



Fundamentals of Scientific Management of Socialist Economy



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Fundamentals of Scientific Management of Socialist Economy



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КОЛЛЕКТИВ АВТОРОВ

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INTRODUCTION

The present stage of socialist construction in the Soviet Union places on the agenda the problems of improving the management of socialist economy and streamlining the economic structure. To resolve these problems an in-depth and thorough elaboration of the methodological principles upon which the planned management of socialist production is based, is needed. Without that, it is difficult to attain the socio-economic goals pursued by the socialist community countries.

Although in the last 10 to 15 years the science of managing the socialist economy developed quite rapidly, it has not yet completed a theoretical analysis and systematisation of all new phenomena engendered due to the orientation of the socialist countries towards a predominantly intensive model of economic development.

This book covers the basic principles of the theory of managing socialist production and expounds the essence and goals of management in the socialist economy. It reveals the basic principles underlying the functioning of the organisational management structure and analyses in detail the question how to direct socialist production. Particular attention is paid to the problems involved in management as a specific form of activity, the development and improvement of the technical managerial facilities, an efficient interrelationship of personnel in the management system, and to encouraging the initiative of the working people in managing social production.

The book deals with the methods used to appraise managerial efficiency and shows how it can be upgraded primarily through the mechanisation and automation of

management and the employment of automated control systems.

The manual is intended for all those who tackle the problems involved in the management of the socialist economy.

Chapter 1

SUBJECT AND METHOD OF THE SCIENCE OF MANAGING SOCIALIST ECONOMY

KEY POINTS

1. Management of production as a function of social labour.
2. Essence and goals of management of the socialist economy.
3. The science of managing the socialist economy. Its subject and method.

Discussion Hints

In studying the *first point*, it is essential to examine how the development of the social process of labour engenders and promotes such social activity as the management of production. Cooperative labour and management of this process are inseparable. The nature of labour determines the kind of management. To comprehend the interrelationship existing between these categories it is advisable to read Chapter 11, Vol. I of *Capital* in which Karl Marx deals with cooperation.

In approaching the *second point* it is particularly important to note that management of production has two dialectically related aspects: socio-economic and organisational-technical. The essence of management of capitalist production is determined by the nature of relations engendered by the private ownership of the means of production.

The predominance of public ownership of the means

of production established by the victorious proletarian revolution radically alters the essence and goals of management by making it planned and democratic in its very nature.

In examining the *third point* it is important to demonstrate that socialism creates the need and offers an opportunity for scientific management of economy on a nation-wide scale and to indicate how this is realised within an integrated national economic complex, which transforms the science of management into a powerful instrument for the development of social production. Finally, it should be shown how the theory of management is enriched and developed by practice.

1. MANAGEMENT OF PRODUCTION AS A FUNCTION OF SOCIAL LABOUR

Human labour is a conscientious and purposeful activity. Revealing its socio-historical significance, Karl Marx noted that first of all it is “a process ... in which man of his own accord starts, regulates and controls the material re-actions between himself and Nature”.¹ And man was always interested above all, in the final goal of his labour, i.e. its result, while his striving to raise the efficiency of labour, to attain better results with less labour served as an objective prerequisite for the appearance of the rudiments of socio-cooperative labour.

Marx understood cooperation in labour as labour organised in such a way “when numerous labourers work together side by side, whether in one and the same process, or in different but connected processes”.²

Cooperation in labour, when people begin to work together to make one or several kinds of articles, objectively calls for the need of coordination and bringing into harmony their efforts in order to attain their goal. Thus management emerges and develops as a specific type of labour activity.

Marx wrote: “All combined labour on a large scale

¹ Karl Marx, *Capital*, Vol. I, Progress Publishers, Moscow, 1978, p. 173.

² *Ibid.*, p. 308.

requires, more or less, a directing authority, in order to secure the harmonious working of the individual activities, and to perform the general functions that have their origin in the action of the combined organism, as distinguished from the action of its separate organs.”¹

This unbreakable link between social labour and managerial activity has existed at all stages in the development of human society and reflected the specific nature of social relations prevailing within a particular mode of production in all its complexity and varieties.

Primitive-communal society was notable for an extremely low level of the development of productive forces. At its earlier stages, people had to unite their efforts to survive in the struggle with natural forces. Only with time did there emerge preconditions for the social division of labour making such labour more efficient through the use of improved implements of labour and better methods. A more pronounced division of labour enhances the role of cooperation as a major factor in the development of social production. In slave-owning society, which was more progressive from the point of view of historical perspective, cooperation attained impressive proportions. Concerted labour of hordes of slaves made it possible to undertake tremendous work such as the construction of pyramids, temples, irrigation systems. Such labour required regulation. However, the forms of that regulation were rather primitive. Slaves had no stake whatsoever in the results of their work. This fact sealed the doom of the slave-owning society to be replaced by feudal system. A more progressive nature of feudal relations, compared to the old system, is corroborated, in particular, by the fact that peasants, still dependent on their masters, but having a household of their own, became the main productive force in feudal society and they worked more efficiently than slaves. Peasants maintained more intricate relations with the feudal lords than the slaves with their owners. Outright coercion was replaced by feudal conscription labour (time rent or rent in kind). There sprouted some forms of an arrangement between the feudal lord as the owner of the means of

¹ *Ibid.*, p. 313.

production and the serf as a labourer. That arrangement involved production and distribution. The management of cooperative labour became more extensive and sophisticated.

At the stage of the simple capitalist cooperation of labour limited by the size of individual capitals, the growing scale of this cooperation and the increase in surplus-value led to the alienation of managerial functions performed by the capitalist who owned the means of production from the labour of the hired workers directly engaged in production. It is at this point that capitalist production takes its root. With the subsequent growth of the scale of capitalist production, capitalists, in their drive for maximum profits, relegated the functions of management to a special category of workers—managers.

Social labour under capitalism is of a dual and contradictory nature. On the one hand, it is a process of producing material values, and on the other, it leads to the accumulation of capital. All this engenders contradictions in labour management. On the one hand, production management under capitalism serves to raise social labour efficiency, while, on the other, it aims at intensifying exploitation of workers by the capitalist on the basis of the existing right of property which favours the capitalist and allows him to appropriate the surplus product.

As Marx noted, “the control exercised by the capitalist is not only a special function, due to the nature of the social labour-process, and peculiar to that process, but it is, at the same time, a function of the exploitation of a social labour-process...”¹

Socialist revolution transforms property relations. Relations of subjugation and exploitation inherent in the capitalist mode of production are supplanted by relations of comradeship and mutual assistance of people released from exploitation, that is relations based on the social ownership of the means of production. The nature and goals of management in social socialist production have been radically changed.

Thus we can see that management as a function of a social labour process is always revealed in specific activi-

¹ Karl Marx, *Capital*, Vol. I, p. 313.

ties, in relations between people as regards their organisation and in the performance of real acts of labour. People performing managerial functions never act in isolation from a specific process of social production. Therefore, the variety of managerial activities is as great as the variety of the specific manifestations of relations of management in the social labour process. The managerial staff pursues one and the same goal, that of raising the efficiency of concerted labour.

2. ESSENCE AND GOALS OF MANAGEMENT OF THE SOCIALIST ECONOMY

Karl Marx identified and examined the two sides of the management of production: organisational-technical and socio-economic. The first is characterised by relation of division and cooperation of concerted labour in manufacturing particular products. The socio-economic side is affected by the existing relations of production and determines the aims of management. Thus, on the one hand, management is one of the forms of activity and is a component of productive forces, while, on the other, it is a part of the overall regulation or "order" at an enterprise and, consequently, is an element of relations of production.

As an element of productive forces management promotes conditions making it possible to raise the production potential of labour. This is explained by the fact that the production potential of cooperating workers is invariably higher than that of the same number of individual workers making the same product but working individually. Management widens the gap in the results achieved by cooperative as compared to individual labour due to a more rational use of all elements of production by the former. That is why management as a kind of activity is a productive activity. Marx wrote: "This is a productive job, which must be performed in every combined mode of production."¹

The nature and aims of management as an element of

¹ Karl Marx, *Capital*, Vol. III, Progress Publishers, Moscow, 1984, p. 383.

the relations of production are determined by the mode of ownership of the means of production. In relations of production as a whole, management, as a kind of activity, participates in production, exchange, distribution and consumption of material benefits. In this connection Marx drew the conclusion that in a class society management bears a class imprint and is performed in the interests of the ruling class.

Under capitalism private ownership of the means of production ensures the right of private appropriation of surplus-value by the capitalist thereby allowing him to organise distribution in "his own favour". Profits with their unlimited growth are the main stimulus and the goal of a private entrepreneur. By organising and improving management, the capitalist multiplies his profits, thereby intensifying the exploitation of the working people.

Private capitalist ownership of the means of production curtails the potential of management as an element of productive forces. This is so because under capitalism the scope of labour cooperation and, consequently, the scale of management are determined by the size of capital possessed by an individual owner or a group of capitalists. Smooth management at a level of an enterprise or a firm facing acute competition on the market is inevitably at odds with the overall anarchy prevailing in capitalist production on the nation-wide scale or in a particular region.

In capitalist society, proportions in the development of social production are determined spontaneously on the basis of the operation of the law of value and by the competition of producers. State monopoly regulation of the capitalist economy does not eliminate antagonistic contradictions. Neither does it remove the spontaneous manifestations of economic laws.

Socialist ownership of the means of production eliminates all forms of exploitation and radically changes the goals pursued by social production management. Common vital economic interests of individual people, groups of people or the society at large, serve as an objective foundation for setting the supreme goal of the communist economic formation, that is the attainment of prosperity and a free all-round development of all members

of society. This goal determines the socio-economic aspect in management of social production under socialism and the organisational and technical content of such management.

Socialist ownership of the means of production qualitatively alters the status of the working people in the system of social production. As a collective owner of the means of production they are deeply interested in making better use of the entire production structure and in forming such managerial relations that would ensure the best economic results with minimal labour and material inputs, i.e. an efficient social production. In this context, widely involving the working people in the management of production is an objective necessity for the successful development of socialist economy.

Socialist ownership of the means of production is the basis for the formation and development of cooperation of labour on a nation-wide scale and the extension of the scope of management to the entire country.

The functioning and improvement of the forms of nation-wide cooperation in labour is ensured by the establishment of a common economic centre (bodies of state control) which would administer the entire national economy. The free market, anarchy and competition are replaced by the planned management of socialist economy.

Socialist production develops according to objective economic laws irrespective of the wishes and the will of some individuals. At the same time, these laws can be observed only through the activities of people and they determine their actions and behaviour. If in their practical activity, people are fully aware of how these laws operate it will take society less time and resources to attain the desired results, i.e. to reach a certain level in the development of the system of management and achieve its basic parametres. A well-grounded substantiation of goals in management is of exceptional importance since the choice of the goal determines not only the guidelines for the development of social production but also the managerial structure, the principles of personnel selection, administrative methods and the very essence of management.

The aim of social production management and the guidelines for the development of socialist economy are determined by the basic economic law of socialism. An increasingly fuller satisfaction of the material and cultural requirements of the working people and the creation of the necessary conditions for the all-round development of each and every person, are at the same time the supreme goal and decisive prerequisite for an effective development of the socialist economy.

The differentiation of general goals into particular, specific subgoals, is effected in establishing the range of goals at a particular managerial level. The goals of the lower level of management serve as a means of attaining the goals at the higher level. It is indicative that at the lower level the goals are less defined while subgoals are more precise and detailed.

The essence and nature of economic laws operating in the socialist system require a totally new, planned type of management. Some elements of planning already existed in the pre-socialist forms of labour cooperation. However, it is only under socialism that planning becomes a powerful factor in the development of social production. Actually, planning implies that the entire national economy should be managed from a single socio-economic centre. Under socialism this role is played by the socialist state.

Revolutionary transformations of the social base of management involving the elimination of private ownership of the means of production have radically changed the aims of social production.

Under socialism, management evolves as a mechanism ensuring the best possible reflection and correlation of collective and individual interests. Thus, by its own nature, this type of management is democratic. A harmonious combination of the interests of society and the individual lies at the very core of the fundamental differences distinguishing socialist management which excludes despotism and oppression, from capitalist management where they are intended for safeguarding the interests and aims of private capital.

