CHAPTER-I
An excerpt from an interview with Charles Handy in Business Today, 1995. ¹

- "You are, therefore, arguing for project specific alliances and smaller corporate....".

"It is a mistake for two big pharmaceutical companies like Glaxo and Wellcome to merge. It creates a huge organization that is de-motivating in the middle. It's also difficult to manage such a huge company. So, I believe that alliances give you the economies of scale that you need.

Keep the companies separate. Keep them small and ally for specific projects with others to get the size you need. Growing big has something to do with megalomania at the top of organizations. They want to preside over bigger corporations. We don't need big business empires any more.

The only way we can possibly continue to have a large organization is to go federal in order to diffuse the tensions. The future of the organization is a federal structure linked together by a very small center. You should allow the Balkanization to take place in a Coordinated manner. The federal structure then becomes an inventive place because all these little bits try to do their own thing and in a sense, compete with each other. And do better. That is the way in which you can get the creativity to live longer in an organization. For any organization to survive, it should try to

¹ Handy Charles "You Don't Need to Be Big" The Charles Handy Interview, Business Today, December 7-21, 1995, P 122-127.
grow new bits. Like a plant that lives beyond its death by growing new leaves at its ends."

- "But Indian Companies are going the other way. They’d rather be mega-conglomerates:

“You have to be careful. Size does give you power sometimes, but federal structures allow you to be big where big matters and small where small matters. If you make the mistake of thinking that you will be big in everything, and run every unit the same way, then people are going to move out, tensions will break out, and it will be bad for the organization. It is strange that although the idea of federalism has been around for 2,000 years, neither politicians nor EDs still understand it.

**What do you foresee will be the centers of the workplace?**

I see the future of the office as a hub with a lot of people but they don’t have to be in the office. In these new organizations, people will be spending a lot of their time outside the office. People would not have to be in the office to do their work. So, the office becomes a place where you go to meet other people or to use very special equipment.

The future of the workplace is unfolding at different paces, in different centers and in different industries. What is common is that people will be moving out of organizations when they are around 50 years old and perhaps live a fuller life and discover themselves. I thought that was good news for organizations because they would have younger people and companies would think of them as assets and would invest in them."
Commenting on transition in organization design, Brian Dumaine observes, If you were to ask a CEO in the year 2000 to take out his Montblanc and draw the organization chart of his company, what he'd sketch would bear little resemblance to even the trendiest flattened pyramid around today. Yes, the corporation of the future will retain some vestiges of the old hierarchy and may be a few traditional departments to take care of the boringly rote. But spinning around the straight lines will be a vertiginous pattern of constantly changing teams, task forces, partnerships, and other informal structure. "It seems partly to support the predictions of Warren Bennis as contained in his comments that 'within the next twenty-five to fifty years, we should all be witnessing to and participate in, the end of bureaucracy." Thus an organization design viz. bureaucracy, which could sustain itself for thousands of years because of its virtues of order, predictability, stability and rationality seems to crumble and fast yielding place to what Alvin Toffler calls 'ad hocracy' and Brian Dumaine describes as 'new adaptive organizations.'

"At some unmarked point during the last twenty years we imperceptibly moved out of the modern age and into a new, as yet nameless era... The old view of the world, the old tasks and the old center, calling themselves 'modern' and 'up-to-date' only a few years ago, just make no sense any more. They still provide our rhetoric, whether of politics or science, at home or in foreign affairs. Our actions are measured against the stern

demands of 'today', the 'post modern' world and yet we have no theories, no concepts, no slogan - no real knowledge about the new reality."\(^5\)

There has been a growing concern about some fundamental definitions, taxonomies and boundaries as applied to the company. As long ago as 1989 Tom Peters was asking:

‘What is an organization? What is a product? What is a market? What is a customer? I used to think that I knew the answers. I don’t now. Is an organization a pyramid, a network, a network of organizations? Where are its boundaries? Is the idea of boundaries even helpful?

----- And what is a customer? An adversary? A partner?

----- Our so recently tried and true (yet still recent) management tools are, arguably worthless, many downright dangerous.\(^6\)

Human organizations are as susceptible perhaps more so, as other social institutions are to changing times, and their rise and fall, success and failure, all testify to their vulnerability. As John W. Gardner (1965) suggests,

`What may be most in need of innovation is the corporation itself. Perhaps what every corporation (and every other organization) needs is a department of continuous renewal that could view the whole organization as a system in the need of continuing innovation in values and structure of organizations so that they can better adapt to new technologies, markets and challenges and the dizzying rate of change itself.\(^7\)

Peter F. Drucker listed 41 major responsibilities of the Chief executive and declared that "90 percent of the trouble we are having with the Chief executive's job is rooted in our superstition of the one-man chief". Many factors make one-man control obsolete, among them: the broadening product base of industry, the impact of new technology, the scope of international operation, the separation of management from ownership, the rise of trade unions, and the dissemination of general education. The real power of the chief has been eroding in most organizations even though both he and the organization cling to the older concept.  

The real coup de grace to bureaucracy has come as much from the turbulent environment as from its incorrect assumptions about human behavior. The pyramid structure of bureaucracy, where power was concentrated at the top—perhaps by one person who had the knowledge and resources to control the entire enterprise—seemed perfect to run a railroad. And undoubtedly for tasks like building railroads for the routinized tasks of the nineteenth and early twentieth centuries, bureaucracy was and is an eminently suitable social arrangement.

Today, due primarily to the growth of science, technology and research and development activities, the organizational environment of organizations is rapidly changing. It is a turbulent environment, not a placid and predictable one and there is a deepening interdependence among the economic and other facets of society. This means the economic organizations are increasingly enmeshed in legislation and public policy. Put more simply, it means that the government will be more involved more of the time. It may also mean, and this is radical,

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that maximizing cooperation rather than competition between organizations - particularly if their fates are correlated (which is most certainly to be common) - may become a strong possibility.9

The social structure of organizations of the future will have some unique characteristics. The key word will be "temporary". There will be adaptive rapidly changing temporary systems. There will be task forces organized around problems to be solved by groups of relative strangers with diverse professional skills. Adaptive, problem-solving, temporary systems of diverse specialists, linked together by coordinating and task-evaluating executive specialists in an organic flux - this is the organizational form that will gradually replace bureaucracy, as we know it. These new style organizations can be called "adaptive structures".10

Organizations are once again undergoing a period of fundamental change, driven by a silicon-based gold rush which is shaping the decade to be called "the networked 90s".11

The corporations seen today on the business landscape are changing rapidly in structure and function and will be, within a few decades, almost entirely new entities. Virtual enterprises are evolving. Using integrated computer and communication technologies, corporations increasingly will be defined not by concrete walls or physical space, but by collaborative networks linking hundreds, thousands, even tens of thousands of people together.12

"If Restructuring, flattening, and Down-sizing were the predominant themes of management theory across the globe in the first half of the 1990s, it is restructuring, flattening and growth that seem likely to dominate strategic thinking in the second half of the most revolutionary decade of the 20th century."  

Many enterprises are in the midst of fundamental change in organizational design and management practices. Pioneering and traditional companies alike are experimenting with novel organizational structures and management processes in order to accommodate the fast pace of technological change, global competition, and the emergence of knowledge based economy.

In the 1950's, it was widely predicted that the advent of the computer would significantly change the structure and processes of many organizations. In general, few really significant changes were observable as the first phase was largely concerned with the computerization of administrative paperwork. More recent applications of network technology have focused on the provision of management information and are coinciding with rapid organizational change.

Over the course of business history, four broad forms of organization have emerged. First, the functional organization. Next, the divisionalized organization. The third organizational form was the matrix, which evolved in 1960s. Movement towards the network form

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became apparent in the 1980s. Common network types seen are stable network, Internal network and the Dynamic network.\textsuperscript{16}

Snow and Miles have conducted extensive studies on the organization network phenomena since the late 1970s. Such networks are ideally suited to hold together and enhance the performance of small, autonomous, closely-knit and dedicated groups of people.\textsuperscript{17}

How might networks lead to changes in structure, control and work organization? Despite predictions to the contrary (Leavitt and Whisler, 1958) the early implementation of computer systems led to few changes in managerial decision-making patterns or organizational hierarchies. The often-predicted demise of middle management and centralization of decision-making either did not happen or happened extremely slowly, although the establishment of centralized IT departments was widespread. As the technology has become far cheaper, more powerful and more reliable, speculation has continued that such structural changes following implementation would occur (Child, 1984; Rockart and Short, 1989).

As organizations become more flexible, the boundaries that matter are in the minds of managers and employees. The traditional organizational map describes a world that no longer exists.\textsuperscript{18}

Information technology had led to the flattening and downsizing of today’s organization. For example, electronic mail (e-mail) allows


everyone to communicate directly with every one else, thus eliminating
the need for levels of bureaucracy and a long chain of command. In
other words, the organization becomes flatter. Additional since multiple
copies of e-mail letters and memos can now be electrically transmitted
in a matter of seconds to a large number of people the need for
"information switchers" "number crunches," "and paper pusher" is
eliminated. e-mail has prompted organizations to replace people, with
technology. In other words the organization is able to downsize.\(^\text{19}\)

In the 1980, the greatest impact of downsizing was on operating-level
employees, great numbers of Quito Steels' and other manufacturing
workers were permanently eliminated. In the 1990s downsizing level,
where information technology has eliminated many jobs that were
traditionally staffed by middle managers. For example at firms such as
IBM, and General Motors many operating and middle management
positions were eliminated. In the five years period 1987-1992,
companies with 500 or more employees recorded a net loss of 2.3
millions jobs. The result of this downsizing has been a flattening of the
structure. \(^\text{20}\)

**ENTERPRISE REDESIGN**

Most large enterprises are in need of complete redesign. They are
steadily downsizing, cutting out layers of management, and moving
from hierarchical to more horizontal structures, but this is not enough.

The new-world corporation- cybercorp-employees cross-functional
value stream teams highly focused on delivering results to the

\(^{19}\) Luthans, Fred "Organizational Behavior" seventh edition, Mc Graw Hill International edition,
Singapore, 1995, P-27-48

customer or end user of the value streams backed up by electronics, automation and a knowledge infrastructure.

New and old world corporations differ in just about every respect of employment education, appraisal, reward, and motivation unions. A cybernetic corporation can link together scattered resources with computerized choreograph where money of the resources are not owned or wholly owned. There resources can work together closely with just in time interaction.

Corporation change agents are confronted with the question should re-engineering relate to an existing procedure (procedure redesign) clean-slate replacement of a value stream (value-stream reinvention) or holistic redesign of the enterprise (enterprise redesign)?

Redesign of the enterprise if needed can be done by re engineering of existing organizations, or by building new business factories, subsidiaries or affiliates. A corporation so entangled in an obsolete, contributed culture may choose to make the transition to new world by creating new business. 21

Traditional enterprises have hierarchical management. Data are passed up the management chain and commands are passed down it. Hierarchies were necessary in the days before information technology, but they cause many problems. Corporations around the world have been lowering their number of hierarchical layers, introducing clusters and teams, and generally searching for more efficient forms of organization.

21 Martin, James, "The Great Transition-Using the Seven disciplines of Enterprise Engineering to Align People, Technology, and strategy" Amacan, 1995, PP 498.
An enterprise consists of its value streams, but most enterprises do not charge executives with managing the end to end value streams. Instead, executives manage functions the vertical cylinders each cylinder has its own hierarchy and politics. Enterprises ought to be redesigned so as to make some one responsible for each end to end value stream.

Hammer and Champy popularized the term "business re-engineering" for their style of value-stream reinvention. They comment, Business re-engineering should be brought in only when a need exists for hearing blasting Marginal improvement means fine-tuning, dramatic improvement means blanking up the old and replacing it with something new.22

In industry after industry, multilevel hierarchies have given way to clusters of business units co-ordinated by market mechanisms rather than by layers of middle management planners and schedulers ... Such delayered companies are not only less costly to operate, they are also more agile.23

The concept of learning organization has been developed as a way of responding to the need to learn quicker than competitors as an organization. Gavin24 described the learning organization as an 'organization skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights.' Reengineering efforts are sweeping the country as companies' shift from purely functional organizations to those that better accommodate horizontal work flows. Broad cross cutting processes such as product

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development and order fulfillment have become the new organizational building blocks, replacing narrowly focused departments and functions. Managers, in turn, have begun to develop new ways of working. The critical questions involve strategy and management practice.

