

**ENVIRONMENTAL INFLUENCE ON
MANAGEMENT DECISION SYSTEM AND
THEIR ROLE FOR EFFECTIVE MIS**

*A project thesis submitted to the Department
of Industrial and Production Engineering,
Bangladesh University of Engineering and
Technology, Dhaka in partial fulfilment of
the requirement for the degree of MASTER OF
ENGINEERING (IP)*

A Project Report

By

**ABDULLAH ISHAQ
B.Sc. Engg. (Mech)**



**Department of Industrial and Production Engineering
Bangladesh University of Engineering and Technology**

June, 1990



CERTIFICATE

*This is to certify that this work
has been done by me and it has not
been submitted elsewhere for the
award of any degree or diploma.*

Countersigned

Scritter

M.M. Khennu

Supervisor

Mahdubul Haq Jaffer
Ansari, BSc, MSc
, Phd, FICE

**Signature of
the Student** *MILE*

EMED,

**ENVIRONMENTAL INFLUENCE ON
MANAGEMENT DECISION SYSTEM AND
THEIR ROLE FOR EFFECTIVE MIS**


A Project Thesis

By


Abdullah Ishaq

*Mahabubul Haq
Smith*

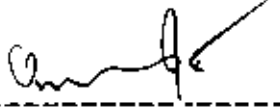
Approved to the style and content by:

1. 

Dr. Md. Mizanur Rahman
Professor
Department of Industrial &
Production Engineering
BUET, Dhaka
Chairman
(Supervisor)

2. 

Dr. A.F.M. Anwarul Haque
Professor & Head
Department of Industrial &
Production Engineering
BUET, Dhaka
Member

3. 

Dr. M. Anwarul Azim
Professor
Department of Industrial &
Production Engineering
BUET, Dhaka
Member

Department of Industrial and Production Engineering
Bangladesh University of Engineering and Technology
Dhaka

June, 1990

ACKNOWLEDGEMENT

The author likes to convey his gratitude to a number of people who helped and encouraged him in completing this work. Without their support it would not have been possible to make effective headway with this work.

The author wishes to express his sincerest gratitude and indebtedness to Project Supervisor Professor Md. Mizanur Rahman for his kind continued guidance, constructive suggestions and continuous encouragement. Despite his busy schedule he always made time extended well beyond his normal working hours for undertaking the project and preparing the thesis.

The author expresses his appreciation for the encouragement and guidance obtained from Professor Dr. M. Anwarul Azim.

The author wishes to express his sincere gratitude and appreciation to Dr. A.F.M. Anwarul Haque, Professor & Head, Department of Industrial & Production Engineering, BUET, Dhaka for his valuable suggestions and encouragements through out the course of the work.

The contribution of M. M. Golem Mohiuddin, Assistant Professor, IPE Department and Mr. Mohiuddin Ahmed, Research Assistant Professor, IAT, BUET is also gratefully acknowledged.

Finally, the author offers his sincere thanks to all those who either directly or indirectly helped the author in various ways to complete the research work.

June, 1990

Abdullah Ishaq

ABSTRACT

The development of the country's economy through the development in the industrial sector and its growth rate could not be achieved. The lack of application of proper management technique was identified as one of the main causes. The government stresses in the National Industrial Policy declared in 1982 to instal and maintain MIS for monitoring and evaluation of the performance of the management of public sector industrial enterprises of the country. In this view computer aided centralized MIS has been introduced in many corporate Head Offices of industrial enterprises. Yet the condition remained as it was - this is revealed on the eve of the end of the Third Five Year Plan. The growth rate in the manufacturing sector was 10.1 in 1989 against the rate of 10.6 in 1981.

It has been argued that the environment in which the industrial enterprises and their management operate has a definite impact on the overall management process particularly on the decision making process. The basic literacy rate, its quality and quantity, religious faith, customs, traditions, values, interests, philosophies, attitudes, policies, various controls, political stability etc. constitute the environment. This environment is often

obstructive, regulatory and discouraging and sometimes stimulating to the overall management process and thus on the industrial economic development.

Frequently management puts blames solely on these environmental constraints for inefficiency and ineffectivity of the Management Decision System (MDS) and its failure to achieve the enterprise objectives. Should they also not be blamed for atleast for their part played on inefficiency. To alleviate this situation various thoughts have been emerged at times. In the current work the information system more specifically the MIS has been considered as a management tool to increase the effectivity of MDS of enterprises. It is proposed that an effective MIS incorporating all the informations in a timely basis and appropriate decision based action made from utilising these information can make it possible.

The purpose of study is to identify these environmental influences on critical management elements and their effects on the management decision making system. Because of the nonavailability of the pertinent information for quantitative analysis of these environmental factors and their influence on management decision making system, study is made on a qualitative basis. Also the reliability of the

information available and the time horizon permitted to carry out this study critically affects the study process and lead to qualitative analysis. However scope exists for future study and work on this issue.

The study consists a conceptual framework to give an idea about the environmental factors which deemed to be critical and important and also influential to the overall managerial performance.

Efforts were made to analyze the inherent defects and shortcomings in existing MIS, the causes of ineffectivity. Finally guidelines were proposed for designing and implementing an effective MIS, in more general term.

The present study focussed on -

1. Identifying the environmental factors - educational socio cultural - political and economic environment and their influence on critical management elements.
2. The way the environmental factors influence the managerial performance and the management decision making process.
3. How to modify or eliminate the negative influences (or constraints) by taking necessary actions and steps.
4. How the environmental factors influence the MIS effectivity and how an effective MIS can help the management decision system in overcoming the constraints.

TABLE OF CONTENTS

	<u>Page</u>	
Acknowledgements	v	
Abstract	vi	
Table of Contents	ix	
List of Figures	xii	
CHAPTER - 1	INTRODUCTION AND CONCEPTUAL FRAMEWORK	1
1.1	Organization as a system	5
1.2	The Environment	11
1.3	The Management Process	18
1.4	Critical Elements of the Management Process	19
1.5	Management Decision Making Process	21
1.6	Environmental Influence	21
CHAPTER - 2	LITERATURE SURVEY	28
CHAPTER - 3	EDUCATIONAL ENVIRONMENT	32
3.1	Introduction	32
3.2	Literacy Level	33
3.3	Primary Education System	34
3.4	General Secondary Education System	35
3.5	Semi-Professional and Vocational Education System	35
3.6	Higher Education System	36
3.7	Features of the Higher Education System	37
3.8	Quality of Training and Management Development Programme	38

Table of Contents (Contd.)

	<u>Page</u>
3.9 Non-Company Management Development Programme	38
3.10 Attitude Towards Education	39
3.11 Educational Match and Manpower Utilization	40
3.12 Misuse of High Talent Manpower	41
3.13 Conclusion	41
CHAPTER - 4 SOCIO-CULTURAL ENVIRONMENT	48
4.1 Introduction	48
4.2 Elements of the Socio-Cultural Environment	48
4.3 The Impact of the Socio-Cultural Environment on the Management	52
4.3.1 Attitude Toward Management as a Profession	53
4.3.2 Attitude Towards Authority, Responsibility and Subordinates	54
4.3.3 Attitude Towards Achievement	56
4.3.4 Attitude Towards Wealth and Material Gain	56
4.3.5 Attitude Toward Scientific Method	57
4.3.6 Attitude Toward Risk Taking	58
4.3.7 Attitude Toward Change	58
4.3.8 Attitude Towards Co-operation	59
4.4 Conclusion	59
CHAPTER - 5 POLITICAL ENVIRONMENT	63
5.1 Introduction	63

Table of Contents (Contd.)

	<u>Page</u>
5.2 Political Stability	64
5.3 Basic Underlying Problems in the Country and Consequences for Industrial Management	64
5.4 Major Government Administrative Problems	65
5.5 Impact of Political Environment	66
5.6 Conclusion	72
CHAPTER - 6 ECONOMIC ENVIRONMENT	76
6.1 Economic Overview	76
6.2 Economic Structure	76
6.3 Impact of Economic Environment	77
6.4 Conclusion	80
CHAPTER - 7 ENVIRONMENT AND MIS EFFECTIVITY	84
7.1 Introduction	84
7.2 Environment MIS Interaction	84
7.3 The Information Content	86
7.4 Reliability of Information	88
7.5 MIS for Planning	89
7.6 MIS for Monitoring and Evaluation	91
CHAPTER - 8 CONCLUSION AND RECOMMENDATION	92
Future Scope of Study	106
APPENDIX - 1	107
REFERENCES	111
BIBLIOGRAPHY	113

LIST OF FIGURES

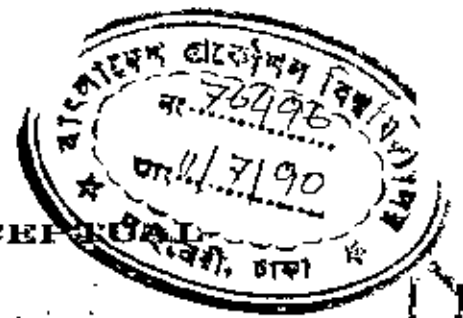
		<u>Page</u>
Figure - 1.1	Vicious Circles of Technological Underdevelopment	3
Figure - 1.2	Relationship between Management Process and Organizational Effort	6
Figure - 1.3	Unstability of Organizational Structure	8
Figure - 1.4	Interrelationship between Sub-systems of the Industrial Enterprises in an Open System Approach	9
Figure - 1.5	Rozenzweig's Classification of Environment	12
Figure - 1.6	Interrelationship among the Environmental Factors	17
Figure - 1.7	Summary of the Content of Management Process	20
Figure - 1.8	Environmental Influence on Objective Setting of Organization	22
Figure - 1.9	Environmental Factors Influencing Management Process	24
Figure - 1.10	The Role of MIS in MDS	26
Figure - 1.11	Environment and Organizational Objectives	27
Figure - 1.12	Role of Information in Decision Making	27
Figure - 3.1	Impact of Literacy Rate on Management	42
Figure - 3.2	Composition of Workforce in any Engineering Enterprise with the level of Technical Competance in Bangladesh	44
Figure - 3.3	Relationship between Educational Environment and Management Function	46
Figure - 3.4	Vicious Cycle of Illeteracy	47

List of Figures (Contd.)

	<u>Page</u>
Figure - 4.1 Factors and Outcomes which Constitute the Socio-Cultural Environment	62
Figure - 5.1 Policy Definition	74
Figure - 5.2 Policy Formulation	74
Figure - 5.3 Factors and Outcomes which Constitutes the Political Environment	75
Figure - 6.1 Constituent of Economic Environment and Its Impact on MDS	81
Figure - 6.2 Vicious Cycle of Industrial Underdevelopment	83
Figure - 8.1 Information Content of Proposed MIS	105

Chapter - 1

INTRODUCTION AND CONCEPTUAL FRAMEWORK



The country has been continuously in a process of enlightening its economic status through the development of industrial sector. The broad objectives in the five year plans since independence of the country are (i) growth in national income, (ii) alleviation of poverty through generation of employment opportunities and (iii) increased self reliance.

It may be mentioned that the First Five Year Plan (1973-78), The Two Year Plan (1978-80), and the Second Five Year Plan (SFYP) (1980-85) all failed to achieve the Gross Domestic Product (GDP) growth rate targets quite substantially, the SFYP has achieved 3.8 percent against a target of 5.4 percent. The average contribution of the manufacturing sector to GDP has declined from 10.6 in 1981 to 10.1 in 1989^[1]. Many factors could be reasoned for this, such as policy issues 'nationalization versus denationalization issue, political unrest, serious resource crunch, increasing aid dependence, old and obsolete technology etc. But excluding all these serious issues, the most painful and important is the lack of proper management tools and techniques - whether it is distribution management of the resources or is the industrial management. The government and the concerned policy makers' effort to improve the management skill thus the industrial economy stresses on the

adoption of appropriate modern management techniques and also to monitor and evaluate the performance of the public sector industrial enterprises.

The environment in which an enterprise and its management operates has a definite impact on its performance. The religious faith, the customs and tradition, the literacy rate and motivational and incentive schemes and various other factors which are embryonic to the local environment largely constitute the skill, ability and competence of the managerial peoples.

The pictorial presentation of vicious circles of technological underdevelopment (Fig. 1.1) reveals the importance of proper management. It also stresses on the improvement of some of the important environmental factors - educational factors, and also information system. It focuses on certain other factors categorically and gives a guideline of taking new approach in order to enhance industrial development.

Management could be viewed as a social event. The managerial transformation process needs on one hand a decision maker, a decision taker and on the otherhand an organization, with all its resources needed for production and clearly defined objective(s) with common purpose to all. The relationship between the decision maker and the decision taker is dictated and formulated by the environment in which the

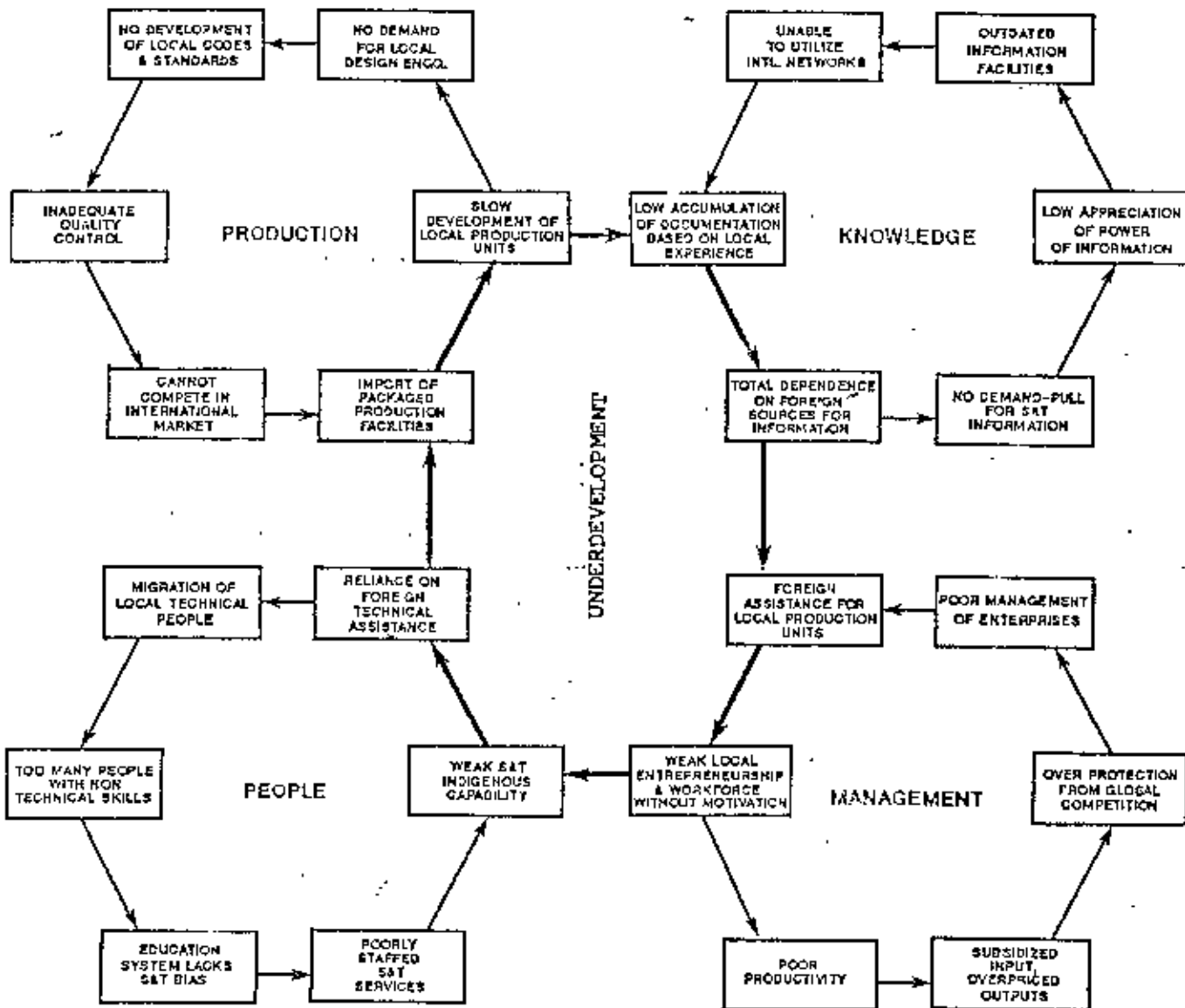


Fig. 1 : Vicious circles of technological Underdevelopment.

Source: Technology Based Development and Policy Intervention ..
Mahmud, I. 1988.

process operates. Before going to discussion further on environment, the concept and philosophy of the environment, its parameters and its effects and finally its influence on the management decision system or in other words on the management process as a whole is needed to be discussed.

The environmental factors or constraints largely, if not totally external to and beyond the control of individual industrial enterprises and their management. But by the critical analysis of these factors and their impacts on the management process, it will be helpful for the management to take necessary steps and actions to modify or eliminate the constraints largely on the management functions.

Often management considers these environmental influences as 'givens' within which they must have to operate, generally, these 'essentially givens' vary in enterprises in magnitude in various economy and industrial situations. The present study is directed to analyze these environmental factors influencing the industrial enterprises of the country, their management decision systems and particularly on the management functions in the public sector industrial enterprises.

While the management process is primarily concerned with the internal enterprise operations, yet the managerial and enterprise performance would largely depend on the response

to factors external to the enterprise. The management process and organizational effort would basically takes the form as shown in Fig. 1.2.

A productive enterprise forms a part of a complex educational - socio cultural - political; legal - economic chain. An industrial enterprise can not exist in isolation rather as an integral and complimentary entity of the environment and its influence. The terms environmental factors, constraints, characteristics, condition and variables could be used synonymously unless otherwise stated, however, constraint is considered to be the most appropriate terms. In essence, a constraint circumscribes the opportunities for managerial action sometimes vary narrowly but usually in a substantial way.

To understand the environmental influence, one should have the idea about the organizational system.

- 1.1 **Organization as a System:** A system is defined as a unit of functionally interrelated components designed to achieve a predetermined objective. For an organization it is a unit of interrelated components, the balance and coordination of which are keys to maximize performance and optimize efficiency as a whole. These components may be an identifiable grouping of people, machineries, procedures and/or resources. A system however is open in respect of its interactions with the environment.

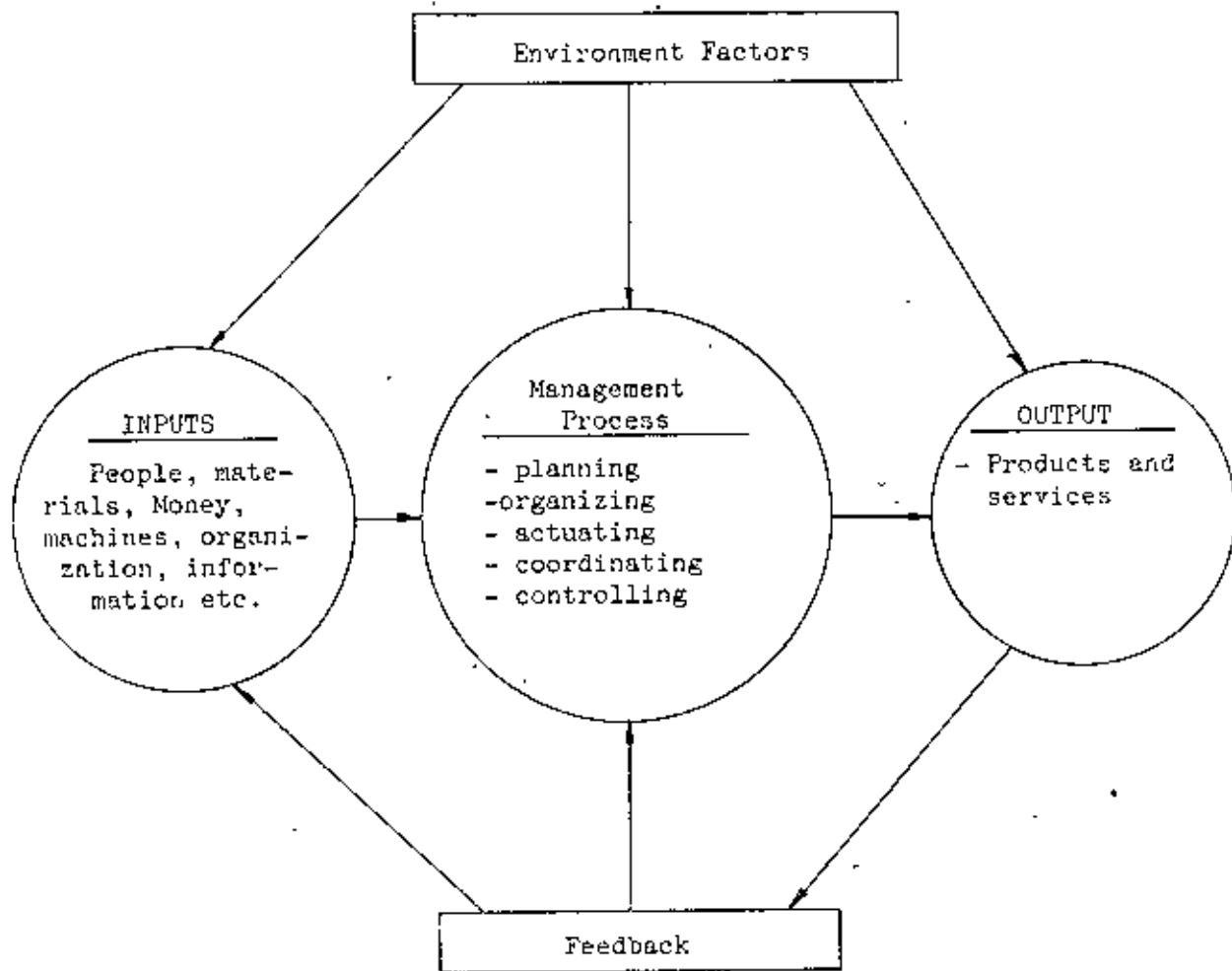


Fig. 2 : Relationship between management process and organizational effort

As an open System - An organization is best referred to an open system since it is subject to outside forces of the environment, while a closed system is isolated completely from it. An open system exchanges information with its environment. Most industrial organizations as known are interacting with the environments in the form of exchanging information, drawing upon resources and providing good and services. If flow of information does not exist between management and the environments this will rapidly decay and soon cease to exist.