3. THE SCIENCE OF MANAGING THE SOCIALIST ECONOMY. ITS SUBJECT AND METHOD

Scientific knowledge about the management of social production was accumulated gradually. The first elements of the scientific analysis of some problems involved in management emerged with the transition from manufacture to machine production. With the development of capitalism, especially at its state-monopoly stage, the growing scale of social production on the basis of its specialisation and concentration, led to the establishment of intricate interacting types of social production sectors. There emerged branch and regional production complexes which are independent economic links, and the degree of sophistication of some final products such as ships, aircraft, computers, automated plants, robots has grown considerably. All this made it necessary to switch from intuition and empirical methods in directing enterprises to scientifically substantiated management since managerial errors nowadays entail costs too high even within an isolated production sector. The experience of capitalist management has demonstrated the necessity to carry out research into the problem. Bourgeois experts in management have made numerous attempts to elaborate a theory of management that would reconcile class interests of workers with those of capitalists and to apply scientific methods of managing capitalist production on the scale of the entire society. However, the experience of capitalist states proves that this is too much of a problem even for a sufficiently strong state economic sector and notwithstanding the serious scientific achievements in the organisational and technical managerial support. In this connection one can speak of some elements of a scientific approach to directing capitalist production only as it is applied to an individual enterprise, a company or a monopoly. And research in this field is always geared to enriching the propertied classes, to intensifying exploitation of the working people and to speeding up their work in the "sweat shops".

Under socialism, cooperation in labour is characterised by the fact that individual types of work are coordinated on a planned basis not only within a certain production

process (at enterprises or associations) but also on a nation-wide scale.

And here the proportions and the level of management on the scale of the entire economy largely determine the possibility of organising efficient production at the level of an individual enterprise or association.

Creative scientific study of the managerial problems, and the extensive practical experience of the socialist countries in building a new society as well as the development of a number of new scientific methodological and applied disciplines, made it possible to lay a scientific foundation in the field of management of socialist production and to put into order the accumulated knowledge in this branch of science.

First of all, it should be noted that the foundation and the methodological basis of the science engaged in the management of socialist production rest on the extensive scientific knowledge concerning the general laws governing the development of social and technical systems, that is, the Marxist-Leninist theory of social development.

Compared to the fundamental Marxist-Leninist theory, the science of management is an applied science since it is engaged in resolving problems the solution of which could help raise the efficiency of social production.

At the same time, to a certain degree of generalisation, it is based on, and assimilates, the achievements of many other branches of sociology such as psychology, information, accounting, law, statistics, economic-mathematical methods, etc.

The science of management investigates the mechanism and laws of the origins and the development of coordinating, guiding and regulating initial factors in the processes involved in social production. In this case, management is perceived as an integral and comprehensive social phenomenon and as a system incorporating relations connected with management and managerial activities which is reflected in the functioning and acts of administrative persons (economic bodies)—Fig. 1.

The subject and object of management are the most important components of the managerial system. The subject of management plays an active role in the process of management: its functions are the formation of the

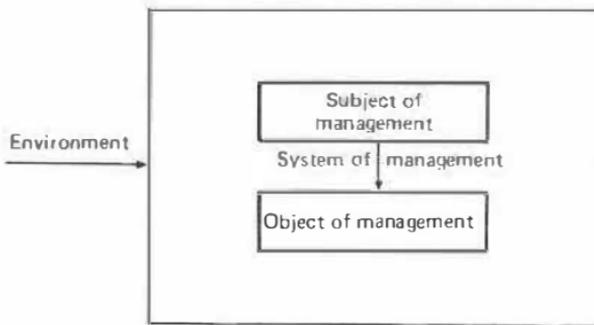


Fig. 1 System of management

relevant goal and the necessary managerial impact on the object of management, the appraisal of the results.

Work collectives and individual workers are an immediate subject of the management of social production. Only through their work does it become possible to exert influence on the substantial elements of production, i.e. implements and objects of labour.

The supervision over industrial technological processes, mechanisms and machine systems was referred to by F. Engels as the management of things. This aspect of administration is studied primarily by technical sciences.

Administration as a method of influencing people comprising groups, collectives and classes with their differing interests Engels termed "management of people". This field of activity is the most complex and is dealt with by social sciences. This type of administration controls social production as a socio-economic system with man in its centre.

Marxist-Leninist dialectics constitute the basic approach to cognising the principles of management of the socialist economy. This method ensures:

- a specific historical approach to the study of processes and phenomena in real life;

- systems approach, requiring an analysis of all the relevant sides and aspects of a studied phenomenon as an integral system with all its interconnections and reciprocal influences;

- dynamism, that is the system of management should be viewed as a developing system, which necessitates taking into account quantitative and qualitative changes in

its composition, structure and functioning in time and space;

—a class, party approach in analysing reality, taking into account the composition and direction of class interests as the decisive factor in development.

It should be noted that the methods of managerial science differ from those of management as such. This will be dealt with later. At present, we shall examine those methodological foundations, rules and methods which furnish an expert in management with a research apparatus.

Modelling is an effective methodological means employed by the science of management. Research in this field can be conducted along different lines. However, each time a researcher has to create an image, or a “model”, of the phenomenon he investigates. A model is composed of facts, hypotheses and surmises about the investigated mechanism of a particular phenomenon in social production. A model can be imaginary (speculative) or real (material), quantitative or qualitative, determined or merely outlined. A model can be described verbally, presented as a system of formulae or a drawing. It can be made life-like or constructed by a computer.

However, in each case, the researcher pursues the same goal: striving to cognise and reveal the inner structure and the mechanism of action of a particular model by examining its “behaviour” under the impact of factors modelling the factors influencing the system. Thus, the goal of modelling is to cognise reality and to discover new, previously unknown truths.

Composition is also a practicable methodological technique when a researcher superimposes an imaginary object or a real one relying on the components at his disposal to create a new quality. In its essence, composition is that part of creative activity which is usually identified with invention. As a technique it is used to discover previously unknown phenomena and objects with certain qualitative properties. Decomposition is a strong supplement to composition. Whereas in composition we combine separate parts to create an integral whole with a specific quality which is not present in any of its ingredients, in decomposition we observe a reverse process. The aim

and essence of this method is to examine by parts certain phenomena which defy analysis as an integral whole.

Of course, these methods and techniques do not exhaust the entire complex methodological basis of the management theory, although they are its important components. Theoretical knowledge in the field of management is being constantly upgraded by further elaboration and improvement.

SELF-TEST QUESTIONS

1. What are the objective prerequisites for the formation and development of the science of managing socialist economy?
2. Why is the management of capitalist production essentially dualistic?
3. What are the fundamental differences in the management of the socialist and capitalist economies?
4. What are the basic goals in running socialist production?
5. What is the subject of the managerial science?
6. What is the role and place of this science in the system of social sciences?
7. What are the methods and techniques used by the science of management?

Chapter 2

PRINCIPLES OF MANAGEMENT OF THE SOCIALIST ECONOMY

KEY POINTS

1. Scientific and practical importance of the principles of directing the socialist economy.
2. The principle of democratic centralism in management.
3. Planning as a distinctive feature in directing socialist production.
4. The principle of a political approach in dealing with economic problems.
5. Scientific substantiation as a guarantee of efficient management.

Discussion Hints

In investigating *the first point* one must begin with establishing the interrelation between the principles of management and the system of socialist economic laws. It is essential to examine the problem of the combination of the objective and the subjective elements in the principles of management and reveal their interconnection, to show the place these principles occupy in the body of scientific knowledge by examining how the objective laws of societal development affect the principles of management and, subsequently, the practices of managing production.

The mechanism of applying the principles of management is connected with the activities of the managerial staff: it is implemented through Party guidance in the economy and by improving the economic mechanism and the management of social production at all levels of the state economy. Efficient use of the advantages offered by the socialist economic system depends on the extent to which the principles of management are realised in practical activities.

The second point presupposes a theoretical substantiation of the principles of democratic centralism. Drawing on the experience accumulated in socialist construction, we shall examine how consistently the line towards a more extensive realisation of the principles of democratic centralism in the management of Soviet economy is followed.

In explaining the essence of the principles of democratic centralism it is important to show that stronger centralism and more democratic management constitute an integral whole.

In studying *the third issue* it is necessary to substantiate the thesis of the comprehensive nature of planning in the sphere of management of the socialist economy, to reveal the objective nature of this important principle and to cite some examples of applying it in the specialisation of management, its methods and forms.

Precise determination of the class position and Party approach to economic problems are decisive in dealing with *the fourth point*. Here it is necessary to recall Lenin's interpretation of the interconnection between politics and economics and to formulate the basic requirements of managers and supervising bodies in accordance with the principle of a political approach.

Correct coverage of *the fifth point* actually makes it possible to substantiate the need to study the course "Basic Principles of Scientific Management of Socialist Economy", to demonstrate the role of science as a powerful factor in raising the level of management and to appraise the essence and the content of the problems in this field which require scientific analysis and solution.

1. SCIENTIFIC AND PRACTICAL IMPORTANCE OF THE PRINCIPLES OF DIRECTING THE SOCIALIST ECONOMY

The fundamental differences between the socialist and the capitalist economies, which are rooted in the differences in respect to the relations of ownership of the means of production engender differences in those essential rules, methods and norms which underlie the mechanism of management. These general rules, divorced from a particular act of management, acquire the status of principles, and as a body they comprise a system of principles of management. These principles constitute the basis of the functioning of the entire management system. They also incorporate a total combination of stable rules governing the interaction of all links in the chain of management and the most important formulae of management relations which are based on the objective laws guiding the development of social production.

The principles of managing production constitute a kind of a bridge closing the gap between the regular features in the development of social production and the every-day practical activities of people engaged in production. On the one hand, the principles of management are an embodiment of the objective laws in the development of production within the bounds of the existing system of management aimed at ensuring favourable conditions for the manifestation of a particular law or a regular feature. On the other hand, when they operate as a general rule, the principles of management evolve on the basis of practical management and incorporate those features of managerial activity which prove to be most efficient if estimated by the goals pursued by a particular management system and the results achieved.

The principles of management are an embodiment of the laws governing the development of social production and, consequently, they are objective by their very nature. At the same time, they are not devoid of some subjective elements. All principles are elaborated and formulated by people who put them to practical use.

Social production is constantly developing. This requires a partial or profound revision of some principles to bring the body of these principles in accordance with the requirements arising from the operation of objective laws.

It is possible to identify general principles within the overall system of principles. General principles are formed on the basis of the functioning of the entire system of economic laws, and they must be realised in the activities of the managerial staff regardless of the specific features of the problems to be solved. These principles play a particular role, for they actually constitute the basic rules to be followed in making any decision.

At the same time, a number of these principles are specific in nature. They can and should be perceived as the basic principles only within the framework of some local managerial problems, within a limited range of practical activities connected with management.

As an example of general principles we can cite the principle of democratic centralism, the principle of planning, the principle of scientific substantiation. It should be noted that within the range of the issues with which we associate specific principles, the latter play a very important role. Disregard for them undermines the efficiency of management in the sector concerned.

For example, the principle of material incentives is not among the general principles of management. The principle of planning places more rigid requirements concerning the functioning of the mechanism of managing production. It is with due account of this principle that for political, ethical and other reasons, it was found more expedient to retain in some sectors of socialist production enterprises bringing little or no profit than to close them down. At the same time, the principle of material incentives acquires particular importance when an enterprise operates on the profit-and-loss basis.

Lenin elaborated and formulated many general and specific principles applicable to the management of the socialist economy when the foundations of a new, socialist state were laid. These principles today are applied by the bodies responsible for economic management in the Soviet Union.

2. THE PRINCIPLE OF DEMOCRATIC CENTRALISM IN MANAGEMENT

The principle of democratic centralism is not only the basic principle in the system of general principles of managing socialist production: under socialism it serves as a basis for the formation of social relations in many aspects in the activities of work collectives.

Objective preconditions for making management more democratic emerge already at the stage of capitalist production. With its growing concentration and centralisation, production becomes more socialised making it a catalyst in the process of bringing people together to work in organised and smoothly functioning work collectives. At the same time, because of the antagonistic contradictions permeating the capitalist mode of production, a high degree of centralised management of socialised production is patently despotic in its very nature, for the capitalist organises production to suit only his own interests and regards the worker only as an intermediate factor in increasing profits, a live machine.

This contradiction is resolved only with the liquidation of the capitalist system; the working people become the masters of the state and the economy. The management of socialist production then becomes truly democratic. It is performed by the working people and in their interests.

Democratic centralism implies an organic combination of the centralised management of the socialist economy with economic independence and the initiative of work collectives.

The principle of democratic centralism evolves on the basis of the public ownership of the means of production. As the main productive force in society and the collective owner of the means of production, the workers are interested in their better use. They can realise that interest by participating in and improving the management of social production.

Lenin regarded democratic centralism as an inseparable unity of unbounded democracy granting full freedom for creativity, initiative, control and the participation of the masses in running production, and the most rigid centrali-

sation reflected through centralised and more firmly unified management, an increased responsibility for one's work and in the subordination of the minority to the majority.

In examining the essence of democratic centralism it is important to understand the dialectical unity between centralism and democracy.

This unity pervades all levels of management. It permeates all centralised forms of management established to ensure coordinated and concerted actions of individual work collectives and economic sectors aimed at making the most rational use of all available resources and the entire potential of the socialist society in the interest of the people.