Paul Allaire, Chairman and CEO of Xerox says "The incentive for us to shift to processes was similar. A fundamental change in customers' requirements and competitive focus. Our goal shifted from being a manufacturer of copier, printer and facsimile products to becoming provider of document tools and services that enhance one customer's productivity. We soon realized that the organization had to be redesigned to reflect our strategy, and that's when we began focusing on processes,"

The experts have been telling us for some time that the job for life is a thing of the past. Some now go even further, predicting that the increase in task-based teams will lead to the development of working communities, which people will join without being given any specific job or title.

In some places this is already happening. Michael Armstrong, an executive director of AES, the American power company, says: "when we set up a plant, what usually happens is that we hire 30 people, and during training some naturally come out as plant leaders." AES has no large centralized establishment and no engineering, human resources or finance deptt. Each plant is autonomous. The company believes that if it employees a lot of specialists, there is a risk they will build empires.

and not spread information. More companies are seeking workers who can join small, flexible teams and do any job that needs to be done.

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26 Coles, Margret, "Jack of all trades makes his mark" *The Times of India*, Wednesday, July 1, 1998, p-I
CONCEPTUAL AND THEORETICAL BACKGROUND

The corporation as we know it is not dead, but it's ready for intensive care.

Mark Pastin and Jeffery Harrison, Arizona State University

ORGANISATION DEFINED

In one of the earliest definitions, Barnard (1938) viewed organizations as "a system of consciously coordinated activities of two and more persons". In other words, organizations have stated purposes, communication systems and other coordinating processes, and a group of people who are willing to cooperate on the tasks necessary for goal attainment.

Similarly, Etzioni (1964) suggests that organizations are "planned units, deliberately structured for the purpose of attaining specific goals". Moreover Porter, Lawler and Hackman (1975) suggest that organizations are generally characterized by five basic factors (i) social composition (2) goal orientation (3) differentiated functions (4) intended rational coordination and (5) continuity through time.

In order to survive and maintain some degree of stability vis-à-vis the external environment, organizations are faced with a series of requirements that must be met (Etzioni, 1975; Gross 1965).

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Yuchtman and Seashore, 1967). The extent to which an organization can satisfy its requirements largely determines its ability to continue the pursuit of its objectives over time. The requirements include resource acquisition, efficiency, production/output, rational coordination, organizational renewal and adaptation, conformity, constituency satisfaction.

Organizations differ not only in their size and shape (for example, tall versus flat structure) but also in the technologies they employ, the environments in which they function, the work climates they create, and the types of goals they pursue.

According to Gregory Moorhead and Ricky Griffin, "An organization is a group of people working together to achieve common goals. Organizational goals are objectives that management seeks to achieve in pursuing the firm's purpose. Organizational goals keep the organization on track by focusing the attention and actions of its members."  

Organizations are social units (or human groupings) deliberately constructed and reconstructed to seek specific goals. Corporations, armies, schools, hospitals, churches, and prisons are included; tribes, classes, ethnic groups, friendship groups, and families are excluded. Organizations are characterized by: (1) Divisions of Labor, power, and communication responsibilities, divisions which are not random or traditionally patterned, but deliberately planned to enhance the

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9 Talcott Parsons, "Structure and process in Modern Societies" (Glencoe, III; The Free Press, 1960)
realization of specific goals; (2) The presence of one or more power center which control the concerted efforts of the organization and direct them toward its goals; there power centers also must review continuously the organizations: (a) performance and re-pattern its structure where necessary, to increase its efficiency (b) Substitution of personnel i.e. unsatisfactory persons can be removed and others assigned their tasks. The organizations can also recombine its personnel through transfer and promotion.

Other Social units are marked by same degree of conscious planning (e.g. the family budget) by the existence of power centers (e.g. tribal chiefs), and by replaceable membership (e.g. through divorce), but the extent to which these other social units are consciously planned, deliberately structured and restructured, with a membership which is routinely changed, is much less than in the case of those social units we are calling organizations. 10

Organizations are defined as social entities that are goal-directed, deliberately structured activity systems with an identifiable boundary. (1) There are four key elements in this definition:

1. **Social Entities**: Organizations are composed of people and groups of people. People interact in patterned ways and perform the essential functions in organization.

2. **Goal-Directed**: Organizations exist for a purpose. An organization and its members are trying to achieve an end.

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3. **Deliberately Structured Activity System**: Activity system means that organizations have a technology - they use knowledge to perform work activities. Organizational tasks are deliberately subdivided into separate departments and sets of activities.

4. **Identifiable Boundary**: An organization must be able to identify which elements are inside and which are outside its boundary.  

Richard Daft (1986) gave a definition of formal organizations. The formal organization is distinguished by these four criteria: It is a collective entity: it has deliberately conceived expectations for its participants; these expectations are developed and integrated to foster accomplishment of recognized goals; and the limits of the organization are generally clear. The shape of the organization is more or less defined and more or less stable.12

Naisbitt and Aburdene (1985) (Naisbitt, 1982) argue that rigid definitions of positions are rapidly giving way to new forms of organization that allow the individual much greater freedom in constructing her own role in reference to the goals of the establishment.

Organizations operate in terms of what Howard Becker has called a hierarchy of credibility. By this he means that in a dispute, society gives to the higher status person the right to define the way things really are (Becker, 1967; 240; see also Blumstein et al, 1974)

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ORGANIZATION STRUCTURE DEFINED:

Organizational structure refers to the relatively fixed relationships that exist in an organization with respect to the arrangement of human resources. It is the unique way an organization fits its people together to create organization. As such, the notion of structure includes such factors as the extent of decentralized control, the amount of task specialization, the extent to which interpersonal interactions are formalized, and so forth. Thus, managerial decisions concerning how people will be grouped for task accomplishment.

Organization structure is a system of task, reporting and authority relationships within which the organization does its work. Thus, structure defines the form and function of the organization's activities. Structure also defines how the parts of an organization fit together, as in an organization chart.13

Organizational structure is the network of durable and formally sanctioned organizational arrangements and relationships. Among other things, it involves the development of mechanism to ensure that the parts are linked and work together effectively.

There are two different aspects of organization structure; the highly visible Super-structure or departmentalization (i.e. how people are grouped in different departments/divisions, sections and how they are related to each other) and the less visible infrastructure (i.e. authority relationship, specialization, communications etc.).14

Organization structure refers to the formal or informal relationship between people in an organization. 15

An organization Chart outlines organizational structure, showing who reports to whom.16

On the subject of proper organizational structure, Drucker gives an example of the effect of the situation.

Decentralization is always the best way to organize functional activities. But if the system of production contains any elements of automation, it becomes absolutely essential. For the production organization of any company using either automatic materials handling or feed-back controls - two main elements of automation - must be set up as a series of centers of information and decision at very low levels and with a high degree of integration.

This shows clearly in the engine plant of the Ford Motor Company in Cleveland - a mass production plant "old style" producing uniform products rather than uniform parts, but recently organized with completely automatic materials handling and materials flow. That fairly minor technological change required a thorough-going shift of the organization within the plant from orthodox functional "Chain of command" to something that might be called a "task force pattern" -

15 Mejia, Luis, R. Gamez; Balkin David B; Cardy, Robert L. 'Managing Human Resources' Prentice Hall International, U. S. A., 1995 P-81

Many small centers of information and decision weigh down the "Chain of command" by cutting across functional lines "17.

It is possible to be too well fitted to the situation of the moment. Org. structure needs to be flexible enough to (1) meet day-to-day and month-to-month change in situations with only minor shifts in function and procedure and (2) permit greater range of change with a minimum of reorganization upheaval. How to build organization structure?

According to Durand, it is desirable to adapt organizational details to the purpose and situation, build organizational structure around them.

1. Group activities according to decisions that must be made for them, when providing for management posts.

2. Seek clarity and simplicity, avoid many layers or levels of management.

3. Delegate authority and responsibility to as low levels as possible - general decentralization.

4. Seek to provide for decentralized units where they are suitable.

5. Keep responsibility clear and accompanied by commensurate authority, do not leave responsibility unassigned or shared by several persons. 18

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17 Drucker, Peter "The Practice of Management" PP 219-20

ORGANIZATIONAL DESIGN DEFINITION

It is an activity in which a behavioural science practitioner advises a client on the appropriateness of systems of organization. He takes into account both external and internal factors. As an activity it is continuous. Consequently, the most suitable solutions at one period may have to be scrapped because of change in the environment. Since the shape of the organization is a product of many factors, the design must be inter disciplinary. The activity involves the generation of ranges of alternative designs, through creative strategies, and their evaluation. It requires the selective utilization of knowledge both from the basic disciplines of the behavioural sciences and from investigations of the psychological and sociological features of the client enterprise.

Organization design is concerned with making decisions about the forms of coordination, control, and motivation that best fit the enterprise. 19

THE ORIGINS OF ORGANIZATION

One of the earliest accounts of organization design can be found in Bible, in Exodus. Moses’s, father-in-law, Jethro watched Moses sitting in judgment from morning to evening while the people of Israel queued patiently to present their petitions or register their complaints. He told Moses, ‘The thing that thou does is not good. Thou will surely wear away, both thou, and this people that is with thee; for this thing is too

19 Clark, Peter A. "Organizational Design: Theory and Practice" Tavistock Publications Limited, 1972, P 18-25
heavy for thee; then are not able to perform it thyself alone'. If Jethro then proposed that Moses should select able men to be rulers of thousands, rulers of hundreds, rulers of fifties and rulers of tens. Every great decision should still be brought to Moses, but otherwise these leaders should judge and decide the smaller affairs. Moses accepted Jethro's advice, and from that time his task of leading the tribes of Israel to the promised land was eased. The principle of the optimum span of control was now established and the first documented management hierarchy had been brought into existence.

For thousands of years since then, mankind has designed and developed organizations in order to make it possible to manage the activities of large numbers of people in relation to some common task. Until relatively recently, large complex organizations existed mainly in three sphere—the state, the armies and haves, and the church. With Industrialization, however, came a new type of purposeful human grouping; the industrial organization, with its new types of activity and with its very foundation resting on a newly articulated principle of organization design—the division of labor. 20

**ORIGINS OF ORGANIZATIONAL DESIGN**

Organizational design did not really emerge until the mid 1960. Prior to this period the work of researchers had been focused either upon techniques for changing the attitudes of individuals, or upon small-scale alterations to parts of larger enterprises. The movement away from a focus upon the individual arose because of the realization that, however effective the techniques adopted in the training situation, when the individual returned to his work he returned to his previous

role and re-entered surroundings in which his colleagues already had established expectations of his attitudes and behavior. The chances of long-term individual change under such conditions is minimal. Gradually the emphasis moved towards the ideas of training organizations and of 'organizational development'.

In the conventional approach, the organization design is a systematic approach. One such approach which was developed to meet this circumstance is the 'Managerial Grid' a five-year program involving the total organization (Blake & Mouton, 1964)

Chappie and Sayler (1961) examined a number of production problems in factory and clerical settings and suggested that the critical variable, which was not sufficiently understood, was the 'work flow'. They noted in one particular case that the nature of the discrepancy between master schedule devised by the production planner and the actual requirement for coordination between departments to cope with day-to-day variation was the major source of conflicts. Following this analysis, they advised the restructuring of the planning department and the rerouting of materials.

Eric Miller (1962,1967) was able to observe the way in which the management of one company actually went about organizational design, or perhaps more accurately, did not. In the suggested approach the stages of plant and organizational design start simultaneously and are linked to one another and to the following stage of 'building the new plant and organization.' 21

21 Clark, Peter A. "Organizational Design: Theory and Practice" Tavistock Publications Limited, 1972, P 18-25
ORGANIZATIONS AS SYSTEMS

One of the significant developments in the study of organizations was the distinction between closed and open systems. Traditional management concepts, including scientific management and industrial engineering were closed system approaches. They focused on activities inside the organization. These approaches took the environment for granted and assured the organization could be made more efficient through internal design. The management of a closed system would be quite easy. The environment would be stable, predictable, and would not cause problems. The primary management issue would be internal efficiency. The closed-system approach to organizations is not really incorrect, but it is not complete.

