes justice, on a basis of equal opportunity, and shall, in particular, provide for legal aid, by suitable legislation of schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities (Article 39-A).

(*e*) The state shall take steps to organise village panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-government (Article 40).

(*f*) The state shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of underserved wants (Article 41).

(g) The stale shall make provision for securing just and humane conditions of work and for maternity relief (Article 42).

(*h*) The state shall endeavour to secure, by suitable legislation or economic organisation or any other way, to all workers, agricultural, industrial or otherwise, a living wage, conditions of work ensuring a decent standard of life and full enjoyment of leisure and social and cultural opportunities and in particular the state shall endeavour to promote cottage industries on an individual or co-operative basis in rural areas (Article 43).

(*i*) The state shall take steps, by suitable legislation or in any other way, to secure the participation of workers in the management of undertakings, establishments or other organizations engaged in any industry (Article 43-A).

(*j*) The state shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the scheduled castes and the scheduled tribes, and shall protect them from social injustice and all forms of exploitation (Article 46).

(*k*) The state shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the state shall endeavour to bring about prohibition of the consumption, except for medicinal purposes, of intoxicating drinks and of drugs which are injurious to health (Article 47).

(*l*) The state shall endeavour to organise agriculture and animal husbandry on modern and scientific lines and shall, in particular, take steps for preserving and improving the breeds, and prohibiting the slaughter of cows and calves and other milch and draught cattle (Article 48).

(*m*) The state shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country (Article 48-A).

These Directive Principles make quite clear how important is the economic responsibility bestowed on the state by the Constitution.

Through constitutional amendments, new directives were added to provide a greater socialist orientation to development. For instance, in 1978, by the 44th Amendment, a new clause was added to Article 38; and this new clause contains a directive to strive to minimise the inequalities in status, facilities and opportunities. The 42nd Amendment incorporated a new Article, 43-A, to direct the state to take suitable steps to secure workers' participation in management.

There have been many occasions when the Directive Principles and Fundamental Rights have been in conflict with each other. In the early days, the Supreme Court held that the Fundamental Rights were a sacrosanct part of the Constitution and nothing, including the Directive Principles, could override them. But the view that the Fundamental Rights should be subordinated to the Directive Principles gained ground in later years.

While asking the *Lok Sabha* to refer the Constitution (Fourth Amendment) Bill to the Select Committee, Prime Minister Nehru declared that the Fundamental Rights must subserve the Directive Principles. In the *Keshwanand Bharti vs. State of Kerala,* Justice Mathew observed that "in building up a just social order, it is sometimes imperative that the Fundamental Rights should be subordinated to Directive Principles. Economic goals have an uncontestable claim for priority over ideological ones on the ground that excellence comes only after existence. It is only if men existed that there can be fundamental rights."

In short, the Directive Principles of State Policy enunciated in the Indian Constitution provide an enormous scope for Government intervention in the functioning of the economy. However, quite interestingly, although state control of the economy had been deepened and widened as if it were a Constitutional requirement, this trend has been reversed since 1991 while the same Preamble and Directive Principles are held sacrosanct.

Separation of Powers

Separation of powers is an important feature of the Indian Constitution. "the separation of powers contemplates the idea that the governmental functions must be based on a tripartite division of legislature, executive and judiciary. Each organ should be separate, distinct and sovereign in its own allocated sphere and it should not exercise the functions assigned to another."[13] As Chief Justice Subba Rao observed in the Golak Nath v. State of Punjab, the Constitution demarcates the jurisdiction of these organs minutely and expects them to exercise their respective powers without overstepping their limits. They should function with in the spheres allotted to them. No authority created under the Constitution is supreme; the Constitution is supreme and all the authorities function under the supreme law of the land."[14]

Division of Power

India's Constitution distributes the items for legislation among three lists:

- Union List
- State List
- Concurrent List.

The respective jurisdictions of the Union and the States and their mutual relations have been clearly defined.

The Union has exclusive power to make laws on all matters in the Union List and the States have exclusive powers to make laws in the State List. Except for the Union Territories, the Centre cannot normally legislate on any matter included in the State List. Parliament can, however, do so if the Council of States recommends by at least two-thirds majority that such legislation is in national interest; if two or more States mutually agree that this should be done for such States and to implement treaties or international agreements or conventions.

Both the Union and States can legislate on matters in the Concurrent List. However, in case of any conflict between the Union laws and State laws, the Union laws shall prevail. Further, the Union has exclusive power to make laws on any matter not enumerated in the Concurrent List or State List.

Expansion in State Intervention

The first four decades of planning witnessed an expansion of state intervention in the economy. The Constitution was amended a number of times. The Constitution of India, which came into force in 1950, was first amended in the very next year. By the First Amendment of the Constitution, the State has been empowered to impose restrictions on the right of citizens to carry on any trade, business, industry or service with a view to enabling the state to undertake any scheme of nationalisation or prescribing the professional or technical qualifications necessary for practicing any profession or carrying on any occupation, trade or business.

The state has, from time to time, acquired increasing powers to control private activity and enlarge its own ownership and management of the economy.

The brief account of the economic significance of the Indian Constitution given above makes it abundantly clear that the state has to shoulder a very heavy responsibility to attain the egalitarian goals set forth in the Constitution. Any responsibility should have commensurate authority also. Over the years, the Government has assumed enormous powers of control over the economy. How effectively and judiciously these powers have been exercised, and how satisfactorily the problems have been solved are different questions.

The Government has been very active in playing all the four important economic roles.