Lenin noted: "Our task now is to carry out democratic centralism in the economic sphere ... centralism, understood in a truly democratic sense, presupposes the possibility, created for the first time in history, of a full and unhampered development not only of specific local features, but also of local inventiveness, local initiative, of diverse ways, methods and means of progress to the common goal."¹

The principle of democratic centralism presupposes the strengthening of one-man management which implies a high degree of organisation and strict discipline. Without one-man management it is impossible to organise large-scale industrial production requiring the strictest and unconditional unity of the will guiding the concerted work of thousands and tens of thousands of people. At the same time, one-man management must be supplemented by the principle of collegiality. Democratic centralism is unworkable without a rational combination of one-man management and the principle of collegiality in directing production. In making his decisions, the manager must listen to specialists and must organise and channel their work aimed at analysing existing shortcomings and elaborating options for the most important decisions. Speaking of the need to learn management, Lenin said that "this calls for modesty and respect for the efficient 'specialists

¹ V. I. Lenin, "Original Version of the Article 'The Immediate Tasks of the Soviet Government'", *Collected Works*, Vol. 27, Progress Publishers, Moscow, 1965, p. 208.

in science and technology', and a business-like and careful analysis of 'our numerous *practical* mistakes, and their gradual but steady correction".¹ He criticised managers who abused power, disregarded views of specialists and the collective and shirked personal responsibility. Stressing the need for a collective discussion of more intricate problems, Lenin insisted that people should bear personal responsibility for their solution.

Developing on the basis of equitable rights of managers and workers alike, as regards the means of production, democratic centralism presupposes comradely cooperation and mutual respect for the dignity of all conscientious workers as an indispensable element in the relations among people grappling with problems of production.

The problems linked with the harmonious combination of the principles of centralism and democracy in economic management were reflected in many decisions adopted by the Communist Party and the Soviet Government. These decisions particularly stress raising the role of work collectives in the management and planning of production, training and employing people, improving and organising labour, improving working and living conditions, strengthening discipline and nurturing a communist attitude to work.

3. PLANNING AS A DISTINCTIVE FEATURE IN DIRECTING SOCIALIST PRODUCTION

The socialist economy is an integral economic entity comprising all sectors of expanded reproduction including production, supplies, marketing and finances. State plans for the development of the national economy and socio-economic development serve as an organisational basis for supervising this process.

The methods and the practice of economic planning by the state is an embodiment of a major principle in directing socialist production, the principle of planning. This principle is based on the law of the planned and propor-

¹ V. I. Lenin, "Integrated Economic Plan", *Collected Works*, Vol. 32, Progress Publishers, Moscow, 1977, p. 145.

tional development of the socialist economy.

Socialist planning relies on a scientifically-substantiated identification of social needs and requirements and the ways of satisfying them on the basis of a steady growth of production and greater efficiency.

One of the cardinal advantages of the socialist mode of production over the capitalist is the higher level of socialisation. In order to utilise this advantage to raise the level of production efficiency, it is necessary to ensure the establishment of a balanced number of economic sectors, which expands with the rising level of socialist production, and more intensive ties between these sectors. As Lenin noted: "Socialism is inconceivable without planned state organisation, which keeps tens of millions of people to the strictest observance of a unified standard in production and distribution."¹

The principle of planning is not confined to the economy alone. It is also used to solve social problems aimed at raising living standards. These problems are examined and tackled not only on the nation-wide scale but also by individual regions, economic sectors and enterprises.

Planning is closely associated with democratic centralism, it strengthens and fortifies the latter. At the same time, the forms of planning bear the imprint of democratic centralism. For example, in performing its economic functions as an organising body, the socialist state organises the centralised planning of all economic sectors. Centralism in managing the economy, and first and foremost in planning, is the supreme advantage of the socialist economy. Centralised planning is the basic and guiding function of management, the starting point and the base of the management of the socialist economy. The economic plan of socialist society is the basis of the activities of all managerial bodies, associations, enterprises, establishments and organisations. The comprehensive and obligatory nature of socialist planning is its distinguishing feature. Management of the economy based on democratic centralism requires strict planning discipline and a more responsible attitude to the fulfilment of state plans.

¹ V. I. Lenin, "'Left-Wing' Childishness and the Petty-Bourgeois Mentality", *Collected Works*, Vol. 27, Progress Publishers, Moscow, p. 339.

4. THE PRINCIPLE OF A POLITICAL APPROACH IN DEALING WITH ECONOMIC PROBLEMS

The principle of a political approach to the solution of economic problems arises from the very essence of the management of social production and exists in any socio-economic system.

In analysing the dual nature of managing production in capitalist society Karl Marx affirmed the proposition that in a class society management is of a class nature and is performed in the interest of the ruling class which owns the means of production. In itself, the striving to produce material goods at the lowest possible cost of aggregate labour, is a manifestation of the general law of saving time and is indispensable for social progress. However, the socio-economic results accruing because of the operation of this law in capitalist society are appropriated by the bourgeoisie. In capitalist society production management at enterprises, firms and monopolies is aimed at ensuring maximum profit in proportion to invested capital. This cannot be attained without the intensified exploitation of the working class.

Lenin substantiated the principle of a political approach to resolving economic problems in the communist socio-economic system. Revealing the nature of the inner connection between economics and politics, Lenin noted the priority of economics as the basic phenomenon, while regarding the political superstructure in social relations as an extremely important factor due to the influence it exerts on economics. In his article "Once Again on the Trade Unions", he wrote that "politics must take precedence over economics".¹ Moreover he noted: "... without a correct political approach to the matter the given class will be unable to stay on top, and, consequently, will be incapable of solving *its production problem* either".²

The CPSU consistently pursues the principle of a political approach to the solution of economic problems, while retaining the role of a guiding, organising and con-

¹ V. I. Lenin, "Once Again on the Trade Unions", *Collected Works*, Vol. 32, Progress Publishers, Moscow, 1977, p. 83.

² *Ibid.*, p. 84.

trolling force in society. The external and internal policy of the Party is aimed at satisfying and safeguarding the interests of the people. A political approach to the solution of economic problems and the development of the socialist economy proves that the implementation of its social programmes is the supreme goal for the Party's economic policy.

The principle of a political approach is the basic rule in the activities of economic managers at all levels of social production.

Any economic problem must be resolved within the context of the general task of communist construction.

Big as well as "small" economic problems at a socialist enterprise can be resolved in a better way if tackled from a political angle. The active participation of Party organisations and Communists in the discussion of the tasks facing them and useful assistance to the administration in the elaboration and adoption of decisions, have become an accepted practice of work collective in enterprises, design offices and institutions of higher learning.

5. SCIENTIFIC SUBSTANTIATION AS A GUARANTEE OF EFFICIENT MANAGEMENT

The application of Marxist-Leninist teachings as a methodological scientific foundation for the theory and practice of the management of socialist production, is the most important distinguishing feature of the socialist school of management setting it aside from various bourgeois pseudo-scientific schools. Scientific support of the management of the socialist economy is one of its general principles. Its consistent implementation makes it possible to create an entire system of management based on an uncompromising, scientific analysis. Here, one should bear in mind, that the complexity and diversity of such a problem as socialist production requires the constant expansion and improvement of knowledge about various aspects of the interdependence of relations of production which is a decisive factor influencing the structure, composition and the laws governing the functioning of the systems of management.

To deal with many serious problems it is necessary to scientifically describe socio-economic processes and objects and their existence in time. Purely economic processes and phenomena intertwine with those of a socio-psychological character which sometimes seriously impedes research. A scientific approach to the analysis of human practices in this field is the only reliable means of guaranteeing success. This is incompatible with subjective methods in management, ignoring or repudiating objective laws of the development of social production. Subjectivism in management is a dangerous phenomenon because it breeds unsound decisions, disorganises work and evokes mistrust towards executives, thus doing considerable economic, moral and political damage to society.

A scientific approach to management encompasses a wide range of measures intended to improve planning, develop the system of material incentives, improve the structure and functions of managerial bodies, introduce automated management systems, improve the scientific substantiation of decisions and raise responsibility for their implementation, improve work with the staff and organise personnel training, and to make management still more democratic.

The feasibility of a scientific approach to managing socialist production rests on several factors. First of all, it is a fact that with the means of production in the hands of the people it became possible to establish a single economic centre—the socialist state. Political and economic power belongs to one supervisory body. This is extremely important for drafting plans and for the implementation of all necessary scientifically-substantiated measures needed to administer the economy on a nationwide basis. The second factor is the successes scored by socio-historical sciences. The discovery and formulation of the objective laws of the development of society is an achievement of the Marxist-Leninist theory of evolution. Cognition of these laws opens up good prospects for supervisors and equips them with the scientific knowledge necessary for planning and management. The third factor is the experience of socialist construction. The valuable experience amassed by the managers of socialist production, the extensive initiatives of the workers

in the search for new managerial approaches to organising production, the results of well-prepared, implemented experiments aimed at improving the economic mechanism—all this provides ample nourishment for the generalisation and the further development of the theory of management, thus ensuring a constant growth of the efficiency of social labour.

SELF-TEST QUESTIONS

1. What are the principles of management?
2. How do these principles tally with economic laws?
3. What are the objective prerequisites for democratic centralism in the management of socialist economy?
4. What role does planning play in raising the efficiency of social production?
5. Explain the correlation between the concepts of “economics” and “politics”.
6. What are the factors making it possible to apply scientific methods of management under socialism on the scale of the entire national economy?

Chapter 3

FUNCTIONS OF MANAGEMENT IN SOCIALIST ECONOMY

KEY POINTS

1. Functions of management. Their content and types.
2. General functions of management.
3. Specific functions of management.
4. Interrelation and correlation of general and specific functions of management.

Discussion Hints

In the study of *the first point* one should focus on the objective nature of the functions of management. They constitute the cornerstone for the construction and improvement of the management pattern and the scientific organisation of managerial functions.

The objective prerequisites for the development of managerial functions are the following: the emergence of more complicated tasks as the socialist system develops; the stable development of social production on the basis of accelerated scientific and technological progress and economic integration within the world socialist economic system.

In examining *the second point* it is suggested to analyse the essence of the management cycle from the viewpoint of the consistent fulfilment of the general managerial functions, as well as in terms of their efficiency.

The third point is devoted to the investigation of specific functions of management in each subgroup

singled out for their particular features, and to revealing the links existing between them.

In covering *the fourth point* it is important to show the correlation and reciprocal influence of the general and specific functions of management.

1. FUNCTIONS OF MANAGEMENT. THEIR CONTENT AND TYPES

Management functions is the central issue in the theory of the management of the socialist economy. It reveals the essence and content of management at all levels—from the problems involved in the administration of a small enterprise to the management of the national economy. Due to the intricate nature of production and the problems related to its management, it is quite natural to single out individual functions performed in this process. These functions emerged and developed as a result of the division and specialisation of management prompted by the development of productive forces and relations of production in society.

The function of management is a special kind of managerial activity engendered by the division of labour and specialisation in this process. The study of the functions of management in production is of great practical value, for they to a considerable degree determine the internal structure of managerial bodies. An improvement of the management structure established to supervise production, necessitates an analysis to establish whether the pattern of the management apparatus corresponds to its functions. The need for this correlation has become particularly clear today when the Soviet Union and some other socialist countries have begun to restructure their management systems, and as they are being improved, these countries redistribute management functions in production and economic activities of individual supervisory bodies.

The separation of the managerial functions depends first of all on the specific features of a particular objects of management. That is why the diversity of the objects of management requires most diverse managerial functions. Moreover, even when just one object is involved,

management can be particularised to such an extent that it will clearly and rationally reveal functional specialisation. Thus, even when one distinctive feature of an object of management is considered, for example, its scale, we can also observe substantial differences in the functional make-up of a particular type of management. Indeed, the development of social production on the basis of intensified scientific and technological progress requires expanded and developed cooperation in labour and, consequently, makes the functions of management more complex and labour-intensive. Obviously, it is much easier to supervise just one enterprise with a staff of 100 workers than a production association with fifteen thousand employees.

Under socialism, with a country-wide cooperation of labour, we witness for the first time in the history of social production, the formation of the functions of managing the socialist economy on the scale of the entire national economy. In their content and purposes, managerial functions reflect the operation of the objective laws of the development of social production.

The development of the functions of management under socialism is connected with the growing complexity of the tasks involved in perfecting socialism, the changes in the structure, scale and intensification of social production, intensification of production and other factors.

The aggregate of all managerial functions reflects the essence of the work performed by the managerial staff to fulfil specific assignments, as well as the activity required to supervise particular projects as a whole. For example, such functions as collection, transfer, storage, retrieval and analysis of information are part and parcel of the activities performed by the staff carrying out an expanded informational function of management. The process of management as a whole is reflected in such expanded functions as information, coordination, planning, stimulation, control.