An open system must interact with the environment to survive; it both consumes resources and exports resources to the environment. The organization has to find and obtain needed resources, interpret and act on environmental disturbances and uncertainty. Even large corporations are vulnerable to the environment. All systems that must interact with the environment to survive are open systems.

The organization system is a set of interrelated elements that acquires inputs, transforms them, and discharges outputs to the external environment. Inputs and outputs reject the dependency on the environment. Inter related element mean that people and departments depend upon one another and must work together.22

An organization system is composed of several sub-systems. The specific functions required for organization survival are performed by

sub-systems Organizational sub-systems perform five essential functions: production, boundary spanning, maintenance, adaptation and management. 23 Kenneth Boulding 24 analyzed many systems and concluded that they can be arranged in order from simple to complex. The simplest system is a static framework, such as atom, a map, or a bridge. Dynamic systems, such as the solar system, are at level 2. Control systems, such as thermostat, are Self-regulating within prescribed limits and are at level 3. The simple cell is the beginning of living, self-maintaining systems, and is at level 4. The plant (Level 5) and animal (level 6) are more complex living systems. The human being is the most complex living system because it can think, use languages, and is aware of itself. The human is at (Level 7). The social organization has many characteristics of simpler systems, but it also incorporates new forms of complexity.25 The social organization is the most complex system of all, and is at (Level 8).

Organization managers must be sensitive to social-system complexity if they are to understand and cope with organizational systems.26

THEORIES OF ORGANIZATION

Organization theory is not a body of knowledge. Organization theory is not a collection of facts. Organization theory is a way of thinking about organization. Organization theory is a way to see and analyze

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23 Daniel Katz and Robert L. Kahn, "The social psychology of organizations" John Wiley, New York, 1966, P. 86
organizations more accurately see and think about organizations is based upon patterns and regularities in organizational design and behavior. Organization scholars search for and make them available to the rest of us. The facts from the research are not as important as the general patterns and insights into organizations.27 Some of the organization theories are discussed briefly below:

THE CLASSICAL SCHOOL

The classical or scientific management school, as represented by Fayol (1916)28, Taylor (1911)29, and Urwick (1947)30 believed in control, order and formality. Organizations need to minimize the opportunity for unfortunate and uncontrollable informal relations, leaving room only for the formal ones. From these overriding principles the following concepts are derived

- Structure
- Specialization
- Co-ordination
- Authority
- Continuity

The classical or scientific management model has been attacked vigorously because of non-allowance for situational factors such as the environment or technology. Neither does it take account of change or human factors, including the informal organization. But the formal approach, with its emphasis on organization charts and manuals, job descriptions, clear definitions of responsibility and authority and limited spans of control, still thrives. As Lupton (1975) pointed out; 'The attraction of the classical design from the point of view of top management is that it seems to offer them control. The classical school reigned supreme until the late 1930s and still holds sway.

The classical theorists invented a language for talking about organization structure and identified the design choices, which have to be made for any organization. They started with the division of labour, which had been discussed for years by the economists. They noted that the division of labour had two effects. It increased the amount of production per worker, but it also increased interdependence necessitating a need for coordination among the interdependent work roles. The need for coordination was handled by inventing new roles, managerial roles, to handle these questions. The design issue was. How many managerial roles are needed for a given size work force? The answer to this question is determined by choices of span of control and the number of staff experts employed. Currently these issues are referred to as the shape or configuration of the organization. They are measured by average spans of control and the ratio of managers and staff to total personnel. Once a configuration is determined, there are questions of the distribution of power and authority. The vertical distribution was the question of centralization but there is also an issue of lateral influence, which was dealt with in the line-staff
authority definition. Finally, there is the choice at each level of the departmental structure. This was the departmentalization problem.\textsuperscript{31}

\textbf{THE HUMAN RELATIONS SCHOOL}

Barnard (1938)\textsuperscript{32} emphasized the importance of the informal organization relationships which, for better or worse, strongly influences the way the formal structure operates. He wrote: 'Formal organizations come out of and are necessary to informal organization; but when formal organizations came into operations, they create and require informal organizations. More recently, Child (1977)\textsuperscript{33} has pointed out that it is misleading to talk about a clear distinction between the formal and the informal organization. Formality and informality can be designed into structure. Unofficial policies do exist in organizations but they are not to be confused with informality. Organization designers recognize the relevance of informal relationships but do not implement unofficial structures.

Roethlisberger and Dickson (1939) reported on the Howthorne studies—the first large-scale investigation of productivity and industrial relations, which took place at the How throne plant at Western Electric. This highlighted the importance of informal groups, work restriction, norms and decent, human leadership.

It is widely, if unfairly, believed that supporters of the human relations school approach only wanted organizations to be nice to people. But by

\textsuperscript{32} Barnard, C (1938) "The Functions of an Executive", Harvard University Press, Boston Mass
appearing to ignore business needs, that is the impression, they often made. 34

THE BEHAVIORAL SCIENCE SCHOOL

In the 1960s a number of behavioral scientists emerged who would not like to be described a part of the human relations school. They did, however, subscribe to some of the fundamental beliefs of that school, although there beliefs were refined and re-presented on the basis of further study and research. The most notable contributors to this postwar development were Mc Gregor, Likert and Argyris.

1) Douglas Mc Gregor

The central principle of organizations that Mc Gregor (1960)35 desired from his Theory Y is that of integration- the process of recognizing the needs of both the organizations and the individual and creating conditions which will reconcile these needs so that members of the organizations can work together for its success and share in its rewards. ' Man will exercise self-direction and self-control in the service of objectives to which he is committed.'

2) Rensis Likert

Likert (1961)36 desired his concept of organizations based on supportive relationships from his research at the University of Michigan. The initial studies distinguished between job-centered and employee-centered supervisions and established that employee-centered supervisors were higher producers than the job-centered ones. The

studies also distinguished between general and close supervision and showed that general rather than close supervision is more often associated with a high rather than a low level of productivity.

From his analysis of high producing managers, Likert found that their operations were characterized by attitudes of identification with the organization and its objectives and a high sense of involvement in achieving them. This situation was created by harnessing effectively all the major motivational forces which can exercise significant influence in an organizational setting and which, potentially, can be accompanied, by cooperative and favorable attitudes.

The integrating principle of supportive relationships was derived from this analysis and states that:

The leadership and other processes of the organization must be such as to ensure a maximum probability that in all interactions and all relationships with the organization each member will, in the light of his background, values and expectations, view the experience as supportive and one which builds and maintains his sense of personal worth and importance.

3) CHRIS ARGYRIS

The research carried out by Argyris (1957) into personality development in organizations suggested to him that the formal organization creates in a healthy individual feelings of failure and frustration, short time perspective and conflict. He further concluded that the formal work organization requires many members to act in immature rather than adult ways. At all levels there is behaviour that is not

productive in the sense of helping the organization achieve its objectives. For example, at the lower levels, we found apathy, indifference and non-involvement. At the upper levels we found conformity, mistrust, inability to accept new ideas and fear of risk taking.

To overcome this problem, Argyris wants individuals to feel that they have a high degree of control over setting their own goals and over defining the paths to these goals. The strategy should be:

"To develop a climate in which the difficulties can be openly discussed, the employee's hostility understood and accepted, and a program defined in which everyone can participate in attempting to develop new designs. Where ever this is impossible, the attempt will be made to design new work worlds that can be integrated with the old and that help the employee obtain more opportunity for psychological success."

Argyris stresses the need for some structure to provide the 'firm ground on which to anchor one's security.'

4) OTHER CONTRIBUTIONS TO THE BEHAVIOURAL SCIENCE MOVEMENT

The behaviour science movement pioneered by the writers mentioned above, by furthered by people such as Herzberg (1957) and Blake and Mouton (1964), continued to emphasize that in organizations the proper study of mankind is man. The research conducted by Herzberg et al (1957) suggests that improvements in organization design must centre on the individual job as the positive source of motivation if

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38 Herzberg, F (1968) 'One more time: how do you motivate employees?' Harvard Business Review, Jan-Feb, pp109-120.
individual feel that the job is stretching them, they will be moved to perform it well.

Blake and Mouten 39(1964) concentrated on management style the way in which managers manage, based on their beliefs and values. They suggest that there are two factors: 'Concern for people and concern for production'. This is in line with the distinction made by the Ohio State University researchers Halpin and Winer (1957) between leadership styles based on 'Consideration' and initiating structure.'

The behavioural science school is criticized on the ground that it is ideological and ignores the real commercial and technological constraints of industrial life.

THE BUREAUCRATIC MODEL

Meanwhile, as Perrow 40(1980) expressed it:

In another part of the management forest, the mechanistic school was gathering its forces and preparing to outflank the forces of light. First came the numbers men - the linear programmers, the budget experts, the financial analysts. Armed with emerging systems concepts, they carried the 'mechanistic' analogy to its fullest - and it was very productive. Their work still goes on, largely untroubled by organizational theory, the theory, it seems clear, will have to adjust to them, rather than the other way around---Then the works of Max Weber, not translated until the 1940---began to find their way into social science thought.

39 Blake, R and Mouton, J (1964) "The Managerial Grid", Gulf publishing, Houston
Max Weber (1964) coined the term 'bureaucracy' as a label for a type of formal organization in which impersonality and rationality are developed to the highest degree. Bureaucracy, as he conceived it, was the most efficient form of organization because it is coldly logical and because personalized relationships and non-rational, emotional considerations do not get in its way. The ideal bureaucracy, according to Weber, has the following features:

- Maximum specialization
- Close job definition as to duties, privileges and boundaries.
- Vertical authority patterns
- Decisions based on expert judgment, resting on technical knowledge and on disciplined compliance with the directives of superiors.
- Policy and administration are separate
- Maximum use of rules
- Impersonal administration of staff.

At first, with his celebrations of the efficiency of bureaucracy, Weber was received with only reluctant respect, even hostility. Many commentators were against bureaucracy. But it turned out that managers are not. The problem with both the human relations and bureaucratic schools of thought were that they were insufficiently related to context.

**THE MODERN VIEW OF BUREAUCRACIES**
CONCEPTUAL AND THEORETICAL BACKGROUND

Parkinson, Peter⁴² and Bennis⁴³ represent the extreme critics of Bureaucratic Organization. This discontent is reflected in the consumerism movement, which is largely a grass roots reaction to the impersonality of large bureaucracies, and the tremendous appeal of best selling books such as 'In search of excellence: Lessons from America’s Best Run Companies'⁴⁴, whose basic theme is that organizations must be more flexible and less bureaucratic, and must undergo constant change and pruning. For example another recent Book, Transforming Organizations ⁴⁵argues that "--- Without continuous systematic organizational change, the competitiveness or even survival of many organizations may be at risk. Continuous change implies that the organization has a capacity to learn from its environment, its various stakeholders and itself. Systematic change implies that its major components- strategies, technologies, human resources, and internal structures - require simultaneous transformation.

In Tom Peter’s⁴⁶ latest Book, he colorfully describes how he would like managers to engage in bureaucracy bashing:

'Rant and rave. Tear up papers. Refuse to read them. Don’t attend meetings ---- Be outrageous. Get rid of all your file cabinets ---- Put big card board boxes around your desk and throw all the Junk you receive into them _ unread. Put a big red label on the boxes: "This week's unread paperwork."

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CONCEPTUAL AND THEORETICAL BACKGROUND

He recognizes that such radical behavior may jeopardize one's career but feels that unless it is done, organizations especially those which use vertical processing of information -- will not be competitive or even, in the long run, survive.

There has even been a call for Mikhail Gorbachev's concept of Perestroika (openness) to be applied to restructuring American Corporations. 47

THE SYSTEM SCHOOL

The systems approach to organization as formulated by Miller and Rice (1967)48 states that organizations should be treated as open systems which are continually effected by environments. The basic characteristic of the enterprise as an open system is that it transformers inputs into outputs within its environment.