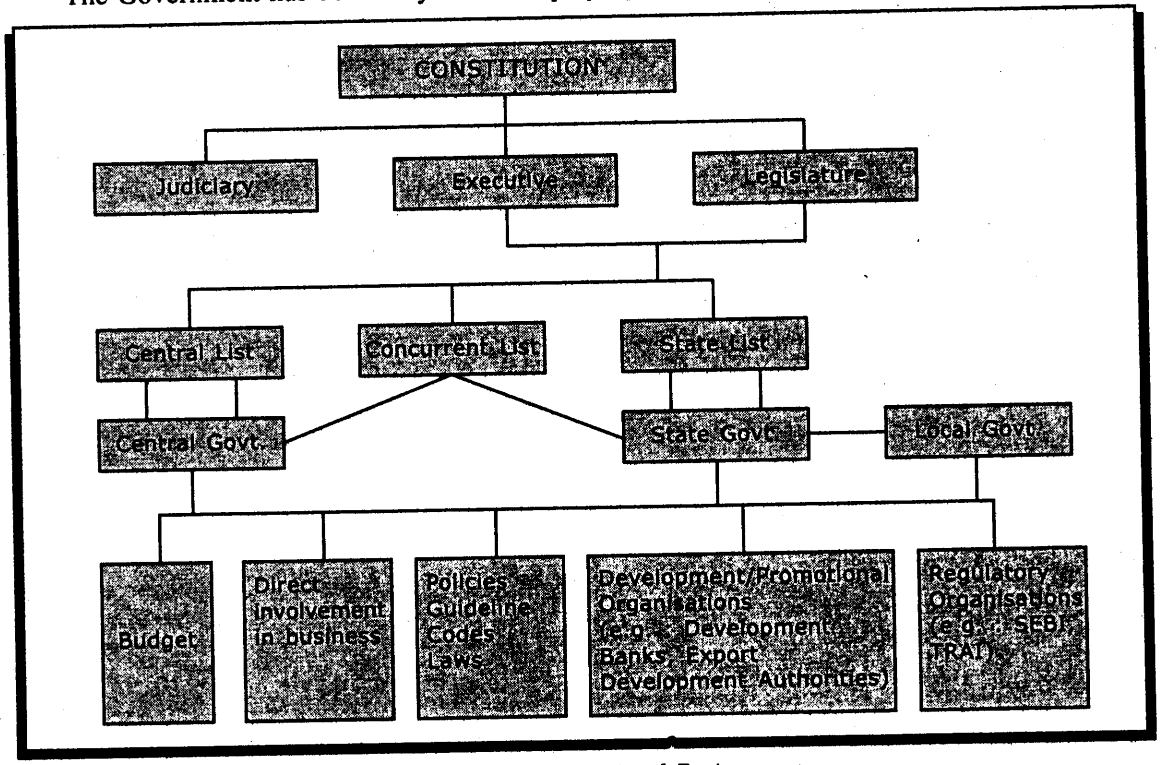

Fig. 4.2 : The Constitutional Environment

The first four decades have witnessed a clear trend towards an expanding control of the state over the various segments of the economy. With the increase in the problems, there has also been a tendency on the part of the Government to arm itself with more and more powers of control over the functioning of the economy. The Industries (Development and Regulation) Act, the Companies Act, Capital Issues Control Act (repealed following the liberalisation), Securities (Contracts Regulation) Act, Monopolies and Restrictive Trade Practices Act, Essential Commodities Act, Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities Act, Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, Foreign Exchange

Regulation Act (replaced by the Foreign exchange Management Act in 2000), Imports and Exports (Control) Act [replaced by the Foreign Trade (Development and Regulation) Act in1992] etc., provide the Government with sweeping powers of control over industry and commerce, so much so that Government cannot escape the responsibility for any shortfalls, drawbacks, or imperfections in these sectors of vital importance to the economy.

There are quite a good number of industrial and labour laws which regulate employer-employee relations, working conditions, wages, bonus, labour welfare and social security, etc.

The commercial banking sector was brought under the effective control of the Reserve Bank of India by the Banking Companies Act of 1949 and the Amendment Acts of 1956 and 1962, the Banking Laws (Miscellaneous Provisions) Act, 1963, etc. The Securities and Exchange Board of India (SEBI) regulates the capital market.

Indirect controls have also playing their part in serving the national development goals. Various quantitative and qualitative monetary weapons have been deployed from time to time to regulate the economy, mainly to control prices. A number of fiscal and monetary incentives have been offered to encourage the growth of such priority sectors as the export industry, small industry and small business. Monetary, fiscal, financial and physical incentives have been provided for the accelerated development of the backward regions. Fiscal and monetary policies have also been employed, as disincentives to discourage certain undesirable or inessential activities. The direct controls had considerably grown in importance.

No less important than the regulatory role is the promotional role of the Government in India. Being a mixed economy, the state has to provide the necessary facilities for the growth of the private sector. Our industrial policy has assigned an important role to the private sector in a number of industries. State's promotional role include development of infrastructural facilities, fostering of institutions to provide financial aid developmental support to business.

BOX 4.6 : HURDLES OF CONTROLS

The control regime that prevailed in India in the past was described by the chief executive of a large company as follows.

"One of the most important roles of the Chief Executive in many parts of the world today is the management of the relationship with the external environment which consists of government, the media, the trade unions, industry associations and various interest groups.. a major difference is that in India, the government is such an overwhelmingly dominant factor that I can confine myself to what has become the most important task of a Chief Executive of any large company in our country, *viz.*, the management of relationship with government. Government in India has such an all-pervasive and predominantly restrictive influence over various aspects of business, *e.g.*, industrial licensing, which decides location, capacity and process; import licensing for machinery and materials; size and price of capital issue; loan. Finance; pricing; managerial remuneration; expansion plans distribution restrictions and a host of other enactments. Therefore, a considerable part of the attention of the Chief Executive and his senior colleagues has to be devoted to continuous dialogue with various government agencies to ensure growth and profitability within the framework of controls and restraints..A notable trend has been the manner in which decision-making has moved up the ladder of government. Decisions which were taken in the early sixties by Joint Secretaries became decisions for Secretaries and decisions for Secretaries became decisions for Ministers as the decade progressed. In the seventies, these became decisions for Cabinet Committees and even for the whole Cabinet. This movement has bad a significant effect, not only in slowing down decisions, but also in increasing the chances of negative decisions. ..Trying to set up a new industrial unit in India is like running an obstacle race, except that in this case, as you go along, the obstacles are increased both in numbers and complexity without warning. We have estimated that it takes 7 years from the conceptual stage to the production stage for any significant investment to take place in India. Out of this, at least 50 % of the time is spent in procedures to satisfy government regulations. In any 3-year period of such delay, the cost escalation in modern times will be almost 50 %. In our protected economy, the Indian consumer ultimately pays the price for this cost escalation. At the same time, our exports become less competitive. A further consequence of the delay is that in many cases, we are compelled to import or lose the potential for longer periods."