The scale of managerial functions depends on the degree of specialisation in management and can range from the performance of elementary operations such as the filing of a document, to an integrated function such

as organisation of production and control over the activities of the administration which are composed of a number of more simple functions. The growing scale and sophistication of cooperation in production and the deepening division of labour bring in their wake new types of management. However, each bears the distinctive features of management in general. In this sense the evolution of management can be perceived as its differentiation into relatively independent functions necessitated first of all by the need to meet the requirements of production.

The natural diversification of the managerial functions places on the agenda the need to bring and classify them into a system. This is indispensable for the elaboration of methodology and improving managerial practices. A scientifically-substantiated classification of functions makes it possible, with a certain degree of precision, to compose a model comprising functions necessary to manage a particular entity: such as an enterprise, an association or a sector. This, in turn, is important in making a choice of a rational structure of management. It makes it possible to carry out a large-scale standardisation and unification of management, easier to disseminate progressive methods of management and creates favourable conditions for an efficient use of modern management equipment and economico-mathematical methods.

At present, publications at home and abroad on the subject of economic management offer a wide choice of classifications of managerial functions, which are frequently at variance with each other. This can be explained by the fact that an increasingly more sophisticated production makes it difficult, if not impossible, to choose a universal classification feature on the basis of which managerial functions assigned to different groups would most fully and comprehensively characterise managerial activities. That is why we shall deal here only with the most accepted classifications comprising two groups of functions, general and specific.

2. GENERAL FUNCTIONS OF MANAGEMENT

General functions of management are those which are necessary for the successful operation of any managerial system. These are: 1) planning; 2) organisation; 3) coordination; 4) motivation; 5) control including accounting and analysis. A consistent performance of these functions ensures proper management of any object; the national economy, an economic sector, an enterprise, scientific and technological progress, or personnel.

The general nature of these functions indicates that they are determined by the character and the goals of management and are inseparable from any managerial activities, since management is unthinkable without them. In a certain sense these functions are universal because they are applicable at any managerial level in the activities of any administrative body, irrespective of its specific functions. General functions of management are performed at a ministerial or departmental level, as well as at enterprises or associations.

Whatever the level of management it is necessary to use the functions they share as an inseparable whole. However, each task or each common function acquires its own precise significance depending on the level of management, the range and scope of particular tasks.

Let us examine the content of the general functions of management.

Planning is the central link, the kernel in the management of the national economy under socialism. The ability to plan on the scale of the entire social production is a cardinal advantage of the socialist mode of production. Lenin noted that socialism is unthinkable "without planned state organisation, which keeps tens of millions of people to the strictest observance of a unified standard in production and distribution."¹

Central administrative bodies, the USSR Council of Ministers, the USSR State Planning Committee, draw up plans to identify the goals and tasks to be dealt with at a certain level of management. In this sense, planning

¹ V. I. Lenin, "'Left-Wing' Childishness and the Petty-Bourgeois Mentality", *Collected Works*, Vol. 27, Progress Publishers, Moscow, 1965, p. 339.

is closely associated with the identification of the goals of management and the elaboration of a programme for the attainment of these goals. A scientifically-substantiated concrete plan serves as the foundation for the subsequent functioning of the entire system.

The function of planning in the Soviet Union is performed by specialised planning bodies at all levels of management of social production: the USSR State Planning Committee and its republican and local branches.

Planning as a function of management is the most important sphere of activity not only of these specialised planning bodies but also of all other organs of management. Whatever their level, all of them, from branch ministries to individual enterprises and production shops, are engaged in planning within their terms of reference. Naturally, the scope of planning varies considerably depending on the level of planning and the specific tasks tackled at this level.

The role of planning acquires particular importance at the stage when the goals of management are set and programmes for their attainment are elaborated. Economic progress at a particular stage largely depends on the extent to which various factors linked with the economic, technological and social development of the country are taken into account.

In considering planning as a function of management it is important to keep in mind another major circumstance, that planning is not only a specific kind of purely economic activity. It also involves the elaboration of social problems which have to be resolved to raise the standard of living. In other words, planning is a comprehensive social phenomenon taking into account all aspects of economic practice, including social relations in a particular production unit, as well as within the framework of the entire economy.

Forecasting is a major component of planning. Today, in all countries the most serious attention is paid to drawing up long-term forecasts. Forecasting pursues the following goals: to prepare a scientific forecast by identifying the trends in the development of internal ties, dependencies and specific features of economic phenomena; to reveal the trends in, and the rate of development of

economic phenomena and find solution that would ensure the optimal performance of the economy as an integral whole, as well as of regions, sectors and individual enterprises.

In all socialist countries, scientific forecasting is regarded as a major component of planning in all economic sectors and at all levels. The elaboration of forecasting reveals qualitative and quantitative specific features in social development and makes it possible to evaluate the prospects for development and identify the most promising trends in, and forms of, social, economic, scientific and technical policies. Thus, forecasts help draw up realistic plans at all levels of economic management. As an inalienable part of socialist planning, forecasting consolidates its scientific foundation.

At present, achievements in various branches of science, and first of all in mathematics, cybernetics and systems analysis, are used in planning on a broad scale, and statistical methods are also employed more extensively. Economico-mathematical methods and modelling of economic processes are applied on a wide scale. The elaboration of intersectoral balances has led to the diversification of the system of balance planning calculations. The use of methods for the elaboration of more rational plans have become every-day practice. All this makes it possible to resolve the basic problem, that of raising the level of planning, a vital element in any management system.

Organisation is geared to the creation of an optimal structure of management and to finding the best correlation between the managing system and its object.

To manage a system, it is necessary to describe precisely the technologies and techniques involved, organisation and job rules and a proper correlation between fixed and circulating assets. An organised and properly managed system cannot do without an optimal work schedule. Labour cooperation implies the most efficient use of the available labour and material resources at all stages of production.

An organised managerial system provides for the strict definition of the structure and personnel capacity of managing bodies, their terms of reference, as well as for the

elaboration of the methods required for the managing body to be viable.

A strict delineation of the rights and duties of all working at various levels of management plays an important role in organised management.

Actually, organisation is a system of management incorporating stable ties between all participating in production. It involves certain rules to be observed by all bodies supervising the national economy. These ties are consolidated in appropriate regulations, charters and instructions.

Coordination is a means to ensure the day-to-day smooth functioning of various components of the management mechanism by establishing the most rational ties between them. It is an integral part of organisation activities. Management of social production by coordination is required to streamline all economic ties by studying and raising them to a qualitatively new level. Coordination is needed because ties within the national economy are steadily multiplying with the expanding scale of production and its specialisation and cooperation. In turn, this propagation of ties requires more data for directing social production, and the coordination of information.

For example, coordination is most clearly seen at the level of an individual enterprise or a production association when it more clearly defines individual functions of various productive and non-productive sectors, streamlining production. It is also seen in the coordination of individual labour processes and of schedules and sectors.

Motivation is a system of stimuli and sanctions intended to make every worker and each work collective more interested in making production more efficient and profitable. At the same time, it requires conditions that would fully reveal the abilities of the workers and stimulate their performance.

Control is the final stage of management. Its role as a component of management is explained by the fact that it serves as a means of establishing feedback ties. Control comprises record keeping, analysis and control proper which implies a comparison and appraisal of the results achieved in respect to these established tasks. In addi-

tion, control is part and parcel of all these functions. It makes it possible to improve the performance thus ensuring an efficient implementation of decisions.

Control means a regular checking of the performance of all managed objects and all sectors of production. It makes it possible to discover the reasons for inadequate performance and to take steps to rectify the situation.

Record keeping is a major element of control, its preliminary stage. It involves supervision, collection and processing of information relevant to a particular process. Recording does not lead to the determination if the results fall short of the goal. This evaluation is made in analysing available data. Control, recording and analysis are intertwining functions. They are of great importance in the establishment of an informational basis required for arriving at sound decisions as regards the identification of the goals, the elaboration of the plan and detailing of the tasks.

3. SPECIFIC FUNCTIONS OF MANAGEMENT

Functions singled out as a result of the specification on the general functions of management are called specific functions. They are revealed in the supervision over certain stages of production and management processes, as well as social and material conditions for implementing these functions. Their scope depends on the degree of management specification. Specific functions reflect to a considerable extent the autonomous nature and concrete features of all links in the chain of management. Thus if we want to make a more thorough study of a particular management system we should select and analyse more specific functions.

At present, there are various views as regards the quality and content of the specific functions of management. Experts in this field differ as to the number of these functions. The list below can serve as typical of specific functions of management:

- general supervision over a particular object;
- information services;
- production design;

- technological support of production;
- standardisation and specification of products, technological processes and other components of production;
- organisation of labour and remuneration;
- instrument supply;
- energy supply;
- quality control;
- laboratory services;
- transport facilities;
- operational control of production;
- material and technological supply and marketing;
- accounting and financing;
- health and labour safety;
- inventions and rationalisation;
- personnel recruitment and training;
- general clerical work;
- economic services.

Various classifications share one general shortcoming: they do not draw a clear-cut distinction between types of management in some fundamental qualities. That is why some Soviet researchers add to this list certain functions subdivided into groups according to particular indicators, for example, the degree of independence and specific features of a supervised system:

Functions reflecting the composition of the national economy *by sectors*. According to this indicator, there are two groups—one of the functions of management in material production and the other in the non-production sphere. In turn, functions of management in material production are subdivided into those of management in production and those of management in circulation. The former comprise the functions of management in industry, agriculture, construction, transport and communications, while the latter include the functions of management in trade, finances, material and technological supply. The functions of management in industry are subdivided into the functions of supervision in the power, chemical, machine-building and other sectors.

Functions reflecting *the territorial distribution* of social production. This indicator makes it possible to specify the functions of management in the economy on

the scale of the country, a Union or an Autonomous republic, the functions of management within the bounds of a territory, a territorial-industrial complex, a region, a city or a district.

Functions reflecting the *levels of management*, i.e. the national economy, a sector, a Union (Republican), industrial association, an enterprise, a shop, an industrial group, a team.

Functions reflecting *the stages and individual elements* of the social *reproduction* cycle, management of the technological support, the day-to-day management of production, quality control, personnel policy, the involvement in scientific and technological progress.

4. INTERRELATION AND CORRELATION OF GENERAL AND SPECIFIC FUNCTIONS OF MANAGEMENT

The management of socialist production implies the fulfilment of its general and specific functions. What is the correlation of these functions? Economic activity is becoming increasingly integrated and we see the intertwining of general and specific functions. For example, such general function as planning can only be performed in certain organisational forms, in certain procedures for the elaboration of plan indicators (this is an element of organisation in planning). It can only be performed with these indicators properly linked (here we see an element of their coordination).

Planning activities imply the search for more progressive and serviceable indicators, for it is a stimulating element. Account is taken of all deviations from the plan and these deviations have to be rectified as it is being fulfilled. These are elements of control and regulation. In this work other basic functions play an auxiliary role as regards planning.

The planning (basic function) of technical and technological preparation of production (specific functions) can serve as an example when the basic and specific functions coincide. The general function of planning is revealed in these specific functions in the process of product

design, drawing up technical documents, the production of special auxiliary parts.

The correlation of the two specific functions can be presented as an interrelation between the functions of labour organisation and wages and control over the material and technical supply.

Managerial bodies and services are set up on the basis of the synthesis or integration of the general and specific functions of management. This is collaborated by the designations of many bodies supervising the work of enterprises and shops, such as the planning and economic department, the department of technical control.

As economic experiences reveal there is often an unbalanced distribution of functions between various managerial bodies. One can observe a scattering of functions or their parallelism when one and the same function is performed by various managerial bodies or, on the contrary, only one body performs several functions simultaneously.

The separation of individual functions of management leads to the creation of an organisational management structure. Special supervising bodies are established to perform particular functions. However, sometimes some functions are performed by other bodies rather than the staff of a particular managerial body. This can be due to various reasons such as the need to perform a specific managerial function at a higher level or when a particular body lacks the specialists it needs for performing a particular function.

The accelerated socio-economic development of the Soviet Union mapped out by the 27th CPSU Congress stimulates the search for more efficient forms of management and makes it imperative to review the functions of management at all levels. Specific functions to be performed at all levels of management are defined. These include ministries, science-and-production associations, enterprises. It is due to the need to upgrade or, in a number of cases, radically overhaul the structure of managerial bodies, overcome inertia and eliminate stagnant forms and methods of management. For example, the State Committee for Agriculture and Industry of the USSR (*Gosagroprom*) was established on the basis of

several ministries dealing with agricultural problems. The functions of management have to be revised because it is necessary to cut down managerial staff. In implementing these reforms particular attention is paid to maintaining strict unity, continuity and persistence in performing these functions at all levels, their clear-cut and precise distribution among specific bodies of management.