As Katz and Kahn (1964)49 wrote : systems theory is basically concerned with problems of relationship, of structure and of interdependence. As a result there is a considerable emphases on the concept of transactions across boundaries - between the system and its environment and between the different parts of the system.

THE SOCIO - TECHNICAL MODEL

The concept of the organization as a system was extended by the Tavistodk Institute researchers into the socio-technical model of

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organization. The basic principle of this model is that in any system of organization, technical or task aspects are inter-related with the human or social aspects. The emphasis is on inter-relationships between, on the one hand, the technical processes of transformation carried out within the organization and on the other hand, the organization of work groups and the management structures of the enterprise.50

THE CONTINGENCY SCHOOL

The contingency school consists of writers, such as Burns and Stalker51 (1961) Woodward (1965)52, Lawrence and Lorsch53 (1969) and Perrow 54(1970) who have analyzed a variety of organizations and concluded that their structures and methods of operation are a function of the circumstances in which they exist. They do not subscribe to the view that there is one best way of designing an organization or that simplistic classifications of organizations as formal or informal bureaucratic or non-bureaucratic are helpful. They are against those who see organizations as mutually opposed social systems (what Burns and Stalker refer to as the Machiavellian world of the Hawthorne Studies') which set up formal against informal organizations.


1) Burns and Stalker

Burns and Stalker (1961)\textsuperscript{55} based their concept of \textit{mechanistic} and \textit{organic} organizations on research into a number of Scottish firms in the electronics industry. They emphasized the rate of change in the environment of the organization as being the key factor determining how it could operate.

In stable conditions a highly structured or mechanistic Organization emerges with specialized functions, clearly defined roles, strict administrative routines and a hierarchical system of exercising authoritarian control. In effect, this is the bureaucratic system. However when the environment is volatile, a rigid system of ranks and routines inhibits the organization's speed and sensitivity of response. In these circumstances, the structure is, or should be 'organic' in the sense that it is a function of the situation in which the enterprise finds itself rather than conforming to any predetermined and rigid view of how it should operate. Individual responsibilities are less clear cut and members of the organizations must constantly relate what they are doing to its general situation and specific problems.

Perhaps the most important contribution made by Burns and Stalker was the stress they placed on the suitability of each system to its own specific set of conditions. They concluded their analysis by writing:

\textit{We desire to avoid the suggestion that either system is superior under all circumstances to the other. In particular, nothing in our experience justifies the assumption that mechanistic systems should be superseded by organic in conditions of stability. The beginning of administrative}

wisdom is the awareness that there is no one optimum type of management system.

2 ) Woodward

Woodward's ideas about organization derived from a research project carried out in Essex designed to discover whether the principles of organization laid down by the classical theorists correlate with business success. When put into practice she found considerable variations in patterns of organization which could not be related to size of firm, type of industry and business success. After further analysis, she concluded............

"When, however, the firms were grouped according to similarity of objectives and techniques of production, and classified in order of the technical complexity of their production systems, each production system was found to be associated with a characteristic pattern of Organization. It appeared that technical methods were the most important factor in determining organizational structure and in setting the tone of human relationships inside the firms. The widely accepted assumptions that there are principles of management valid for all types of production systems seemed very doubtful".

Woodward's main contribution to organization theory is, therefore, her belief that different technologies demand different structures and procedures and create different types of relationships.

**Table-1.1 Table indicating Woodward’s study:**

<table>
<thead>
<tr>
<th>Structural Characteristics</th>
<th>Technological complexity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Production</td>
</tr>
<tr>
<td>1. Number of vertical levels in production Dept.</td>
<td>3</td>
</tr>
<tr>
<td>2. Supervisors span of control</td>
<td>24</td>
</tr>
<tr>
<td>3. Management/ total employee ratio</td>
<td>1:23</td>
</tr>
<tr>
<td>4. Supervisors span of control</td>
<td>24</td>
</tr>
<tr>
<td>5. Employment of professional workers</td>
<td>Moderate</td>
</tr>
<tr>
<td>6. Chief Executives Span of Control</td>
<td>4</td>
</tr>
<tr>
<td>7. % of organizations having mgt. Committees</td>
<td>12.5</td>
</tr>
<tr>
<td>8. Complexity</td>
<td>Low</td>
</tr>
<tr>
<td>9. Formalization</td>
<td>Low</td>
</tr>
<tr>
<td>10. Centralization</td>
<td>Low</td>
</tr>
</tbody>
</table>
3) Lawrence and Lorsch

Lawrence and Lorsch\textsuperscript{57} (1967) developed their contingency model on the basis of a study of six firms in the plastics industry. Organization as they define it, is the process of coordinating different activities to carry out planned transactions with the environment. The three aspects of environment upon which the design of the organization is contingent are the market, the technology (i.e. the tasks carried out) and research and development. These may be differentiated along such dimensions as rate of change and uncertainty. The process of reacting to complexity and change by differentiation creates a demand for effective integration if the organization as a whole is to adapt efficiently to the environment. The concept of differentiation and integration is, in fact, the greatest contribution of Lawrence & Lorsch to organization theory. They suggest that: “As organizations deal with their external environments, they become segmented into units, each of which has as its major task the problem of dealing with a part of the conditions outside the firm----These parts of the system need to be linked together towards the accomplishment of the organization’s overall purpose”.

Their research showed that the two organizations with the not successful records had, in fact, achieved the highest degree of integration and were also among the most highly differentiated. The differentiated of the various units was more in line, with the demands of the environment for those two organizations than for the others.

One of the most important implications of the Lawrence and Lorsch model for organization designers is that, although, differentiation demands effective integration, this must not be achieved by minimizing

\textsuperscript{57} Lawrence, P.R. and Lorsch, J.W (1969) "Developing Organisations", Addison-Wiley, Reading, Mass
differences and integration should be achieved by allowing each department to be highly distinctive - but to use mediating devices such as committees, adhoc project groups and assigned 'integrators' who stand midway between the functions with which they are concerned and are not dominated by any of them. Integration can therefore be achieved by structural means as well as by organizational development interventions designed to increase trust and understanding between groups and to confront conflict.

Lawrence and Lorsch argue that there is no one best way to differentiate or integrate within an organization. Their finding indicate that effective differentiation and integration is a function of the environment.58

Effective differentiation was found to be a function of the perceived environmental uncertainty that exists within the sub-environment with which a sub-unit must interact. Perceived environmental uncertainty was measured by the time span of feedback, the clarity of information, and the knowledge of beliefs about cause and effect.

Lawrence and Lorsch found that the high-performing organizations in each of the industries maintained the proper "fit" between their sub-units and the demands of the sub-units environment.

Lawrence and Lorsch also found that high-performing organizations were more effective at conflict resolution and that three types of conflict resolution were in use. Compromise, smoothing over, confrontation or problem-solving.

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58 Lawrence, Paul R. and Lorsch, Jay W. "Organization and Environment" Division of Research, Graduate School of Business Administration, Harvard University, 1967 Boston.
The Lawrence and Lorsch model therefore, provides a manager with three guides to organizational design. First, each sub-unit must be designed in terms of differentiation to "fit" the perceived environmental uncertainty of its environment. Second, the sub-units, must be integrated to meet the dominant competitive issue of the industry or the organization. Finally, conflict must be confronted. These statements, however, present an over-simplified ideal. In most cases, trade-offs will have to be made. Lawrence and Lorsch suggest that when such trade-offs have to be made, they be made in the direction of the dominant competitive issue.

If the dominant competitive issue is innovation for example, the trade-off would be in the direction of differentiation, since this would have the highest potential for creativity. If scheduling and delivery of goods on time were the major issue, however, trade off would be made in the

<table>
<thead>
<tr>
<th>% New products in last 20 yrs.</th>
<th>Plastics</th>
<th>Food</th>
<th>Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Uncertainty</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Actual Differentiation</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Actual Integration</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Typical integrative devices</td>
<td>Integrating dept. and roles, teams, hierarchy, plans, rules &amp; procedures</td>
<td>Integrating roles, task forces, hierarchies, plans, rules and procedures</td>
<td>Hierarchy, plans, rules and procedures</td>
</tr>
<tr>
<td>% Integrating personnel</td>
<td>22%</td>
<td>17%</td>
<td>0%</td>
</tr>
</tbody>
</table>

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direction of integration and some sub-units would not "fit" exactly their environmental criterion.

4) **GALBRAITH**

Galbraith's\(^{59}\) approach to organizational design is similar to Lawrence and Lorsch's in that he does not accept a "one best way" to design and is also concerned with uncertainty. He differs, however, in that he is concerned with task uncertainty. He defines task uncertainty as "the difference between the amount of information required to perform the task and the amount of information already possessed by the organization. His major concern, however, is information processing during the actual time the task is being performed. Greater the task uncertainty, greater the amount of information to be processed.

Galbraith suggests four organizational design to choose from in dealing with this problem.

1. Creation of slack resources.
2. Creation of Self-contained tasks.
3. Investment in vertical Information System.
4. Creation of lateral relations.

5) **Perrow**

The model developed by Perrow\(^{60}\) (1970) recognizes the importance of structure and the inevitable tendency towards routinization

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standardization and bureaucracy in organizations. In accordance with the views of other members of the contingency school, he suggests that different structures can exist within the same firm and that a bureaucratic structure is as appropriate for some tasks as a non-bureaucratic structure is for other tasks.

THE MODERNISTS

The modernists include Mintzberg, Drucker and the management 'gurus' such as Richard Pascale who emerged in the 1980 and who based their ideas on an analysis of contemporary events, the Japanese approach to organization, and, in Charles Handy's case, an apocalyptic view of the future.

1) Mintzberg:

Mintzberg 61(1983 b) developed the following hypotheses from his research into the structure of organizations.

- The older the organization, the more formalized its behaviour.
- Structure reflects the age of founding of the industry.
- The larger the organization, the more elaborate its structure-that is the more specialized its tasks, the more differentiated its units and the more developed its administrative component.
- The larger the organization, the more formalized its behaviour.

Mintzberg analyzed organizations into five broad types or configurations.

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1. **Simple structure** which are dominated by the top of the organization with centralized decision-making.

2. **Machine bureaucracy** which is characterized by the standardization of work processes by the standardization of work processes and the extensive reliance on systems.

3. **Professional bureaucracy** where the standardization of skills provide the prime coordinating mechanism.

4. **Divisionalized structure** in which authority is drawn down from the top and activities are grouped together into units which are then managed according to their standardized outputs.

5. **Adhocracies** where power is decentralized selectively to constellations of work that are free to coordinate within and between themselves by mutual adjustments.

According to Mintzberg\(^\text{62}\) (1981), many of the problems in organization design can be attributed to the actions of planners who create haphazard structural combinations as they seek to incorporate the latest structural innovations into an existing organization.

**2) DRUCKER**

In *The Coming of The New Organization (1988)* Drucker\(^\text{63}\) has drawn attention to the impact of new technology.

The typical large business 20 years hence will have fewer than half the levels of management of its counterpart today, and no more than a


third the managers. Business, especially large ones, have little choice but to become information-based, demographics, for one, demands the shift. The centre of gravity in employment is moving just from manual and clerical workers to knowledge workers who resist the command-and-control model that business took from the military 100 years ago.

Drucker also points out that organizations have established, through the development of new technology and the extended use of knowledge workers, that whole layers of management neither make decisions nor lead. Instead, their main if not their only, function, is to serve as relays - human boosters for the jaunt, unfocused signals that pass for communications in the traditional pre-information’s organization.

3) Pascale

Pascale 64(1990) believes that the new organizational paradigm functions as follows;

From the image of organizations as machines, with the emphasis on concrete strategy, structure and systems, to the idea of organizations as organism, with the emphasis on the self dimensions-style, staff and shared values.

From a hierarchical model, with step-by-step problem solving, to a network mode, with parallel nodes of intelligence which surround problems until they are eliminated.

From the status-driven view that managers think and workers do as they are told to a view of managers as ‘facilitators’, with workers empowered to initiate improvements and change.