According to Drucker^[2] that organization structure are becoming 'shortlived and unstable'- quite meaningful when organizations are viewed from an open system approach. It is shown in Fig. 1.3.

Industrial enterprises as a system with interrelated subsystems: Fig. 1.4 provides a framework of the industrial enterprises as an open system and shows interrelationships among various subsystems. The subsystem of marketing, production and finance are shown to be interrelated since each contributes to the achievement of an enterprise objectives. Output of these subsystems become meaningful only when they contribute to the overall attainment of objective(s). But the proper functioning of these subsystems and the system as a whole is again constrained by this environment. Hence, the environment and its concepts and parameters need to be studied.

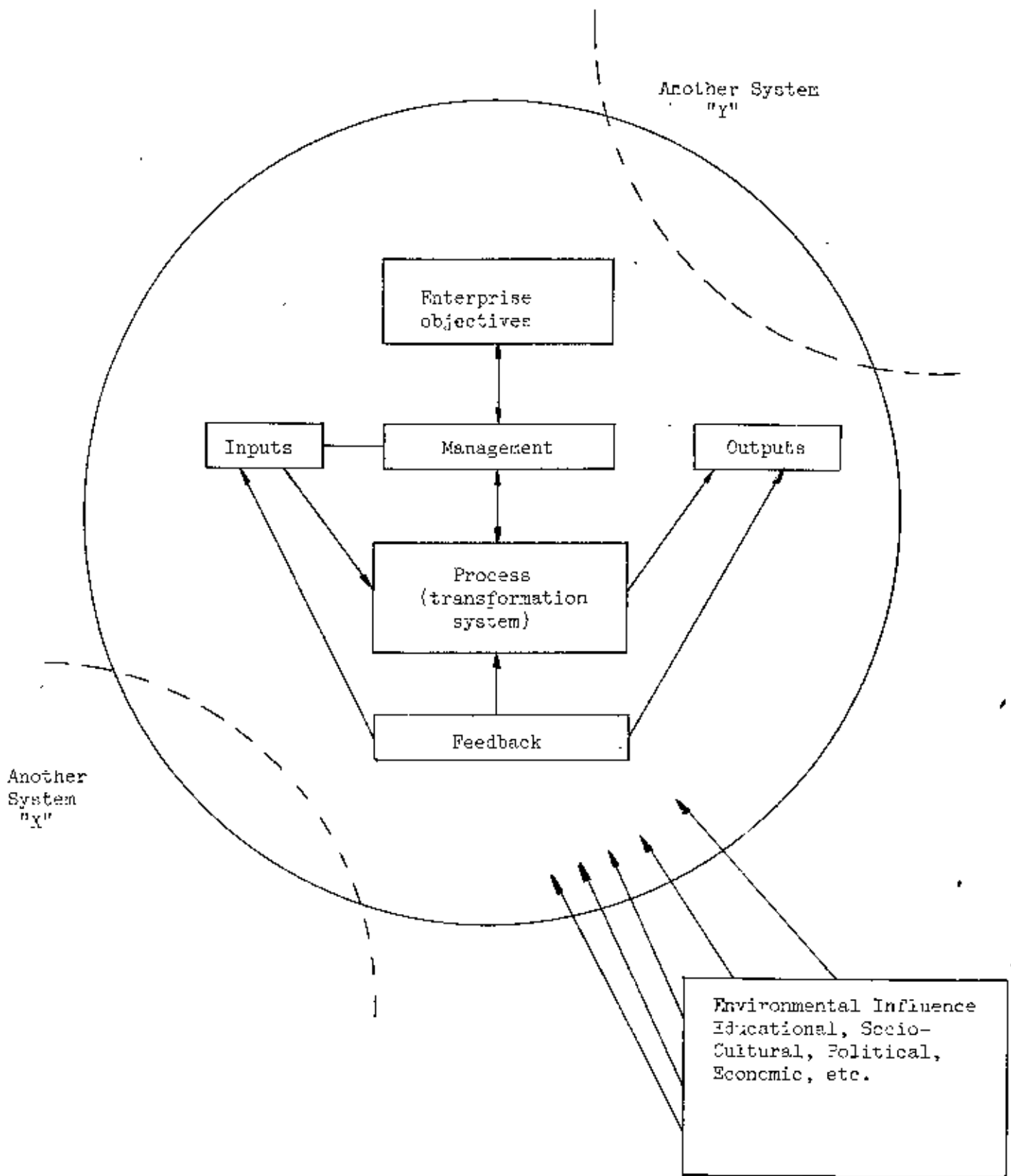


Fig. 3 Unstability of Organizational structure

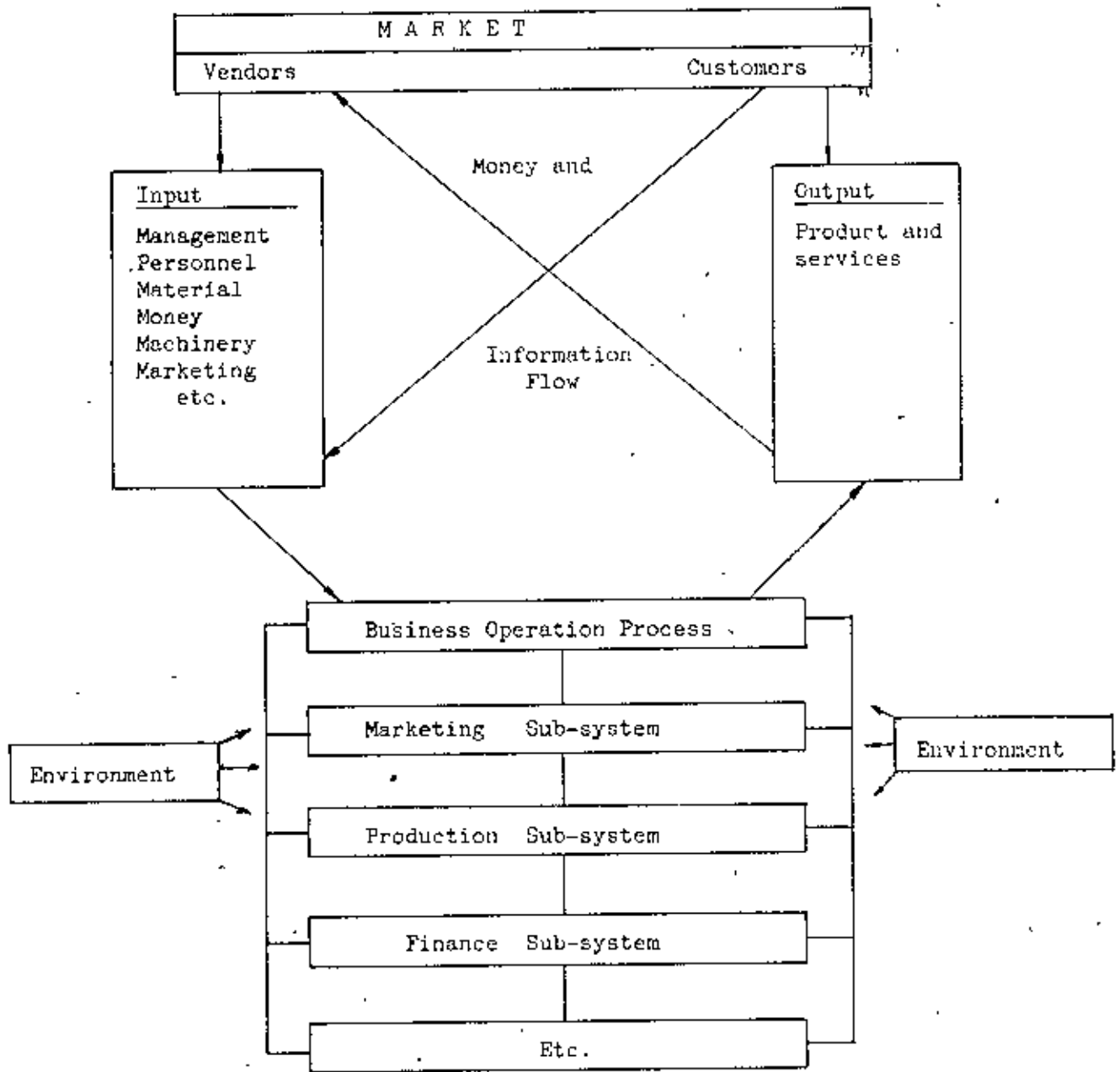


Fig. 4 : Interrelationship between sub-systems of the Industrial enterprises in an open system approach

The currently used definition of MIS is 'to provide right information to the right person at the right time.' The informational support for decision making and its need in management functions can not be overemphasized when decision making system is not supported by appropriate information and the environmental factors are allowed to play their role. To enhance a dynamic management process computer aided MIS has been introduced in almost every head offices of Industrial organizations. But the MIS could not play their role in view of the achieving its objective.

MIS as a part of the management process cannot be free from environmental constraints. Information supplied in most cases by MIS is untimely, irrelevant, unstructured, manipulated and is not tuned with organizational objectives. One big computer cannot ensure right information until and unless it is fed with the appropriate data. The human factors influence the reliability of information. The tendency of suppressing information in critical areas due to the fear of possible jeopardization of the career is quite common. Again, an information will be considered right only when it accommodates a right decision - and this is the decision makers capability. So suboptimization in MIS design cannot necessarily ensure the effectivity of decision making. The right person and right information should be identified. The efforts were directed to increase the productivity through effective decision making with the help

of MIS i.e. providing right information to right person at right time during the whole study.

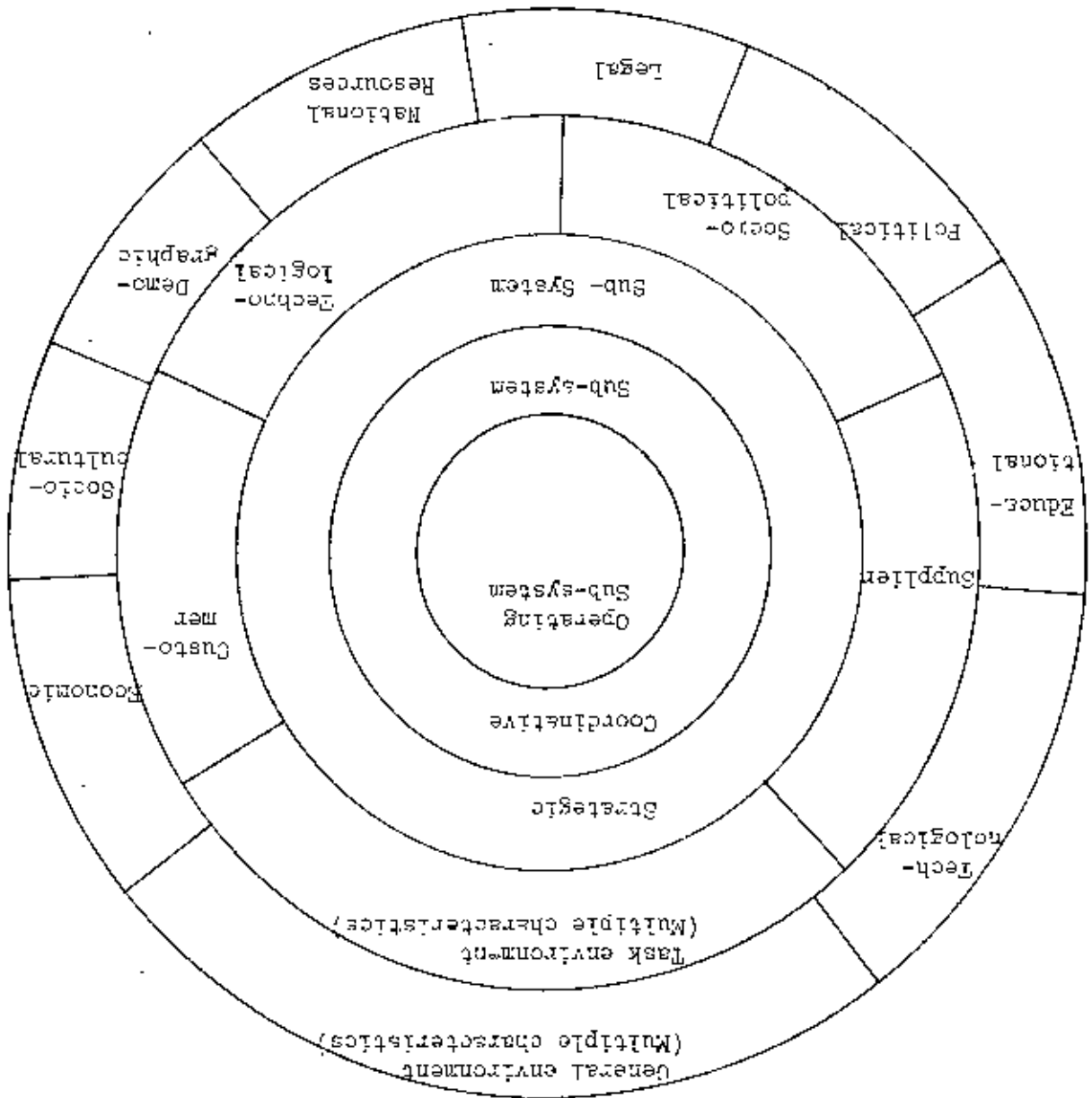
Conceptual Framework: The conceptual framework consists of two parts, firstly about the environmental factors critical on the overall managerial performance and secondly the critical elements of the management process which is vulnerable to be influenced by these factors. These can impede the effectivity of MDS and are identified and discussed.

1.2 THE ENVIRONMENT

In the broad sense, the environment is that mass of organization, resources, communications and individuals that exists beyond the organizational boundaries. Kast and Rozenzweig^[3] have classified the environment in two ways and is shown in Fig. 1.5.

- i. The societal (General) environment which affects all organizations in the society.
- ii. The specific (Task) environment which affects the individual organization.

Fig. 5 : Rozenzweig's classification of environment



Environmental factors

In the following discussion the environmental constraints which have the most significant bearing on managerial performance and productive efficiency on the industrial enterprises of Bangladesh particularly in the nationalized sector have been discussed. They have been classified into four major categories : educational, socio-cultural, political-legal and the economic environment.

The environmental variables presented are obviously complex and a detailed study of them within a time horizon as permitted seemed to be impossible. However, it would, therefore be wise to consider only that part of each factors which has direct and significant bearing on industrial management and productive efficiency. It is worthwhile to mention that many of these factors are closely interrelated.

A. Educational Environment

1. Literacy level, average years of schooling of adults, composition of the literate peoples in the industrial enterprises etc.
2. Specialized vocational and technical training and general secondary education - extent, type and quality of education and training of this type.

3. Higher education - the percentage of the total population and those employed in industry with post high school education, type and quality of such education, type of people obtaining higher education etc.
4. Special management development programmes - extent and quality of these programmes what section of people attending these courses, whether it is tuned with industrial problems etc.
5. Attitude toward education - the attitude of the population of the country towards education or acquisition of knowledge.
6. Attitude toward scientific and technical education - extent, type and quality, whether it has science and technology bias, level of technological know how etc.
7. Educational match with the requirements of industrial management and manpower utilization - extent and degree to which the formal education and training fits the needs of enterprises and all levels of skill and achievement and the degree to which manpower utilization is effective etc.

B. Socio-cultural Environment

1. Attitude towards management as a profession - the dominant social attitude towards industrial manager's and also these managers attitudes to their profession.
2. Attitude towards authority, responsibility and subordinates.
3. Attitude towards achievement and work, material gain, wealth and self interest.

4. Attitude toward risk taking, change in industrial operations and scientific methods.
5. Inter organizational and individual cooperation - the extent and degree to which individuals, groups or departments within the enterprise and outside agencies cooperate among themselves in ways conducive to managerial effectivity etc.

C. Political Environment

1. Political stability is required for high degree of managerial effectiveness for the industrial and thus economic progress.
2. Basic underlying problems which must be solved in the political area due to their political nature i.e. organizational and staffing problem etc.
3. Different problems due to the policy issues and control problems.
4. Management implications of political environment - personnel problem or the personnel management, incentive schemes, at work level, executive earnings, salary compression etc. are the different salient political issues.

D. Economic Environment

1. Economic condition and Economic structure - per capita income of the people, employment generation, type of economic policy pursued etc.

2. Financial control - allocation and release of finance, control over financing agencies, dependence of the industries to government financing institutions etc.
3. Pricing policy and price control - thus the control on profit and distribution of surplus generated, on commercial and marketing activities.
4. Procurement policy - the tendering formalities, freedom in procurement both from the local and international market in response to enterprise production functions.
5. Marketing problem - the extent of aggressive salesmanship, government policy to help the marketing problems etc.

These environmental factors will be discussed in details subsequently. The environment in which management operates are dynamic in nature. These are also interdependent and have interrelationship among them. Attitude toward education is also due to the socio cultural, economic and political factors etc. Their interrelationship is shown in Fig.1.6.

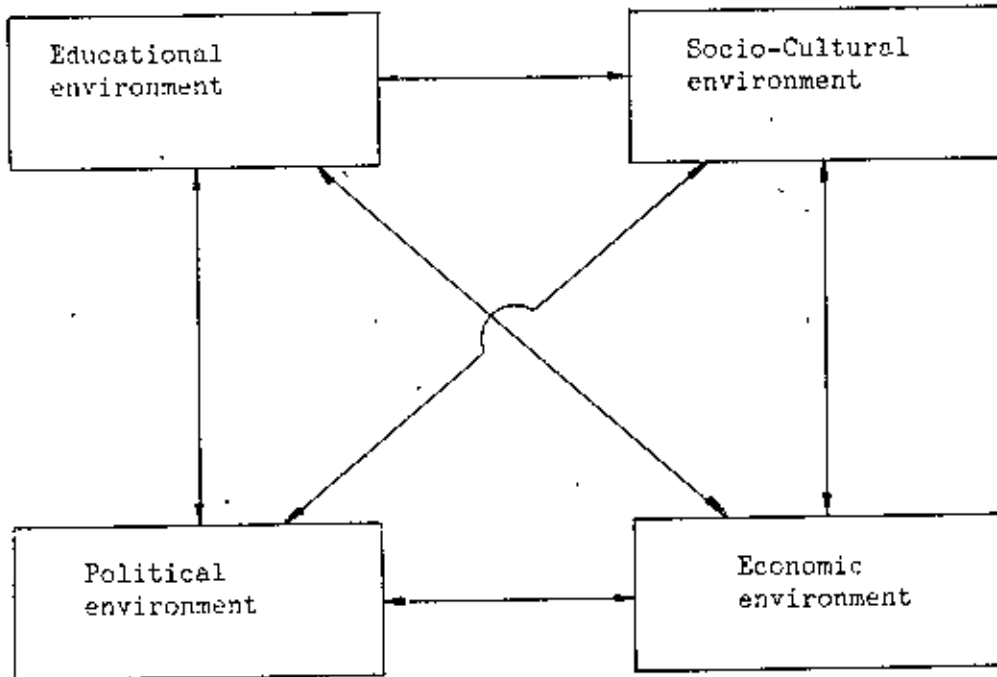


Fig. 6 : Interrelationship among the environmental factors

1.3 THE MANAGEMENT PROCESS:

The second major part of the conceptual framework aimed at the salient issues of the management process, its keyfunctions and how and upto what extent the management decision making process is subject to the environmental factors. The management and its key functions are therefore discussed below.

Basically management process concerned with the implementation of objectives, plans and internal operating efficiency. It often connots bureaucratic structure and behaviour, relatively routine decision making and maintenance of the internal status quo. It needs creative external or open system orientation involving innovation, risk taking and dynamic leadership for its effectivity.

Management can be defined as the process of planning, organizing, actuating and controlling an organization's operations in order to achieve a coordination of the human and material resources essential in the effective and efficient attainment of objectives. It should also be noted here that management is neither the privilege nor the responsibility of only a few members of an organization - it is the work of all individuals whose jobs are involved with reaching objectives through the coordination of available resources.