—From "Managing a Business in India", speech delivered by T. Thomas, Chairman, Hindustan Lever Limited, at the Annual General Meeting of the Company held at Bombay on 20th February, 1980.

The expansion in the entrepreneurial/participative role of the state was been very spectacular. The public sector has grown substantially, both vertically and horizontally. The total investment in the Central Government industrial enterprises has grown from Rs. 29 crores spread over 5 units on April 1, 1951, to Rs. 2,23,000 crores in over 236 units in 1998. In some industries, the public sector gained an absolute or near monopoly, and it had a commanding position in a\ number of basic and heavy industries.

Both fresh investments and nationalisation have contributed to the growth and expansion of the public sector. More than 90 per cent of the commercial banking sector came to be in the hands of the state. Successive nationalisations — the nationalisation of the Imperial Bank and the establishment of the State Bank of India out of it in 1955, the nationalisation of 14 major private banks in 1969 and another six in 1980 — have been mainly responsible for it. The insurance business in the country, too, had been nationalised. The dawn of the present century has witnessed the move towards privatization / divestment.

Apart from monopoly in the field of railway transport, communications and air transport, the public sector accounted for a considerable share in shipping and road passenger transport. In the energy sector, the public sector had virtual monopoly in coal mining, exploration and refining of petroleum and in the generation and supply of electricity.

At one time, the public sector corporations accounted for about one-tenth of the country's total foreign trade. Imports and exports of certain important items are *canalized* through public sector agencies.

As a consequence of the liberalization, however, privatization / divestment has been spreading.

The public distribution system has been expanded to remove the imperfections in the distribution of essential goods and to protect the interests of the vulnerable sections. The Government has been playing a major role as a planner. The Planning Commission was set up in 1950 and the First Five Year Plan was launched in 1951 with the objective of achieving a rapid rise in the standard of living of the people by, an efficient exploitation of the resources of the country, increasing production and offering opportunities to all for employment in the service of the community. Our Five-Year Plans place special emphasis on improvements in the living conditions of the poor. The objective of distributive justice has been given added emphasis in the later Plans.

A significant aspect of Indian planning is the respect for democratic and property rights, unlike in the centrally planned economy. In Indian planning, there has been the balancing of the various economic elements and a sort of a fusion of the public, private and joint sectors, heavy and light industries, and big, medium, small and cottage industries.

In short, as Rosan observed[15], unquestionably, the Indian government held the levers that determined the levels of output of all large and medium-sized firms by: (1) its own direct production of a wide objects and intention of the Constitution, the *Fundamental Rights* which imposes limitations on State's power, the *Directive Principles of State Policy* which suggest numerous socio-economic welfare responsibilities for the State, *separation of powers* of judiciary, executive and legislature and *division of power* and responsibility between the Union and the States.

The Government control over the Indian economy grew enormously in the first four decades since Independence. Since 1991, India has been passing through a process of decontrols and economic reforms. This implies a redefinition of the role of the state.

There has been a global trend towards decentralization of power and responsibility. It has been true of India too to some extent. The Central Government's role in industrial development has significantly diminished as result of the delicensing and substantial reduction in the role of the public sector. Now it is left to the States to play an active role in the industrial development by creating a conducive environment for the development of industries, including attracting foreign investment.

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CHAPTER 5 NATURAL AND TECHNOLOGICAL ENVIRONMENTS

PART I

The natural and technological environments present the impulsive potential for development while the other environments like the economic, social, and political and government factors represent the propulsive potential for development.

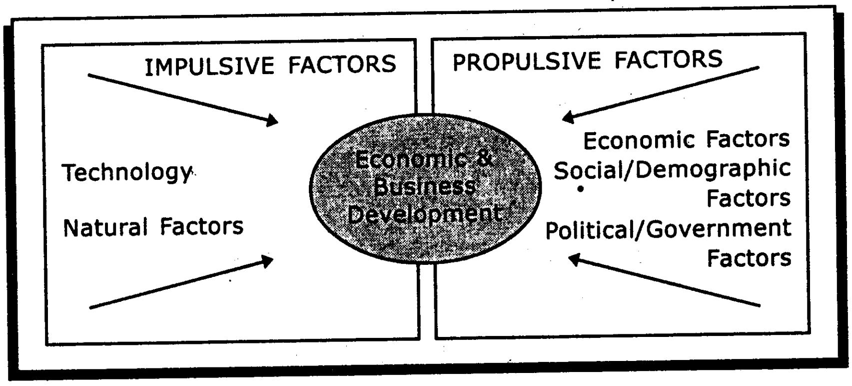

Fig. 5.1 : Impulsive and Propulsive Factors Affecting Business

Box 5.1 describes the interrelationship between the natural and technological environments.

BOX 5.1 : THE CORE OF SOCIAL SYSTEM

At the core of any social system is the natural environment and the available technology. Both define the possibilities for human action in the society — the natural environment through its resources and constraints, technology through the tools and processes available for human use. To some extent the ecology and technology are inter-dependent; technology is always built upon what is physically possible in the natural environment, and the natural environment can be degraded or enhanced, made more productive for human uses or depleted for any use, by the application of technology.

—S.L. Wartrick and D.J. Wood, *International Business and Society*, Blackwell Publishers Inc., Massachusetts, 1998.

Given the natural and technological environments, the propulsive factors determine the extent of exploitation of the development potential and the direction, pace and pattern of development.

has been standardized manufacturer cannot focus on improving the production processes that produce such a design.