From an emphasis an 'vertical tasks' within functional units to an emphasis on horizontal tasks' and collaboration across units.

From a focus on 'content' and the prescribed use of specific tools and techniques to a focus on 'process' and a holistic synthesis of techniques.

From the military model to a commitment model.

4) Charles Handy

Handy 65(1989) describes two types of organization, The `shamrock' and the federal.

The `shamrock' organization consists of three elements.

- The core workers (the central leaf of the shamrock)---Professionals, technician and managers.
- The contractual fringe - contract workers
- The flexible labor force consisting of temporary staff.

The federal organization takes the process of decentralization one stage further by establishing every key operational, manufacturing or service provision activity as a distinct, federated unit. Each federal entity runs its own affairs although they are linked together by the overall strategy of the organization and, if it is a public company, are expected to make an appropriate contribution to corporate profitability in order to provide the required return on their share holder's investments and to keep external predators at bay.

The centre in a federal organization maintains a low profile. The federated activities are expected to provide the required initiative, drive and energy. The centre is at the middle of things, but at the top. It is not just bankers but it does provide resources. Its main role is to

coordinate, advise, influence, suggest and help to develop integrated corporate strategies.

**MODERN ORGANIZATION THEORY**

The real break with classical thinking on organization structure is generally recognized to be the work of Chester Barnard\(^{66}\). In his significant book, *The functions of the executive*, he defined a formal organization as a system of consciously coordinated activities of two or more persons.

(1) Combine several structural characteristics, including formalization, centralization, standardization and specialization.

**DETERMINANTS OF ORGANIZATION STRUCTURE**

Some of the salient determining factors are discussed below:

- Environment
- Objective / Mission
- Strategy
- Technology
- People and Culture
- Age
- Size

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Fig: 1.1
Illustration of Interdependencies among the determinants of Organizational design

- Environment
- Objectives / Mission
- Strategy
- Technology → Structure → Size
- People and Culture
COMPONENTS OF ORGANIZATION STRUCTURE

Robbins, Stephen P.\textsuperscript{67} has defined organization structure as having three components - complexity, formalization and centralization.

COMPLEXITY

Complexity considers the extent of differentiation within the organization.

**Horizontal Differentiation:** Horizontal differentiation considers the degree of horizontal separation between units. It refers to the degree of differentiation between units based on the orientation of members, the nature of the tasks they perform, and their education and training. The larger the number of different occupations within an organization that require specialized knowledge and skills, the more complex that organization is.

The most visible evidence in organization of horizontal differentiation is job specialization and departmentation.

**Vertical Differentiation**

Vertical differentiation refers to the depth in the structure. Differentiation increases, and hence complexity, as the number of hierarchical levels in the organization increases.

Organizations with the same number of employees need not have the same degrees of vertical differentiation. Organizations can be tall with many layers of hierarchy or flat with few levels. The determining factor is the span of control.

The span of control defines the number of subordinates that a manager can direct effectively. The evidence is clouded on whether the tall or flat organization is more effective.

An early study at Sears, Roebuck lent support for the flat organization or low vertical differentiation case 68.

A more recent study found no support for the general thesis that flat organizations are preferable 69.

**Spatial Dispersion**

An organization can perform the same activities with the same degree of horizontal differentiation and hierarchical arrangement in multiple locations. Yet this existence of multiple locations increases complexity. Therefore, the third element of complexity is spatial dispersion, which refers to the degree to which the location of an organization's offices, plants, and personnel are dispersed geographically.

**FORMALIZATION**

Formalization refers to the degree to which jobs within the organization are standardized.

Formalization has been defined as "the extent to which rules, procedures, instructions and communications are written" 70.

An alternative approach argues that formalization applies to both written and unwritten regulations 71.

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One argument is that the greater the degree of complexity, the lower the formalization 72.

Another argument is that, if employees are highly specialized by tasks, their routines will be standardized and an increased number of rules and regulations will govern their behaviour 73.

**CENTRALIZATION**

Centralization refers to the degree to which decision making is concentrated at a single point in the organization. A high concentration implies high centralization, whereas a low concentration indicates low centralization or what may be called decentralization.

Relationship between centralization, complexity and formalization.

1) **Centralization And Complexity**

The evidence strongly supports an inverse relationship between centralization and complexity. 74

2) **Centralization And Formalization**

The centralization-formalization relationship is as ambiguous as the centralization-complexity relationship is clear. The early work found no

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strong relationships between centralization and formalization. Later research reported a strong negative relationship between the two components; that is organizations were both highly formalized and decentralized. One follow-up effort, attempting to reconcile the controversy, yielded inconclusive results. The most recent efforts support the high formalization - decentralization hypotheses.

**STRUCTURAL FACTORS AFFECTING ORGANIZATIONAL EFFECTIVENESS**

At least six structural factors have been identified by Steers, that have been found to affect some facet of organizational effectiveness. These six factors are:-

**Degree of Decentralization**

Decentralization refers to the extent to which various types of power and authority are extended (that is, decentralized) down through the organizational hierarchy. The notion of decentralization is thus strongly related to the concept of participative decision making. The more decentralized an organization, the greater the extent to which the rank and file employees can participate in and accept responsibility for decisions concerning their jobs and the future activities of the organization.

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76 John Child, "Organization structure and strategies of control: A Replication of the Aston Study".
Historically, an increase in organization size typically brought with it a concomitant increase in centralization of authority and power in the upper echelons of management. Chandler (1962) has suggested that the trend towards increased centralization plateaued during the 1920s when Alfred P. Sloan, Jr., then president of General Motors, introduced the concept of central office.

Increased decentralization in organizations often leads to improvements in several facets of effectiveness. In particular, it has been found to be related to increases in managerial efficiency, open communications and feedback, job satisfaction, and employee retention. Moreover, decentralization has led to in some cases, to improved performance and greater innovation and creativity in organizations, although the findings here are not entirely consistent. The rationale behind these findings suggests that decentralized organizations allow for greater autonomy and responsibility among employees at lower levels in the hierarchy, thereby utilizing more effectively an organization's scarce human resources. This explanation is consistent with recent findings among individual employees indicating that increased autonomy and responsibility often lead to increased job involvement, satisfaction, and performance. These results have been shown by Carlson (1951), Weisse (1957), Read (1962), Hage and Aiken (1967), Sapolsky (1967) Carpenter (1971), Negandhi and Reimann (1973).

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This close relationship between decentralization and improved effectiveness is not always found in organizations e.g. one study discovered that decentralized control led to improved performance in research laboratories but caused poorer performance in production departments (Lawrence and Lorsch, 1967). It has been shown that different personality traits and other individual differences can affect the amount of participation that employees seek in decision-making (Steers). Differing job technologies, work environments or goals may call for varying degrees of centralization or decentralization in order to be successful.

**Specialization**

The concept of functional specialization traces its origins to the scientific management movement around the turn of the century. Taylor (1911) and his associates argued that a major determinant of organizational success was the ability of an organization to divide its work functions into highly specialized activities.

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88 Lawrence, P.R.; and Lorsch, J.W. *Organization and Environment*. Graduate School of Business Administration, Division of Research, Harvard University, Boston, 1967.
89 Steers, R.M. 'Personality, situation and participation in decision-making'. Proceedings of the Midwest Regional Meeting of the American Institute of Decision Sciences, Indianapolis, 1975.
Specialization may be measured in a variety of ways, including the number of divisions within an organization and the number of specialties within each division (Hall, 1972), the number of different positions and different sub-units in an organization (Blau and Schoenherr, 1971), and the number of occupations represented in an organization (Hage and Aiken, 1967). The hypothesis in all these studies remains the same, that is, Specialization will lead to increased effectiveness because it allows each employee to acquire expertise in one particular area so as to maximize his or her contribution to goal-directed activities.

It has been found out that increased specialization may often be beneficial in terms of employee performance, it may simultaneously be detrimental to employees in terms of their job attitudes, mental health, and propensity to remain with the organization. Studies have been made by Blau et al (1966), Carroll (1967), Hage and Aiken (1967), Child (1973) in this field.

**Formalization**

Formalization refers to the extent to which employee work activities are specified or regulated by official rules and procedures (Hall, 1972).  

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93 Hage and Aiken No.84.
95 Carroll, J. 'A note on departmental autonomy and innovation in medical schools' *Journal of Business*, 1967, p.531-34.
The greater the preponderance of rules, regulations, codified job duties, and so on, that govern employee behaviour, the greater the degree of formalization. It has often been argued that increased formalization represents a hindrance to effectiveness because managers under highly formalized structures tend to do everything by the book. Thus, creative, innovative, or adaptive behaviour is severely constrained. Blau (1955). Aiken and Hage (1966), Hage and Aiken (1967), Hofstede (1967), Miller (1967) have found negative relationship between formalization and organization effectiveness. In contrast, Radnor and Neil (1971) have found a positive relationship between the two. Less formalized organization design may be more productive in unstable or unknown environments, but higher degree of formalization may be preferred in more stable, task-oriented environments.

**Span of control**

Span of control refers to the average number of subordinates per supervisor.

Woodward (1958, 1965) found in a study of British firms that a curvilinear relationship existed between span of control at the first level of supervision and company success. Moreover, it was found that this relationship was affected by the nature of the technology employed by the firms. That is, of the firms that were rated as successful, those that

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98 Blau, No.94.
100 Hage and Aiken, No.84.
employed small batch technology (that is, production of unique units to customer specifications) and those that employed mass production technology both had relatively small spans of control (twenty-three and thirteen per supervisor, respectively).

On the other hand, successful firms using continuous process technology (that is, chemical processing, oil refining, and so forth) had an average span of control of forty-nine workers per supervisor. Less successful firms in all three technological categories employed spans of control on either side of these ratios.\textsuperscript{104}

Ronan and Prien (1973) found no relationship between span of control and a series of effectiveness measures.\textsuperscript{105}

An examination of findings by Grusky (1961),\textsuperscript{106} Kriesberg (1962),\textsuperscript{107} Blau et al (1966),\textsuperscript{108} Ingham (1970),\textsuperscript{109} Boland (1971),\textsuperscript{110} Child (1973),\textsuperscript{111} Ronan and Prien (1973)\textsuperscript{112} indicate an important pattern. On the one hand, increase in organization size appears to be positively associated with increased efficiency. Such factors as orderly managerial

\textsuperscript{107} Kriesberg, L. 'Careers, Organization size, and succession' American Journal of Sociology, 1962, p.355-59.
\textsuperscript{108} Blau et al, No. 94.
\textsuperscript{111} Child J., No. 96.
succession, reduced labour costs, and environmental control may all be thought of as some aspect of getting job done in an orderly, efficient manner.

On the other hand, size also appears to be inversely related to employee attachment to an organization. Over 80 percent of studies using size as a variable define organization as the total number of employees.\(^\text{113}\)

**Work-Unit Size**

As with the organization size, the size of a work group appears to have different effects on employee attitudes and behaviour than on organizational output. For employee, increases in work-group size are consistently associated with lower job satisfaction, lower attendance and retention rates, and more labour disputes [Kerr et al (1951),\(^\text{114}\) Metzner and Mann (1953),\(^\text{115}\) Cleland (1955)\(^\text{116}\) Talacchi (1960)].\(^\text{117}\) A possible explanation for this phenomenon may be the increased affiliative opportunities that are typically associated with smaller work groups (Cartwright and Zander, 1968).\(^\text{118}\)

**TECHNOLOGY, STRUCTURE AND EFFECTIVENESS**

One of the earliest detailed examinations of the relationships among technology, structure, and organizational success was carried out by


\(^\text{114}\) Kerr et al. 'Absenteism, turnover and morale in a metals fabrication factory'. *Occupational Psychology*, 1951, p.50-55

\(^\text{115}\) Metzner, H.; and Mann F. 'Employee attitudes and absences'. *Personnel Psychology*, 1953, p.467-85.