The content of the management process discussed above is summarized in Fig. 1.7. Successful performance of the management functions requires adaptation to specific situational factors. Thus having to be contingency oriented to achieve results successfully, managers must analyze objectives, resources, structure and environmental influences in determining the particular combination of functions to be performed in a given industrial situation.

1.4 CRITICAL ELEMENTS OF THE MANAGEMENT PROCESS

The management process as discussed earlier involves decision making involving critical elements pertaining to the enterprise functions including related to policy issues for the attainment of enterprise objectives. These functions can be broken down and sub-classified into descriptive elements, each one a variable, common to the management process.

The elements that have been identified by Copen and Richman^[4] as most critical under the major functions are given in Appendix-1. It should be noted here that these elements by no means are conclusive rather adequate for study. These critical elements as depicted may vary with the type of industrial enterprises. The major functions identified by them are given as follows:

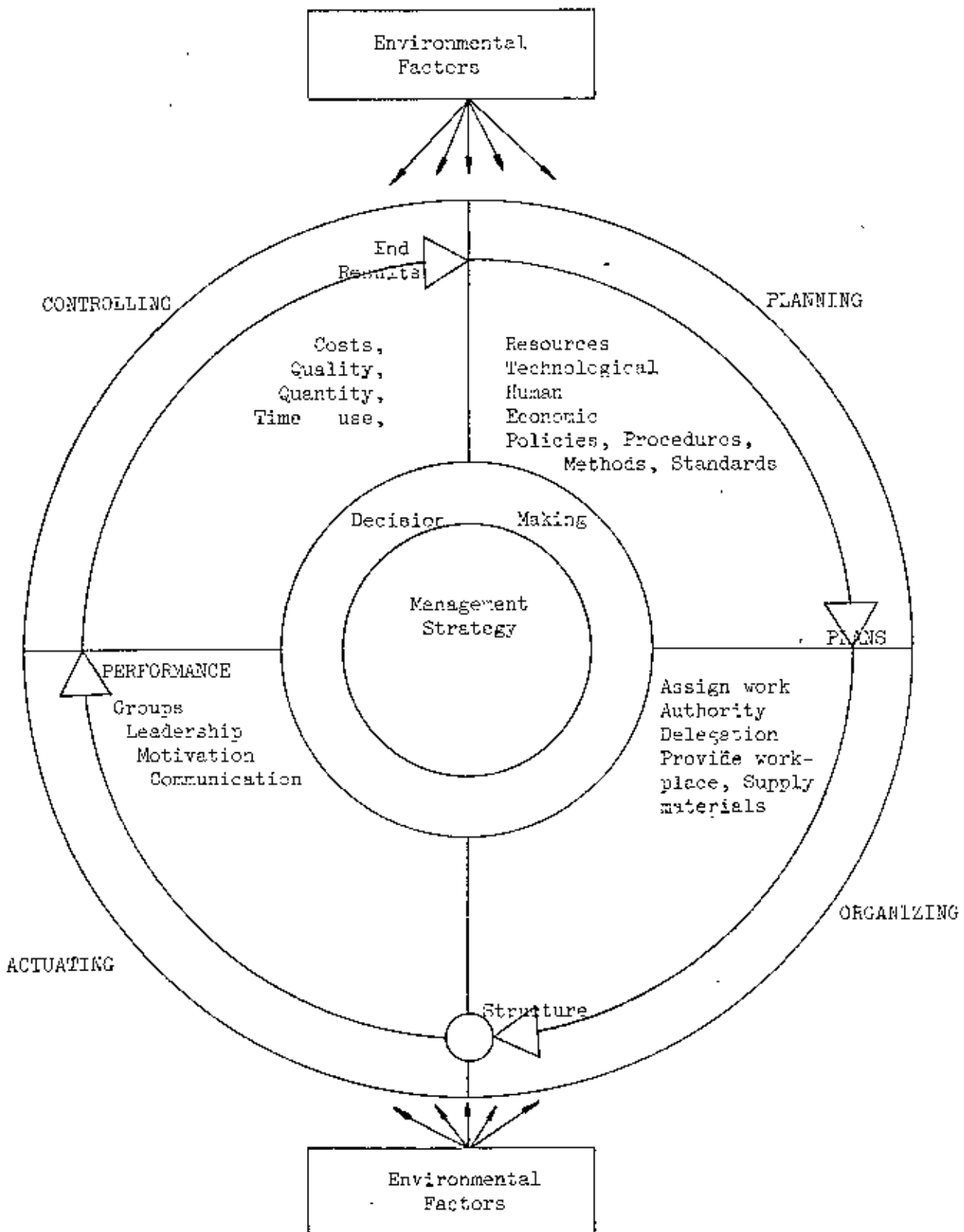


Fig. 7 : Summary of the content of management process

- | | |
|--|--|
| A. Planning and Innovation | F. Marketing |
| B. Controlling | G. Production & procurement |
| C. Organizing | H. Research & development |
| D. Staffing | I. Finance |
| E. Direction, leadership
and motivation | J. Public and external
relationships. |

1.5 MANAGEMENT DECISION MAKING PROCESS

The management process involves decision making. Managers at all levels make decisions, although they differ in type and scope. The top level managers take decisions establishing overall objectives and strategies, decisions of this type are not routine. Middle managers are more constrained by overall operating policies and plans in decision making. Lower level managers takes decisions within the framework of policies and procedures established at mid management levels. According to Bernard^[5], the decision maker must have an understanding of the environment so that the effects of alternative solutions can be predicted. Environmental factors, become more distinct and exacting as objectives are redefined and made more explicit. He noted, aswell, that objectives have no meaning except in an environment with a set of restrictions or limitations. This is depicted in Fig.1.B.

1.6 ENVIRONMENTAL INFLUENCE

In this part of discussion efforts have been made to develop an understanding of decision making as a process that influences all organizational activities. Also the impact of environmental constraints upon decision making has been discussed.

Decision making is the process of choosing a course of action from among two or more possible alternatives in order

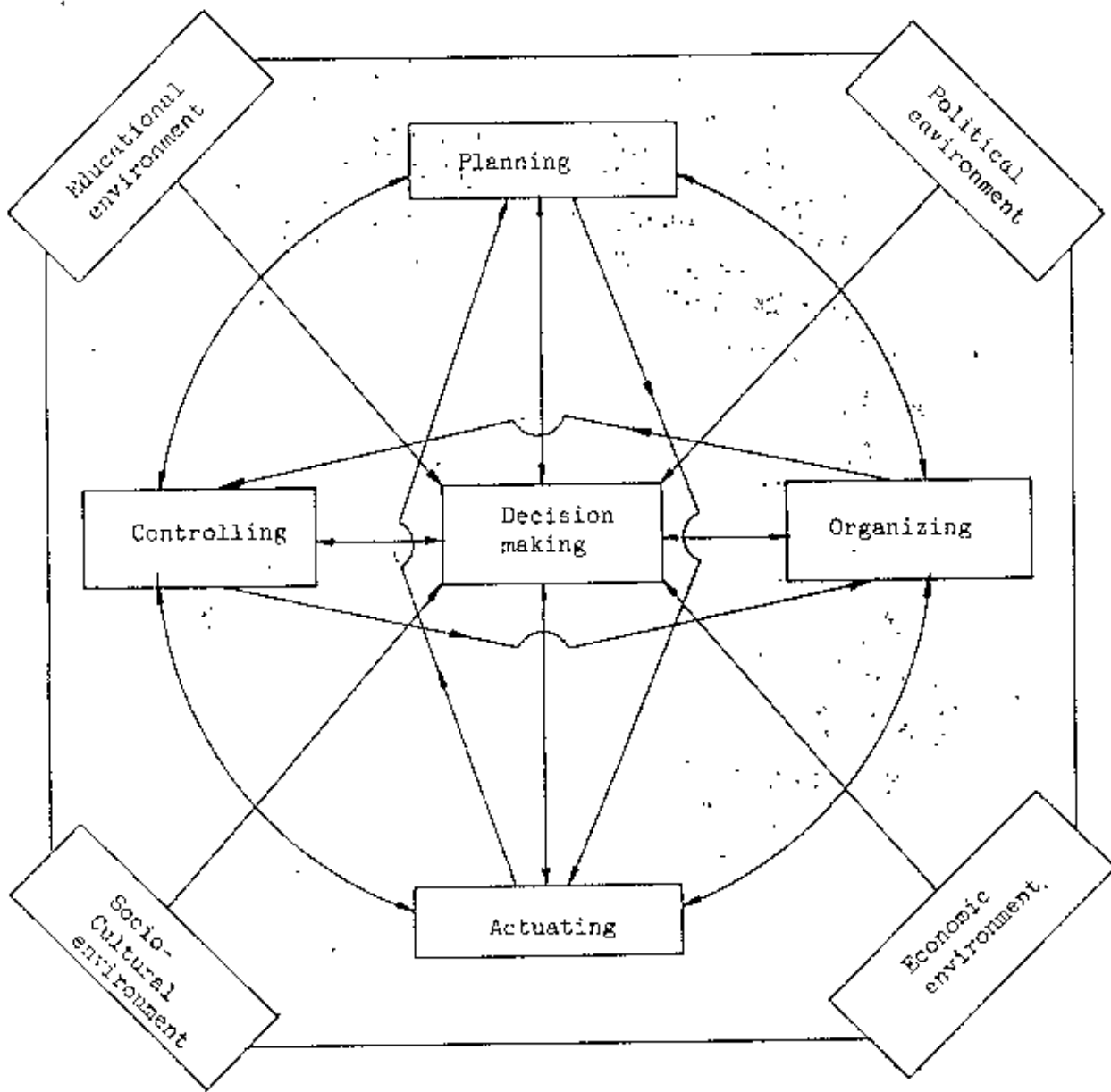


Fig. 8 : Environmental influence on objective setting of organization

to arrive at a solution. It must satisfy the enterprise objectives, environmental factors and human values. Decision making is a continuous process that pervades all organizational activity. As shown in Fig. 1.8 the decision making process is considered to be an activity inherent in all management functions and the environmental factors influence it.

Any organizational ability to succeed in an environment of negative impact rests with its management. In this respect, decisions in most successfully managed organizations depend upon environmental conditions and managerial judgement relating to a particular situation.

Management is an important part of the total environment in which it operates. It is not only influenced by environmental factors but is also a force in changing them. As shown in Fig. 1.9 educational (scientific and technological), economic, socio-cultural and political systems make up the environment.

Managers can not predict the exact influence of most environmental factors even though they act as constraints on all organizations. In most successful organizations, therefore managers often develop means such as persuasion, lobbying, cooperation and participation of higher authority to modify the impact of certain environmental influences. Also in course of time management tends to change the environment since the environment in which it operates is dynamic. This is possible only when the management decision system is supported by properly designed and implemented MIS, which supplies the necessary information regarding the various environmental factors, its influence on decision making or on the enterprise performance.

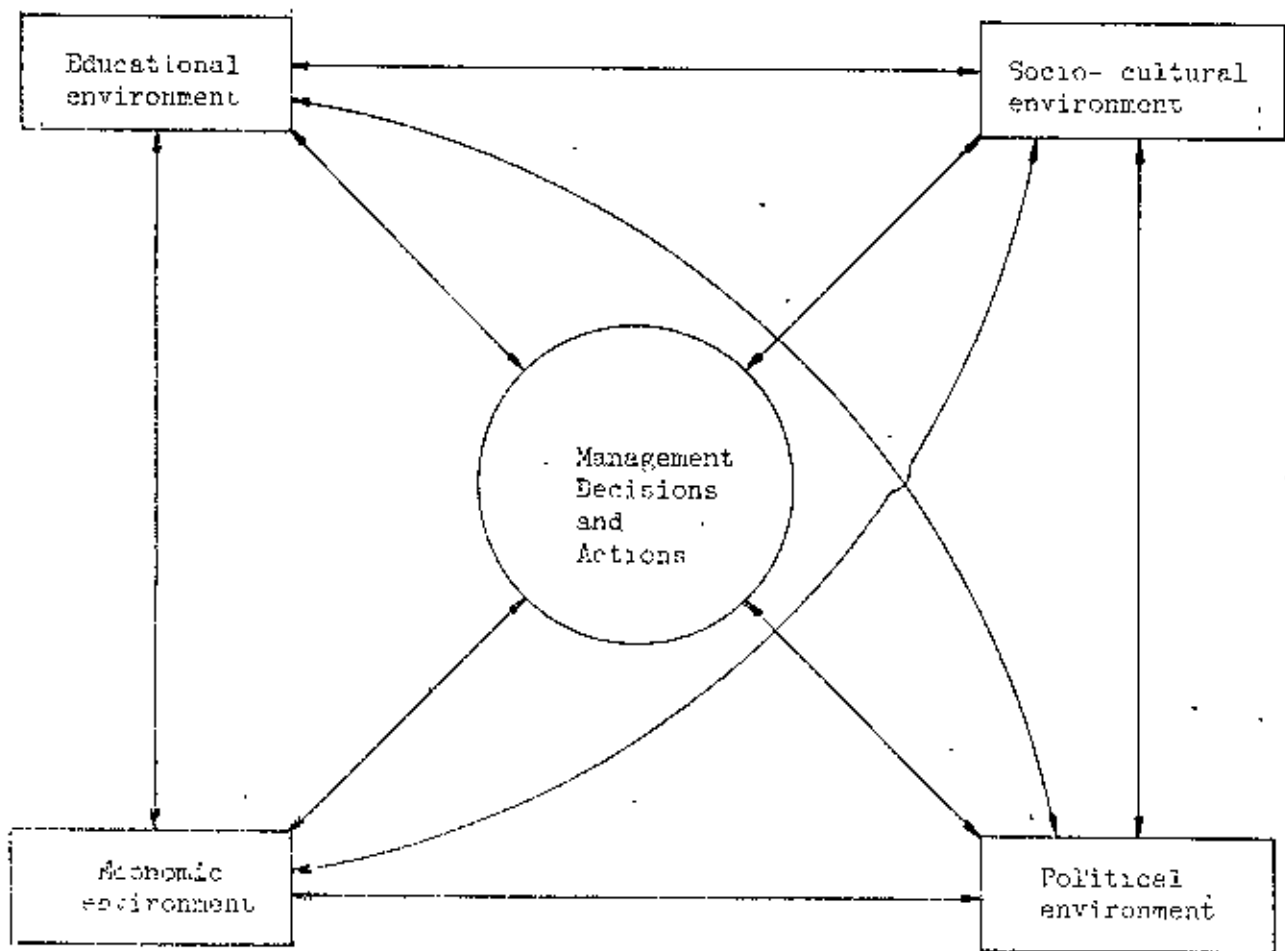


Fig. 9 : Environmental factors influencing management process :

The management of any industrial enterprise operating in any underdeveloped situations as Bangladesh especially in the public sectors cannot make all necessary decisions independently and considering only the enterprise functions. Consequently without the help of scientific approach of decision making process incorporating an effective MIS, decision making process bound to be ineffective. The MIS support for the management decision system is shown in Fig. 1.10.

The overall importance of decision making is to attain the enterprise objectives. When decision making does not precede action, an organization deliberately limits its success - environmental factors are allowed to control the organization and diminish its ability to cope effectively with crisis. Environmental factors must always be recognized in the development of objectives since they influence overall performance and results.

Objectives provide the basis for decision making as well as the focal point for all other management functions. Objectives however are influenced by the environment in which it operates (Fig. 1.11). In decision making, managers are required to foresee the events before they actually happen. In order to do this information must be gathered that will provide the framework of decision making. Information support reduces the uncertainty of outcomes from decision making to certainty (Fig. 1.12).