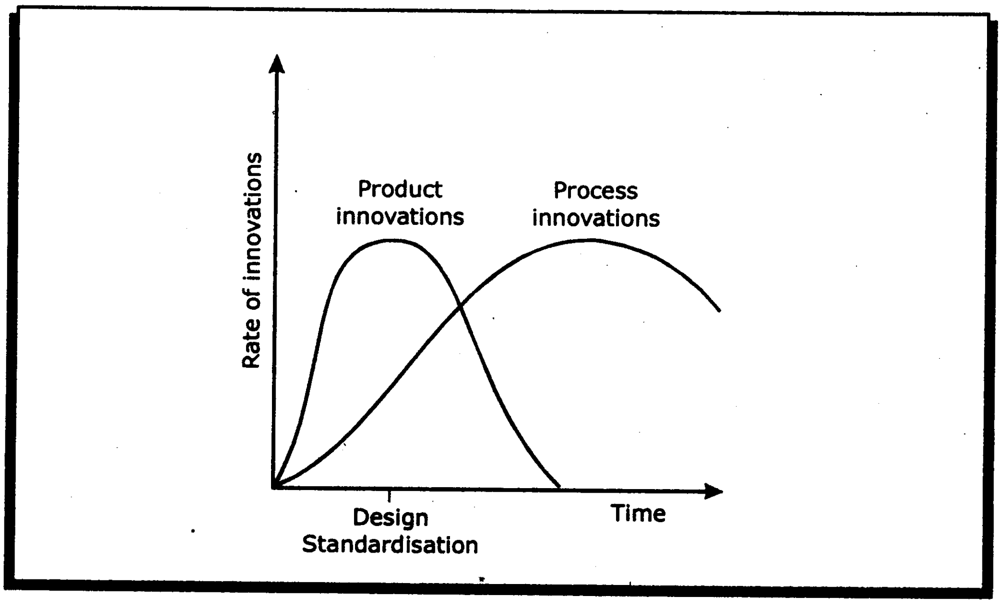

Fig. 5.3 : Rates of Product and Process Innovations

After the key technologies of the industry mature, the market for the industry will eventually saturate. This level of market for the industry will continue, unless the key technologies for the industry become obsolete by technology substitution. Then, the market volume of the industry based on the older key-technology product will decline to zero or to a market niche.

Technology S-Curve

According to the commonly observed pattern in the development of technologies, the rate of progress in a new technology follows an S shaped curve, with an initial exponential rate, slowing to a linear rate, and turning off toward a natural limit.

As Betz points out [8] at first, all new basic inventions for a new technology show poor performance, are awkward and dangerous to use, and are costly to produce. Yet the opportunities for technical improvement begin as inventors and engineers seek ways of overcoming the limitations of the original invention. There is usually a rapid flush of new ideas that provides exponential increase in performance. Eventually, and rather soon, all the obvious ideas get tried. Further progress in the new technology gets harder. Thus begins the linear phase of technology progress on the S-curve. Eventually, and rather soon, all the obvious ideas get tried. Further progress in the new technology gets harder. Thus begins the linear phase of technology progress on the S-curve. As Pearson observes [9] in due course the rate of improvement slows down as it approaches its limit, which may be technological (*e.g.*, some physical limit on performance), economic (*e.g.*, diminishing returns from further research and development) or social (*e.g.*, production of undesirable by-products). At this point there will be considerable economic and competitive benefit in changing to an alternative technology to which the limit does not apply, and consequently in due course a new technology will emerge and be adopted.

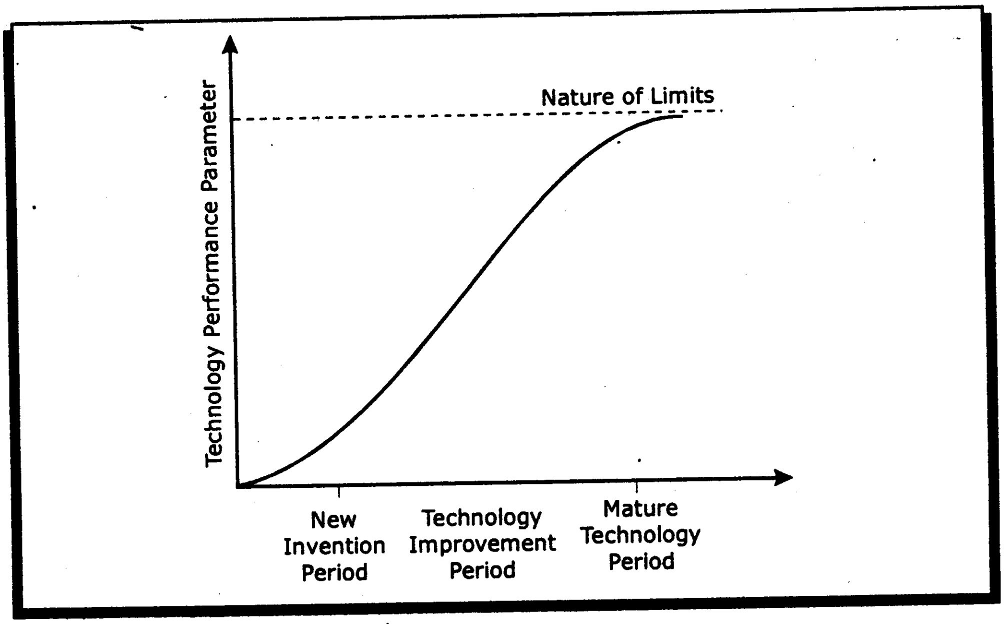

Fig. 5.4 : Technology S Curve

TECHNOLOGICAL LEADERSHIP AND FOLLOWERSHIP

An important broad issue a firm must address in technology strategy is whether to seek technological leadership. According to the notion of technological leadership "a firm seeks to be the first to introduce technological changes that support its generic strategy. Leadership can be established in technologies employed in any value activity." Technological followership refers to a conscious and active strategy in which a firm explicitly chooses not to be first on innovations."[10]

The decision to become a technological leader or follower can be a way of achieving either low cost or differentiation. Porter points out that the choice of whether to be a technological leader or follower in an important technology is based on the following three factors.[11]

Sustainability of the Technological Lead, i.e., the degree to which it can sustain its lead over competitors in a technology.

First Mover Advantages, i.e., the advantages a firm reaps from being the first, such as reputation, preempting a positioning, swithcing costs, unique access for a new product, proprietory learning curve, favourable access to facilities, inputs or other scarce raw materials; definition of standards; institutional barriers against imitations; and early profits.

First Mover Disadvantages, i.e., the disadvantages a firm faces by being first rather than waiting for others, such as pioneering costs (like costs of gaining regulatory approvals, achieving code compliance,. educating buyers, high costs of early inputs because of scarcity of supply or small scale needs); demand uncertainty, changes in buyer needs, specificity of investments to early generations or factor costs; technological discontinuities and low cost imitation.