1 - 59
Joan Woodward and her colleagues (Woodward, 1958, 1965). She studied 100 British manufacturing firms. The firms were classified into small batch (unit), mass production, or continuous process according to production process. They studied the impact of technology on structural variable (span of control, levels of authority, ratio of managers to other personnel), effectiveness measure (general level of organizational performance and success). The findings were -

1) Levels of authority and ratio of managers to personnel increased with technological complexity

2) Labor costs decreased with technological complexity

3) Span of control was related to technological complexity as an inverted U-function

4) Successful firms tended to cluster at the midpoints on various structural continua (e.g. span of control); less successful firms clustered at the end points on such continua. In short, it is argued that effective firms employ structures that conform to their technologies.119

Lawrence and Lorsch (1967) studied the impact of technical rate of change, information uncertainty and feedback timespan on the amount of differentiation and integration between departments. Results were interpreted as supporting a strong relation between technological variation and increased differentiation between departments.120

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120 Lawrence, P.R.; Lorsch, J.W. Organization and Environment, Graduate School of Business Administration, Harvard University, Boston, 1967.
Meyer (1968) studied the impact of introduction of automated equipment on the number of levels of hierarchy and span of control. He found that the introduction of automated equipment led to increased number of levels and span of control.\textsuperscript{121}

Among other studies by Hage and Aiken (1969), Hickson et al (1969), Fullan (1970), Zwerman (1970), Mohr (1971), Hrebinia\k (1974) studied the impact of Jobs classified according to operations and materials technology (Hickson et al, 1969), task predictability, task interdependence and task manageability; on structural variables (job autonomy, participation, closeness of supervision, formalization, unity of control) and supervisory behaviour. No clear relation between technology and structure was found although certain technological variables were found to be significantly related to some structural variables when supervisory behaviour was held constant.\textsuperscript{122}

**ENVIRONMENT, STRUCTURE AND EFFECTIVENESS**

In one of the earliest studies of organization - Burns and Stalker (1961) surveyed twenty British industrial firms in an effort to identify relationships between certain environmental characteristics and resulting managerial practices. Burns and Stalker focused on environment stability as it related to managerial behaviour.

Burns and Stalker concluded that in highly stable and predictable environments, where market and technological conditions remain largely unchanged over time (for example, automotive industry), the mechanistic system may be the more uproot design. Because the

\textsuperscript{121} Meyer, M.W. 'Expertness and Span of control' \textit{American Sociological Review}, 1968, p.944-51.
environment is highly predictable under such conditions, it is possible
to routinize tasks and centralize directions in order to maximize
efficiency and effectiveness of operation.\textsuperscript{123}

Where the environment is in a constant state of flux, however, and
where an organization has to change direction constantly to adapt to its
environment (such as in the aerospace industry), organic systems
appear to be more appropriate because of their added flexibility and
adaptability. Thus, Burns and Stalker really argue for what might be
termed an environmental determinism point of view, where the most
effective organization design is determined as a function of external
factors. The role of management thus becomes one of properly
understanding environmental conditions and adapting organizational
structure and practices to meet and exploit such conditions.

Taking an historical and evolutionary approach to the study of
organizational effectiveness, Chandler (1962) traced the growth and
development of nearly one hundred major U.S. business concerns.
Based on these case studies, he concluded that each major change in
the design or structure of these organizations resulted from
environmental shifts that necessitated such changes. Chandler sums
up his point by adding that growth or change "without structural
adjustment can lead only to economic inefficiency" (1962). By way of
example, he cites Henry Ford's venture into farm tractors in the late
1930s.\textsuperscript{124}

Following the lead of these earlier studies, Lawrence and Lorsch (1967)
carried out an extensive investigation of environmental influences on

\textsuperscript{122} Hickson, D.J.; Pugh, D.S.; Pheysey, D.C. 'Operations Technology and
organizational structure: An empirical reappraisal'. \textit{Administrative Science Quarterly},
organization design and effectiveness among a sample of American firms.

According to Lawrence and Lorsch, if one wants to improve the effectiveness of an organization one must ensure that there is the right "fit" between organization structure - as indicated by differentiation and integration - and the environment. In general, certain and homogeneous environments require less differentiation and integration, while uncertain and diverse environments require more differentiation and integration. The steps to improve organization functioning using contingency theory are the following: first, measure the key constructs or variables - environment, differentiation, and integration, second, assess the fit between the organization structure variables and the environment; and, third, make the necessary adjustments in the organization structure variables to improve the goodness of fit with the environment.

The implications of the theory were translated into the following words. A business that is cyclical, unpredictable and rapidly changing calls for an organization characterized by a high degree of integration and the formation of decisions as close to the point of execution as possible.125

More recently, Osborn and Hunt (1974) carried out a study that focused specifically on environmental complexity as it relates to effectiveness in a sample of social service agencies. The results of this study indicated that the degree of risk present in the external environment was unrelated to effectiveness.126

125 Lawrence, P.R.; and Lorsch, J.W. Organization and environment Graduate School of Business Administration, Harvard University, Boston, 1967.
A Model for “Right” Organization Structure

In 1979, Robert Duncan published an article in Organizational Dynamics, proposing a comprehensive framework for understanding the design options one has for coping with different types of environments.

The framework of Duncan (1979) was based on a conceptualization of environmental uncertainty as consisting of two, more or less independent, dimensions: environmental change and environmental complexity. He proposed that the interaction of these two dimensions provides a heuristic framework which can be used to assess the state of the task environment of the organization.

### TABLE 1-3

<table>
<thead>
<tr>
<th>FOUR TASK ENVIRONMENTS AND THEIR ORGANIZATIONAL STRUCTURES</th>
<th>BASED ON ROBBINS, 1987</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Moderately high perceived uncertainty</td>
<td>4. High perceived uncertainty</td>
</tr>
<tr>
<td>Complexity: Low</td>
<td>Complexity: Low</td>
</tr>
<tr>
<td>Formalization: Low</td>
<td>Formalization: Low</td>
</tr>
<tr>
<td>Centralization</td>
<td>Decentralization</td>
</tr>
<tr>
<td>Example: Small Entrepreneurial firms</td>
<td>Examples: Advertising firms, R&amp;D units, Task Forces</td>
</tr>
<tr>
<td>1. Low perceived uncertainty</td>
<td>2. Moderately low perceived uncertainty</td>
</tr>
<tr>
<td>Complexity: High</td>
<td>Complexity: High</td>
</tr>
<tr>
<td>Formalization: high</td>
<td>Formalization: high</td>
</tr>
<tr>
<td>Decentralization</td>
<td>Decentralization</td>
</tr>
<tr>
<td>Examples: Mass production manufacturing companies,</td>
<td>Examples: Multiproduct firms, Hospitals</td>
</tr>
<tr>
<td>Bureaucracies</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHANGE</th>
<th>COMPLEXITY</th>
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<tbody>
<tr>
<td>STABLE</td>
<td>Simple</td>
</tr>
<tr>
<td>DYNAMIC</td>
<td>Complex</td>
</tr>
</tbody>
</table>
STRATEGY AND STRUCTURE

Strategy can be defined as the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals. Decisions to expand the volume of activities, to set up distant plants and offices, to move into new economic functions, or to become diversified along many lines of business involve the defining of new basic goals. New courses of action must be devised and resources allocated and reallocated in order to achieve these goals and to maintain and expand the firm's activities in the new areas in response to shifting demands, changing sources of supply, fluctuating economic conditions, new technological developments, and the actions of competitors.¹²⁷

CHANDLER'S "STRATEGY FOLLOWS STRUCTURE" THESIS

The classic work on the relationship between organizational strategy and structure was done by Harvard historian Alfred Chandler in his study of close to a hundred of America's largest industrial firms.¹²⁸

Chandler summarized - Growth without structural adjustment can lead only to economic inefficiency. New structures are developed to meet new administrative needs which result from an expansion of a firm's activities into new areas, functions or product lines, the technological, financial and personnel economies of growth and size cannot be realized.


¹²⁸ Chandler, "strategy and structure
CHILD's STRATEGIC CHOICE

In the early, 1970's the term strategic choice was introduced by John Child to emphasize that decision-makers have available a range of options.\textsuperscript{129} Child argued that, while there are constraints on managerial decision discretion, managers still have significant latitude for making choices. Just as they choose objectives, personnel, or control techniques, managers also choose the structural design. External factors such as competitors, unions and government agencies are part of the constraints, but rather than impinging directly on an organizations structure, these factors are mediated by managerial choice.

STRATEGY-STRUCTURE TYPOLOGY

Organizations can be classified into one of four strategic types: defenders, prospectors, analyzers and reactors.\textsuperscript{130}

*Defenders* seek stability by producing only a limited set of products directed at a narrow segment of the total potential market within this limited niche or domain, defenders strive aggressively to prevent competitors from entering their "turf".

*Prospectors* are almost the opposite of defenders. Their strength is finding and exploiting new product and market opportunities. Innovation may be more important than high profitability.


Analyzers try to capitalize on the best of both the previous two types. They seek to minimize risk and maximize the opportunity for profit. Their strategy is to move into new products or new markets only after viability has been proved by prospectors. Analyzers live by initiation.

Reactors represent a residual strategy. The label is meant to describe the inconsistent and unstable patterns that arise when one of the other three strategies is pursued improperly.

**TYPES OF STRUCTURES**

Figure 1.2 A short history of Organizational forms
CONCEPTUAL AND THEORETICAL BACKGROUND

The various types of structures are described briefly below:

THE SIMPLE STRUCTURE\textsuperscript{131}

The simple structure is said to be characterized most by what it is not rather than what it is. The simple structure is not elaborated. It is low in complexity, has little formalization, has authority centralized in a single person. The structure is depicted best as a flat organization, with an organic operating core and almost everyone's reporting to the one individual in whom the decision-making power is centralized.\textsuperscript{132}

THE FUNCTIONAL STRUCTURE

The major distinguishing feature is the grouping together of similar and related occupational specialties.\textsuperscript{133} Activities such as marketing, accounting, manufacturing and personnel are grouped under functional execution who report to a central headquarters.

THE DIVISIONAL STRUCTURE

The divisional structure pioneered in the 1920s by General Motors and Du Pont is designed essentially to foster self-contained units. Each unit or division is generally autonomous, with a division manager responsible for performance and holding complete strategic and operating decision-making authority.

\begin{footnotesize}
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A closer look at divisional structures reveals typically that their “innards” contain functional structures. The Divisional framework creates a set of essentially autonomous “little companies”.

THE SECTOR STRUCTURE

Introduced in 1977 by General Electric, it places an additional layer of management between the divisional managers and the corporate executive office. Each sector represents a set of common businesses that have a clearly defined industry identity. As such, each sector is actually analogous to a “super-division”. For instance, General Electric has created six sectors, responsible for consumer products and services, Industrial Products and components, Power systems, Technical Systems and Materials, International Operations, and Utah mining International.

THE CONGLOMERATE STRUCTURE

The conglomerate structure is the product of 1960s. The unique characteristic of the conglomerate structure is that there are no independence’s among its units or divisions, except for pooling of resources. The conglomerate therefore is similar to the divisional structure, only the units are completely independent. Management purposely seeks a diverse set of divisions so as to smooth out the boom and bust cycles to which the single-domain organization is susceptible.

The role of headquarters in the conglomerate depends on whether management is active or passive. In the former, the headquarters staff

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would be small (in contrast to the other structural forms) and would engage in allocating resources among the divisions and monitoring each one's performance, total corporate planning, and the financial analysis necessary to make acquisition and divestiture decisions.

**ADHOCRACY**

An adhocracy has been described as a "rapidly changing adaptive temporary system organized around problems to be solved by groups of relative strangers with diverse professional skills."\(^{135}\)

Adhocracies would be characterized as having moderate to low complexity, low formalization, and decentralized decision-making.

Adhocracies have a high degree of horizontal differentiation based on formal training. Since Adhocracies are staffed predominately by professionals with a high level of expertise: horizontal differentiation is great. But vertical differentiation is low. The many levels of administration found in a bureaucracy are absent.

**MATRIX**

The most popular application of adhocracy is the matrix structure. In simplistic terms, the matrix is a combination of departmentation by function and by product or project. The matrix is designed to benefit from the strengths of both the functional and product structures yet avoid the weaknesses of either.\(^{136}\)

The matrix breaks the unit of command concept - a cornerstone of bureaucracy - that requires every employee to have one and only one

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\(^{136}\)
boss to whom he or she reports. Employees in matrix have two bosses -
their departmental manager and their 'project manager.