SELF-TEST QUESTIONS

1. What do the functions of management imply?
2. What are the objective factors making the functions of management necessary?
3. What basic features are used to classify the functions of management?
4. What are the particular features of the general and specific functions of management and what is the correlation between them?

Chapter 4

THE SYSTEM OF METHODS USED IN THE MANAGEMENT OF THE SOCIALIST ECONOMY. LEGAL AND ADMINISTRATIVE METHODS OF MANAGEMENT

KEY POINTS

1. Methods of management and their correlation
2. Legal methods of management
3. Administrative methods of management

Discussion Hints

In dealing with *the first point*, it is necessary to realise that the goals of management are attained if managerial methods are efficiently employed on a wide scale. It is important to understand what methods of management exist, to cite examples showing the correlation between various methods and to substantiate the need for a comprehensive approach to their application.

In covering *the second point*, it is necessary to show how the state bodies responsible for the management of the socialist economy make use of legal methods. Law in the socialist state is called upon to ensure observance and protection of the interests of society, work collectives and rights of the individual.

In examining *the third point*, one has to get acquainted with the administrative methods and disclose the bonds existing between the legal and administrative methods.

1. METHODS OF MANAGEMENT AND THEIR CORRELATION

In the process of management, the subject directs the object to attain the desired goal. It should be noted that the kind and nature of management can differ even with the same final goal.

Let us assume that a plant needs to upgrade the quality of its products. This task can be tackled by various means, for example, by improving technologies, replacing or modernising equipment, rationalising production, levying fines for poor quality or paying bonuses for the output of high-quality goods, by organising socialist emulation among the workers for improving the quality of manufactured products. It is possible to apply several methods simultaneously. Experience in the field of management suggests the most expedient forms and methods of influencing objects of control, excluding methods producing little or no effect whatsoever. The generalisation of positive experience and the examination of the general features of management, make it possible to draw up scientifically-substantiated recommendations indicating how to synthesise socio-economic and organisational technical schemes of management. It is close interaction between science and practice that encourages the elaboration of stable and extensively used methods and techniques employed by the subject of management to influence the object of control.

In the science of management, stable and efficient methods and techniques used to attain particular goals are called *methods of management*.

Despite the fact that these methods are quite diverse, all are used to influence a particular production team or its individual members. This influence is closely associated with motivation, or the formation of a motive or stimulus, for orienting the actions toward the desired direction in the consciousness of a group of people or individual members of the collective.

Requirements and interests are the driving force in man's behaviour. Requirements perceived as desires, goals are an urge to action. An active role of the method of management for stimulating purposeful behaviour of indi-

vidual workers or a collective is linked to the fact that this method is first of all intended to mould a certain pattern of requirements.

The nature of this pattern determines the motivations and the goals of specific methods of management. We can single out three such methods: authoritative, moral and material.

Authoritative motivation relies on state law, order, subjugation to the senior official. This type of motivation is one of the more prominent methods used. Thus, the system of laws, norms and rules established by state bodies is obligatory for all citizens. Normally, these laws, norms and rules are observed in the socialist state because its citizens voluntarily and conscientiously accept them. However, in conflict situations and in cases of unforeseen or intentional deviations from the requirements of socialist laws, the state resorts to coercion through the mechanism established by it to protect the interests of society, work collectives and individual citizens.

Relations between the supervisor and the workers in a work collective are also pregnant with authoritative elements. Their respective rights and duties require such relations when orders and instructions of the former are obligatory for his subordinates. When these relations are undermined by a worker the supervisor can invoke sanctions such as a reprimand, deprivation of bonuses, dismissal from work.

Thus, authoritative motivation is based on the ability to make the worker perform in a prescribed manner. However, the use of this motivation alone does not make it possible to fully mobilise the creative activity of the collective and its members for a successful solution of the problems facing them. To ensure maximum success one has also to resort to the methods appealing to other motives in human behaviour.

Methods appealing to spiritual interests, moral concepts and social consciousness are strong motivating force.

Moral concepts are one of the forms of social consciousness which is a function regulating human behaviour in all spheres of social life. They also play an important role in social production management. Moral motiva-

tion has to be backed by favourable public opinion. It follows the exemplary behaviour of others and is ideologically substantiated. The movement for "communist labour", the competition for the title of "front-rank worker", the implementation of the Party line for communist education of the youth, are all based on numerous examples of good work.

Socialist morals are societal by their very nature: they reflect the harmony between the interests of a labour collective and its individual members. The use of moral incentives is exceptionally intricate and calls for particularly subtle methods. It is much more difficult to assess its effect than when other kinds of motivation are used. However, its results can be much more rewarding than those achieved by the application of other methods.

Material incentives are the most widely used type of motivation. Socialist relations of distribution are based on the law of distribution according to labour when material rewards depend exclusively on the volume and quality of the labour input. Material motivation can be geared to meet the interests of the entire society, a collective or individual people.

For example, the country-wide discussion of major plan figures incorporated in the Guidelines for the Economic and Social Development of the USSR for a Five-Year Period for 1986-1990 and the Period Ending in 2000, is an element not only of moral stimulation but of material, society-orientated stimulation as well. Such discussions stimulate people because they mobilise them for the attainment of the plan targets. The progressive wage-scale at enterprises is an example of the collective-orientated material motivation. Finally, the use of the distribution mechanism by applying the coefficient of the labour of each worker, when labour is organised on the team basis, is an example of the individual-orientated motivation.

Material motivation is used both as a form of a material reward according to the quantity and quality of labour and as a form of material sanctions against inadequate performance in respect to the quality and quantity of labour.

It should be noted that none of the methods of

management is “pure”, influencing only one of those motivation groups. More often than not, this method comprises elements of various incentives. Sometimes it is even difficult to identify the predominant indicator or a particular method of management. Indeed, it is difficult to say, for example, to what extent in the eyes of the worker material considerations in receiving a small bonus for good quality exceed its effect as a moral stimulus.

The experience of management reveals that an application of the above methods in their combination brings the best results. Such a comprehensive approach to management makes it possible to consider to a greater extent the objective laws governing the development of social production. It reinforces psychological motivations behind the behaviour of the people within the framework of social production.

Still, it is more expedient to make a concerted and simultaneous use of several methods as a complex or a system of ways and means to attain the eventual goal of management.

A comprehensive approach to the study and elaboration of managerial methods makes it possible to speak of the methods used in managing socialist production as a system rather than a random, haphazard set of methods. By analysing a set of methods used as a system one can appraise the effectiveness of the complex influence exerted by the subject of management on the object of control to achieve the desired result by the most rational means.

One can distinguish the following basic groups of methods which are employed in running socialist production: legal, administrative, economic and socio-psychological. In the present chapter we shall dwell on the first two groups of methods.

2. LEGAL METHODS OF MANAGEMENT

In performing its economic and organisational functions the socialist state supervises a complex system of social relations in the national economy. It is the supreme legislative and executive authority and the supreme body

in the management of social production.

Legal norms play an important role in carrying out economic and organisational functions by the socialist state.

In the Soviet Union the state approves by law the guidelines for the economic and social development of the country elaborated by the Communist Party. It defines the organisational structure, the terms of reference and the legal status of state management bodies.

Legal norms in the management of socialist production regulate relations among workers in the process of management. They form a system of legal guarantees for a normal functioning of the economic mechanism.

Legal regulation of economic relations comprises two elements: the elaboration of legal acts and their implementation.

Legal acts issued by the state management bodies (decrees of the USSR Council of Ministers, decisions of the executive committees of the local Soviets, instructions issued by ministers) are based on laws and must correspond to them to the letter.

Legal acts determining material incentives and establishing property responsibility in production and economic activities of socialist enterprises and organisations, play a prominent role in the practical implementation of the legal methods of management.

Today particular importance attaches in the Soviet Union to the application of legal sanctions to organisations and enterprises which do not fulfil their plans or do not implement their contractual obligations. This is determined by the role of economic contracts in directing the socialist economy. In the planned economy, an economic contract is the basic form legalising production and economic ties of socialist enterprises and organisations and is the most reliable means for strengthening and developing the profit-and-loss accounting system and for rendering the activities of the primary units of social production and the national economy as a whole more efficient.

An economic contract is a civil legal contract entered into by socialist enterprises and organisations. An economic contract is concluded in accordance with the plan

and establishes corresponding rights and obligations of the parties concerned.

The economic contract provides for mutual control over the fulfilment by the parties of their reciprocal obligations with each having the right to apply sanctions against the property of the other in case of the breach of commitments by the latter.

The right of the worker to be paid for his labour in accordance with the quantity and quality of his work is an efficient instrument of legal regulation under socialism. Remuneration according to the work done is the main source for satisfying the material and intellectual requirements of the working people. The principle of material remuneration for labour is reflected in the system of the legal regulation of salaries and wages. Payments for work are regulated in detail by relevant normative acts.

On the basis of legal regulation the socialist countries have settled the problem of work hours thereby determining the labour-and-rest ratio. On the one hand, the state resolutely fights against losses of work time (absenteeism, lateness to work, distraction of workers and clerks from the performance of their duties) and on the other, this regulation prohibits the extension of work hours beyond the established maximum. In the Soviet Union a normal workweek cannot exceed 41 hours.

Actually, the legal methods of management are based on the regulation of the interaction between various sectors of social production: enterprises, employees and the organisation where they work, between a ministry and a production association within the former.

Most normative acts are universal in the sense that they are applicable to many similar economic situations. They establish the rules and tempo of work and serve as a basis for decision-making in various specific situations.

At the same time, social production varies to such an extent that it cannot be tied in directly with the system of legal acts operating in the country however extensive and detailed that system may be. There is a need for more flexible forms of management than just legal regulation so that major or lesser problems constantly arising in production could be expediently solved. That is why

administrative methods of management are a logical follow-up of the legal methods in the every-day activities of an enterprise (organisation).

3. ADMINISTRATIVE METHODS OF MANAGEMENT

Administrative methods of management are an extension of the legal methods of management, their concretisation in conditions of an independent economic unit—an association, an enterprise or organisation.

Administrative methods of management are frequently called organisational-imperative methods emphasising by this definition their operative nature. These methods imply a direct centralised influence on the object of management. This influence is obligatory for the latter. It is based on imperative acts of the supreme bodies of management, including plans, instructions, statutes, orders.

Administrative methods are conditionally subdivided into three groups: organisational-stabilising, imperative and disciplinary.

Organisational-stabilising methods are used to determine how stable are the organisational links in the management system. They are the most important of the administrative methods. Organisational-stabilising methods are realised through the rules determining the norms of functioning for the supervising bodies and the workers, methods of administrative influence, as well as through the use of various norms. Thus, in the Soviet Union ordinances concerning the work of ministries, production associations and enterprises establish a certain order of their establishment and functioning. Job descriptions define the tasks, duties, rights and responsibilities of each worker. Stable scales of salaries and wages per rouble of output and remittances to the funds and credit payments, and other relevant norms, are also established.

A relatively prolonged period of operation is a distinctive feature of the organisational-stabilising methods. A correct application of these methods raises the level and efficiency of management and creates conditions ensuring its stability.

Imperative methods of influence reflect the flexibility of management and are applied to solve some specific tasks arising in production. Imperative methods incorporate orders, directions, instructions and differ as to the degree of regulation and details. All written documents or special oral instructions are addressed to a particular object. It is important that written or oral instructions be precise, detailed and purposeful.

Imperative methods are employed in every-day organisational work within the framework of the organisational system which is established on the basis of the application of the organisational-stabilising methods of influence. Sometimes there arise situations unforeseen by the existing norms and job descriptions of individual groups of workers or by statutes of individual managerial bodies. In such situations imperative methods are applied.

In general, these methods are often used to coordinate the efforts of the people involved in joint work for the fulfilment of specific tasks when external or internal conditions change (setting additional quotas by a higher body, elimination of the consequences of some interruptions and stoppages in work).

Disciplinary methods establish specific forms of responsibility upon collectives and individual workers for the fulfilment of their duties and carrying out their functions.

The proper functioning of all sectors of the national economy can be ensured only when the state plan is fulfilled and all workers precisely perform their duties and fulfil their tasks. The growing scale and complexity and the acceleration of social production entail the introduction of increasingly more rigid requirements of work discipline.

The strengthening of state, production and labour discipline requires the establishment of an efficient system of work control on the basis of strict accounting and through the application of material, moral and administrative measures.

On the whole, a system of disciplinary and responsibility measures is needed to maintain stable organisational-technical ties within the existing division of labour.

The three groups of administrative methods are inter-

related. They supplement each other in management and have to be kept in permanent harmony.

SELF-TEST QUESTIONS

1. What is meant by the method of management?
2. What is meant by the motivation of the method of management?
3. What is the role of the socialist state in the application of legal methods of management?
4. What is the classification of managerial administrative methods?

