



Role of technology in designing the business strategies of a firm ? discuss how technology has become an integral part of business unit ?

- The word 'technology' comes from two Greek words – 'techne' - the skill or craft needed to make something and 'logos' (discussion or knowledge of something). So technology means knowledge of how something is made.
- Technology seems to be the most widely today in industrial world and several words or nomenclatures connected with technology are in vogue. These includes Research & Development, invention, technology development, technology strategies, technology forecast technology assessment, technology planning, technology information, technology transfer, technology absorption and adaptation, Industrial property systems, code of conduct and technology management. It is difficult to find so exact definition for technology, for it has been defined in many ways.

- **One definition identifies ‘technology’ as an application of knowledge that leads to production and marketing of goods and services. According to Betz, Technology develops business by providing technological knowledge for the goods and services that a firm produces. Technology innovation implies new technology creating new products and services – hence new business opportunity. Managing technology means using new technology to create a competitive advantages which is quite a difficult Job; partly due to differing cultures in a company.**

- Technology is often thought to be solely the domain of scientific and engineering personnel of an organisation. Yet successful business use of technology requires strategic decisions about technology by personnel in other functional areas, such as production, marketing, sales, finance and so on. Thus two cultures-technical and functional – need to be bridged, and management should integrate technology strategy with business strategy. This is the essence of technology management. Thus the integration of technology with business unit and business strategies which otherwise called technology management, has become an important aspect of business for its success.

ROLE AND IMPORTANCE OF TECHNOLOGY IN DESIGN OF BUSINESS STRATEGY:

- Technology and management of technology are critical for an enterprise for its successful operation on long-term basis. Technology management however a part of total management system. There are three basic consideration for starting any new firm based on technological innovation.
- a) The idea for a technological innovation
- b) A potential market.
- c) Team work in both technological and business experts

- The above points underline the need for interweaving the technology framework with other areas of business in an enterprise. The idea of a technological innovation should be based or linked with the potential market and the technology team should closely interact with the rest of the divisions of the enterprise leading to a successful logical conclusion in terms of production/processes to be developed as per the set objectives set at the beginning. This strategy is best reflected in the form of a ‘Business Plan’ of an enterprise which needs to be prepared and approved before starting the new business.

The Business Plan

- The business plan is a strategy summery of a new venture. Its purposes are
- 1. To ensure, by clear **focus in strategy**, that important points necessary to the success of any business venture have been considered and;
- 2. **To persuade functional investors** to invest in the new venture.

A new venture business plan could include the following :-

a) Current Business Status

- -Business objective
- -Management and organisation

b) Products or Services

- -Product Description
- -Technology Background
- -competition

c) Benefits to Customers

- -Market
- -Market Strategy

d) Capitalisation

- -Capital Requirement
- -Financial Forecast
- Benefits to Investors

- It is thus clear from the above that technology and technology management are only part of total business activity or business plan of an enterprise.

TECHNOLOGY AND COMPETITION

- Although technological competitiveness is necessary for corporate survival, it alone is not sufficient. Of course a corporation with inferior technology cannot compete at the same price level with a corporation with superior technology. The reason why superior technology itself is not sufficient is that business is a system and there are many other systems(sub-system) that determine business success. Therefore, if technology is to 'give a competitive edge, management must manage it as a part of the business system. Technological innovation can be integrated with production, marketing, finance and personal into a balanced business system.

Managing technology essentially involves for four central concepts of :

- 1. New ventures
- 2. Innovation
- 3. Research
- 4. Research Infrastructure

- **New Venture:** Although new ventures centred around technology are an important class of the business, new hi-tech ventures are difficult because they involve two major risk: developing new product and creating new markets. Ideas central to new ventures are concerned with entrepreneurial management, overall business plan and dynamics of organisational growth.

- **Innovation:** it denotes the whole span of activity from creating new technological knowledge to implementing it in new businesses. Ideas central to innovation include concepts such as types of innovation, processes of innovation, the technology life cycle, economic life cycles sources of innovation, business opportunities in a technological system, marketing and new technology, corporate diversification through new ventures and technology in manufacturing strategies.

- **Research :** Technological change is the new knowledge about what things to produce and how to produce them and in the corporation, new knowledge often comes from corporate research. The corporate laboratory is charged with the responsibility of looking after the present and future productivity of the corporation. Managing and integrating corporate research with other managerial functions and strategies is essential to technology management. Research management includes organisation of research, project management, research personnel, and corporate research strategy.
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- **Research Infrastructure** : the technologies of corporate do not exist in a vacuum but are part of a larger technological context, first of the industry, then of the nation and then of the world. This larger context is a research and developmental infrastructure, and it has an important influence on the competitive conditions in a country. With the expansion and increased intensity of international competition, the R & D infrastructure of a nation plays a critical role in economic competition.