Technological leadership can be sustained only if the competitors cannot duplicate the technology, or the firm innovates as fast or faster than competitors can catch up.

TECHNOLOGY AND COMPETITIVE ADVANTAGE

As Michael Porter points out in his well known *Competitive Advantage*, technological change is "one of the principal drivers of competition. It plays a major role in industry structural change, as well as in creating new industries. It is also a great equalizer, eroding the competitive advantage of even well-entrenched firms and propelling others to the forefront. Many of today's grêat firms grew out of technological changes that they were able to exploit. Of all the things that can change the rules of competition, technological change is among the most prominent."[12]

According to Gorden Pearson, "innovation is the key weapon in achieving a sustaining competitive advantage. To compete successfully it is vital to use the most appropriate technology to produce and distribute your product or service. Generally, this means using the latest technology, which will mean using the latest technology, which will incorporate more features, higher performance, greater quality or lower costs. In some cases this may involve invention as well as innovation. Innovations may be based on inventions or discoveries, but their importance rests on their commercial exploitation."[13]

Porter who observes that the relationship between technological change and competition is widely misunderstood, points out that "technological change is not important for its own sake, but is important if it affects competitive advantage and industry structure. Not all technological change is strategically beneficial; it may worsen a firm's competitive position and industry attractiveness. High technology does not guarantee profitability. Indeed, many high-technology industries are much less profitable than some "low-technology" industries due to their unfavorable structures."[14] It is very important to understand that technology "pervades a firm's value chain and extends beyond those technologies associated directly with the product. There is, in fact, no such thing as a low technology industry if one takes this broader view. Viewing any industry as technologically mature often leads to strategic disaster. Moreover, many important innovations for competitive advantage are mundane and involve no scientific break-throughs. Innovation can have important strategic implications for low tech as well as hi tech companies."[15]

As Porter points out, technology can alter the nature and basis of rivalry among existing competitors in several ways. Technology affects competitive advantage if it has a significant role in determining relative cost position or differentiation. It can also alter the bargaining power of the suppliers and buyers. Technology, in several instances, is an entry barrier. Thus, technology can influence all the five competitive forces.

If the technology employed in a value activity becomes wide-spread, it would be an important determinant of overall industry structure. "Technological change that is diffused can potentially affect each of the five competitive forces, and improve or erode industry attractiveness. Thus even if technology does not yield competitive advantage to any one firm, it may affect the profit potential of all firms. Conversely, technological change that improves a firm's competitive advantage may worsen structure as it is imitated. The potential effect of technological change on industry structure means that a firm cannot set technology strategy without considering the structural impacts."[16]

According to Porter, technological change by a firm will lead to sustainable competitive advantage under the following circumstances, which he calls the tests of a desirable technological change.[17]

- The technological change itself lowers cost or enhances differentiation and the firm's technological lead is sustainable.
- The technological change shifts costs or uniqueness drivers in favour of a firm

- Pioneering the technological change translates into first mover advantages besides those inherent in the technology itself.
- The technological change improves overall industry structure.

Porter cautions that technological change will destroy competitive advantage if it not only fails the tests but has the opposite effect contemplated in the tests, such as skewing cost or uniqueness drivers in favor of competitors. A firm may also find itself in the situation where a technological change may meet one test but worsen a firm's position via another.

SOURCES OF TECHNOLOGICAL DYNAMICS

There are a number of factors which determine the technological dynamics of a company. The source of technological change may be internal or external. As Porter suggests, technological leaders in industries with key external sources of technology must capture the best of those sources through coalitions or exclusive arrangements in order to sustain their lead, or have a superior ability to adapt externally developed technology to the industry.[18]

The important factors which determine the technological dynamics of a company include the following.

Innovative Drive of the Company

Many companies view technology as a driving force of competitiveness and development and give great importance to R&D. Recognising the critical role of R&D in the pharmaceutical industry, Ranbaxy, for instance, has positioned itself as a research based international company. Several other firms, such as Dr. Reddy's Laboratories, have also been investing considerably on R&D and they have been significantly benefiting out of it. It is a policy of some companies that a certain percentage of their sales every year shall come from new products.

Customer Needs / Expectations

Technological orientation and R&D efforts of a company may also be influenced by the customer needs and expectations. In several cases the customer and the supplier have a collaborative relationship to develop products or solutions. If the consumers are highly demanding, companies would be compelled to be innovative.

BOX 5.2 : HOW INDIA COMPARES IN R&D

Few doubt that India has the potential to emerge as a global R&D base in sectors like pharmaceuticals and software. But that does not necessarily mean that it will. The key lies in the country's ability to scale up its R&D expenditure. At last count, India's R&D expenditure stood at 0.86% of the GDP, which is much lower than that of developed countries such as the US (2.79%), Japan (2.83%) and Germany (2.33%). Similarly, if India has to realise its potential of becoming a leading supplier of generic drugs, the pharma sector will need to increase its R&D spend almost five-fold in the next five years — from Rs 320 crore to Rs 1,500 crore.

Another way of looking at the R&D gap in India is to quantify the amount businesses spend on research. While corporates contribute to the bulk of the overall R&D expenditure in developed countries like the US (around 70%) and Japan (nearly 80%), the figure is quite low in the case of India (15%). And with the government reducing its budget for state-owned research centres, Indian businesses have no option but to bridge the gap. Especially, if the current government aims to achieve its stated objective of increasing R&D spend to 2% of the GDP over the next few years.

The expenditure on research to sales ratio — which stood at a miserable 0.3% for Indian industry has to increase manifold. In developed countries, this ratio is usually in double-digits. For instance, in the case of global pharma majors like Novartis, Johnson & Johnson and Pfizer the ratio ranged between 9.46% and 15.42%. Compare that to an average of 2% for Indian pharma firms.

So, what's the best way to exploit India's research potential? According to D.S. Brar, CEO, Ranbaxy Laboratories, the solution lies in providing "for fair, rational and transparent pricing policy," apart from formulating "fiscal and tax incentives for R&D initiatives." One of these initiatives could be the removal of taxes on "income from royalties and intellectual property transacted outside the country". Only then can India increase its R&D expenditure, which stood at $3.5 billion and was growing at an average annual rate of 12%.