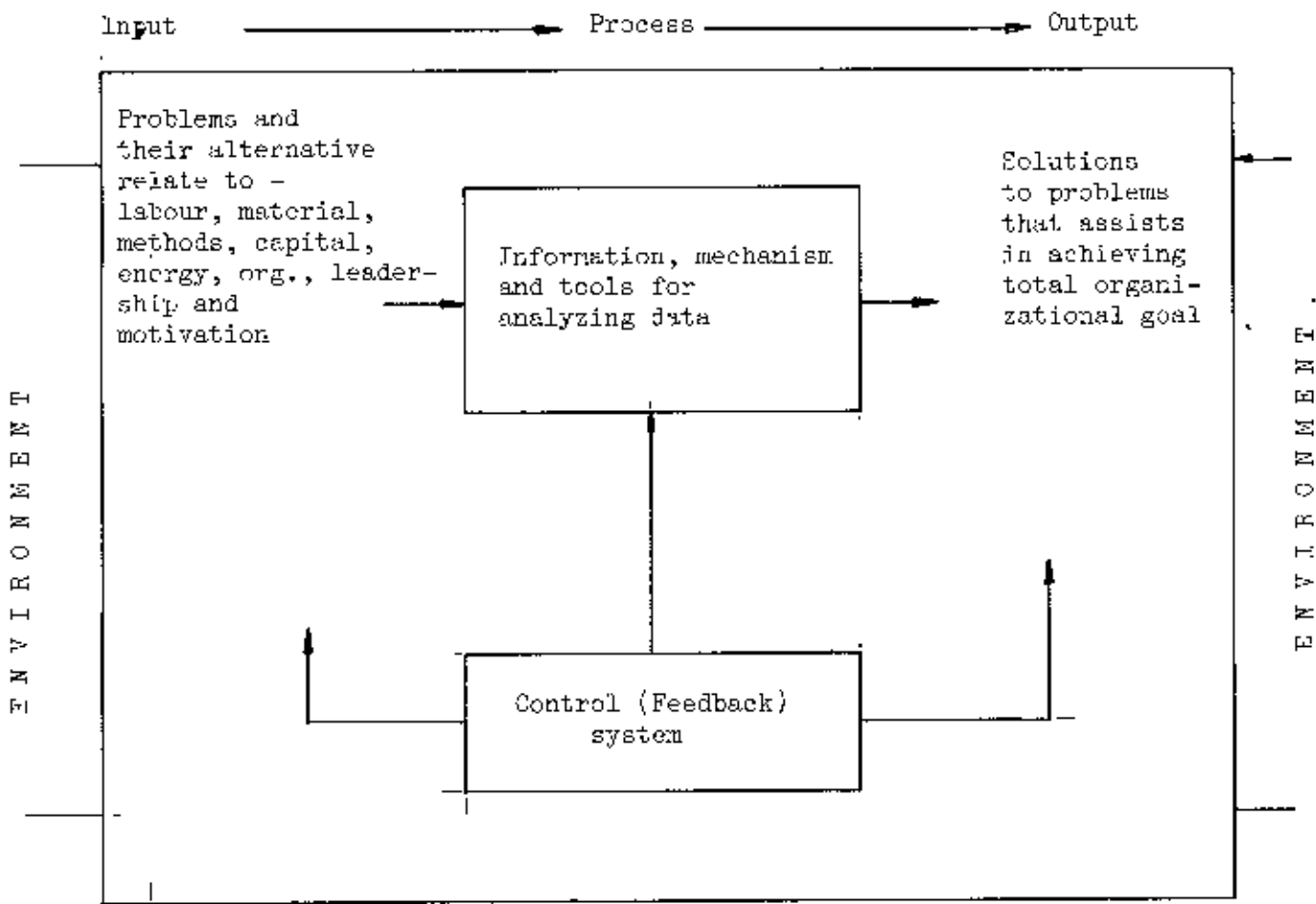


Fig. 10 : The role of MIS in MDS

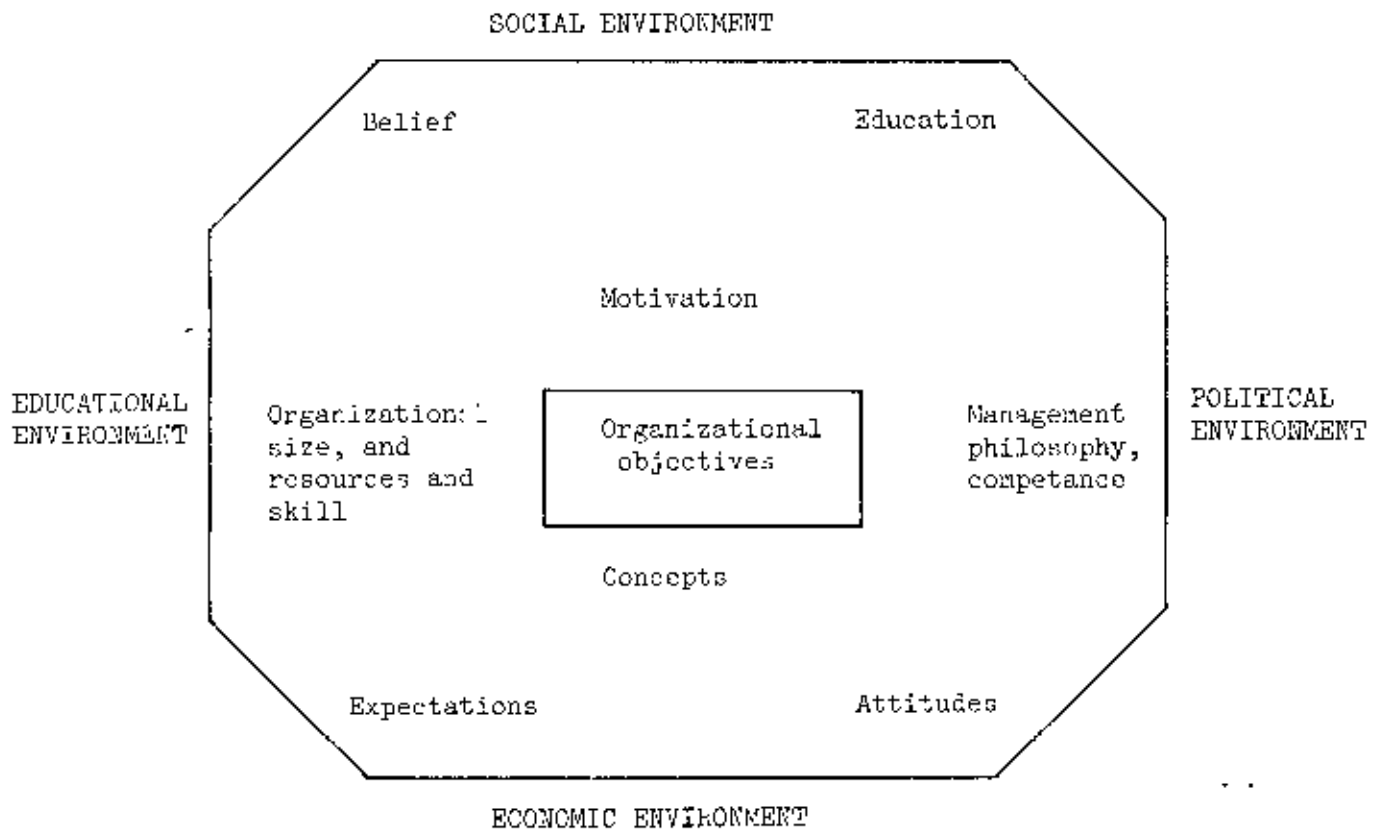


Fig. 11 : Environment and organizational objectives

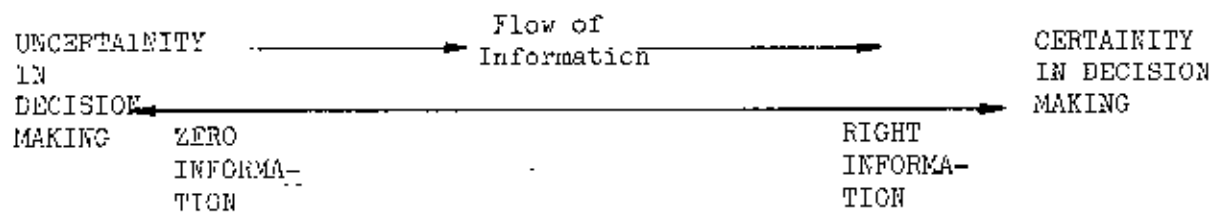


Fig. 12 : Role of information in decision making

Chapter - 2

LITERATURE SURVEY

An enterprise is composed of many components - personnel, production and procurement, marketing, administration etc. The basic function of management is to take routine decisions and strategic decisions which involves risk taking, innovations, foresee the future etc. through planning, organizing, resource assembling, directing, controlling, coordinating and motivating These function and the decision making process is dictated by the environmental constraints and efforts should be made to modify this environment. An integrated and proper MIS can effectively help to build a healthy employee - community - labor - management relationship and can reduce, eliminate or modify these environmental constraints thus can make the decision making process an effective one in order to achieve enterprise objective.

EL-NAMAKI^[6] established the fact that the environment of a developing country has a pronounced impact on managerial process and functions. this impact occasionally stimulating, is frequently obstructive. He identifies four functional environments - economic, political, socio-cultural and technological respectively.

Kast and Rozensweig^[2] identifies the environment in two ways 1) The societal (General) environment which affects all organizations in the society and these are Economic, Cultural, Sociological, Educational, Political legal, etc. 2) The specific (Task) environment which affects the individual organization and these are - supplier, socio-political, customer and technological factors.

Rahman^[8] reported general factors which critically affects the decision making process and overall managerial process of the industrial enterprises of Bangladesh in the public sector. These he termed as areas of control where govt. intervention hinders the effective decision making of the management and where freedom is necessary to avoid centralization of decision making, these are - i) control of operational plan, ii) control of investment, iii) control of personnel management, iv) price contro, v) control of marketing and vi) financial control.

Ahmed^[9] reported that strict control on investment, pricing and organizational aspect retarded the intelligence, innovation and ability to tackle risk of the decision makers and thus delegation upward of responsibilities and centralization of decision making.

Riaz and Salam^[10] stated that MIS in various organization is variably called 'dumping ground'. Instead of becoming the lifeline for decision making process it appears to be

complete liability. In this regard they showed that MIS in BADC has completely failed in achieving its objective. The decision making system does not get any information support from the existing MIS and they identifies factors like lack of knowledge, lack of skill, ability, motivation, direction and positive attitude of the management personnels are the main causes behind its failure. The need of appropriate information for decision making is also highlighted by their study.

Azim [11] in this content defines MIS as a vital tool for efficient and effective management of an organization in a developing country. He further defines the objective of MIS is to provide right information to the right person at the right time with the minimum cost.

Khaled[12] emphasized that an effective MIS must furnish relevant data in the useful form to the right person, at the right time, for use in management decisions.

Both Azim and Khaled have not specify the criteria for becoming a 'right person' or 'the right information' so far many works have been done to design and implement MIS save time in specific organization. Islam[13] and Mushahed and Iqbal[14] all have stressed on providing right information to the right time but no one explained 'right information' etc.

Environmental factors critically affects the MIS and thus the decision making process. without critical analysis of these factors right person can not be identified. It should be noted here that information flows from person to person rather than from position to position, so the definition of right person as well as the right information is essential in order to make an MIS effective. Right information is that information which accommodates a right decision and this is dictated by the environmental and human factors i.e. skill, ability, talent, motivation, belief and values etc. of the decision maker. Hence MIS must process and store information about organizational functions as well as the information about human and environmental constraints. Thus the current work has been directed in this line.

Chapter - 3

EDUCATIONAL ENVIRONMENT

3.1 INTRODUCTION:

One of the building blocks most basic to the process of industrial and general economic development is the educational environment within a country. Education is more than just the product of formal schooling. It represents a mix of (i) the social system, (ii) cultural and ethical philosophies concerning the value of knowledge, (iii) the worthiness of achievement, and (iv) government and industrial attitudes and activities. The educational environment influences the managerial and industrial situations. It also not only affects the specific skills and abilities of managers and the people concerned with the management decision making system, but also their methods of thinking and the speed at which new thought or values will be assimilated. It also affects heavily the staffing operation, basic organization structure, extent of work specialization, scientific methodology applied, controls and technology used, production, maintenance and wastage i.e. the overall productivity and effectivity of the decision making system.

An understanding of the educational milieu is prerequisite to an understanding of the managerial process for enhancing

the effectivity of MDS. The most important factor for this desired effect is the human elements especially mental talents is the product of educational environment. The critical elements consisting the educational environment are discussed below:

3.2 LITERACY LEVEL

One of the most commonly used standards of general educational level is the literacy rate and it is one of the most critical elements influencing the economic development also. According to the 1981 census^[15], 29.2 percent of country's adults (over the age of 15) were literate i.e. could read or write letters at least in one language. The male literacy rate is 40% and that of female is only 18%. Moreover literacy rate varies from region to region; the higher being in the districts of Dhaka, Comilla, Barisal, Rangpur and chittagong. Further statistics revealed that, it is higher in the urban areas. The variations are due to important socio-cultural and economic factors. Several factors of special significance to the management process are concealed by the literacy statistics of the country. Thus it highlights little about the ability of the literate people to communicate with one another. The state language is Bangla but a major portion of the circulars, notices instructions issued by the top level managements also the literatures and instructions relating technical facts are in

English. The top and mid level management use English terms and definitions during conversation.

The second factor is the issue relating to the validity of the measure. There is reasonable justification to suspect that the census figures err on the side of leniency and that many of the individuals who are classified as literate, are not so in reality.

The major industrial districts like Khulna, Chittagong, Dhaka have higher literacy rates than the agricultural districts. This seems to indicate that industrial activity either stimulates education and attracts it or both.

3.3 PRIMARY EDUCATION SYSTEM

The most widespread educational activity in the country is at the primary level upto class Five (Grade-V equivalent). In recent times the primary education has been made free and compulsory. The effectiveness of this system is seriously affected due to the unavailability of qualified teachers. The system does not provide and is not designed to develop creative and innovative skillness amongst the students. They study routine basics and memorize them.

A large portion of the industrial workers acquire only upto this level of education. This has a definite impact on the management process. They learn only naturally and by

default. Thus they usually will not deviate from the patterns they acquire. They learn 'what' to do but not 'why' to do.

3.4 GENERAL SECONDARY EDUCATION SYSTEM

Secondary schools covers grades six through Secondary School Certificate and then enter higher educational programmes of at least two years duration and gets Higher Secondary Certificate. Some of the students enrol in the various semi-professional schools in technical, vocational and other specialized programmes. The secondary education is largely a rote process and as such is suffering like the primary education system. Secondary education system also suffers from purposelessness. The primary and the only purpose of the system being to prepare young people for either their entrance into Universities or for clerical jobs.

3.5 SEMIPROFESSIONAL AND VOCATIONAL EDUCATION SYSTEM

The dropouts from secondary schools after passing class VIII and also in S.S.C and in few cases after H.S.C, students joined the semiprofessional and vocational education programmes. These programmes have durations varying from 6 to 24 months. The highest level of semiprofessional education in terms of formal schooling is the diploma programme usually of three years in duration. These diploma graduates are normally employed in the industries as

supervisory technicians, designers or draftsman, electrical supervisor, mechanical supervisor and others. Although these programmes are technically biased and students are enriched in technological knowhow, yet the inherent built-in structure of training methods do not facilitate students' development of creativity and innovativeness.

3.6 HIGHER EDUCATION SYSTEM

Modern industries are voracious consumers of highly trained manpower. Even for cursory examination and accomplishing various managerial and technical tasks of basic productive and managerial functions would require numerous people with higher education. The decision making system requires some essential skills such as scientific and mathematical skills involving considerable sophistication in planning and development ability.

In the country much emphasize is put on humanities arts and law in the higher education system. But critical shortages of highly trained manpower exist in the areas of engineering, applied sciences, business administration and management. Moreover, the students invest most of his efforts on preparing for their examinations while the grades obtained are usually the measure of their intellectual ability. This results in only a few acquire skills or knowledge which will be of value in the effective decision making process.

3.7 FEATURES OF THE HIGHER EDUCATION SYSTEM

The university graduates take up the responsibilities largely of the middle managerial levels. An examination of aggregate statistics pertaining to the higher education although presents a much brighter picture of the highly talent of manpower available in the country for economic development, yet in reality the case is different.

A majority of the commerce and arts graduates and a sizeable number of science graduates can typically only find positions at clerical and semi-skilled workers. Whereas a critical shortage in competent managers exists in the industrial situations.

Engineering and technological fields present a two fold problem in relation to managerial effectiveness and industrial progress. One is the critical shortage of certain types of engineers while the other exists in unemployment problem of degree engineers since a substantial amount engineers posts are occupied by lesser qualified diploma engineers. Engineering and technical education system in the country is basically of generality type. This is more of abstract and theoretical and suffers from the lack of emphasis on problem solving of the real life and lacks creativity and innovation.

3.8 QUALITY OF TRAINING AND MANAGEMENT DEVELOPMENT PROGRAMME

The content and quality of training in management, economics and social science very much lack in terms of requirement of the industrial operations. Peoples are inadequately trained in this regard and inadequate emphasis is given on practical application, analytical ability of problem solving etc. The Bangladesh Management development Centre (BMDC) and Institute of Business Administration (IBA) are the two important sources of talented managerial manpower for the industrial sector. But unfortunately most of the graduates with business administration background get their employment in the banking sector and small business firms which tend to hire them only for prestige reasons and face values. These graduates also are not attracted to take up employment in the industrial arena because of less pay. But it is worthy to mention that quality rather than quantity in management education is more vital in the economic development and effectiveness on the decision making system.

3.9 NON COMPANY MANAGEMENT DEVELOPMENT PROGRAMME

This type of training, if effectively organized and conducted, can contribute in raising the managerial effectiveness. The participants will be provided with new information, knowledge and experience applicable to their present or future jobs.

In the country non-company management training programme are very limited. Thus in acquiring information or knowledge necessary for improving decision making capability is extremely difficult.

Moreover, the selection process for training programme is done centrally, by the ministry or corporation head office. There exists some degree of manipulation or wrong procedure of selection. The BMDC offers training to the top and mid level managers emphasizing enterprise functions, finance, marketing, operations research, safety, motivational schemes which are tuned with increasing the effectivity of MDS. Often these programmes are viewed as social gathering, as bonus vacations or as places to make contacts rather than as opportunities to acquire knowledge in real terms. Moreover participants frequently fail to apply what they learn from these programmes either because they are not allowed to or due to their attitudes toward achievement, change, risk taking and scientific method.

3.10 ATTITUDE TOWARDS EDUCATION

This is an important environmental factor because it determines, (i) the achievement drive and (ii) how much effort and investment people are willing to give in educational and training pursuits. It has a critical impact on the extent, quality and content of the overall educational system. It depends on the opportunities for

social mobility, career advancement, status and material gain as well as on their own achievement drive. This presents a serious obstacle on managerial effectiveness. Some enterprises have established their own schools and colleges for the employees children. The students thus educated usually flow into the work force of that enterprises. This recycling process in a way upgrade the work-talent and thus enhance the favourable attitude to education.

3.11 EDUCATIONAL MATCH AND MANPOWER UTILIZATION

In the country, educational systems have serious deficiency in educational match with the industries requirement. Too many B.A, B.Com or lawyers are produced and too few technicians and competent managerial personnels are produced resulting in dysfunctional discrepancy in job opportunities. These college graduates have disdain for physical labor and distaste to work in the factory and develop inclination toward white colour jobs and thus worsens the situation.

Inadequate generation of employment opportunities and embargo in the recruiting make the situation even worse. Thus qualified persons are unemployed or underemployed. Because of the faulty recruiting and staffing policy it is found that a major portion of the engineering positions are filled with diploma engineers as mentioned earlier also. This results in the graduate engineers are working as

magistrates or even police officers whereas graduate in English literature working as marketing executives. On the otherside very few system analysts or computer personnels are produced by the institutions.

3.12 MISUSE OF HIGH TALENT MANPOWER

Due to poor educational matches and resulting shortage of various kinds of specialists and experts much of the high-talent manpower are misused in the industry. Another key reason for it is the attitude toward different type of occupations.

Social or class structure, nepotism, discrimination, very limited individual mobility, and poor internal management are constraints on the effective utilization of high talent manpower and thus hampering the growth of effective MDS.

3.13 CONCLUSION

The impact of literacy (Fig. 3.1) on the conduct of management and enterprise operations is substantial. The problems associated with illiteracy can be felt both in the external and internal environments of enterprises. The key factor which effectively holds enterprises together is the large amount of horizontal, upward and downward communication. For example job or time cards are necessary

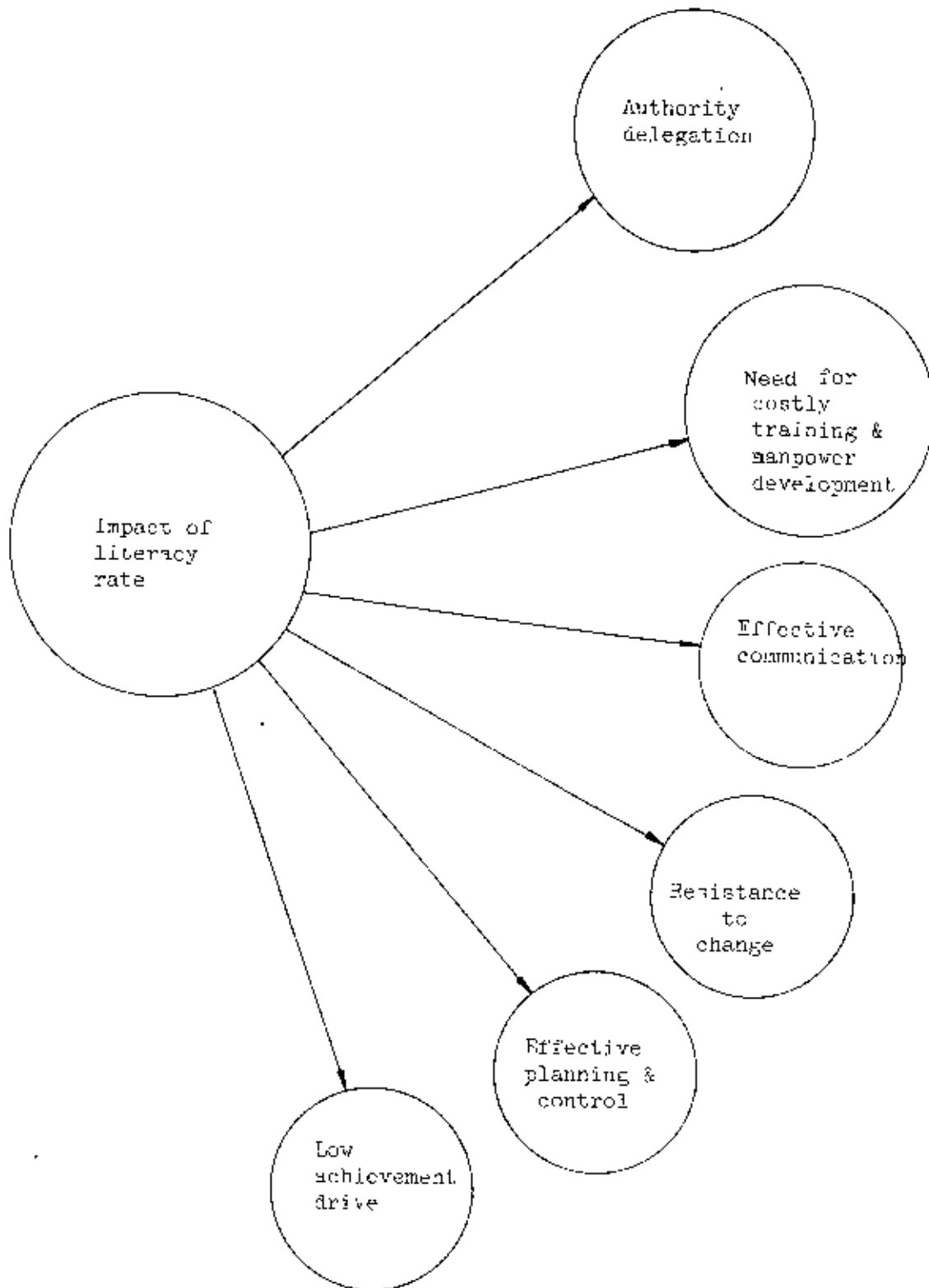


Fig. 3.1 : Impact of literacy rate on management.

to fill on the floor which requires literacy, low percentage of well educated managerial people tends to reinforce a high degree of centralization.

Illiteracy also creates problem in planning and control. Pervasive feelings of apathy exists among the illiterate or barely literate employees. Such workers lack self confidence and have very low achievement drive.

Introducing changes and innovations in such an organization is difficult because of the amount of training, direction and control usually needed to effectively implemenent them.

One study^[16] shows that 50% of the engineering workers are primary dropouts and only 4.3% have grade ten education. This constitutes very poor technical knowhow. Seventy four percent of the workers learned to read drawings and some knowledge on technology through experience. The science and technology biasness of the education system does not match with the industries requirement. So secondary education system must have to be modified with more S&T bias. Fig. 3.2 shows a generalized picture of any engineering enterprise of the country.

About the management training, the selection and procedure should have to free from bias and based on requirements. The participants must have to be allowed to use their knowledge in industrial situations.