Chapter 5

ECONOMIC METHODS OF MANAGING THE SOCIALIST ECONOMY

KEY POINTS

1. Interconnection of economic methods of management and their role in managing the socialist economy.
2. Direct economic accounting.
3. Profit-and-loss accounting.

Discussion Hints

In studying *the first point* it is necessary to elucidate the connection between the reciprocal influence exerted by direct economic accounting and profit-and-loss accounting, to determine the role and place of each in the system of management of the socialist economy and to become acquainted with the system of economic indicators applied in running the socialist economy.

The second point is connected with the clarification of the basic features of the method of direct economic accounting as the main instrument in centralised management. Here it is necessary to substantiate the cardinal significance of elaborating the methods of centralised management as a powerful factor in raising the efficiency of social production under socialism.

In studying *the third point* it is necessary to reveal the role of economic levers and incentives in stimulating

the social factor in production, to disclose the interconnection between profit-and-loss accounting and the planned socialist economy and to show the operation of the distribution mechanism which requires that the profits of a socialist enterprise be used to raise the efficiency of social production.

1. INTERCONNECTION OF ECONOMIC METHODS OF MANAGEMENT AND THEIR ROLE IN MANAGING THE SOCIALIST ECONOMY

Economic methods play the key role in the system of methods applied in managing the socialist economy. These methods constitute the means of meeting the requirements of economic laws based on the application of economic criteria, estimates, levers and stimuli.

The degree of the development and the diversity of forms of socialist relations of production reflecting the unity of social, collective interests and interests of individuals—is reflected in the multitude of methods used to apply economic categories in managing socialist production. This diversity can be reduced to two basic trends of exerting influence on the socialist economy:

—one is linked with the centralised influence on the economy as an integral whole and its major subdivisions (regions, sectors) by the bodies of state management;

—the aim of the other trend is to elaborate and implement a system of measures intended to invigorate the activities of the lower links of the economic system, that is, associations, enterprises, work team and individual workers.

The sum total of the methods and means comprising the first trend comes under the heading: *the method of direct economic accounting*.

Direct economic accounting is based on the use of an integral system of economic laws operating under socialism. Cost categories are used here exclusively as a means of accounting. Essentially, it is an obligatory, centralised and planned method. Its obligatory nature means that all acts of exerting influence (goals, tasks, indicators)

performed through direct economic accounting are obligatory for all economic subdivisions which are objects of management. Centralised guidance implies that this method is applied on behalf of a single centre, the socialist state. Planning is a manifestation and implementation of this method applied through the integrated state plan. In the Soviet Union it is the state plan for the economic and social development of the USSR for a five-year plan period. The management of the socialist economy on the basis of the principle of direct economic accounting implies the solution of such major problems as the centralised distribution and redistribution of material, labour and financial resources aimed at ensuring the most efficient use of social production.

The aggregate total of the methods and means comprising the second trend is headed *the method of profit-and-loss accounting*.

Profit-and-loss accounting is based on commodity-money relations in conditions of socialist production. A new social content of these relations is determined by the planned nature of socialist production and distribution of benefits according to the labour input.

Profit-and-loss accounting implies the maintenance of relations of equivalent defrayal of expenses in production and marketing of goods and providing paid services, comparison of profits and costs and ensuring profits for associations and individual enterprises.

Direct economic accounting and profit-and-loss accounting are the basic methods in the application of socialist economic laws in management. Whereas direct economic accounting is based on the correlation of material, labour and financial resources at the level of the entire national economy, its sectors and regions, profit-and-loss accounting relies on the use of cost and natural indicators of the correlation of the inputs of labour and the results achieved by associations and enterprises.

Both methods intertwine and supplement each other when each makes use of such economic categories as wages, profits, credits.

The combination of centralised management and the economic independence of enterprises through the use of direct economic and profit-and-loss accounting,

can serve as an example of the practical implementation of the principle of democratic centralism in managing the socialist economy.

Economic methods are realised by the use of economic indicators which are, as a rule, a certain quantitative measure of a particular aspect or a property of the economic process. Assembled into logical entities, they form systems of indicators used by various objects of the socialist economy in management. They vary, comprising internal, accounting, natural and cost, absolute, as well as relative indicators.

Obligatory indicators to be fulfilled at all levels of economic management are established by higher organisations. These are, for example, the indicators contained in the state five-year plan for the economic and social development of the Soviet Union.

Internal indicators are established by managerial bodies of particular economic links (sectors, associations, enterprises) and are used to organise their own production process.

Accounting indicators are used to substantiate directive or internal indicators and they are calculated on the basis of internal ties and interaction of various elements of production. For example, the indicator of economic effectiveness which can be attained through the introduction of a new technology. Indicators in kind are used to establish or determine a balance of the material structure of production and plan. They are expressed in categories in kind (tonnes, hectares, kilowatts) and in the number of physical units of measured objects such as the workforce, the volume of production in pieces or tonnes, production area in square metres.

Cost indicators make it possible to express in money terms the volume of socially-necessary labour input embodied in a particular commodity. Thus, these indicators make it possible to compare different types of production in the distribution and redistribution of manufactured products.

Absolute indicators are used to identify the goals in the development of production, characteristics of its actual state at any period of time.

The main aim of relative indicators is to determine

or establish dynamic characteristics of development (rates, degrees).

Systems of indicators play an important role as an instrument of bringing into harmony and linking various economic methods.

2. DIRECT ECONOMIC ACCOUNTING

Direct economic accounting is a method of state management in the socialist economy carried out by the supreme bodies of state management aimed at putting into practice the objective economic laws of socialism by establishing scientifically based proportions in the structure of the national economy and ensuring their maintenance on the basis of strict state planning discipline.

Direct economic accounting methods are employed on the nation-wide, intersectoral, sectoral and territorial levels. Its goal, as a method of management, is to ensure a balanced correlation of national economic plans, distribution and redistribution of labour, material and financial resources in favour of the most promising sectors and regions and achieving the optimal rates in the development of the socialist economy as an integral whole.

The practical implementation of the direct economic accounting method is carried out along two basic lines: by exerting direct influence on the formation of resources which are the backbone of the work of major links in the economy (sector, region) for the plan period, and by influencing the use of the resources over the same period.

The range of the methods used in direct economic accounting is quite extensive, incorporating such means as centralised capital investments, budget financing, allocation of funds under the heading of material-technical supply, crediting, price formation.

Budget financing is a powerful lever in establishing necessary proportions in the national economy. It is carried out under the plan of capital investments and is the most important means of organising redistribution in the economy.

The allocation of funds within the limits of material and technological supplies is an organic supplement to budget financing, since in conditions of public ownership of the means of production the distribution of the latter is carried out in accordance with the economic strategy of the state. In practice, allocation of funds means direct allocation of resources.

Although providing credit is a less powerful factor within the overall direct economic accounting system, it is an extremely potent element. It is utilised to cover mostly capital expenditures not covered by the plan. The right to use credits is granted to those branches of the national economy which have good prospects for substantial and quick returns.

In conditions of socialist production, price formation is an efficient lever in management. The level of wholesale and retail prices is established by the plan because the stimulating effect of prices on technical progress at the higher levels of the socialist economy depends on it.

With a certain fixed level of wholesale prices, the lower branches of the economy (associations and enterprises) have to operate in the optimal regime in conditions of balanced relations of distribution between society as a whole and an individual collective, an association or an enterprise.

A lower level of wholesale prices is detrimental to the interests of individual work collectives, while higher prices negatively affect the interests of society at large.

As was noted, direct economic accounting is also applied to influence the use of resources at any stage.

The allocation of resources takes place at all levels of the economic system: bodies of state management allocate resources to sectors and regions; sectors and local managerial bodies distribute resources among associations and enterprises, while associations and enterprises supervise the use of the resources throughout the plan period.

The use of the resources by associations and enterprises in their economic activities must be balanced or synchronised with the production process as a whole. This is a positive aspect of planning and its prerequisite. It is a typical feature of the socialist economy. Any sharp deviations of any economic component from the plan-

ned and balanced rhythm must be checked and amended in the course of the production process.

Within the framework of direct economic accounting, the systems of economic indicators and norms are used as an instrument of such control. These systems are established at the level of the national economy, sector, region, production and science-production associations or individual enterprises. The aim of economic indicators is to set the goals to which the basic characteristics of the production processes of these entities must correspond during the plan period. Deviations in economic performance from the figures established by the system of indicators and norms come to the notice of the supervisory bodies and, if need be, the latter invoke sanctions such as fines, freezing of bank accounts, redistribution of resources.

At the national economy level direct plan targets are established providing for the improvement of the structure and the growth of production volumes, higher growth rates of the national income, increased labour productivity.

The development of the national economy by sectors and territories is coordinated through the application of the system of in-kind and cost indicators, indicators showing improvements in management, indicators of the growth of the national income, labour productivity.

It is extremely difficult to supervise the daily use of the available resources in each particular sector. In the Soviet Union two types of the centralised management of sectors are in operation.

In accordance with the first group a particular sector must operate within an extended detailed system of indicators numbering several hundreds and established by the central bodies. Here the basic problem is to link this system of indicators with the corresponding system of economic indicators for associations and enterprises in a certain sector. This is a difficult task which often engenders conflicts between a sector, on the one hand, and associations and individual enterprises on the other. Managerial bodies of a sector are overloaded with the functions of planning and management, accountability to the state bodies.

In accordance with the second variant, a sector has to operate within a system of five-year and one-year indicators, a system which is significantly curtailed as compared to the first variant. In the Soviet Union this system comprises: an expanded list of the goods to be made, aggregate profits, norms for the establishment of the total fund of salaries and wages, an amount of the profits to be deducted and transferred to a particular ministry, commissioning of new capacities, the total volume of centralised and non-centralised investments, including the volume of future construction and the installation of machinery, plans for the introduction of new machinery and technologies, basic indicators of material and technical support. Several accounting indicators are established: the aggregate volume of realised and marketable products, the sum-total of salaries and wages, the amount of the profits to be allocated to the ministry and the State Budget.

The system of the functioning of a sector in the second variant is called self-repayment. Within a five-year plan period the sector undertakes to transfer part of the profits made to the State Budget. All other undertakings intended to ensure expanded reproduction are to be financed by the sector on its own by drawing on the remainder of the profits.

The self-repayment system has a number of advantages: the ministry begins to play a more prominent role as a body responsible for the technical policy in its sector, interaction between the sector at large and its associations and enterprises is improved. There arise more opportunities for greater economic independence. For example, a sector can set up an integrated fund for financing the development of science and technology by using some of the money accruing from profits to improve the efficiency of production as a whole.

The system of obligatory planned indicators and norms for the economic systems of the republics comprising the Soviet Union, is formed on the basis of linking the sectoral and territorial aspects of the state five-year plans for the economic and social development of the country. It should be noted that in territorial management on the basis of direct economic accounting only financing from the budget can be used.

3. PROFIT-AND-LOSS ACCOUNTING

Production associations and enterprises, as well as a larger economic system or sector, have their own systems of economic indicators. However, their aim is to ensure the centralised supervision of the final (yearly) results of their performance rather than to regulate the current use of the resources by associations and enterprises. In this case in management direct economic accounting develops into profit-and-loss accounting.

In conditions of profit-and-loss accounting commodity-money relations play an increasingly more important role. Commodity-money relations remain under socialism. However, their essence is determined by the social ownership of the means of production. They no longer play the role of the main factor in running the economy as is the case under capitalism. Commodity-money relations under socialism which operate within the framework of centralised planned management are used as an important lever in regulating relations between the bodies directly engaged in production—associations and enterprises. In other words, profit-and-loss accounting is an economic method of management which helps realise certain economic independence of enterprises (associations) in conditions of commodity-money relations within the bounds of an integrated planned economy.

The essence of profit-and-loss accounting is in its principles whose practical implementation actually means profit-and-loss accounting.

The first principle of the latter is *economic independence* which permits an association (enterprise), by relying on a centralised system of economic indicators, to plan its activities without outside interference, acquire primary goods, materials and equipment, hire workers, manufacture and sell products and to meet its state obligations. An association (enterprise) has its own bank account and is a juridical person. In its activities it does not limit itself simply to following instructions issued by higher bodies. It proceeds from these instructions in adopting its own independent decisions in its economic interests.

The second principle of the profit-and-loss accounting

system is *the allocation of fixed material and financial resources to an association (enterprise)*. These resources create the material and technical basis for independence, make it possible to organise a planned turnover of financial resources and link enterprises and associations by inseparable bonds to the entire system of socialist production.

The third principle of the profit-and-loss accounting is *self-repayment and profitability*. A socialist association (enterprise) is the basic link in production. Its smooth functioning is required to ensure the development of the socialist economy as a whole. Profits exceeding expenditures—profitability of production is an indispensable condition in this process. Moreover, this cannot fall below a certain level which is assessed by its profitability—the effective use of allocated labour resources, basic production and current funds.