**FLAT ORGANISATION**

The old organization structures have been turned on their heads,
sweeping away layers of management, cutting back sprawling HQs.
Vertical, functional structures no longer work. A recent memo from the
new American CEO of a huge multinational to its outposts in Europe
said: “There will be no hierarchy; the executive committee is
disbanded.” There is crystal clear trend in all major organizations in the
1990s to reduce levels of management, hopefully cutting out
unnecessary cost and improving communication flow up and down and
more particularly across the organization. For example in GLAXO
Pharmaceuticals has cut back a factory hierarchy of eight levels to four,
doing away with the ‘deputy to’, ‘assistant to’, ‘foreman’ type
nomenclature to simple operational units with team leaders.

**CUSTOMER - CENTERED ORGANISATION**

Another clear trend in the shape of the future is to move from
structures with the traditional functional dimensions - for example,
marketing \ manufacturing / sales - towards structures which get you
closer to the customer, and are therefore divided up to reflect different
functions. The managing director of Habitat (now part of the Swedish
Group IKEA), talking about the company’s revamped strategy to
recapture its traditional middle-class market, has insisted that every
manager spends at least two days with customers in the field - the
place where understanding the business starts.

136 Jay Galbraith, “Matrix Organization Designs: How to Combine Functional and
THE EMERGING FUTURE ORGANISATION

Tomorrow's dominant form of business organization will differ from that of today at its very foundation—in its structure. As the scope of work broadens from capital intensive to knowledge-intensive, IT opens new structural vistas.  

"At some time during the late 1980’s in the West, we silently and unobtrusively crossed over a trip-wire and into a new era. To appreciate the changing nature of the application of IT to the business world we find that: IT is a field that has emerged radically in the past five–ten years. It has moved from a tool of incremental operational improvement to being a means of achieving fundamental competitive advantage. It is changing the shape of industry. By the mid-1990’s most industries will be information intensive."

John L. Cecil and Eugene A. Hall  

THE VIRTUAL ORGANISATION

The word virtual has become popular in the field of future work. In Future Work transforms, the traditional resources or assets seem to have vanished, or at least have become transparent.

'Virtual organizations are project focused collaborative networks uninhibited by time and space. They are without the spatial territory and the cultural norms so important in traditional Organizations. They offer the benefits of a high degree of focus on a common purpose, as well as

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the assembly of the right skills to accomplish that purpose precisely. Thus they offer a level of productivity unattainable in traditional Organisations.

When is an office not an office? Answer - when it is a virtual office.

In his visionary book, *The Third Wave*, the futurist Alvin Toffler\(^\text{139}\) remarks that:

'----- one change is so potentially revolutionary and so alien to our experience, it needs far more attention than it has received so far. This, of course, is the shift of work out of the office and factory back into the home.'

More recently, in 1993, Emma Daly\(^\text{140}\) reporting in the Independent has commented:

"Commuter hell-------- has prompted countless office workers to fantasize about working from home; the developments of computer and communications technology means such fantasies can now become reality."

**THE BOUNDARYLESS COMPANY**

In declaring that 'the traditional organizational map describes a world that no longer exists,' Larry Hirschhorn and Thomas Gilmore\(^\text{141}\) observe: "Managers are right to break down the boundaries that make


\(^{140}\) Daly, Emma, "Home is Host to a New Work Era." The Independent, 12\(^\text{th}\). May, 1993, p.30

Organisations rigid and unresponsive. But they are wrong if they think that doing so eliminates the need for boundaries altogether. It indeed integrates decisions horizontally at the lowest managerial levels and with superior speed. In effect, a network identifies the "small company inside the large Company" and empowers it to make the four-dimensional trade-offs among functions, business units, geography and global customers - that determine success in the market place. It enables the right people in the organization to converge faster and in a more focused way than the competition on operating priorities determined by the imperatives of meeting customer needs and building concrete advantage, once traditional boundaries of hierarchy, function and geography disappears, a new set of boundaries become important. Yet knowing how to recognize these boundaries and use them productively is the essence of management in the flexible organization.”

HORIZONTAL ORGANISATIONS

All the modern designs, whether matrix or network, emphasize the importance of horizontal over traditional vertical structuring of the organization.

Frank Ostroff, a McKinsey & company consultant along with colleague Douglas Smith, is given credit for developing some of the guiding principles that define the horizontal organization design.142

1. Organization revolves around the process, not the task.

2. The hierarchy is flattened.

3. Teams are used to manage everything.


5. Team performance is rewarded.

6. Supplier and customer contact is maximized.

7. All employees need to be fully informed and trained.

**NETWORKING: THE FUTURE ORGANIZATION FORM**

As organizations responding to increasing global competition strive to become fast, flat, flexible and open, the concept of the networked organization has taken hold. Whether to create new business opportunities, improve overall effectiveness or just to provide business intelligence, networking is a concept reborn in the 1990s.\textsuperscript{143}

The networked organization was described by R. E. Miles and C. C. Snow\textsuperscript{144} as a cluster of firms, specialist units or individuals coordinated by market mechanisms rather than chains of command. H. Bahrami\textsuperscript{145} describes it as 'more akin to a federation or a constellation of business units that are typically interdependent, relying on one another for critical resources.'

The networked organization was depicted by Gareth Morgan\textsuperscript{146} in his book *Creative Organization Theory*.


In some companies, networks imply a set of external relationships - a global web of alliances and joint entries. In others, networks mean informalities among managers-floating teams that work across functions and maneuver through bureaucracy. Still other companies define networks as new ways for executives to share information, using management information systems, video conferencing, and other such tools.

Networks are designed to build the central competitive advantage of the 1990s - superior execution in a volatile environment. No traditional corporate structure regardless of how de-cluttered or delayered, can muster the speed, flexibility, and focus that success today demands. Networks are faster, smarter and more flexible than reorganization or downsizing-dislocating steps that cause confusion, sap emotional energy and seldom produce sustainable results.

A network reshapes how and by when essential business decisions get made.

A network is a recognized group of managers assembled by the CEO and the senior executive team. The number of managers involved almost never exceeds 100 and can be fewer than 25 even in global companies with tens of thousands of employees. The members are drawn from across, the company's functions, business units and geography and from different levels of the hierarchy.  

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THE HOLONIC NETWORK

In their book *Beyond Business Process Re-engineering -Towards the Holonic Network*, Patrick McHugh and his colleagues describe what they call the ‘Holonic network’. A Holonic network is a set of companies that act in an integrated and responsive way to meet each and every customer’s needs. The network is constantly being reconfigured to cater for each business opportunity offered by a customer. Each company in the network provides a different process capability, which is referred to as a ‘holon’. Each new assignment might call for a new Holonic network. Each configuration of process capabilities within the Holonic network is described as a ‘virtual company’.

ORGANISATION RESTRUCTURING

Oxford Dictionary defines the term as ‘giving a new structure to/rebuilding /rearranging’. Restructuring is both a ‘episodic exercise’ (Chandra) as well as a ‘continuous process’ (Ghosal and Mintzberg).

In view of the global competition, there is a continuous re-fixation of “milestones” in the organization in respect of higher quality of products, new technology, productivity, delivery, cost digression, cost productivity and several such parameters. Hence corporate restructuring! It means taking a realistic look at one’s company and deciding to reshape the whole place to remain continuously competitive.

Every organization must choose between organizing by function and organizing by product. Organization by function ensures that the in depth specialized knowledge fundamental to long term innovation is preserved and enhanced. However, it opens the company to developing
the "functional silos" that have bedeviled so much of U.S. industry. Organization by product, on the other hand, focuses the energies of the Organization on the customer and encourages rich communication across functions. But it often does so at the cost of steadily eroding base of functional knowledge. After a while, the functional specialists have spent so much time thinking about the whole product that they lose the functional expertise that was their core strength.

Our study suggests that either approach to organizational design can be at best, only a temporary solution. A senior research manager at one of the most successful companies reflected, "We've tried organizing by scientific discipline (functional). We've tried using project teams. Nothing works as well as being continually aware of the need to be both at the leading edge of the science and in total command of the important developments in other areas." 149

Reengineering is based on a fundamental assumption - that a company is best viewed as a set of horizontal processes for serving customers - is as powerful a basis for revenue building as it is for cost-cutting. What is obsolete is the view of reengineering as essentially an expense reduction methodology. The successful reengineers of today and tomorrow will be those that use reengineering to enhance their companies, capability for growth. The secret is to base all reengineering

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efforts on a clear understanding of the core customers - in other words, to reengineer from the outside in, rather than the inside out.150

Unless the reengineering is designed to ultimately let the business better meet the needs of its customers today and tomorrow, the failure rate will remain high.

The bad news is that about 70 percent of all reengineering efforts are downed to fail. Why? Because the real key to successful reengineering efforts - the human factor - is neither considered nor understood. Most reengineering attempts focus on the technical side - primarily on process redesign. But they largely ignore or at best, underestimate the importance of the human element. The technical aspect is critical of course. But without an effective approach to dealing with the people involved in a reengineering effort, the implementation is sure to fail.151

In its purest sense, reengineering means starting over. It means wiping the slate clean and beginning a new. It means starting from scratch in designing your core business processes, not spending months analyzing your current ones. It means pretending that no systems or procedures are in place, and asking, "If we were recreating this company today, what would it look like?" 152

Reengineering involves massive changes of major magnitude - changes that really shake things up. Continuous improvement strategies are fundamentally sound and effective, but they often lack a sense of


urgency and high-impact results. Reengineering, on the other hand, goes for the "gold ring" relatively quick and substantial gains in organizational performance.

Joint ventures, traditionally pursued only as a means to expand into new businesses, offer a way out of this restructuring impasse. Companies such as Philips, Corning, Dresser, IBM and Honeywell have used. Joint ventures creatively to exit from non-core businesses. In doing so, these pioneers have departed from convention in the design and management of their joint ventures. Although some of the rules of thumb for joint ventures still apply, other ideas must be turned on their heads.153

**Pioneers in the Use of Joint Ventures for Restructuring**

Restructures (A) Incoming Partner (B) Business JV Start Partner’s Shares (AB) JV Termination Outcome

<table>
<thead>
<tr>
<th>Company 1</th>
<th>Company 2</th>
<th>Industry</th>
<th>AB</th>
<th>Termination Year</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philips</td>
<td>Whirlpool</td>
<td>Consumer Appliances</td>
<td>47-53</td>
<td>1991</td>
<td>Philips received higher price than it would have through direct sale. Whirlpool established a strong European Presence.</td>
</tr>
<tr>
<td>Corning</td>
<td>Ciba-Geigy</td>
<td>Medical</td>
<td>50-50</td>
<td>1989</td>
<td>Corning rid itself of a peripheral diagnostics business without destroying the business value. Ciba-Geigy entered the U.S. Market as a major player.</td>
</tr>
<tr>
<td>Honeywell</td>
<td>Bell &amp; NEC</td>
<td>Mainframe</td>
<td>42.5-42.5</td>
<td>1991</td>
<td>Honeywell exited the mainframe Computers computer business and refocused on its electronic control business.</td>
</tr>
</tbody>
</table>

Bell established a substantiated present outside France.


IBM Siemens Marketing, 1989 50-50 1992 IBM existed a price-competitive Distribution, supplementary business and service Simmons strengthened its of PBX systems presence in the U.S. Equipment telecommunication market.