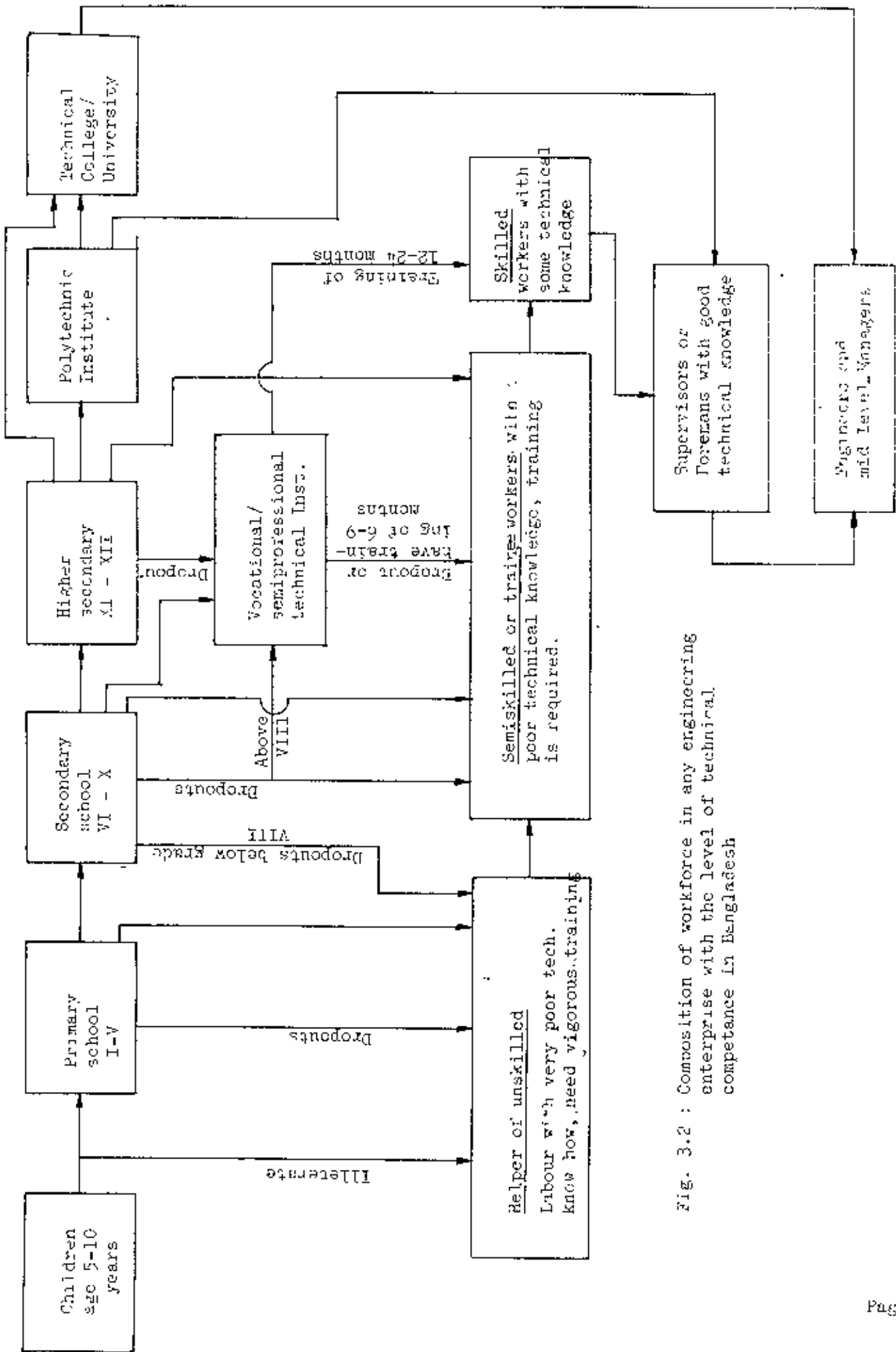


Fig. 3.2 : Composition of workforce in any engineering enterprise with the level of technical competence in Bangladesh

To be effective in decision making educational match and proper use of high-talent manpower is a prerequisite. Overall literacy level should be increased. The organization structure, staffing process and close link between educational institutions and industries can alleviate these problems.

Finally, it should be felt by everybody that proper education and mass literacy can change the whole environment and can make the decision making system effective for greater industrial development thus enhancing economic progress. The relationship between the management functions and educational environment is shown in Fig. 3.3.

The poor literacy rate hinders the industrial development which impedes the economic progress thereby, less fund could be allocated for mass literacy. This results in poor literacy rate - this is a vicious cycle Fig. 3.4. This has to be broken. Recently some positive changes have occurred in this regard. The compulsory primary education and free education upto class eight can be cited in this regard.

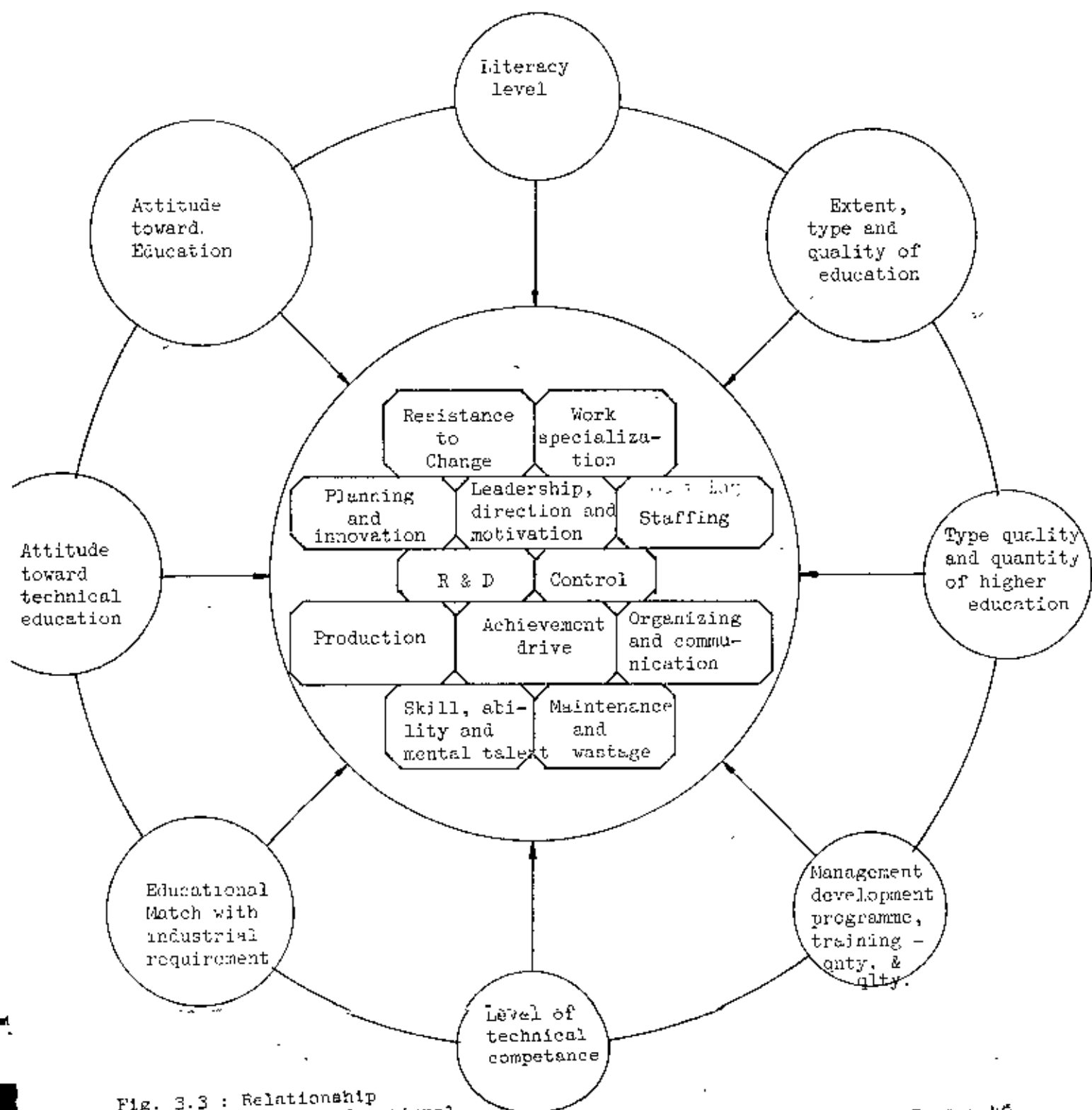


Fig. 3.3 : Relationship between educational environment and management function

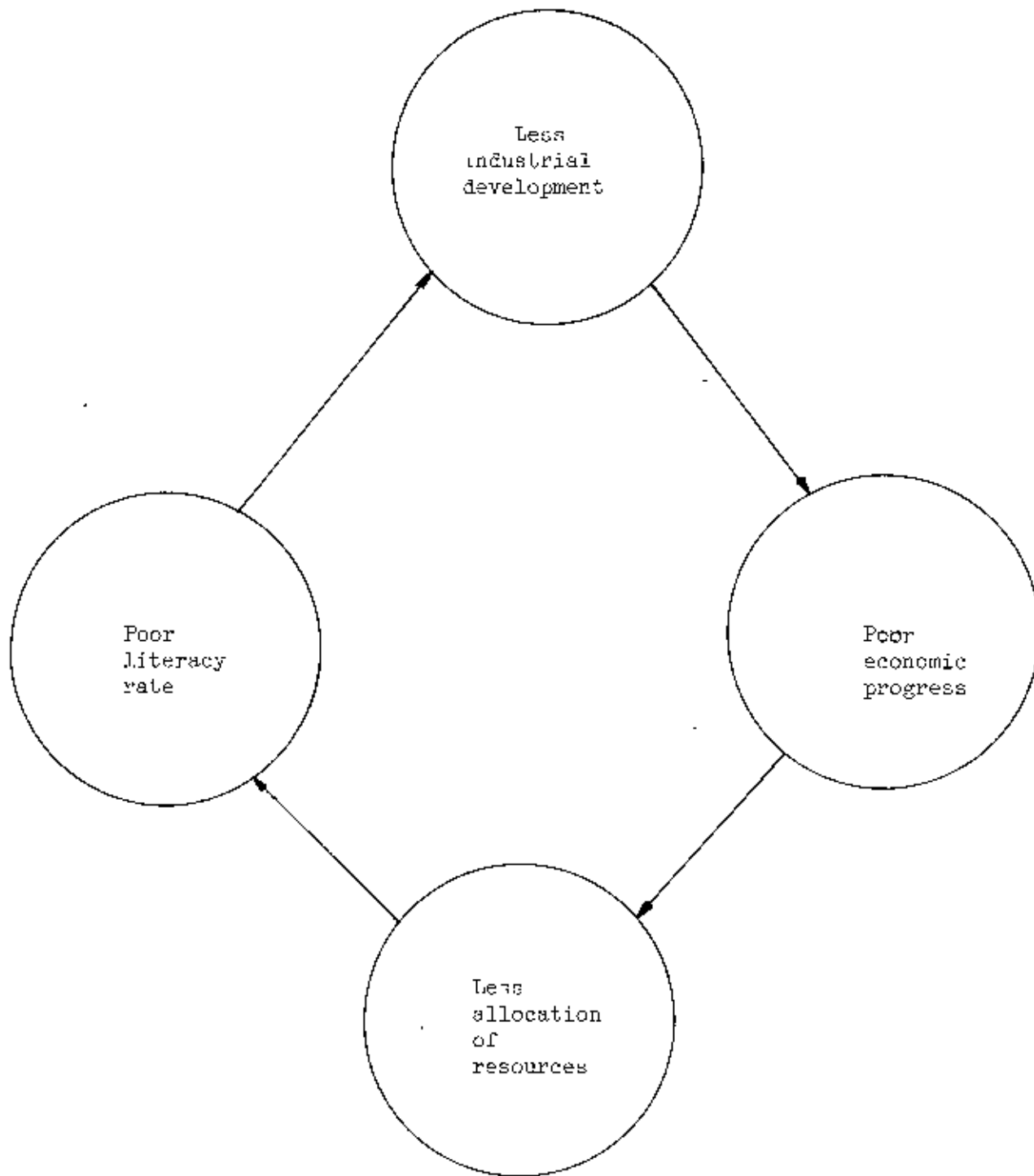


Fig. 3.4 : Vicious cycle of illiteracy

Chapter - 4

SOCIO-CULTURAL ENVIRONMENT

4.1 INTRODUCTION

Every productive enterprise is a part of society of prevailing complex nature. The socio-cultural factors which influence the management process are difficult to measure and quantify. These socio-cultural underpinnings must have to be identified and conscious steps should be taken to modify these factors for better managing of the organization. The attitudes, philosophies, values, goals, interests, abilities and motivation of employees are guided by these factors. The dominant socio-cultural factors prevailing in a society have a continuous interaction with the industrial enterprises. These factors constitute an environment which acts as constraints on managerial effectiveness, productive efficiency and economic development.

4.2 ELEMENTS OF THE SOCIO-CULTURAL ENVIRONMENT

A. RELIGION:

In the country, majority of the population (around 90%) are Muslims, the rests are Hindu, Buddhist and Catholic Christians. All these religions are prevailing in a traditional form in the country. The type of religion does

not provide the standards for thinking and behaviours rather the values associated with it provide them. Countries in which religions prevail in their relatively traditional forms tend to be poor in terms of economic development than the industrially developed countries where the dominant values are associated with the protestant ethics or calvanism, which stresses the need of perseverance.

Religious impact is predominantly felt, amongst others, in the management decision system in the country. Perhaps, the most critical constraints are the fascination towards fatalism, and lack of rational approach. These characteristics are substantially manifested among the rural population since religion is in more traditional form.

Fatalism is a source of resistance to change. Social and economic progress or effective management depends upon human choices and action rather than the blind destiny. Fatalism completely deemphasizes the quantum and value of time. A large portion of the mid and top level management personnels have considerable faith in astrology or mystical forces in arriving at their decisions. The concept embodied in the quotation "Allah helps those who helps themselves" - is dramatically opposed by the society.

Major emphasis is on "established present" - as these are the customs. Present is validated and 'fate or lot' will determine the future. Thus the lack of ambition prevailing

in the society has the analogy with "it always has been, it is and it will always be this way". The passive acceptance of fate and the resistance to change makes the society static.

B. JOINT FAMILY SYSTEM:

Group membership shapes the aspirations and desires of the majority population and determines the behavioural pattern. The joint or extended family consists of a number of family units sharing the same facilities and pooling resources. Administered by a senior male member 'Strangers are suspect and alliances are very much dependent upon blood relationship'. This in turn develops complex group feelings and group behaviour. Some individual attitudes are also governed by this.

The most important factors on this aspect which affect the managerial performances include the distrust of non-family members which in turn develops the grouping and rival feeling to other groups, the need the close and supportive relationships provided in family and community situations, job security, and attitude towards some occupations etc.

Security is a primary motivating force of the people. The prevalence of extreme resistance to change which seem to be characteristics of the society is directly related to needs for security. Kapp⁽¹⁷⁾ indicates that individuals in

traditional society often react unfavourably to new ideas because they fear that the resulting change might upset the status quo. The person employed in a private enterprise, working hard for that organization, if employed in a public enterprise will be reluctant to his job. This apparently may be due to the fact that he was better paid in the former job than the present, so he is frustrated. Though he was better paid at the former job but at the same time he had accountability for his assigned responsibility and there was always a fear to be fired. This process is not simple in the public job. Thus he feels much more secured in the public job as the firing process is complicated and accountability is almost absent. So he feels more reluctant to work.

Group productivity and performance would be influenced by the group formation, group conflict and inter group conflicts. Group membership is largely determined by the academic qualification, motivation, sentiments, experience, status, social positions etc. Frustration amongst group members may give rise due to inherent jealousy in terms of unequitable pay, benefit etc. This frustration will lead oneself to corrupt practices and unfairness in this job.

Some occupations are always considered better than others - either better rewarded economically or in a higher position in the prestige hierarchy. This notion is important interms of managerial effectiveness and in this regard high

achievers, most motivated, best educated and most talented people will come to that occupation.

4.3 THE IMPACT OF THE SOCIO-CULTURAL ENVIRONMENT ON THE MANAGEMENT

There is little doubt that the above socio-cultural traditions of the country have retarded the effective management as well as economic growth and development. They do not seem to go in-line with the efficiency and dynamism required for rapid economic progress. The society does not adequately generate risk takers, high achievers, well best motivated managerial personnels who can attain enough detachment from this environment to lead it off into new directions. Unless these are identified, necessary steps cannot be undertaken in the education and training programmes for human resource development. Thus individuals would not be given with freedom for developing new goals, new roles, new forms of thinking and action.

The great obstacles to any human resource development or behaviour modification programmes in the country are faced from this environment. Complexity, irrationality and being beyond the understanding of any individual are interlaced with religion, social forms and traditions. These are also linked with meaning and purpose of life. These, in fact, stand in opposition to self determined action of any kind. The impacts are discussed in brief below :-

4.3.1 Attitude towards management as a profession:

Every society has its high prestige careers and its occupational heroes. Some occupations are always considered better than others. In an environment where managers are respected and highly regarded personalities they usually find greater trust and cooperation and less conflict between them and the employees and also from external people. This situation would yield greater operating efficiency, reliance on self-control and individual initiativeness. Under this circumstance, authority can be decentralized. In the country, much higher status tends to be associated with land ownership, government positions, professionals and intellectuals than with the managers who are mostly concerned with material production. Negative social attitude regarding managers will cause apathetic attitude of the government and others about the management problem. This apathetic attitude from the society is coupled with negative attitudes of the managers. In the country, managers themselves donot view management as a profession. In fact the dominant view of society at large, is that management requires no special training, qualifications or skills on the contrary they only require authority and power. Management positions at the top and mid-levels need not be filled on the basis of personal ability and objective criteria.

The prestige and status of lower level management positions are especially low. Supervisors at the lower level and foremans particularly are not viewed usually as part of management. These positions not only accompany lower status but also have little authority and less pay. This counteractive feature characterizes the contrast with industrially developed economies. Unfortunately this situation would tend to reduce the effectivity of these key personnels in decision making process.

4.3.2 Attitude towards authority, responsibility and subordinates

The socio-cultural environment tends to develop a dominant set of attitudes towards authority, responsibility and subordinates in a given country. The environment serves as a potent and pervasive constraint upon management of all types. The tradition bound society - the joint family concepts dictate the form of authority, acceptance of responsibility, mode of dealings with the subordinates etc. This makes difficult to introduce a substantially greater participative management decision system into this culture bound industries of the country.

Most of the employees have the tendency to adapt himself that he may not be criticized or punished by the superiors. In the country, authority is viewed as an absolute right of the superior management positions to command others. Their authority is based on some type of natural law or

charismatic endowment rather than on a well defined role in the organization, specific skills, knowledge or other qualifications. This is accomplished by strong reluctance to clearly assign or accept responsibility, whereas subordinates are expected to be unquestionably obedient in executing orders and tasks issued by superiors.

An employee has the feeling that his motivation towards his job will not bring any tangible benefits for him or even not an appreciation, on the otherhand if he does wrong he will be punished. In most cases, he develops some socio-political skills by avoiding action and responsibility altogether. In such a situation, development of initiative and responsibility are retarded while coalitions are encouraged. Such a situation be prevalent, where clarity of authority and responsibility are lacking in inefficiency.

Top level managers do not usually, consult the subordinate, even if he (subordinate) is rightly qualified on that subject. This they consider beneath their dignity. On the other hand the subordinate does not offer his views feeling that it may be rejected. This kind of situation would make the MDS inefficient. Authority is deliberately guarded, as a result subordinates are frustrated. Since authority and responsibility are not clearly defined, people are reluctant to devote to their job, individual initiative is retarded, role conflict and insecurity evolves and impedes the effectivity of MDS.

4.3.3 Attitudes towards achievement

Dominant attitude toward achievement and work serve as severe constraints on managerial effectiveness and productive efficiency. In the country seniority and length of service become the major elements in promotion consideration and no merit is given to innovation; thus it tends to be downgraded. Manager who takes risk and fails may lose his opportunity for advancement while success on the contrary will do little to hasten upward progress. The best strategy therefore appears to be simply sit tight and maintain the status quo. Prevalent religious belief and cultural values like fatalism, apathy, pessimism, joint family system, non-involvement and dependency, groupings and group rivalry, values or other elements of orthodox ideas and traditional religious practices hinder the motivation or achievement drive, thus hindering the effectivity of MBS.

4.3.4 Attitude towards wealth and material gain:

General social attitude has a major impact on, the way enterprises are managed and operated and the way in which industrial managerial personnels respond to material stimuli as motivational factors. In the country since the people management are lowly paid and also due to less incentives they are interested to earn illegal or quasi-illicit means. This is possibly becoming socially acceptable practice.

The material incentive systems which tend to work well in developed countries are likely to prove more effective with some type of personnel in Bangladesh. The impact of incentive schemes is often blunted by not considering job performance or merit. People frequently prefer lower paying jobs if more fringe benefits or status symbols are provided or if greater job security entailed.

4.3.5 Attitude towards scientific method:

Scientific methods are referred to the methodology developed for the analysis of various problems in the physical and social science. Critical to this notion is the idea that the events can be described, explained, predicted and controlled. Management usually applies the techniques in decision making without considering even what methodology they are using. In decision making system it should be the primary consideration of the managers that they should be able to predict events and eventually control them as far as possible. They could achieve this through adaptation and manipulation of the environment.

Fatalism as well as various other cultural, religious and educational factors greatly retards the use of scientific methodology. Also pessimism about planning has been prevalent and personnel have become even more reluctant to plan for the future and thus hindering the growth of effective MBS.

4.3.6 Attitude toward risk taking:

People who have relatively high achievement drive tend to make the most effective decisions. Since, productive operations involve atleast some degree of uncertainty, management must assume some risk in decision making. A major problem in decision making is that risk taking in industrial situations is often found to be irrational because of the lack of the requisite knowledge and skill or information. The risk taking is dictated by the individual degree of conservatism or aggressiveness. Conservatism may sometimes also be prevalent due to the various economic, political or legal constraints.