	R&D spends ($ billion)	***R&D spends /GDP (%)***
China	69.7	0.8
US	247.0	2.79
Japan	130.1	2.83
Germany	50.1	2.23
France	32.7	2.3
UK	14.7	1.8[illegible]
Russia	4.3	0.94
India	3.5	0.86

[This *box* is a reproduction from "Can Policy Makers Develop India's Research Base?", *Businessworld*, 12 February 2001.]

Demand Conditions

Besides customer needs/expectations, there are certain demand related factors which influence the technology choice. *For example*, the size of the demand influences the choice of the technological scale. Expected future trend could also be important. *For example*, a fast growing trend of demand would encourage adoption/development of technology of large scale. It would also encourage R&D efforts. The situation may be different in a declining industry.

Suppliers' Offerings

Many a time technological changes are encouraged by the suppliers of a company, like capital goods suppliers and other technology suppliers etc. In many process industries, *for example*, the key source of technology is construction engineering firms that design production processes and build plants. The competitiveness of the Italian tile industry, *for example*, owes a lot to the dynamic and innovative technology suppliers.

Competitive Dynamics

Competition compels the adoption of the best technology and constant endeavour to innovate. Japanese companies have, generally, a high degree of technological orientation. According to Akio Morita, the glory and the nemesis of Japanese business, the life's blood of the industrial engine, is good old fashioned competition. And this makes the consumer in Japan a king. In Japan, there are more makers of civilian industrial products than in any other country, including the United States.[19]

Absence of / lack of competition was a major reason for the technological backwardness of corporate India. The impact of competition on technological improvement is very evident in many industries in India after the liberalization.

Substitutes

Emergence of new substitutes or technological improvements of substitutes which alter a firm's/ industry's competitive advantage vis-à-vis the substitutes is a compelling reason for technological change. Porter points out that perhaps the most commonly recognized effect of technology on industry structure is its impact on substitution. Substitution is a function of the relative value to price of competing products and the switching costs associated with changing between them. Technological change creates entirely new products or product uses that substitute for others, such as fiberglass for plastic or wood, word processors for typewriters, and microwave ovens for conventional ovens. It influences both the relative value/price and switching costs of substitutes. The technological battle over relative value/ price between industries producing close substitutes is at the heart of the substitution process.[20]

Social Forces

Certain social forces like protest against environmental pollution or other ecological problems, demand / preference for eco-friendly products, the need to tackle certain social problems etc. may prompt efforts to technological developments in certain direction.

The technological environment has some other social/cultural dimension too. For instance, Morita points out that the Japanese have always been eager to develop their own technology from abroad, and blend them to make suitable objects or systems.

Research Organisations/Technical Facilities

The technological environment of the business is enriched by research organizations, including research departments of universities, which develop new technologies and provide other technical inputs. Research establishments like Indian Council for Scientific Research (ICSR), Central Food Technological Research Institute (CFTRI), Defence Food Research Laboratory etc. are well known in India. The technology developed by the CFTRI for making baby food from buffallo milk and its commercialization by Amul, *for example*, was a milestone development.

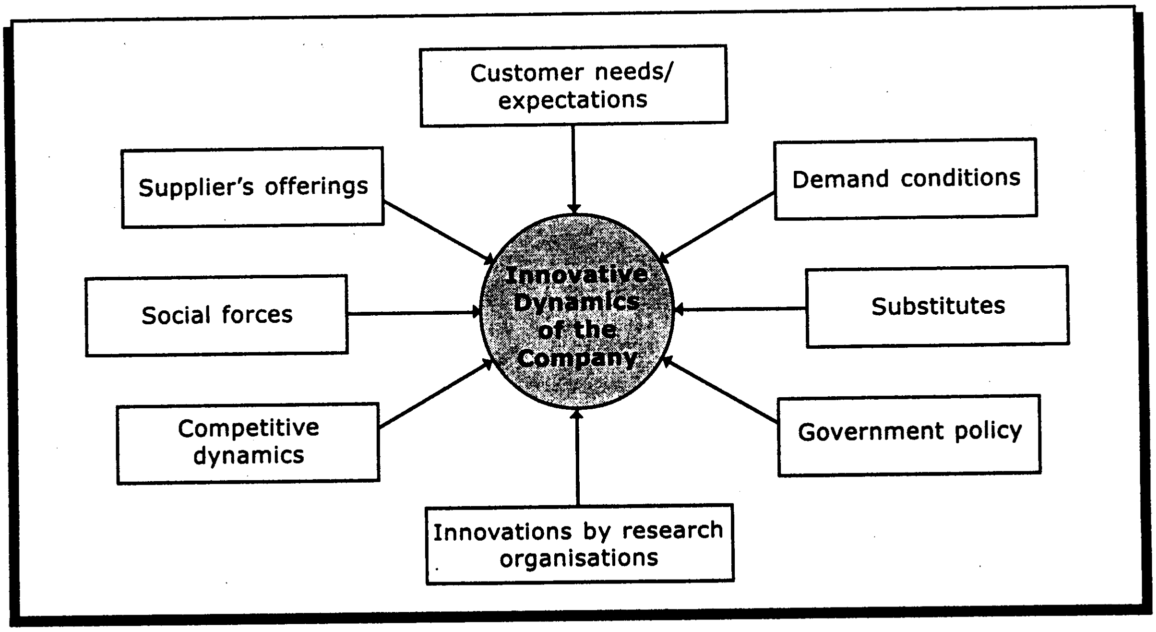

Fig. 5.5 : Innovative Drivers

institutions is not a matter of choice but rather of compulsion derived from competitive pressures. The initial emphasis and endeavour should be on developing synergies and alliances to enhance India industry's competitive advantage and on gaining greater share of global markets.

The need for cooperation is to bring about value addition to the products through endogenous resources/skills; environmentally clean and economically viable processes; closely held technologies that are commercially denied to Indian industry; strategic/dual use technologies; technology packages as available from commercially operating units; process/product upgradation and incremental productive improvements; and strategic alliances with partners abroad for gaining market/technology advantage/dominance.