The fourth principle of the profit-and-loss accounting system is the principle of *material incentives* of work collectives and individual workers of associations (enterprises) which stimulate the attainment of higher results in their labour. The consistent implementation of this principle is connected with the establishment of a direct correlation between the labour input of every individual worker into the efforts of the entire collective and the corresponding pay which has to be in line with the socialist principle of distribution according to the work done. Finally, the fifth principle is *control of the activities* of an association (enterprise) by higher bodies of management, financial and credit institutions, consumers, local managerial bodies, as well as public organisations. Control is directly linked with material sanctions. When an enterprise fails to meet its commitments it has to reimburse concomitant losses, such as pay fines and penalties.

Profit-and-loss accounting stimulates the growth and efficiency of social production by introducing a certain degree of order in the distribution of production profits. This system is similar in essence but differs in form in individual socialist countries.

In the Soviet Union profits are used to set up these categories of funds.

The first category comprises payments to the State Budget—payments for the basic production funds and normative circulating assets, interest payments on credits, fixed payments which are a part of surplus profits derived from more effective production compared to the average in the sector. Such profits are transferred to the budget.

The second category includes economic stimulation funds: bonuses and fringe benefits, social and cultural development, housing construction and for the development of production.

The third group is composed of the funds used to cover planned expenditures of an enterprise including, in particular, financing of centralised capital investments and servicing credits for capital investments, financing the increment of its own funds, covering losses incurred in housing and communal services, allocation of part of the profits to higher organisations (ministries).

The difference between the sum-total of the profits and these payments and the allocations, is the remainder of the profits which is also transferred to the budget.

The system of the funds of economic stimulation is being constantly improved to enhance their role in raising the efficiency of social production and linking them with the centralised economic indicators more closely.

SELF-TEST QUESTIONS

1. How are the two groups of economic methods of managing the socialist economy linked?
2. What is the system of economic indicators and its purpose?
3. What are the tasks in managing the current use of resources?
4. What are the basic principles of the profit-and-loss accounting system?
5. How are stimulation funds accumulated in conditions of profit-and-loss accounting?

Chapter 6

SOCIO-PSYCHOLOGICAL METHODS IN DIRECTING THE SOCIALIST ECONOMY

KEY POINTS

1. Work collective as an object of social planning and management.
2. Psychology of a collective.
3. The role of social planning in managing socialist economy.

Discussion Hints

In studying *the first point* it is necessary to show that an individual worker and a work collective united by common goals, interests and shared social responsibility, are the direct object of the management of the socialist economy. It is very important to reveal the link between the social development of a collective and the production and economic results in the performance of particular enterprise.

To cover *the second point* and to get acquainted with the general features in the formation of a work collective, one should understand the organic link and interaction of socio-psychological and economic processes in the motivation of the labour activity of a worker, to reveal how the socio-psychological environment is established in a work collective, which depends to a considerable extent on the style of work of the manager, his ability to make rational use of the socio-psychological methods

of management and the methods of enhancing social involvement of the workers.

In the study of *the third point* it is important to examine social planning as a preliminary condition for the purposeful realisation of the supreme goal pursued by the socialist society, to disclose the unity of, and differences between, technico-economic and social planning.

1. WORK COLLECTIVE AS AN OBJECT OF SOCIAL PLANNING AND MANAGEMENT

Whether management is successful or not depends on the extent to which a work collective, people working at a particular enterprise perceive themselves as masters of production bearing responsibility for the final results. The social nature of work is demonstrated not only by the fact that the products of labour are consumed by society but also by the organisation of labour within the framework of work collectives. What is a work collective?

A socialist work collective is a group of people united for socially-useful work on the basis of public ownership of the means of production. Human activities are inseparable from a work collective, where the worker develops as a personality in his own right.

The participation of workers in the management of production is an inalienable constitutional right of the working people in the socialist countries embodied in a number of legislative acts. In the Soviet Union it is first of all the 1983 Law on work collectives and the enhancement of their role in managing enterprises, offices and organisations.

Under the law, the legal status of a work collective as an element of political, economic and social system of the socialist society transcends the bounds of its purely production functions. A collective has the right to discuss state and social matters and to make pertinent decisions, to participate in planning economic and social development, improving labour organisation, establishing labour quotas and remuneration, raising the activity and initiative of the workers.

A work collective in socialist society plays a special role arising from the very nature of the prevailing social relations. Under socialism the means of production are public property, and owned by the working people. Workers are the chief figures in the socio-economic life of society. They begin to realise this new status in social production and the system of social relations in the process of labour within a collective. Their work and participation in social activities give them satisfaction in addition to granting them material and spiritual rewards and ensuring adequate living conditions.

The process of socialist construction is accompanied by expanding the rights of work collective in management. This enhances their influence on all aspects of life and work and brings into a greater harmony the interests of society, a collective and the individual worker. Each collective is formed first of all on the basis of common economic interests. Therefore, it may be said that the socialist system creates economic prerequisites for the formation of a cohesive work collective pursuing shared goals.

An important role in the formation and development of a work collective is played by the manager who, relying on the most active and conscientious members of the collective—the Party and social organisations—exerts a purposeful influence on the collective and its members aimed at effectively resolving production and social problems.

The final results of the activities of a collective depend to a considerable extent on its structure and organisation.

The structure of a work collective can be examined from different angles and characterised by different criteria. These structures are:

- the functional structure based on the division and cooperation of labour;

- the structure based on the professional qualification closely associated with the functional structure;

- the socio-demographic structure characterised by the sex, age, family status and the educational level of the worker;

- the socio-political structure reflecting the level

of the social and labour activity of the workers;

—the socio-psychological structure connected with the system of inter-personal relations, values, goals and motivations in the process of labour.

Each of these structures exerts specific influence on a work collective, as they are closely associated with each other. In managing a work collective one should know its structure and work to upgrade it in every way.

Organisation of a work collective involves:

a) Socio-political organisation comprising the entire system of political and social organisations at enterprises. In the Soviet Union these are the Party, trade union and Komsomol (Young Communist League) organisations, the committees of people's control;

b) Administrative organisation which is a system of official relations established by provisions, norms, instructions. It is built horizontally and vertically and comprises a communication system (a feed-back system) and the system of stimuli (encouragement and disciplinary measures);

c) Informal organisation which is characterised by the existing ties and relations between the members of a collective comprising different individuals with their own personal traits. Informal organisation includes norms of behaviour, measures of social control, common values, which take shape within a collective.

The regulation of the life of a work collective with due account for the objective and subjective factors and the laws governing intra-collective activities, as well as the prevention of conflict situations and the scientific approach to overcoming contradictions are imperative for an efficient solution of a wide range of technical, economic and social problems facing each collective.

2. PSYCHOLOGY OF A COLLECTIVE

Social psychology is reflected in personal relationships which are determined by the essence of a socio-economic structure, as well as external and internal factors.

The psychology of a collective can be perceived as the sum-total of the intra-collective socio-psychological

phenomena and processes. It is shaped by collective needs, interests and convictions and the socio-psychological structure of contacts.

Collective psychology reflects diverse phenomena compounding diverse reciprocal evaluations, demands and claims, as well as psychological compatibility, likes and dislikes.

A collective bears stable group phenomena which reflect individual specific features of the entire collective, as well as of its component groups. These phenomena include shared traditions and habits, age and professional traits of various social groups.

A collective discloses socio-psychological aspects which can reveal public sentiments and moods.

Social psychology proceeds from the unity of the sociological and general psychological approach to the personality. The socio-psychological specifics of an individual or a collective are characterised by their social qualities, including public opinion and the mood of the masses, social norms, customs, habits, traditions. That is why in analysing the processes of the formation and manifestations of socio-psychological phenomena and the degree of their dissemination, one should take into account not only the psychology of an individual but also of collectives and individual social groups.

One should particularly note that socio-psychological processes are an inalienable part of the economic activities of a work collective. This is reflected in motives, stimuli, material interests, labour enthusiasm and socialist emulation. Lenin stressed the importance of these particular psychological elements as a motive force in social development.

The attitude of people to work, to each other and their fellow workers, and satisfaction with labour—all these socio-psychological phenomena are closely connected with economic processes: labour organisation and remuneration, the efficiency of socialist emulation.

As for the socio-psychological side of human activities, they are prompted by certain motivations and are geared to the attainment of certain goals. It is important in management that the supervisor should know the psychological traits of an individual, be able to evaluate

the motives behind human activities and set tasks that would allow every worker to see his eventual goals.

A motive is an inner conviction encouraging an individual to action. A stimulus is connected with the creation of conditions conducive to the formation of a motive for action and its realisation. As has been shown by psychological research, lack of motivation or a weak motivation is one of the causes for the rapid labour turnover.

The sphere of motivational influence is a complex system of various types of the purposeful attitude of people to their activities and it comprises various categories of motives. Here one can single out social, cognitive and material motives. The supreme motive is the drive which acquires a truly social significance for every individual and is linked with the person's civic stand. To identify this major factor is the task of the manager.

The process of concerted labour engenders a system of inter-personal relations and helps to establish a socio-psychological climate in a collective.

Socio-psychological factors influence the level of organisation in a collective, the methods used for an exchange of information by its members, the level of collective initiative and creative potential. Disregard for particular socio-psychological features of a collective can erect "psychological barriers" and lead to serious difficulties with management—it may lead to personal conflicts.

Management of the material motivation of labour plays an important role in management in general. To solve this problem it is necessary to determine the specific aspects of motivation depending on the attitude to labour. The material motive is a strong driving force, for it involves the assessment of the work performed and the wellbeing of the workers.

The task of a work collective is to help promote the formation of a personality of each worker by creating conditions conducive to revealing his creative potential to the maximum. The application of a wide range of methods to channel the activities of each worker in the direction needed by society, makes it possible to guide the behaviour of each worker and each work collective.

The prestige, style and methods of work of the managerial staff and its attitude to the subordinates, plays an important role in the formation of the socio-psychological structure of a work collective. Here the authority of a manager is perceived as a voluntary recognition of his leading role by his subordinates. If he is respected by them his activities will enjoy their complete support.

As experience has revealed, the personal example of the manager of any rank, particularly of the top-level staff, is much more convincing than the use of purely administrative sanctions.

The manager is personally involved in stimulating the work of his subordinates, their promotion, the distribution of more interesting and promising jobs. And here his decisions are decisive. In these situations his behaviour is largely determined by his personal qualities such as political experience, professional level, his system of social values and the ability to perform his social functions, as well as to carry out his managerial duties.

The concern for establishing a favourable socio-psychological climate and the firm grasp of psychology and pedagogics are indispensable for the successful management of social production.

3. THE ROLE OF SOCIAL PLANNING IN MANAGING SOCIALIST ECONOMY

Social planning is both a function and method of management in the socialist economy. The need for it was engendered by the growth of the national economy and more complex tasks involved in improving the socialist society, as well as transformations in material production resulting from scientific and technological progress.

Comprehensive plans for the social development of production collectives are linked with the realisation of technical and economic plans. The aim of social planning is to regulate the factors which can be instrumental in creating conditions encouraging more efficient work of all the workers, as well as in shaping an all-round personality.

At the same time social development plans embrace

a wider range of problems concerning the activity of enterprises than technical and economic plans. They are: organisational, technical, hygienic, socio-economic, psycho-physiological, aesthetic and other factors, including culture which help improve labour conditions, thereby increasing labour productivity.

Social planning allows to foresee the potential influence of scientific and technological progress on the socio-cultural development of the entire work collective.

The improvement of labour conditions, the reduction of occupational diseases and cases of injuries are an important social function for the solution of technical and social problems. The elimination of strenuous and hazardous labour conditions, the creation of favourable socio-psychological atmosphere particularly in those forms of production involving intense psychological and nervous stresses—this is the way to maintain and strengthen workers' health.

Since labour conditions directly affect production and the social activities of the workers, their attitude to labour, the health and the emotional state of them, the plans providing for social development envisage a wide range of measures intended to improve labour conditions by the introduction of mechanisation and automation on a wide scale, improving labour safety, upgrading medical services.

Work on assembly lines, control boards and automated lines requires repeated, monotonous movements at a preset pace and leads to heavy and stable fatigue despite the lack of strenuous physical efforts.

To eliminate the negative consequence of scientific and technological progress and to make labour more attractive, plans for social development provide for the implementation of comprehensive measures aimed at maintaining physical fitness and good spirits at work, lessening fatigue caused by monotony and the intense tempo of modern production and to improving medical services.

By now there has been accumulated some positive experience in improving psychological, physiological and aesthetic conditions of labour. Some enterprises in the Soviet Union and a number of other socialist countries rationalise labour at assembly lines with rigid or flexible

operations in accordance with the plans for social development providing for a balanced ratio of work and leisure, a rational organisation of work-places, the improvement of hygienic conditions, better lighting, functional music.