4.3.7 Attitude toward change:

The initiation and implementation of change whether it be managerial or social in nature are essentially human processes. In industry changes which suffer considerable resistances are due to the fear of the possible adverse effect to be happened due to the changes.

Attitude toward change are closely connected with the attitude involving risk taking and achievement as well as scientific method and fatalism. Negative attitude towards the initiation and implementation of change in the direction of greater efficiency and industrial progress is thus

greatly retarded. Managers of the country resist changes due to their personal beliefs, values, habits and customs.

4.3.8 Attitude towards co-operation:

The extent of voluntary cooperation among the departments, groups and individuals with one another has a significant role on the total management process. Suspicion about strangers or non family members in a joint family system gives rise to the conflicts among the labour and management; among management tiers absence of interdepartmental cooperation impedes the effectivity of the management decision making system.

4.4 CONCLUSION:

Managerial thinking and action must have to be modified in line with the environment in order to increase the effectiveness of MDS. The need for close supportive relationship existed in the joint family system and the job security calls for clearer authority and responsibility assignments. Efficient decision making calls for information feedback, clear and consistent communication and cooperation and coordination among the individuals, group and departments.

Adult literacy, functional education and training programmes incorporating the conviction that people can change, control and direct their lives are necessary for achievement drive. Goal setting, problems solving and risk taking also extensive communication can raise the achievement drive.

The material incentive schemes should entail the characteristics like job security feelings, careful analysis, preparation and implementation of training programmes and the initiation of group or individual incentive schemes based on the merit and performances linked to profit sharing programme.

Rational risk taking and its effectiveness largely depend on the skill and inblending scientific method with the collection and use of pertinent information to reduce uncertainty. The extent of risk taking may be enlarged through better education which imports knowledge through the generation and provision may be made of more relevant information to the decision maker in timely basis.

To be successful in implementing a change, effective communication with employees is required. This would explain the reasons for the change and its expected benefits. Much effort should be given to convincing personnel that their

job security will not be threatened for the desired change or to illustrate the fact that the desired change will bring some positive change in their status or material benefits. The socio cultural factors and their outcomes which constitute the socio-cultural environment are presented in Fig. 4.1.

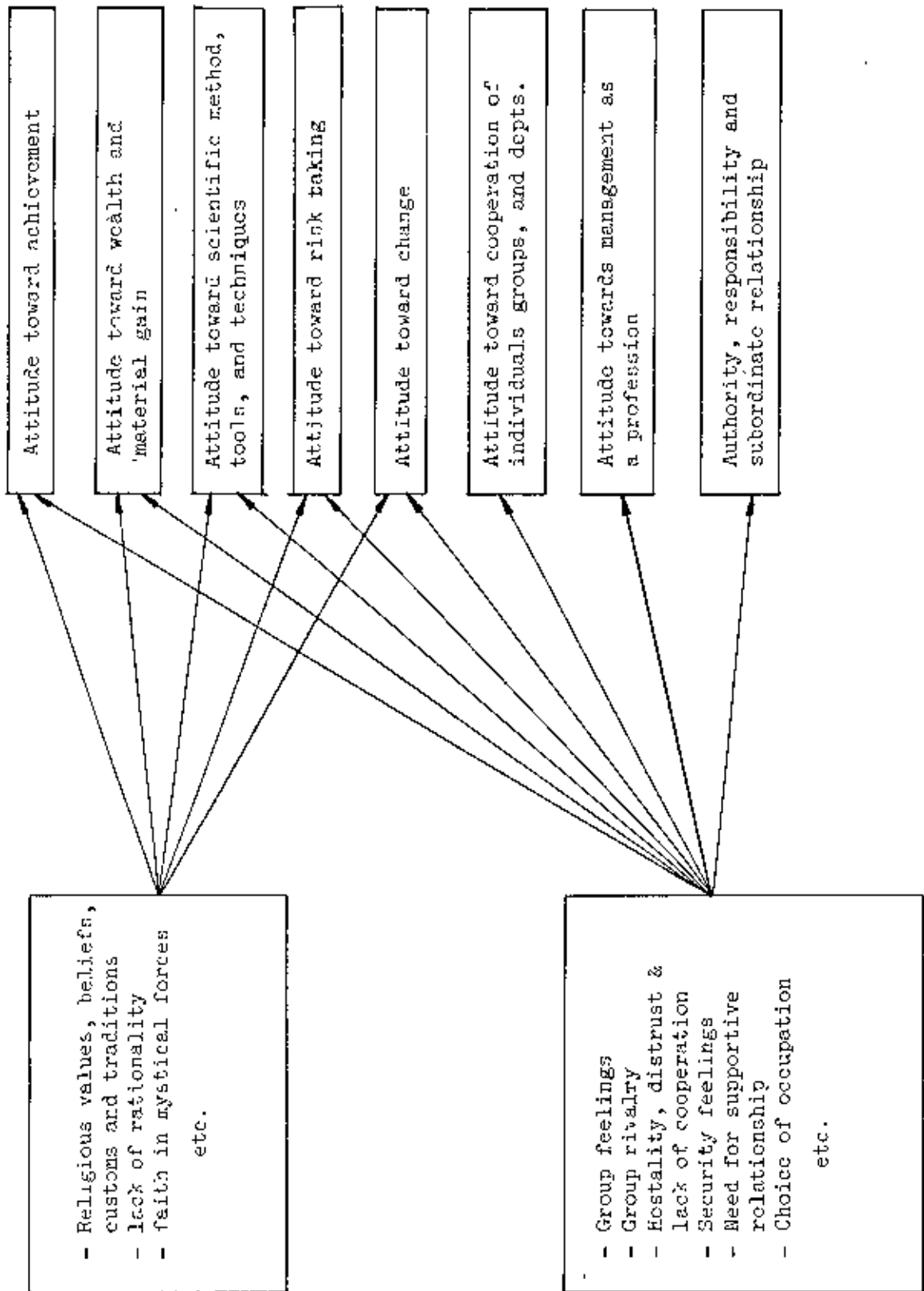


Fig. 4.1 : Factors and outcome which constitutes the socio-cultural environment

OUTCOMES

FACTORS

Chapter - 5

POLITICAL ENVIRONMENT

5.1 INTRODUCTION:

Productive enterprises operate in environments in which political factors directly affect their internal operations. A given law or a political event might cause the enterprises to change the manner in which various critical elements of the management process are performed and thus the decision making system.

The government in the country takes makes a wide range of corporate decisions but these are usually taken by the managers themselves in the developed countries. In Bangladesh these includes key decisions involving what to produce, where, how, how much and for whom, what to change for output, when, where and how much resources will be allocated to import and for other operations etc.

Certain issues in the industrial context are of political nature and must have to be solved within the political-legal framework of the country. The legal structure is composed of a complex set of rules which delineates and controls the relationships of various individuals and groups towards one another.

5.2 POLITICAL STABILITY

A high degree of political stability over a period of time by no means assures a high degree of managerial effectiveness. In a country where political changes are frequent and disruptive, managerial performance suffers considerably. A dramatic change in the power associated with major or sudden shift in policy creates considerable uncertainty and thus develops conservatism in the decision making process. Enterprises invariably show large declines in productivity which may take years to rectify.

76496
Political instability can sharply deter the establishment of new enterprises as well as the expansion and diversification of existing ones. It can lead to strikes, riots, and other forms of labour unrest, work stoppage or shutdowns, often incited and organized by opposing political parties thus hindering the industrial development. Moreover it can make it difficult if not impossible for the enterprise managers to take effective decisions in management cases. Dramatic political change results in the nationalization or denationalization of certain specific industries or the total industries.

5.3 BASIC UNDERLYING PROBLEMS IN THE COUNTRY AND CONSEQUENCES FOR INDUSTRIAL MANAGEMENT

Any simple description of industrial strategy or govt. bureaucracy of the country with regard to the control of industry is bound to be misleading. The policies and

regulation of industry are the sum of a large number of separate rules, procedures and practices each designed to meet some specific objectives.

In order to better understand why government control of industry has evolved and the way it constraints managerial effectiveness, the large range of diverse objectives set by government industrial policy should have to be analyzed. However the diverse range of objectives without clear cut priorities creates difficulties in the decision making system. Thus personal values of officials play a key role in government decisions. Uncertainty in government decisions in turn affects the decision making system of the enterprise.

Theoretically the national plan determines the parameters of development for the future; practically there has been little relationship between the plan and its executions.

5.4 MAJOR GOVERNMENT ADMINISTRATIVE PROBLEMS

Here the primary concern is the organizational and staffing problems in government bureaucracy which affects the managerial effectivity and productive efficiency. The basic organization problem involves the lack of coordination and unclear roles and functions both within and among the many agencies involved in regulation and control of industry. The serious problem due to the staffing policy and type of

personnel involved in government controlled industries is the shortage of business and/or industrial-oriented talents; yet these people formulate plans and policies and make decisions on complex areas of the industrial situations. They often take decisions on the basis of some sentiments or intuition and without rational examination of critical details.

The civil service ideology is to emphasize the stability and reluctance to change guided by the idea that the safest route to promotion is to follow the rules and keep oneself as non-controversial as possible and are reluctant to take responsibility for their decisions. This introduces severe time delays in decision making by the management for his enterprises relating policy issues.

5.5 IMPACTS OF POLITICAL ENVIRONMENT

A. PERSONNEL MANAGEMENT :

A sound personnel management has not been pursued in general in the country. Critical shortage of competent management personnels is existing in the country's industries. Many of these positions are either unfilled or partially filled with lessqualified persons. Unattractive pay and unsatisfactory compensation policy can not attract capable and competent persons to join and remain in the enterprises. Another disturbing characteristic is the existance of low ratio of

managerial personnels (top and mid) to the number of workers.

B. INCENTIVE SCHEMES AT WORKERS LEVEL

It does not work properly due to the problem of setting standards and low level of benefits. Work related incentive payments is very less. Absence of attractive terms and conditions of service, group or individual incentive scheme on performance and merit appraisal aggravates the decision making system.

C. SALARY COMPRESSION IN THE UPPER LEVEL

Salary compression is done to reduce the disparity in the distribution of wealth and income. The bottom part of the salary structure has gone up faster than the top part and therefore salary structure has been compressed. This has demoralized huge number of upper level management personnel. This has affected their performance on the job. Salary structure of the private sector differs significantly with that of public enterprises thus reduction in government strength in recruiting efficient manpower for management.

D. LABOUR PROBLEM

In the country there exists a deep rooted conflict between management and labour unions. The importance of workers

cooperation for achieving industrial development objective can not be overemphasized. A motivated labour force committed to raising productivity is essential to ensure the decision making system to be successful. But the motivation of workers depends on what they get in compensation to their efforts and whether they are involved in the decision making process or not. Labour management relations have been strained due to the lack of motivation also due to some other reasons termed as political.

Often the labour unions are directly involved with political parties and conflicts which arise are frequently related to ideology, political identification and class struggle. Sympathy strikes on events far away from company affairs are not unusual. In many cases, there is constant pressure to increase benefits without any concern for the economics of the situation and pressure of political favouritism lead to the creation of unplanned jobs. Thus the management decision system is affected by political disputes; labour union cooperation tends to vary with political exigencies. In such situations, it is likely to be difficult to retrench or dismiss workers as punitive measure; on the other hand, it would not be easy to introduce more efficient technology and production process against pressure from workers. The political instability in the country thus hinders the union-management co-operation.

Leaders of rival trade unions or sometimes trade union leaders affiliated with the ruling political party try to win the loyalties of the workers in a confused atmosphere by making unrealistic promises and without the concern of economics. This makes the bad situation worse. The unfulfilled promises, fuelled and fanned by political favoritism lead to labour unrest and a serious breach of contact between management and workers.

E. POLICY ENVIRONMENT

The policies are framed by the government. These are highly restrictive and are geared to regulate the operations rather than the improvement of their performance. Policies are created with little emphasis on its details so that it acts as a rule (Fig.5.1). Unfortunately, the policies if framed properly are not implemented effectively. Policies concerned with the industrial sector in the political arena are as follows:

1. LABOUR POLICY - *The basic objective of the labour policy is to ensure healthy labour relations needed for increased production and overall national economic development. It does not set explicitly the boundaries for the workers how far they can go and for management as well. In case of participatory management and specifically in the matters of true representation of the workers, there is a lot of chaos and confusion. The policy makers did not frame the guidelines of participatory management.*

2. INDUSTRIAL POLICY - *The broad objective of the industrial policy, 1986^(1B) is to enhance the economic progress through industrial development. Much emphasis is put on the privatisation by continuing the disinvestment and growth of private sector which contradicts the socialistic attitude of nationalization set just after independence in 1971.*

After the early stage of nationalization in a socialistic approach, industrial policy begin to change in favour of private sector from july, 1974 to a complete set back of that policy. An environment of economic stagnation is compounded by continuing unstability in the social and political parameters of state. In this political environment - i.e. with the change in government the policies also change abruptly, it is difficult to take dicisions on long perspective in the industrial management - like planning etc. Moreover, disinvestment creates insecurd feeling among the managerial personnel and also raises the labour unrest.

F. CONTROL ENVIRONMENT:

i) Overview The legal framework provides the organisational form and lays down the control structure. It reflects the authority and ability of the government. It specifies the processes through which the state can affect its goals.

ii) Extent of control The complicated personnel and functional relationships between the management and bureaucracy as well as the importance of the enterprise determines the nature and extent of control. Government controls all operational and policy decisions. Organizational structure, staffing pattern, service rules, financial policies etc. are also controlled by the government.

iii) Tiers of control The institutional arrangement for the control and supervision of public enterprises reflects a tier

structure having the enterprise at the bottom, then corporation, ministry and major administrative division, finally the minister and above all the president of the county. Government has the right to make the rules of business for the internal operations of the enterprises and can appoint or remove chief executives of the corporations. The ministry of industries often reviews and inspects the management of public enterprises and overall industrial performance.

iv) Areas of control - In order to ensure realisation of socio-economic goals and national objectives of the public enterprises the major areas of control are (i) control of investment (ii) price control (iii) marketing control (iv) financial control (v) control of operational plan and (vi) control of personnel.

All the major ingredients of the operational plan of a public enterprise are effectively in the government bureaucratic control. Production target, product mix and capacity utilization are decided in consultation with line ministry. Similarly procurement, import and marketing rest within the domain of control.

v) Rationale of the control - The extent and intensity of control has left very little scope for intelligency, innovation and ability to tackle risk. Thus innovative qualities are replaced by bureaucratic attitude of administration of public enterprises. Though control has created an impact of accountability, the management shift the incidence of accountability back to the government as extensity of control and directives are germane with it.

The controlling system thus is highly restrictive and is geared to regulating their operations rather than to the improvement of their performance. Management faces problems in prompt decision

making due to cumbersome nature of government procedure. The multi tier structure for making and reviewing decisions and reluctance on the part of the top management to delegate authority to subordinates as well as the reluctance of some of them to fully utilize the powers vested upon them along with the controlling environment have a negative effect on MDS.

5.6 CONCLUSION:

The salient management issues within the context of policy planning have been looked into. But all problems in any sector, particularly the nationalized sector and also in a country where dramatic change in the policy occurs with the change in the government and sometimes with the change of the minister, cannot be solved through policy planning alone. Policy planning takes place in a political context, which ultimately dictates that planning. Therefore, solution of certain basic issues needs political attention.

A satisfactory solution to the labour problem primarily lies in the political arena. It is therefore essential that the political framework provides the best possible environment for optimum management of the industrial sector specifically the public sector in the interest of the society.

Clearly defined policy framework, rules of business, autonomy and decentralization of the control in the operational plan and financial issues are congenial to the effective decision making process. Participatory management should be properly developed. The true representation of the workers and their problems must have to be ensured. Decision about highly political and debateable issues should be taken with wide consensus of the employees.

The relationship between the policy makers and management is characterized by suspicion and distrust. The policy makers have a

notion that enterprise management is basically dishonest, incompetent and unreliable. This is reflected in policy framing. This should be changed for the effectivity of for the effectivity of management.

Policies act as broad guidelines to decisions and actions required in attaining organizational objectives. It should focus attention on various alternatives, consequences and risks that must have to be considered in making decision. Policy formulation is based on strategies and objectives that determine the directional thrust of an organization influenced by political environment (Fig 5.2). The political environmental factors and its outcomes in industrial situations is summarized in Fig. 5.3.

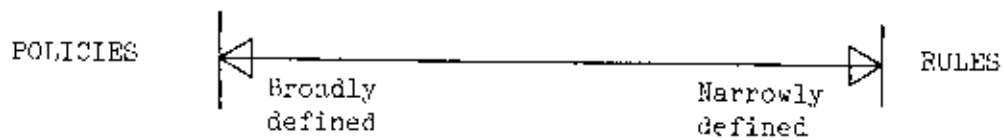


Fig. 5.1 : Policy definition

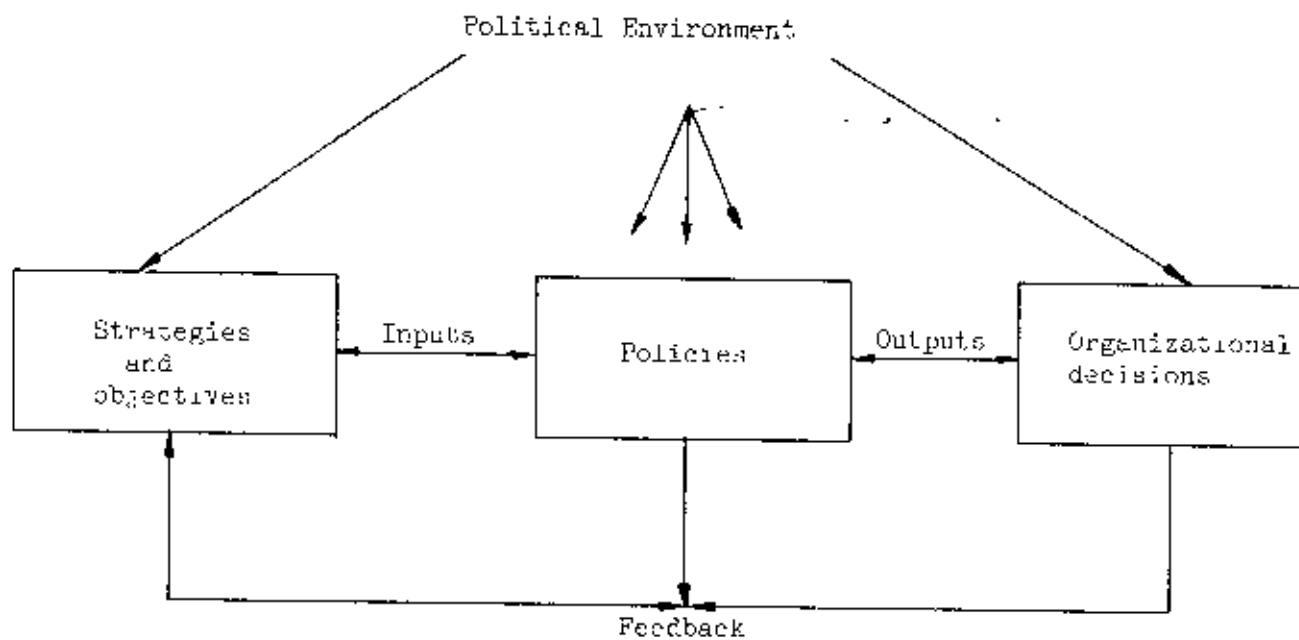


Fig. 5.2 : Policy formulation

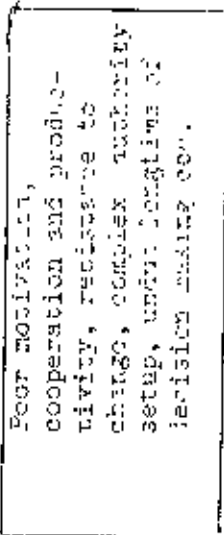
FACTORS

- Political commitment
- Political stability
- Govt.'s tendency to win the allegiance of Union by politicizing it.
- Govt.'s tendency to control and intervene enterprise operations.
- etc.

OUTCOMES

- Uncertainty in conservation in decision making.
- Personnel management
- Incentive schemes, compensation and rewarding policy
- Salary compression
- Labour problem
- Shifted shift in policy
- Riots, strikes, Gheraos, and other kinds of informal work stoppage
- Policy formulation and controlling environment

POLITICAL ENVIRONMENT



W I S

Fig. 5.3 : Factors and outcomes which characterize the political environment.

Chapter - 6

ECONOMICAL ENVIRONMENT

6.1 ECONOMIC OVERVIEW

Bangladesh is a country of limited resources. It accomodates a large population majority of which is disadvantaged in both material and educational terms. Bangladesh is overwhelmingly agricultural both from an income generation and occupational point of view.

Three successive five year plans of the country have committed the government to reduce poverty, but the overall present economic scinario is in a dismal state. One important feature of development planning is that all the three plans remained overwhelmingly dependent on foreign aid.