The initial emphasis and endeavour should be on developing synergies and alliance to enhance Indian industry's competitive advantage and on gaining a greater share of global markets in such areas like speciality chemicals, drugs and pharmaceutical, footwear and leather products, automotive and light engineering components, customized software, textiles and garments, gems and jewellery, agro-based products etc. This is already visible in the drugs and pharmaceuticals sector. Several Indian pharmaceutical companies have already forged strategic alliances with the domestic R&D institution. The Drugs & Pharmaceuticals Research Scheme of the DST, the Home Grown Technologies of the TIFAC and the PATSER scheme of the DSIR are some examples of successful Government intervention in shaping the cooperative endeavours.

The Government will have to provide an economic environment favourable not only for the conduct of different kinds of business but also to catalyse the arrangements and the institutional mechanisms that would facilitate synergistic technological development, its absorption and upgradation.

The efficiency and effectiveness of the R&D institutions can be significantly enhanced by providing them adequate flexibility and freedom to function in a market economy.

The increased participation and involvement of the industry in the decision making bodies of R&D institutions will make their programmes not only more attractive to industry but also to the financial institutions offering venture/risk capital.

Courtesy: Planning Commission, Government of India, *Ninth Five Year Plan, 1997 – 2000*, Vol. II

TIME LAGS IN TECHNOLOGY INTRODUCTION/ABSORPTION

Considerable time lags have been observed between countries in respect of introduction or absorption of technologies. This lag is not explainable in terms of the developed versus developing countries difference alone.

In many developing countries, including India, the TV arrived very late. Although the colour T.V. had become quite common in the advanced and even in some developing countries when the telecast started in India, in the early period there was only black and white telecast. The cable T.V. came to India only by about the beginning of the 1990s. The late introduction and the slow expansion of the telecast affected not only the T.V. business but also the advertising industry and product promotion.

The time lags in the introduction of technologies may even result in some products not being able to reap the market. The electronic typewriter became popular in India before the electric typewriter could penetrate the market. The electronic typewriter could not achieve growth because of the advent of the computer.

Many companies in advanced countries have considered the developing countries as a market for their obsolete technology. Several developing countries even import second hand plant and machinery.

There is often a time lag between countries in the adoption and diffusion of technologies. The developing countries generally lag behind the developed ones. Even among the developed countries the technology absorption is not simultaneous and similar. The time lag has, however, been diminishing in several cases.

Technological environment of the use facilities etc. also have very important implications for business. *For example*, advances in the technologies of food processing, packaging and preservation, transportation etc. have facilitated product improvements and introduction and have considerably improved the marketability of products.

APPROPRIATE TECHNOLOGY AND TECHNOLOGY ADAPTATION

When different technologies are available, it needs to be ensured that the technology chosen is the most appropriate for the company/country. The technology suitable in one environment may not be appropriate in a different environment. This could be due to reasons like differences in natural factors such as topographical conditions, climatic/weather condition, soil conditions etc.; differences in income levels, scale of operation, demand conditions, use facility characteristics, customer characteristics.

It is pointed out that much of Japan's successful growth has been due to her systematic purchase of appropriate technologies from abroad. The choice of technologies was aided by the fact that Japan possessed a body of competent scientists and engineers who for the most part were employed by the government and worked in government laboratories.[21]

The latest or highly sophisticated technology may not be the appropriate technology in several environments. Thanks to writers like Schumacher, the concept of appropriate technology (which, in this context, often implies intermediate technology) became popular in the developing world. Intermediate technology, which often means a technology which combines elements of traditional technology with elements of modern technology, gained importance in the developing countries. Thus, the sophisticated capital intensive technologies in use in the developed countries are not acceptable in some sectors in several of the developing countries. An Indian company, Mekins Agro Products Ltd., with designs from International Crop Research Institute for Semi Arid Tropics (ICRISAT), Hyderabad, introduced easy to maintain bullock-drawn agricultural equipments in India. It has been exporting them to other developing countries with comparable agrarian environments.

One multinational found that the reason for low demand for its washing powder in a developing economy was the low washing machine ownership. The low income and lack of electrification / unreliability of power supply came in the way of increasing the washing machine ownership. So the company asked its R&D department to develop a low cost, manually operated (i.e., which does not use electricity) washing machine. The 'innovation backward' resulted in the introduction of such a washing machine. Similarly, another company took an innovative step backward by developing a crank-operated cash register that would sell at half the price of a modern cash register. It found a good demand in a number of developing countries.

availability of higher levels of technology all over the world is putting pressure on the wages and employment of low-skilled workers.

Who really benefit from the IT and communication revolution?

Financial Dealers are at the pinnacle of connections. Instant communications, free flows of capital and constant updates from around the world enable money markets from London to Jakarta, from Tokyo to New York, to act as a unit in real time.

Multinational Corporations, too are roaming global markets and integrating production, Cross-border mergers and acquisitions (majority - foreign-owned) account for a large chunk of the total foreign direct investment.

NGOs on-line can campaign around the world, with their messages travelling across borders in seconds. Through e-mail and media networks, people are giving their support to associations across borders—from informal networks to formal organisations.

Skilled Labour also travels the global village. With Internet access in nearly every country, the highly educated are increasingly on-line and in touch around the world. In 1998 more than 250,000 African professionals were working in the United States and Europe, Immigrants with skills in computing technologies are in high demand – in the European Union alone, 500,000 information technology jobs go unfilled because of lack of national skills. The United States offers a special visa to professional immigrants to keep high-tech industries staffed.

Unskilled Labour, by contrast, runs up against hurdles. Many families are divided across international borders as a result of the increasingly tight restrictions in the rich countries in the immigration of unskilled labour. Millions of people do not even have passports—difficult to get. In some countries—let alone the visas required to travel abroad.

The collapse of space, time and borders maybe creating a global village, but not everyone can be a citizen. The global, professional elite faces low borders, but billions of others find borders as high as ever.

Courtesy : UNDP, *Human Development Report*, 1997 and 1999.

IT AND MARKETING

Advances in information technology are revolutionalising the *modus operandi* of marketing and the business system. The business horizon is humming with buzzwords like *internet, world wide web (www), cyberspace, information superhighways* etc. which are changing the way of contacting customers; order receiving and processing; and networking and integrating business system. The revolutionary changes being ushered in by the internet are indeed exciting.