Richard L. harder, Vice President, Organization Planning and Development, BellSouth Telecommunications Inc. says "Reengineering is only one of several major change efforts going on at Bell South Telecommunications over the last 18 months of leading the program, I have spent a great deal of money trying to find a very scientific, calculated approach to reengineering. I have become absolutely convinced there is no such thing. Every company has to find its own way. One primary lesson that has been burned into my brain is that there is not a trade off between improving customer satisfaction and attaining optimum efficiency. Not only are they mutually exclusive, they are mutually supportive".154

STRATEGIES FOR CORPORATE RESTRUCTURING

SMARTSIZING

It refers to the activity of converting a corporation into an appropriate size that is viable, profitable and flexible to take on the changing market needs. Smartsizing can be of two types; a) Downswing b) Upsizing

Downswing refers to reducing the scale of operations by:

i) Selling off loss making divisions /units

CONCEPTUAL AND THEORETICAL BACKGROUND

i) Selling off divisions not in concurrence with the core competencies and

iii) Laying off excess people and infrastructure

**Upsizing**

Upsizing refers to increase in the scale of operations by a magnitude through mergers, diversifications, acquisitions, strategic alliances and expansions.

**Networking**

It refers to the process of breaking companies into smaller independent business units for significant improvement in productivity and flexibility.

**The Virtual Corporation**

This is a futuristic concept wherein companies will be edgeless, adaptable and perpetually changing. The centerpiece of this business revolution is a new kind of product called a 'Virtual Product'. This product is one that is produced instantaneously and customized in response to customer demands. Most importantly, it can be made available any time, in any place and in any variety.

**Verticalisation**

It refers to regrouping of management functions for a particular product range to achieve higher accountability and transparency.
Delayering - Flat Organization

In the post world war period (1950s and 1960s), the demand for goods was ever increasing. Main objective is to 'manage less with quick decision. It entails removal of the layers of senior and middle management i.e. making the organization structure flat.

"Reengineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance such as cost, quality, service and speed " says Michael Hammer.

THE RESTRUCTURING SCENARIO

Three quarters of the largest American and European Companies have reengineered at least one key business process over the past three years, and nearly 80 per cent of those companies consider their reengineering efforts to have been successful, reports a recent Mercer Management Consulting Survey of senior executives.155

The primary yard tick for measuring reengineering effectiveness is cost reduction. Revenue growth and stock price gains, are at best, secondary considerations.

True success arrives when reengineering ceases to a discrete "project" and instead becomes a way of life. The enterprise becomes, in effect, a highly sensitive mechanism for sensing and anticipating changes in the make up or preferences of its core customers.

In a dramatic bid to reverse losses Apple Computer said it would cut 4,100 employees nearly a third of its work force and scale back its Macintosh line of computers and software.

"We have made the right decision to focus our energies and these decisions I am absolutely convinced will put us on the road back to health, and we will be looking at a very different situation over the rest few quarters," Apple Chairman Gil Amelio said yesterday.

Apple's chronic losses and shrinking market share have forced it into a series of retrenchment that have so far failed to stop the slide. It has posted losses in force of the last five quarters, totaling $936 million.

The company also cut 1500 jobs last year as part of the restructuring implemented by Amelio, who was hired 13 months ago to turn the company around. Industry analysts said the latest move indicated the previous steps did not work.\(^{156}\)

They are dismantling wasteful organizational structures to get down to business, and unnecessary layers are disappearing. Corporations are also taking a harder look at what employees are actually contributing. Leaner organizations don't necessarily mean that less people do more work, "says consultant Om Kaul. "It is just that managerial productivity is rising.

There is a focus on systems and processes. While that might seem like an increase in bureaucracy, in reality, it releases managers from day to day considerations to allow them to concentrate on providing strategies and business solutions.

\(^{156}\) Ortiz, Catalina, "Apple to retrench 4,100 Workers"
The Economic Times, 16.03.1997, California, A.P.
Management's are struggling to empower employees across the corporation.

According to K. Ramachandran, Senior V.P. HRD and Corporate operational policy, Philips India Ltd. "Hierarchy is not the driver anymore, it is the role. Each department has internal customers, and this blurs the distinction between production and marketing or manager and clerk.

"We want people who are willing to question but constructively, " says Ramachandran. "We look for managers who are solution-oriented, flexible, driven by competence, not power Barefoot Managers, who are willing to go out and get the job done."

The dictatorial, top-down approach is out. An integrative, consultative approach is in. Nohria says, "Most large world corporations have been built on autocracy; that style was right for the environment they functioned in. But today, we need managers who are strong on customer focus, who are flexible enough to help re-engineer processes and business, while keeping other employees involved."

The biggest change in the workplace is the new element of insecurity," says Sachdev "The new ambitions of companies mean that employees have to ask, do I know enough? Can I adjust to computerization, or the new management vocabulary?"

Most organizations are creating a new equation that avoids both the pink slip ruthlessness of the U.S. and the all-encompassing paternalism of Japan.

At a Bangalore based Company Veri Fone, employees from different backgrounds have gotten used to working without secretaries very little
paper, and just three organizational levels. Computers, e-mail and communicating across time zones are central to the company’s operations welcome to the virtual corporation.\textsuperscript{157}

Patterns in Organization Structure: In a study of organization charts of 61 different companies, by National Industrial Conference Board, 1962, the Board discerned a pattern. According to the report published, it read ‘The observable pattern among the 61 companies has four major elements to it, some more evident than others’:

1. A more concerted move to divisionalized organization structures accompanied by greater decentralization.
2. The elaboration and changed role of corporate staff.
3. The emergence of another level of general executives, most often labeled ‘group executives’.
4. The elaboration of the chief executive’s office.\textsuperscript{158}

The study of the excellently managed Indian companies showed that those large multi-product, multi-technology, multi-location companies which had introduced decentralization effectively had done so with considerable managerial understanding of the process and people variables involved.

In all the cases where structure was a distinctive feature of managerial excellence, it was also noticed that evolution of the structure has been a progressive and sequential process. Those companies which currently

\textsuperscript{157} Abraham, Sarah, ‘Workplace 1995’ Business India, April 24, May 7, 1995, P. 64-70.

have a highly decentralized structure, had initially started with a functional structure when the size of the operations was small, they expanded into a region-based structure when the marketing grew to all India proportions and finally, into a product group structure (with a strong corporate office) when marketing and production operations became very large, diverse and dispersed. It is seen that the corporate office in all these cases have seen their role primarily in formulating strategy and policy, in addition, of course, to certain fundamental aspects which are critical to continued organizational success. They have safeguarded their rights in relation to resource allocation, particularly in terms of capital expenditure allocation, project approval, resource (long term) raising, management development and formulation of functional policies, strategies and procedures. Because of the transfer of the operational decision-making powers to the product groups, many of these corporate offices are lean, but capably manned.

In contradiction, some of the corporate offices of the organizations studied were not able to avoid involvement in the operations, and this was seen by people down the line as running the product group operation by proxy from the corporate office. Sometimes, the constitution of the product group structure has led to strong affiliations with their groups and hence an insensitivity, and inability to relate their product groups operations to the total corporate objectives or to the inter-group dealings about transfer pricing, resource sharing, utilization of common services etc.

ITC has set trailblazing examples in evolving and administering an appropriate organization structure based on product group operations. It has not only demarcated its total business into specific product groups, but also ensured that the structure enables the managers
within the product group structure to function, for all practical purposes, as if it is a distinct corporate enterprise with clearly delineated strategy and performance targets. The most striking innovation of ITC in this regard is the creation of national Boards of Directors for its various product groups as distinct from the ITC Corporate Board constituted according to the provisions of the Company law.

HMT has followed a similar structural mechanism in respect of its various product groups i.e. watches, lamps, machine tools and tractors and defined the corporate office’s role with considerable insight.

Hindustan Lever has achieved an excellent level of integration between its regional operations and product groups and functional entities in the corporate office.

Larsen & Toubro’s structure is marked by a clear division of tasks between the product groups and corporate office. The mechanism by which individual members of the corporate management also take the operational responsibility of a cluster of product groups ensures the best illustration of the concept of boundary roles, whereby the transmission of trends in production, finance, personnel, technology, which begin to assume strategy of policy proportions in a product group’s operations are highlighted for corporate management’s attention, analysis and strategic action.159

Burmans hope to convert 113-year-old Delhi based group, Dabur India from a Rs. 700 Crores group into a Rs. 1,000 core giant by 2000 A.D.

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In 1993, Burmans hired consultancy firm A.F. Ferguson to chart out new growth opportunities. A tightly held family concern until then, Dabur was forced to divest part of the promoters equity to mature its ambitions. In 1993, Dabur went public for the first time and the Burman’s stake reduced to 78.8 per cent.

Until then, Dabur’s mainline businesses were herbal and ayurvedic health care products and toiletries. From three divisions, the first phase of restructuring involved carving out six independent profit centres. Earlier, a general manager along with him team of marketing and sales professionals looked after the marketing and sales of the entire Dabur portfolio. Today, there are 10 divisions. The activity chart, each headed by a general manager with a dedicated team of professionals. Each profit centre now has its independent marketing and distribution network to focus on individual product groups.

These structural changes have been accompanied by a tentative shift in the family's involvement. Earlier, the Burmans were involved in the day to day functioning of the company. Today each of the general managers reports to one member of the Burman family. Restructuring has seen a two fold increase in the number of professionals.160

Raymond Ltd. has dropped the proposed merger of Raymond synthetics Ltd. (RSL) with itself following opposition from the Industrial Credit and Investment Corporation (ICICI), Raymond's Principal term lending institution.161


The ITC board is considering a proposal to replace the committee of Directors (COD) with a management panel which would include more members than just the executive directors.

The Board may include the heads of the company's various business units in the proposed committee to broaden base it. Even the non-executive director may be asked to attend the committee's meetings as special invitees.

Headed by company Chairman YC Deveshwar, the COD at the moment consists of four executive directors after two directors retired recently. That is why a need has been felt to broaden base the COD to include other executives who play a major role in the running of the company. This obviates the need to replace the COD with a new committee.

The proposal is part of an attempt to bring about a better corporate governance and to prevent the kind of alleged scams that have plagued the company during the last few years.¹⁶²

"Six months after Swiss giants Ciba-Giegy and Sandoz announced their intention of signing on the dotted line, their Indian subsidiaries have taken a major step towards matrimony. The boards of the two companies have just approved a scheme wherein Sandoz (India) will be merged into Hindustan Ciba-Giegy (HCG) after the latter divests itself of its specialty chemicals business".¹⁶³

The union industry ministry has finalized a detailed restructuring package for the 49 PSUs under the Department of Heavy Industries. The package aims at providing greater autonomy to PSU management's


¹⁶³
and reducing the workforce through a revamped voluntary retirement scheme.\textsuperscript{164} A merger of Pond's India with Hindustan Lever is inevitable, says a research report prepared by H.G. Asia which focuses on Unilever companies in India.\textsuperscript{165}

The 400- crore Transport Corporation of India Ltd. is hiving off four of its six existing divisions as part of its corporate restructuring exercise.\textsuperscript{166}

For the first half of the current year, Greaves Limited has posted healthy results. The complete restructuring of the company into six independent business units over the past three years has played no small part in this.\textsuperscript{167}

During 1996, corporate India has been a witness to significant restructuring exercises. Bangalore based BPL which was beginning to look an unwieldy conglomerate has carved out its business into six Strategic Business units.

A continuing cash crunch forced the Arvind Mafatlal group to hive off its petro chemical initiative from NOCIL to a separate vehicle which soon seek an international partner with deep pockets.

\textsuperscript{163} Shankar, Sitaram, "Merger Brews" The Economic Times, 8\textsuperscript{th}. Nov, 1996.
\textsuperscript{164} "Restructuring package for 49 PSUs finalised" Business Standard, 7\textsuperscript{th}. Nov, 1996.
\textsuperscript{165} "Pond's merger with Levers imminent: HG Asia" Financial Bureau, The Business Standard, 4\textsuperscript{th}. Nov, 1996.
\textsuperscript{166} Roy, Ghosh Sangeeta, "TCI spinning off four divisions in recast" The Economic Times, 6\textsuperscript{th}. Nov, 1996.
\textsuperscript{167} "Restructuring paid" The Economic Times, 4\textsuperscript{th}. November, 1996.
Essar also has first de-subsidised Essar Power and now truncated its long gestation pellet project into a wholly owned subsidiary which will seek a foreign partner to drive its growth.\textsuperscript{168}

\textsuperscript{168} Banerji, Chiranjeet, "Restructuring was the ball game of 1996" The Economic Times, 29th December, 1996.