6.2 ECONOMIC STRUCTURE

The country is placed in the list of the least developed countries with a GNP per capita⁽¹⁹⁾ of \$140 in 1982. Atleast 75% of the total labour force is directly engaged in agriculture which accounts for 54% of total GDP and supplies most of the industrial raw material and export products. The share of industrial sector in GDP is 14%. Difference in the import expenditure and export earning left an adverse trade

balance and is met largely by foreign aid, accounting for 75% of total development expenditure. For poverty alleviation and to change the economic scenario shift in priority has been made to industrial development.

6.3 IMPACT OF ECONOMIC ENVIRONMENT

A. Financial control:

The most critical area of control of public sector industries is the financial control. It involves allocation and release of funds for its operation, control over borrowing from the banks or foreign sources, decisions about the longterm capital structure of the enterprise etc. The dependence on government for fund to meet capital and recurring expenditures is total and serves as an important control mechanism.

The ministry of Finance controls the central bank named the Bangladesh Bank, Bangladesh Shilpa Bank, Bangladesh Shilpa Rin Shangstha, and the commercial Banks which finance both the long term and working capital for the industrial sector. The ministry of commerce controls import through the licensing system and is also responsible for promoting exports. This makes difficult for certain decision making process related to procurement, capital investment on BMRE, marketing and pricing etc.

B. Pricing Policy and Price Control:

Pricing of the products of public enterprises is controlled by the government. Demand for the product, profit and thus the surplus generation is influenced by pricing policy. Price controls may be exercised by the line ministry or ministry of trade and commerce. Prices of the public sector goods are increased to mobilize the domestic resources and to ease balance of payments. Upward price adjustment depresses demand and industrial growth fails to maintain its momentum. Recently price control in the public sector is relaxed and subsidies are reduced to mobilize domestic resource.

Due to the upward price rise along with the absence of aggressive salesmanship and shrinking market, management faces problems in the matters of sales and taking decisions about production target and resource flow.

C. Procurement Policy:

Public sector procurement procedures remain cumbersome owing to the tendering formalities and conditions imposed by various donor agencies. In case of foreign procurement enterprises face problems due to government regulations. Sometimes centralized procurement is done by Trading

Corporation of Bangladesh where the cost, quality and timing of arrival do not usually match with the requirements.

Procurements of the sector corporations are based on the annual import policy. In order to secure price advantage the sector corporations tries to acquire more foreign exchange in the form of aids, grants loans etc. Under these financing situations buyer is to buy from a particular market which may not be a competitive one. Procurement under barter is most unfavourable. Due to resource crunch in terms of foreign exchange management it is impossible to make economic purchases. Also foreign procurement is time consuming and not always in conformity with the urgency. Management at the enterprise level is allowed to procure a very small amount.

D. Marketing Problem:

The depressed world trade and growing protectionism in the developed market export of industrial product is affected leading to a price reduction in export. Increasing liberalisation of import policy and overwhelming share of aid financed imports have aggravated the situation. It is not unusual to find material price obtained by a public sector enterprise exceeding import price of finished product quoted by a foreign supplier. The price preference allowed to the management also responsible for the shrinkage of

market for public enterprise resulting in unfavourable condition for capacity utilization affecting the financial ability.

Lack of aggressive salesmanship and shrinking market creates preference for price increase and protection.

6.4 CONCLUSION

As mention has been made in earlier chapters among other environmental factors the management decision system is also affected by the economic factors which exist in the environment. An important condition for the effectivity of decision making system at the enterprise level is the ability of people to cope with the diversified multitude of problems in the economic environment and to take decisions rationally and effectively.

An enterprise may fail if it lacks appropriate policy supports. Fiscal anomalies are issues in point. The decision making system for its effectivity must face the events before allowing the events to occur.

Capacity utilization proclaims an assumption that there is no demand deficiency for output and thus product maximization is consistent with profit maximization but this is not always the case. So management must be aware of it.

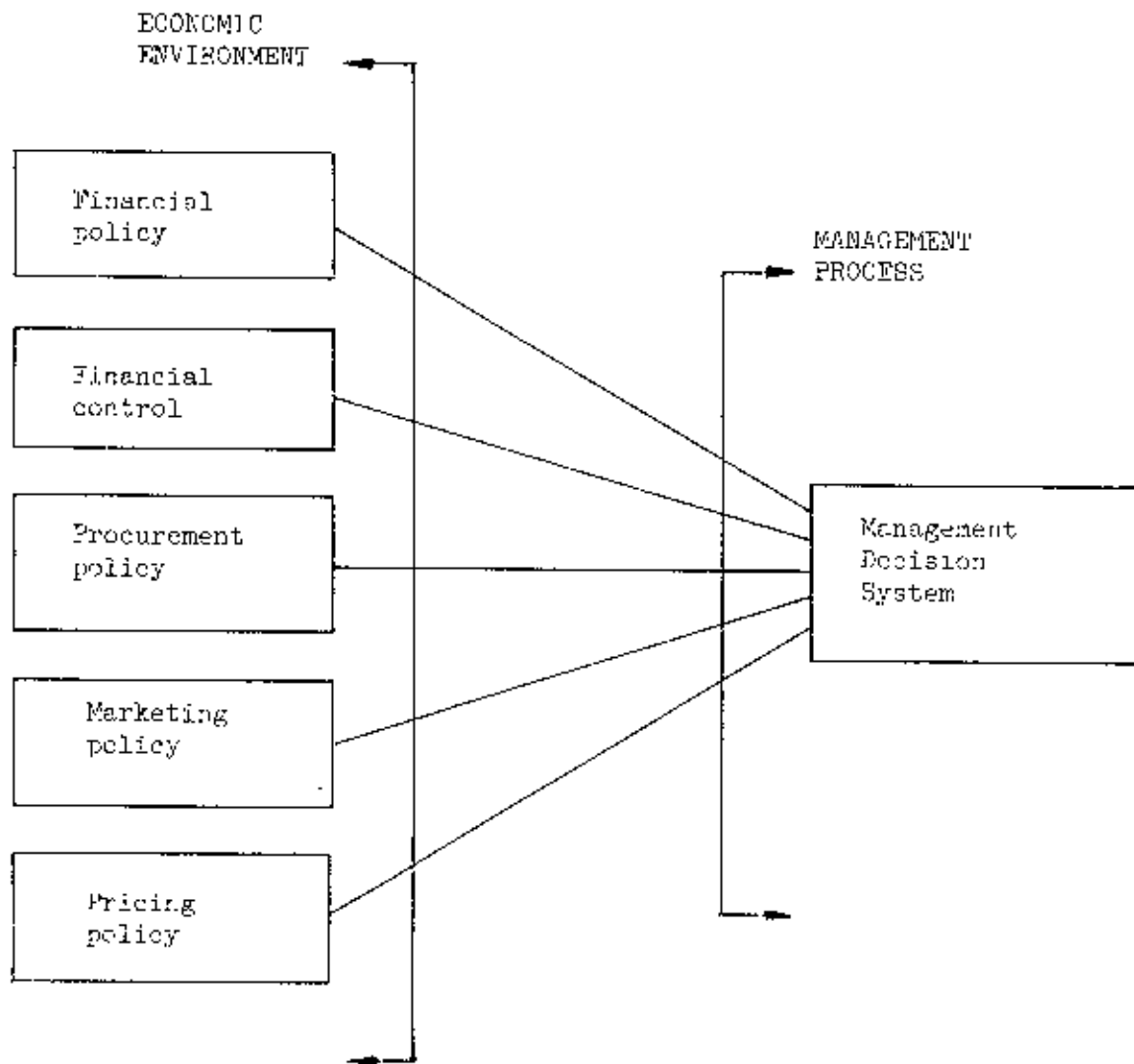


Fig. 6.1 : Constituent of economic environment and its impact on MDS

The constituent of the economic environment and its impact on MDS is summarised in Fig. 6.1.

The effort of the management is directed primarily towards fulfillment of the production targets in order to show their performance but due emphasis is not given to marketing. In most cases the enterprise does not have the freedom to sell their products at their discretion. It results in stockpiling with its dangerous consequences. Various ministries intervene and control prices. Unplanned import, limited foreign exchange, increased aid dependence hinder the raw material procurement.

In the areas of price control and control of marketing decisions have been delayed due to the complexity of the review process. Procurement decisions are made unfavourable due to resource crunch and aid dependance. It becomes a vicious cycle of underdevelopment of industrial sector (Fig. 6.2). This has to be broken by relaxing price and marketing control taking prompt decisions regarding the financial outlays in procurement decisions and framing policies congenial to the industrial development.

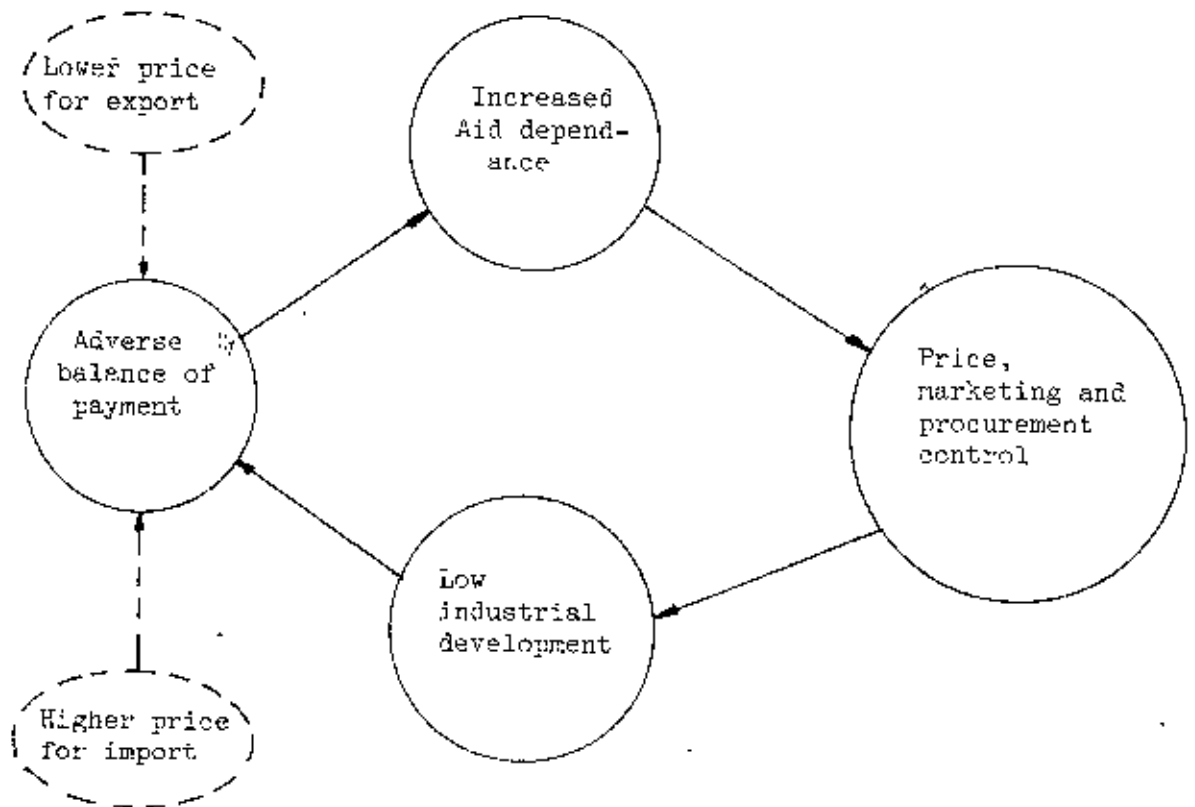


Fig. 6.2 : Vicious cycle of industrial underdevelopment

Chapter - 7

ENVIRONMENT AND MIS EFFECTIVITY

7.1 INTRODUCTION

Information is organized data useful for decision making. In an overall situation of uncertainty information reduces the uncertainty. The management information system is a formal synthesis of systems and subsystems for decision making in planning and controlling operations. It is the essential job of MIS to turn data into information for use. It ensures that information needed by managers and decision makers is available at the right time and in the right form.

The purpose of MIS is to synthesize the information system with other systems i.e. planning, controlling and operation in the organization. MIS ensures the development of information centers for deliberating, generating, distributing, storing and returning information systematically and promptly for the purpose of effective decision making.

7.2 ENVIRONMENT - MIS INTERACTION

MIS refers to people and equipment used in the selection, storing, processing and retrieving of information required in the management decision making process. The system connotation implies that these elements are functionally and

operationally integrated to provide a needed flow of information. An organization facing varying degrees of environmental uncertainty requires the adjustment of their information processing capacity in order to meet changes successfully.

Information, as a part of the management process cannot be free from the environmental constraints. Because this environmental factors are prevailing in the country's context and imposing negative effects, the coordinated efforts directed to the achievement of the organizational objectives between the man, machine and resources are often dictated by the environment.

In many situations problems are created by trying to force a 'square' technique into a 'round' hole in the environment. This amplifies conflicts between the enterprise and its environment but this is mainly due to lack of adequate information flow. The competence, the capability and the motivation of a person engaged in data collection and processing for information system dictates the quantity, quality and appropriateness of data. The information in turn defines the effectivity of the whole management decision making process. In this regard a main frame computer cannot ensure the effectivity of MIS rather the people behind possibly could.

MIS must include many environmental considerations about the organization and the system itself. For MIS effectivity its design must incorporate educational socio-cultural, political-legal, control and economic aspects of the country and industrial situations which directly affect the enterprise management and its members.

The appropriate transformation of data into information and its use in making a sound decision is the measure of MIS effectivity. It is worthy to mention that the flow of information will not be across chair to chair rather from person to person for decision making. The value of information is sensed only when it accommodates an appropriate decision. So the management personnels motivational behavioural pattern have an impact on MIS effectivity.

The ineffectivity of MIS is due to the errors implanted in the designing and implementing of MIS. Information content and its reliability is perhaps largely dictated by the environmental constraints. A critical analysis of the existing information system in different organizations would give a clear picture of the environment - MIS interactions.

7.3 THE INFORMATION CONTENT

In the country the purpose and the objective of MIS have failed. In most of the cases the MIS is used for controlling

and evaluating the performance of the enterprise rather as a tool for management decision making. The current practice of MIS in various organizations is viewed more as the system for recording and reporting the enterprise operations than as an information support for decision making. Most often it is a post facto analysis rather than an aid for effective decision making.

MIS at the enterprise level is almost absent, it exists in the corporation head offices. Often the MIS department publishes periodic reports. These reports cover the value and number of units , actual versus target figures of the products produced along with significant causes of deviations in brief, the status of critical supply and inventories, special projects and sales promotions are depicted.

For effective decision making process the information system must include the information relating to physical factors as well as the information about human factors and environmental constraints. Often the motivational aspects of the employees, the low labour and capital productivity reasons are not discussed. The enterprises have an obligation to send reports at the end of the period. Corporation prepare the final report, relies on these data and without due care send it to the different concerned performance evaluating and controlling agencies external to it. They are not usually used for performing management functions, corrective actions are seldom taken.

Study on MIS⁽²⁰⁾ shows that 57.14% of the users surveyed are in no way dependent upon the information supplied by the MIS department. The rest 42.86% shows some dependence upon MIS - that being only for reference purposes. Only 14.25% of the managers showed some relation with the critical success factor and MIS, which is essential for any organization to achieve its objectives, 71.43% of the total user managers showed degree of interaction almost nil with the MIS. The management finally concludes that without the information support of existing MIS they are performing and taking decisions.

From the discussions above, the position and characteristics of the information content of MIS revealed the fact that it does not content the necessary information for decision making process. This can be taken as a representative picture for almost all the existing MIS practices in the country.

7.4 RELIABILITY OF INFORMATION

MIS does not just happen - it must be carefully designed, implemented and monitored. Two basic but essential steps in developing the system are organising the data to have a true, undistorted and reliable information and designing the system.

In an overall situation of inefficiency the personnel engaged in data collecting can not be solely blamed for their ill motivated behaviour. At the enterprise level the data collection functions are often fractionated and individual tasks are allocated among critical personnel in such a manner as to ensure that no one but top management will be able to obtain a comprehensive picture of operations. The consequence of this is that there are few checks or counterchecks of the accuracy of data. The people who collect data never see the information while top management without having sufficient familiarity with the data center or without having sufficient time to examine the details to verify the accuracy of information.

Time lag exists between data generation and end use of the information. Skills and technical knowhow, motivation and educational background, strained relationship between different groups and departments - all these factors affect the accuracy of data and the reliability of information. This in turn has an impact on the effectivity of MIS.

7.5 MIS FOR PLANNING

Planning is done by the top level of the management. Lack of relevant information, due to over centralization of authority, lack of understanding of the planning process, inadequate training, poor communication and ineffective motivation are the major human constraints hampering

managerial planning process. Information problems which result in planning errors are perhaps most critical among them. The success of a planning process largely depends on the quality of information. The incomplete and distorted data supplied by the personnel at the lower echelon of the management has a negative impact on the planning process. Since they are not known with the planning process or their participation in it is remarkably less - so information supplied by them are some times based on guess or often with minimal analysis. They are often told to compile information without knowing the specific purpose for which it would be used.

Since an information might have different value in term of its usefulness, the lower level can not judge the information in line. Yet top managers would accept it and make decisions based upon them, on the assumption that, uniformity of definitions existed through out the organization.

In planning for introducing a change, unfortunately, in almost all cases the users, the people for whom the changes would be brought about their reaction, motivation, sentiments and their competencies are not considered. This results in that the change is not happily accepted and in some situation vigorously rejected. MIS here is to supply the pertinent and relevant information in this regard. Thus the needed change can be brought about with the help of

prior necessary actions like lobbying, persuasion, discussions etc. So for effective planning, MIS must incorporate the relevant information concerned with the human and environmental factors which is useful in the effective planning.

7.6 MIS FOR MONITORING AND EVALUATION

Effective monitoring of the production norms and targets of the public enterprises as is currently practised using the existing MIS is satisfactory but the performance evaluation of public enterprises has not been very effective due to the absence of effective MIS. The information collection, analysis and feedback process at the enterprise level varies from rudimentary to thorough.

There has been a problem in conceptualizing monitoring regarding an information system. MIS acts as an aid to the managerial process on an 'ex ante' system and post facto analysis of the events but not as a tool for managerial decision making. It has been sensed that purpose of MIS is to produce reports for performance evaluation and monitoring the management process in a very narrow point of view. Thus the very objective of the MIS, to supply information for decision making is completely ignored in almost all the organizations.

Chapter - 8

CONCLUSION & RECOMMENDATION

An enterprise is composed of many components - personnel, marketing, manufacturing, administration etc. The basic functions of management viz. planning, organizing, resource assembling, directing, controlling, co-ordinating and motivating are to a great extent dependent on and determined by information system's effectiveness. Mention has been made that a proper information system can help building a healthy employee - community - labour union - management relationship and also acts as an aid in the improvement of the business climate in any society.

The sole purpose of the management is to manage successfully. Managers most frequently blame the hostile environment they work under only but they must also be blamed partly for their inefficiency. They must not have avoidance feeling at the face of the environment, rather they should analyse the situation, find out the constraints, and search for right kinds of solution alternatives. This would require an integration of the information system.

Information system was designed in the past to have a new department called information department. Though the primary purpose of MIS is to improve the management efficiency. However it usually measures the inefficiency of the

enterprise management. This is done by measuring the profitability of the enterprise. However, profitability can not be an index of management efficiency. Thus management by objective is totally violated in the enterprises.

Factors responsible for the poor performance of enterprise management are many. The fundamental is the serious information inefficiency although appear to be independent and altogether different from information problem, but these are the resultant effects of poor information system. Thus with an effective information system, management will be able to encounter the environment and also can improve the performance.

The objectives of the enterprise management vary considerably according to the environment and management levels. The objectives set by the top management are broad, mission guided, policy oriented and multifunctional whereas the lower and mid levels of management are derived or dependent. Environment dictates the formulation of objective - The economic environment stimulates the objectives tuned to the optimization of resources used in the conversion process of the organization, whereas the political and socio cultural environment encouraged business occupation with societal issues of no direct profitability implications.

To increase the effectiveness MIS should be multidisciplinary in scope and require an overall understanding of their concepts by both designers and users of MIS. The

requirements of an information system are broad in nature, for a system must take into consideration many diverse factors to be effective. In general, these requirements may be grouped into three categories namely, (i) user needs, (ii) human behaviour and (iii) environmental constraints and opportunities. In broader sense, it can be said that an information system to be effective must contain all the relevant information required for the managerial purpose, and essentially it should contain the information about the environmental constraints.

Key component of the controlling system of the managerial process is the data collection and dissemination process. The MIS support for controlling purpose must contain information of three basic categories - (i) information relating to physical factors such as input and output figures (ii) information dealing with financial factors primarily centered around the budget and (iii) information concerning human factors including educational and socio-cultural factors, motivation, skill and attitude.

Monitoring a management information system as to when it becomes ineffective is also important. This process can be accomplished by examining the following : whether the information are relevant with decision making process, if required information could be easily retrieved, whether some information are intentionally suppressed, whether the information are supplied in due time or whether the supplied

information is reliable. Information overload may also create problems that result in poor decision making performance. Evidently the purpose of MIS then should be to supply an optimal amount of information that is useful in decision making. MIS should establish the informational interrelationships that exists among departments and should provide surveillance needed for a total management system. It should clarify and encourage communication within a network of departments in an organization.