Technology experts are anticipating that the internet and the w w w would become the centre of commercial universe. Electronic markets will eliminate the need for intermediaries and that direct contact between manufacturer and customer will bring down the cost of transaction and the cost of the final product. The internet has the potential to evolve into an interconnected electronic market place (cyberspace) bringing buyers and sellers together to facilitate commercial exchanges. The internet is fast becoming an important new channel for commerce in a range of business – much faster than anyone who would have predicted in the past. The opportunities presented by this new channel seem to be readily apparent; by allowing for direct ubiquitous links to anyone anywhere, the internet allows companies build interactive relationships with consumers and suppliers and deliver new products and services at low cost.[20]

Revolutionary changes in information technology have been sweeping across the global business. Developments in telecommunications and information technologies have reduced the barriers to time and place in doing business. It is now possible for customers and suppliers to transact business at any time any part of the globe, without having to come together physically, thanks to the developments in optical fiber technology, videophone and teleconferencing facilities. The net has changed face and pace of business to business marketing and retailing.

Effective use of information technology helps a company to identify and profile customers, reach out to customers quickly and more effectively, and make inventory management and distribution system more efficient.

If Indian firms do not keep pace with such contemporary developments, global business, and even domestic business in due course, will be largely out of their reach.

IT has been significantly transforming the distribution system. Xavier points out that effective use of IT in distribution can help companies:[24]

- Reduce inventories
- Reduce delivery time/unproductive waiting time
- Reduce stock-outs/lost sales
- Respond faster to market changes
- Reduce rush orders
- Cut down overproduction
- Reduce unnecessary movement (forwarding and back-tracking)
- Reduce paper-work and wasteful processing
- Plan production better

All the above benefits result in improved service at a lesser cost. In the West, IT is drastically changing the distribution systems. Electronic networking has become all pervasive. The boundary of the organization is blurring, as it becomes more of a network, with electronic links forward into customers, backwards to suppliers and sideways to business partners. Looking at the enormous benefits, one may wonder as to why Indian companies have not computerized their distribution as yet.[25]

As Xavier points out, IT has also greatly contributed to the retail revolution, which is sweeping the entire world. What used to be a fragmented industry has got consolidated due to the sophisticated use of IT systems. Large retail chains are gobbling up small-town retailers. Retailing has now become a global business, thanks to the sophisticated IT systems being used by them. Typically, the retail stores were all along operated by owners, but currently the shift is towards systems-driven stores.[26] The major shifts that are taking place in the retail industry are summarized in Table 5.1.

TABLE 5.1 : RETAIL REVOLUTION

From	*To*
Fragmented	Consolidated
Local	Global
Low Technology use	High Technology use
Owner-operated	Systems-driven
Traders	Retail brand managers
Mass marketing	Individualised relationship customisation
Market place	Market space

Source: M.J. Xavier, *Marketing in the New Millennium*, p. 142.

and improved, and design skills for more complex engineering learned.

Innovative Level: This level is characterised by innovative skills, based on formal R&D, that are needed to keep pace with technological frontiers or to generate new technologies.

Channels of Technology Flow

The most important channels for the flow of technology are Foreign Investment and Technology Licence Agreements and Joint Ventures.

Foreign Investment: Traditionally, the flow of technology to developing countries has been an integral part of direct foreign investment. Multinational corporations and other firms have resorted to foreign direct investment for a variety of reasons like protection and development of foreign markets, utilisation of local resources (in the host country) including cheap labour, overcoming or lessening of the impact of tariff restrictions and tax laws. The flow of sophisticated technology, in particular, has thus been associated with direct investment.

Technology Licence Agreements and Joint Ventures: Technology transfer has been taking place on a significant scale through licensing agreements and joint ventures. There has been a fairly rapid growth of joint ventures, encouraged by government restrictions on foreign investment and foreign trade or the perceived advantages of such ventures. When foreign capital participation in joint ventures is below 50 per cent, technological agreements assume considerable significance.

Methods of Technology Transfer

Transfer of technology takes a variety of forms depending on the type, nature and extent of technological assistance required. The following are the important methods of technology transfer:

1. Training or Employment of Technical Expert: Fairly simple and unpatented manufacturing techniques/processes, can be transferred by imparting the requisite training to suitable personnel. Alternatively, such technology can be acquired by employing foreign technical experts.

2. Contracts for Supply of Machinery and Equipment: Contracts for supply of machinery and equipment, which normally provide for the transfer of operational technology pertaining to such equipment, is often quite adequate for manufacturing purposes not only in small scale projects but also in a number of large scale industries where the nature of technology is not particularly complex.

3. Licensing Agreements: Licensing agreements, under which the licensor enters into an agreement with a licensee in another country to use the technical expertise of the former, is an important means for the transfer of technology. Licensing agreements are usually entered into when foreign direct investment is not possible or desirable.

4. Turnkey Contracts: Transfer of complex technology often takes place through turnkey project contracts, which include the supply of such services as design, creation, commissioning or supervision of a system or a facility to the client, apart from the supply of goods.

Many times, a combination of two or more of the above mentioned methods is used. Turnkey contracts, obviously, are the most comprehensive of such combinations.

Issues in Transfer of Technology

Cost, appropriateness, dependence and obsolescence are the four important issues associated with the transfer of technology.

In many cases, the developing countries obtain foreign technology at unreasonably high prices. In a number of cases of foreign direct investment associated with technology transfer, the net outflow of capital by way of dividend, interest, royalties and technical fees has been found to be much higher than the corresponding inflow.

The appropriateness of the foreign technology to the physical, economic and social conditions of the developing countries is an important aspect to be considered in technology transfer. It has been argued that there are a large number of cases where the foreign technology transferred has been irrelevant or inappropriate to the recipient country's socio-economic priorities and conditions.

Further, heavy reliance on foreign technology may lead to technological dependence.

It is pointed out that the import of modern sophisticated technology has tended to displace the traditional indigenous technology which have been improved under a different set of policies. The steady stream of new products and processes introduced by multinationals into developing countries