In case of wide diversification of the organizational parameters such as size, type of authority, the product line and products, MIS must entail the identification and description of certain critical activities - the basic objective of which is to ensure the supply timely accurate and meaningful information for decision making.

In case of generating information which will be used as the basis for overall evaluation of actions and decisions by management - the MIS should be efficient, flexible and responsive to enterprise needs. It should cover two distinct features -

- i. An external set that reflects the actual financial position and performance according to a set of rules and conventions for all business.

2. An internal set presented with some freedom from the rules and conventions along with such supplemented information as management finds useful in managing the business of the enterprise.

MIS should involve significant task-force and dedicated effort for its success.

The MIS must have the user's active support and involvement in the design phase to assure its usefulness. This involvement by the ultimate user of the system will not only assist in determining his decision making needs but will also make the system as relevant to his individual role in the organization as possible and increase his familiarity with the system. Thus he will be highly motivated to make use of the system once it is implemented.

MIS must collect information from various sources, so that information could be screened for relevancy. It must have information that is conveniently available and its collection can not be disruptive to routine management. In case of information source for environmental factors such as human behaviour or political, information may not be collected quantitatively but qualitatively. The outputs of the system should be presented as 'information' in a form easily understandable to its user.

An MIS to be effective must be comprehensive, integrated, documented and use the most appropriate technology to the situation. It must be tailored, beneficial aid to its users and must positively motivate the users. It must be cost effective, responsive, flexible and decision oriented. The perception of the usefulness and reliability of the information provided should be recognized, measured and allowed for in the design of the system.

The problems of existing MIS to be effective are many and varied in nature. Certain problems relate to 'language' while others are of 'understanding', some are problems of facilities and others are of skill. Again, some problems are purely of information in nature, while others are organizational, educational, socio-cultural, economic, political even policy issues, certain failures can be corrected immediately, while others demand a continuous and a prolong effort.

An effective information system can help improving employee relations, union relations, community relations and overall managerial environment in the country. The effectivity of the decision making system is largely dependent on the proper and effective MIS. The better designing and implementation of MIS tuned with the environmental constraints and its impact on the decision making process can help the situation.

The following measures may be recommended for improving the existing MIS -

A. The inter-organizational factors to be considered for MIS effectivity.

1. Reduction of complex organizational setup and excessive number of authority levels to enable quick and prompt decisions.
2. Concentration of authority at the top should be eliminated to increase the reliability of information.
3. Authority should be followed by corresponding amount of accountability and authority should be clearly defined in order to ensure smooth flow of information.
4. Misunderstanding and mistrust among different tiers of managers should be eliminated and group conflicts should be reduced and group feelings should be increased.
5. Use of currently developed and practised forms of communication should be introduced. Information flow should be in all directions, Informal channels of information flow should be tapped.
6. Use of formal orientation course to the persons engaged in collecting and interpreting the data. Training courses should be so designed that one can be able to use the scientific methodology in finding out choices and management technique.

B. The factors at the national level of policy issues which needs sometimes political attention - and these are useful for MIS effectivity

1. The mass literacy and the education system -

For effective decision making and thus for effective MIS, the educational system should have S&T bias and also the need for mass literacy in this connection can not be overphasized. The competence of the personnel are dictated by the education system. The motivation of these persons and the reduction of the negative impacts imposed by the environmental factors is largely dependent on education system.

2. Autonomy versus accountability -

Enterprises should be given freedom in the areas of procurement, production and marketing for enabling them to take quick decisions. The line of responsibility internal and external of the enterprise must be clearly defined to eliminate undue long time of decision taking. The management should be accountable for such decisions in which they have autonomy.

3. The policies must have to be clearly defined. The directives issued by different government agencies must be self explanatory and appropriety. The pricing policy, marketing and production targets should be fixed by the management in consultation with the concerned government agencies.

4. People having industrial experience and the knowledge required to understand the enterprise operations and management decision making process should be engaged in matters of policy framework designing and monitoring of the enterprises.

5. Trying to win the allegiance of the labour union by political parties has to be controlled - otherwise government would make false promises which would go against interest of management and

to the employees. These promises could not be met because these are unrealistic and too ambitious. This results in mistrust and strainous relationship exists between the management and the labour unions. It should be kept in mind that money is not the only motivational agent rather sympathy to that problem could be motivational force - and which can be demonstrated easily by management. MIS should incorporate information of those problems which need sympathetic consideration for their solution such as housing for employees, performance evaluation etc.

SUGGESTED GUIDELINES FOR MIS DEVELOPMENT

Following are the guidelines which may be entailed while designing an effective MIS in order to cope with the negative constraints exerted by the environmental conditions and thus making the decision making system an effective one.

1. Guidelines for measuring the effectivity of existing MIS -

1. Management is receiving ample information which is not relevant with the decision making requirement.
2. When specific facts are needed, it is not possible for the decision makers to identify easily the information which relates those facts.
3. In case of performance evaluation or for monitoring certain departments activity of an industrial enterprise the information received are manipulated and certain information are suppressed.
4. The decision makers is receiving right information but after a long lapse of time.

5. The decision makers are receiving information, but there is no indication of where it comes from, who authorizes it or whether it is even reliable.
6. The degree of dependence of the decision makers upon the information supplied by MIS is virtually none or relatively little.
7. The information needs of the decision makers about the key areas of the enterprise, whose performance must have to be satisfactory to achieve enterprise objectives, is quite less.
8. The user's degree of concern about existing MIS is very little.

With the above criteria an existing MIS could be assessed how far it is ineffective. In this situation when MIS is found to be ineffective it should be redesigned to eliminate those negative factors.

2. Guidelines for designing an effective MIS

It consists of two parts -

A. *Guidelines for the personnel engaged in MIS to collect and supply information, showing their eligibility. These are depicted below -*

1. Does the person have adequate educational background required to engage him in this function ?
2. Is he capable to judge and appreciate the MIS service ?
3. Is he sufficiently trained to enrich his knowledge of MIS ?

4. Does he realize the value of information in decision making and thus the indispensability of MIS ?
5. Is he sufficiently motivated to work ?
6. Is he able to identify appropriate information - as per requirement of the decision makers ?
7. Can he identify the source of information or is he attached with the information center to a greater extent ?
8. Is he accountable for the supplied information if wrong or distorted ?
9. Can he play a positive role for possible improvement of user - MIS interaction ?

If the answer is positive for all the above questions, the person can be considered to be engaged in MIS for data collecting and information supplying.

B. The second part showing the guidelines in case of the decision makers eligibility, they are -

1. Does he realize the value and need of MIS support for decision making ?
2. Does he possess sufficient educational background, knowledge and educational match in his specific area of decision making ?
3. Does the person have a positive feeling about MIS and does he consider it as an indispensable one for supporting his decision making process ?
4. Does he possess appropriate management training to face the

challenge of making decisions in constrained condition of industrial situations ?

5. Is he capable to identify the appropriate information in cases where the data supplied can be interpreted in so many ways ?
6. Does he have sufficient knowledge about enterprise operations or posses field experience ?
7. Is he positively motivated and have the achievement drive, risk taking ability etc. ?
8. Does he possess positive attitude towards scientific modes of decision making ?

Again, the positive answers of all the questions above will definitely ensure the MIS effectivity. Excluding these guidelines as depicted above to make the MIS effective certain steps should also be taken, they are -

1. The degree and extent of group discussion must have to be increased and the power of this must have to be realized by all employees in order to reduce the confusions and conflicts among different individuals, groups or departments etc.
2. All informal channels of information flow should be tapped and dependance on MIS service in matters of decision making at all level should be encouraged.
3. Discretionary forces acting in the decision making process should be eliminated or atleast reduced by adapting appropriate measures.
4. To develop the sense of awareness in order to attain the enterprise objectives among employees, appropriate training

measures with some bias of information need, should be taken.

5. Steps should be taken to involve the MIS personnel in decision making process in order to motivate them.

The MIS thus developed must contain information regarding human, environmental and enterprise functions as shown in the Fig.B.1.

There are some other problems also which are not discussed but the vital problems and their solutions have been discussed here. Implementation of these will make the management information system effective and dynamic.

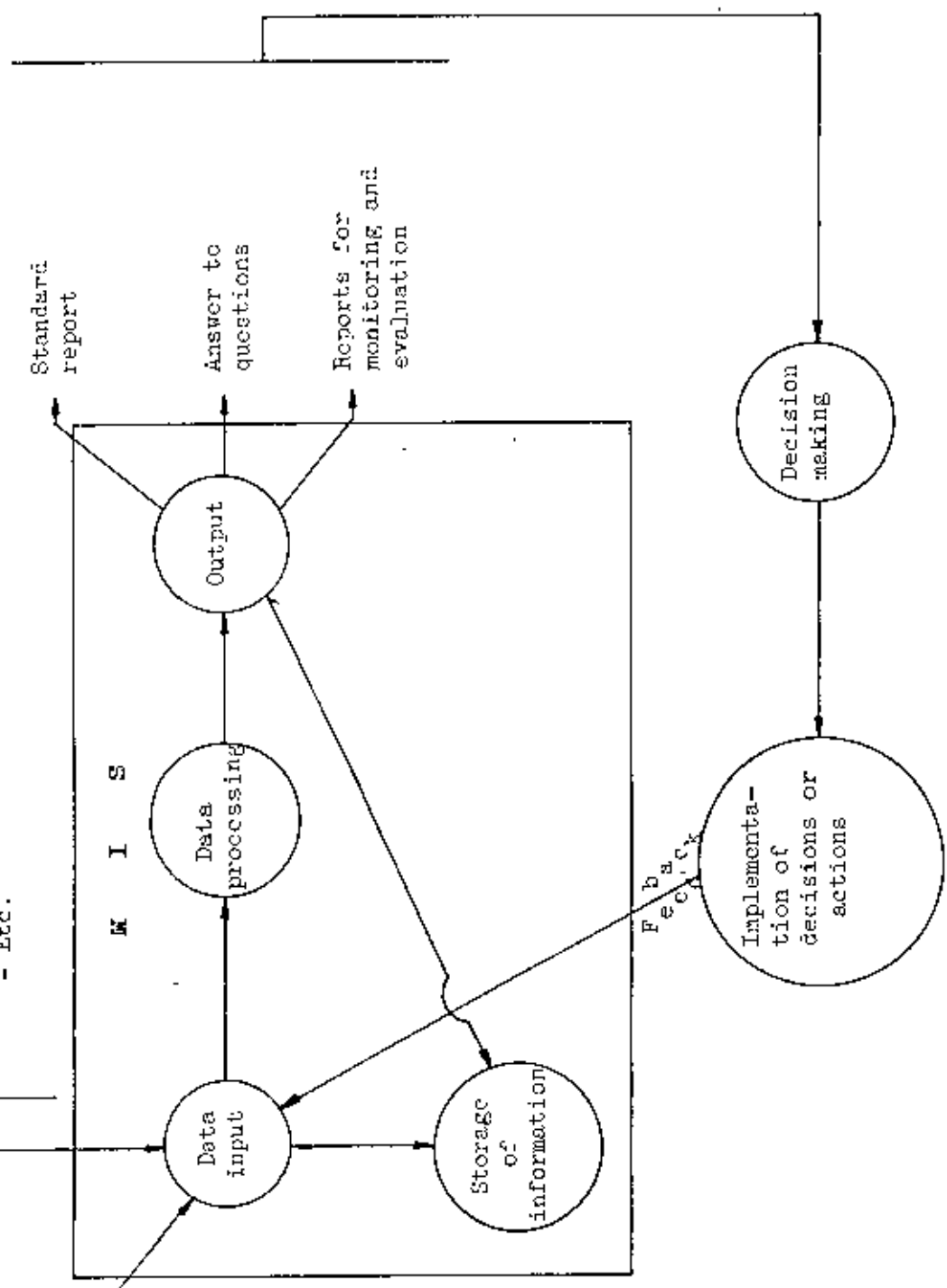
MIS once implemented not have to be changed, this idea is wrong. Review of the performance of MIS is necessary for its effectivity. The environment is not static rather dynamic - so MIS should also be changed with it. The purpose of MIS is to supply right information to the right person at the right time and at the minimum cost is the guideline for MIS review.

INFORMATION ABOUT HUMAN FACTORS

- Level of education
- Training
- Motivation
- Achievement drive
- Risk taking ability
- Sense of responsibility
- Knowledge match
- Etc.

INFORMATION ABOUT ENVIRONMENTAL FACTORS

- Educational
- Socio-cultural
- Political
- Economical
- Policy Issues
- Control
- Etc.



INFORMATION ABOUT ENTERPRISE FUNCTIONS

- Procurement
- Facilities
- Design and planning
- Inventory
- Production
- Finance
- Marketing
- R & D
- Sales
- Etc.

Fig. 8.1 : Information content of proposed MIS

FUTURE SCOPE OF STUDY:

1. The MIS to be made effective for any particular organization, the environmental factors should be considered. For any particular enterprise quantitative data can be collected or some indices developed to make an environmental influence matrix with the managerial functions. These can be analyzed to formulate and design an effective MIS with specific suggestions.
2. After studying the information about the educational level, socio-cultural parameters, economic and political factors affecting any particular organization. MIS division can be asked to collect the specific informations about these factors in order to make the management process efficient.
3. The loopholes of the existing MIS of any particular organization should be detected and with appropriate and specific study could help the reorganization of the MIS division of that particular organization.
4. The definition of MIS is computerized information. A mini or micro computer may be used for the MIS purpose which will save time and make the information system more effective. Thus cost-benefit analysis package can be developed for this purpose.

Appendix - 1

The elements that have been identified by Copen & Richman as most critical are given below:

A. Planning and innovation;

1. Enterprise objectives pursued and the form of their operational expression.
2. Type of plan and the time horizon of plans and planning.
3. Degree or extent to which enterprise operations are preprogrammed.
4. Flexibility of plans.
5. Methodologies, techniques and tools used in planning and decision making.
6. Extent and effectiveness of employee participation in planning.
7. Managerial behaviour in the planning process.
8. Degree and extent of information dependence and information distortion in planning.
9. Degree and extent of the use of scientific forecasting method.
10. Ease or difficulty of introducing changes and innovations in enterprise operations.

B. Controlling

1. Type of strategic performance and control standards used in different areas - production, marketing, finance, personnel etc.
2. Types of control techniques used.
3. Nature and structure of information feedback systems used for control purposes.
4. Timing and procedure for corrective action.
5. Degree of looseness or tightness of control over personnel.
6. Effectiveness of control system in compelling events to conform to plans.

C. Organizing

1. Size of representative enterprise and its major sub units.
2. Degree of centralization and decentralization of authority.
3. Division of labour.
4. Spans of control.
5. Basic departmentation and grouping of activities, extent and use of service departments.
6. Extent and use of staff specialist.
7. Extent and use of functional authority.
8. Extent and degree of confusion and friction regarding authority and responsibility relationships.
9. Extent and uses of committee and group decision making.
10. Nature, extent and use of the informal organizations.
11. Degree and extent to which the organization structure is rigid or flexible with regard to causing and/or adapting to changing conditions.

D. Staffing

1. Methods used in recruiting personnel.
2. Criteria used in selecting and promoting personnel.
3. Techniques and criteria used in appraising personnel.
4. Nature and uses of job description.
5. Levels of reward and compensation.
6. Nature, extent and time absorbed in training programmes and activities.
7. Extent of individual informal development.
8. Policies and procedures regarding the layoff and dismissal of personnel.
9. Employees educational match and their skill.

E. Direction, leadership and motivation -

1. Degree and extent of authoritarian versus participatory management.
2. Techniques and methods used for motivating managerial personnel and also non-managerial personnels.
3. Supervisory techniques used.
4. Communication structure and techniques and effectiveness.
5. Ease or difficulty of motivating personnel to perform efficiently.
6. Degree and extent of trust and cooperation or conflict and distrust among personnel of all types.
7. Degree and extent of frustration, absenteeism, and turnover among personnel.
8. Degree and extent of wasteful time and effort resulting from restrictive work practices, unproductive bargaining, conflicts etc.

F. Marketing -

1. Degree of diversification, specialization, role of change, quality of the product etc.
2. Channels of distribution and types and location of customers.
3. Pricing policy for key items, in relation to costs, profit margins, quantity and trade discount structure.
4. Sales promotion and degree of aggressiveness in sales promotion.

G. Production and Procurement -

1. Make or buy, extent to which subcontracting is used etc.
2. Number, type and location of major suppliers of critical elements.
3. Timing of procurement of major supplies.
4. Average inventory levels, methodology used in inventory control.
5. Minimum maximum and average size of production runs.
6. Degree to which production operations are stabilized.

7. Diversification of products.
8. Degree and extent of plant capacity utilization.
9. Basic production process used.
10. Extent of automation and mechanization in enterprise operations.

H. Research and Development -

1. Nature and extent of R&D activity e.g. product development improvement, new material usage, new production processes and technology etc.
2. Scope for R&D activities (opportunities, patronization and fund etc.).

I. Finance -

1. Types of financing (equity, debt, short term, long term etc.).
2. Sources of capital.
3. Major uses of capital.
4. Protection of capital.
5. Availability of capital.
6. Distribution of earnings.
7. Government control on financial matters.

J. Public and External relations -

1. Cooperation among different controlling agencies of the government with the management of industrial enterprises.
2. Customer - consumer and supplier, investors and creditors relation.
3. Union-management relations.
4. Governmental relations (the relationships, attitudes and policies of enterprise management regarding major type of external agents and organizations are considered here.

REFERENCES

1. Ahmed, R and Khan, S : Daily Observer, 29th May, 1990.
2. Drucker F. Peter : Management: Tasks, Responsibilities and Practices. Harper and Row, N.Y. 1974.
3. Kast & Rogenzweig : Organization and Management, McGraw Hill, 1973, pp 135.
4. Copen & Richman : International Management and Economic Development. T.M.H 1972.
5. Bernard J. Chester : Functions of the Executive Cambridge Mass; Harvard University Press, 1939.
6. El-Nomaki, M.S.S. : Problems of Management in a Developing Environment, North Holland, 1979.
7. Kast & Rogenzweig : Organization and Management, McGraw Hill, 1973.
8. Rahman, Alimur : Journal of Management Business and Economics, Vol. 12, No.3, 1986.
9. Ahmed, Muzaffar : A Case for Managerial Service in P E Sector in Bangladesh. Journal of Management Business and Economics, Vol.9. No.3, July-1983.
10. Hraz, M & Salam, N : Influence of org. environment including users attitude on the growth of an effective MIS. Dept. of M.E., BUET, Dhaka, Nov-1989.
11. Azim, M.A. : Design and Development of MIS - A conceptual report, Ministry of Food, Govt. of Bangladesh, May 1984.
12. Khaled, K.J. : Bank Parikrama, Agrani Bank, Bangladesh.
13. Islam, T : Development of MIS in a medium scale engineering plant in Bangladesh, IPE Dept., BUET, Dhaka August-1985.

14. Mushahed, U & Iqbal, Z : Characteristics of Production System and their Interrelationship with Organizational Structure and Management Style, M.E. Dept., BUET Nov-1989.
15. Statistical Yearbook : Bangladesh Bureau of Statistics Govt. of Bangladesh, 1986.
16. Quddus, Reazul : Study on the Technological Inputs for the Workers of Small and Medium Scale Metal Working Workshops in the Field of Production of Agro-Supporting Implements in Bangladesh, M.Sc. Engg. Thesis, IPK Dept., BUET Dhaka, Nov-1984.
17. Kapp, H.W. : Hindu Culture, Economic Development and Economic Planning in India. Asia Publishing, Bombay 1963.
18. Industrial Policy : Ministry of Industries. Govt. of Bangladesh, 1986.
19. Statistical Yearbook : Bangladesh Bureau of Statistics, Govt. of Bangladesh, 1986.
20. Riaz, M & Salam, N : Influence of Organizational Environment including users attitude on the growth of an Effective MIS, M.E. Dept. BUET, Dhaka, Nov-1989.

BIBLIOGRAPHY

1. Gordon, B. Davis : MIS - Conceptual foundations, Structure and Development.
2. Chrudden & Sberman : Managing Human Resources, 7th Edition, South Western.
3. Benzamin, M.S. : A Moral Philosophy for Management, McGraw Hill paperback.
4. Raut, V.S. : Production Management in Developing Countries, S. Chand & Company, India, 1979.
5. Copen & Richman : International Management & Economic Development, TMH, 1972.
6. Fernar & Richman : Comperative Management and Economic Progress, Homwood, 1965.
7. Lambert, R : Workers, Factories and Social Change in India, Princeton N.Y. 1963.
8. Myers, C. : Education, Manpower and Economic Growth, McGraw Hill, N.Y., 1964.
9. Mead, M. : Cultural Patterns and Technical Change, Mentor, N.Y., 1962.
10. Sreenivasan, K. : Productivity and Social Environ-ment, Asia Publishing, N.Y., 1964.