The effectiveness of social planning as a method of management depends on a number of organisational factors: the attention paid by the manager to social planning and control over its implementation, the stimuli to the persons engaged in its implementation and the extent to which workers are involved in social planning.

Social planning must be scientifically substantiated, rely on technical and economic estimates and social forecasts of specialists and should ensure organisational correlation of economic and social indicators.

SELF-TEST QUESTIONS

1. What is a work collective?
2. How can one define labour motivation and what are the factors influencing its formation?
3. What are the factors of the socio-psychological climate in a collective?
4. What is at the core of the cohesion existing between the technico-economic and social planning methods?

Chapter 7

THE FOUNDATIONS FOR THE FORMATION AND IMPROVEMENT OF THE ORGANISATIONAL STRUCTURES IN THE MANAGEMENT OF THE SOCIALIST ECONOMY

KEY POINTS

1. Basic elements of the managerial structure.
2. The principles underlying the planning of management structures.
3. Basic types of organisational management structures.
4. Modern trends in the development of organisational structures.

Discussion Hints

In dealing with *the first point*, it is necessary to understand the basic elements comprising the organisational structure of management, their level and structure and the links existing between the elements of this structure.

In analysing *the second point*, it is important to examine the basic principles to be complied with in the elaboration of new, and the improvement of the existing, organisational structures of management. Experience shows that in the final analysis, the functioning of the entire system of management depends on the proper application of the principles employed in the formation of these structures.

In respect to *the third point*, one should particularly

note that the types of organisational structures develop with the growing complexity of the existing links. It is also necessary to examine comparative advantages and shortcomings inherent in each structure.

In dealing with *the forth point*, it is necessary to show that at the present stage we witness a growing significance of the sectors ensuring scientific and technological progress with a particular rôle played by the bodies responsible for quality control, and with the growing importance of structural links in tackling the problems of social development of work collectives.

1. BASIC ELEMENTS OF THE MANAGERIAL STRUCTURE

The organisational structure of management in social production is composed of linear and functional managerial bodies and incorporates a system of their links and interaction. It is determined by the form of ownership of the means of production, the level attained in the development of productive forces and relations of production, the requirements of the scientific and technological revolution. The formation of particular bodies of management and its entire apparatus is determined by the functions of management, the scale and type of production, the level of its specialisation, concentration and co-operation.

The efficiency of interacting parts in a managerial system largely depends on the organisational structure. An optimal combination of the elements of productive forces as an integral system makes it possible not only to make the most rational use of each element but also create new properties of a production unit as a whole, strengthens the potential of the social division of labour and the effectiveness of management.

The improvement of organisational structures facilitates a more profound integration of science and production by ensuring a deeper specialisation and concentration of production and by uniting the efforts of more specialists and high-skilled workers in the sectors dealing with the crucial problems of technical development.

That is why the most important problems involved in improving the management of the socialist economy are the formation of progressive organisational structures, the establishment of production, science-production and other types of associations in particular, the elevation of the responsibility of ministries and departments, a more rational combination of the territorial and sectoral division of labour, a more precise determination of the functions, duties and rights at each managerial level.

The improvement of the organisational structures of management is ensured by the search for, and the implementation of, the most rational forms of combining centralised management and independence, a clear-cut division of managerial functions, the establishment of a proper correlation between the rights, duties and responsibilities both within the framework of the managerial apparatus as a whole and as regards its individual subdivisions and individual workers. The increasing sophistication of production, its concentration and the growth of economic links with other bodies, call for the establishment of more flexible structures of management. These structures must be able to adequately react to technical progress, the increasing need for a particular product and the changing nature of work. Here the most promising are the structures in respect to programme-oriented methods of management.

An organisational structure of management in production can be viewed as an intricate combination of "formal" and "informal" structures. A "formal" structure is usually perceived as an organisational structure established in accordance with certain instructions and orders issued by managerial bodies and on the basis of a legal status, i.e. rights, powers, responsibilities incorporated in provisions and instructions. An "informal" structure is shaped on the basis of real relations existing between the members of a particular collective, the cohesion or contrast of their views, inclinations, interests.

An "informal" structure of management is always a form of implementation of the "formal" structure of management which is regulated by legal acts. A less rigid "formal" structure facilitates the development of creativity and initiative by the managerial staff. However, the

lack of rights and responsibilities precisely defined for individual structural links breeds irresponsibility and confusion and complicates relations in the process of management.

An improvement of the organisational structure of management requires both the improvement of the “formal” and “informal” management structures. The improvement of the former implies the elaboration and legal substantiation of an organisational structure of management that would better correspond to the goals, tasks and functions of management. The improvement of the “informal” structure requires improvements in personnel recruitment procedures, training and use of the staff, as well as the upgrading of the methods and style in the management of a particular enterprise or an association.

The basic elements in the management structure are the link and level of management which establish their relations on the basis of formal ties.

The link of management is an individual entity (body or a worker) entrusted with the performance of certain functions of management. *The level of management* is a combination of managerial links at a certain rung of the managerial ladder. Managerial levels reveal the order of subordination of some links of management to the others. The levels of management may comprise one or several links.

The connection existing between the managerial bodies and workers are subdivided into the vertical and horizontal. The former are relations between the supervising and subordinate bodies, while the latter are those between equal links at a certain level of management.

An important feature of the above connections is the scope of management which is determined by the number of the lower bodies subordinated to the administrative body. An indicator showing the total number of the links with which contacts are established in the process of management, is used to characterise the horizontal links.

2. THE PRINCIPLES UNDERLYING THE PLANNING OF MANAGEMENT STRUCTURES

Organisational structures of management should be composed with the view of ensuring the attainment of the goal with minimal inputs of available labour, material and financial resources. That is why organisational structures should be so planned as to make possible the combining of similar types of activity, elimination of redundant managerial and subordinate links and unnecessary points of information transfer. A rationally-planned organisational structure ensures an efficient solution to all current and potential problems facing a particular organisation and creates necessary prerequisites for a rational organisation of work of the manager, as well as of his subordinate managerial staff.

Indeed, if the structure of management lacks sufficient scientific substantiation, which is often corroborated by the existence of redundant managerial links or a shortage of those necessary, this either leads to the duplication of work by various subdivisions or makes it necessary for the manager to take upon himself some extra functions since there are no corresponding structural links at hand.

In planning organisational structures, one should be guided by the basic rules for the managerial staff which have been elaborated by specialists of the leading countries and comprise the following main principles:

—the structure of management should be built with the least possible number of hierarchic stages. It should allow for necessary restructuring and readjustment to take into account the following factors:

- a) changing goals of management;
- b) changing quality of individual elements;
- c) accumulated experience in functioning.

—the structure of management should be streamlined so as not to impede the flow of information.

A specially assigned supervisor should bear responsibility for the performance of each particular elementary function of management such as the registration of documents. In combining several elementary functions of management into one expanded function, all people performing each individual elementary function should

be subordinated to the person responsible for the performance of the expanded function.

—finally, in distributing the functions of management between their performers and in establishing a certain order of subordination in the managerial body, it is necessary to provide for a rational degree of centralisation when a certain degree of specialisation is combined with sufficient flexibility in management.

Observance of these principles in building organisational structures of management makes it possible to precisely distribute the duties and responsibilities between various levels of management.

The principles of management are realised through the methods and techniques employed in performing managerial functions. In the elaboration and improvement of the organisational structures of management the following techniques are used:

—*analogy technique* which involves the elaboration of standard structures on the basis of the analysis and summing up of advanced experience;

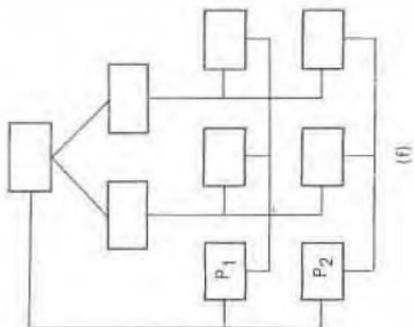
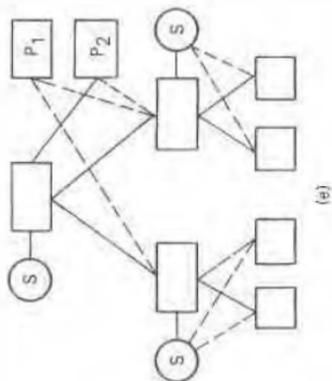
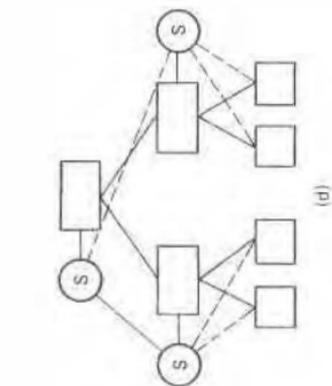
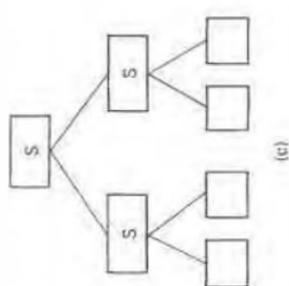
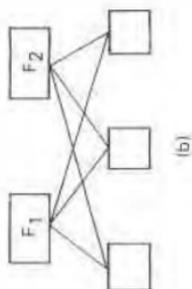
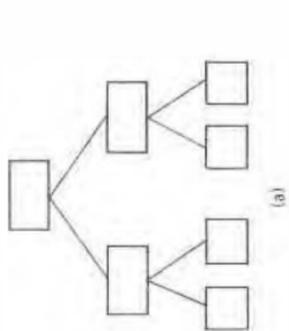
—*goal structurisation technique* providing for the elaboration of a system of goals pursued by an organisation and the subsequent correlation of this system with the planned structure;

—*expert judgements technique* providing for the study of the most essential aspects of a particular organisation and the elaboration of recommendations on the basis of expert opinion;

—*organisational modelling technique* providing for the elaboration of formal mathematical, graphic or computerised descriptions of the distribution of the terms of reference and responsibilities in an organisation to make possible the appraisal of the degree of effectiveness of the adopted decisions on the basis of precise criteria.

3. BASIC TYPES OF ORGANISATIONAL MANAGEMENT STRUCTURES

In the existing systems of management organisational structures vary considerably. However, with all this diversity there exist common stable links and laws based on typical, time-tested decisions.



It is possible to single out linear and functional structures of management according to the types of the links existing between individual elements of an organisational structure. They serve as a basis for various combined linear-functional structures. Let us examine the main types of these managerial structures (see Fig. 2).

Linear structure is formed when the management apparatus is composed only of successively subordinated bodies as in an hierarchic ladder. The members of an organisation belonging to a lower rung of management are subjugated in linear succession to the manager of a higher level.

Each worker in a linear structure is subordinate and accountable to one manager and, consequently, is linked to the superior system only through that manager. Thus, there emerges an hierarchy of subordination and responsibility which is the only type of organisational relations in the "pure" linear structure. A linear manager in each structural subdivision bears responsibility, according to the principle of one-man management, for all the activities carried out by the section entrusted to him and performs all other managerial functions together with the functions of general supervision. This leads to the concentration of authority in making strategic and tactical decisions. Here information is passed only along two interconnected channels, from the top to the bottom and vice versa, through the hierarchic managerial chain.

Linear organisations are efficient because they are based on clear-cut, precise and uncomplicated mutual links. It is expedient to use them when the range of the problems is quite limited, the problems themselves are simple enough and can be solved by the immediate lower supervising bodies. Sections comprising organisations and establishments or shops at enterprises can serve as the most typical example of the linear organisation of management.

The main drawbacks of the linear structure are the weak coordination between the lower links and the fact that a manager has to be an expert in all facets of work carried out by the bodies under him.

Functional structure emerged as a result of the growing complexity of management and the development of

specialisation. Within this structure the higher bodies specialise in particular fields, some in planning, others in material and technical supply. Although in this case instructions to the lower bodies become more professional, they engender yet another difficulty, for the lower links sometimes do not know whose instructions should be carried out first and how to coordinate these instructions. Therefore, the principle of one-man management can be violated.

With the growing number of functional links, each particular subdivision finds itself increasingly in a position when it cannot independently resolve problems. Here no longer matters whether each link is interested first of all in tackling its particular tasks. Rather, it is that it cannot deal with them conscientiously and correctly. Consequently, decisions become less meaningful, more partial, departmental and incomplete. And this makes management more difficult.

Difficulties arising in linear organisation and the shortcomings of the functional structure have led to the establishment of mixed structures combining these two types of organisation. Initially, the linear-functional, or head-office, structure became more widely spread. At times specialists refer to it as a system of concentrated management. It is based on the linear system. However, in this system each managerial link has its own head-office composed of specialists on some particularly important problems. Head-offices elaborate expert decisions. However, these decisions have to be approved and passed on to the lower levels by the linear manager.

In this system, linear management coordinates proposals of the functional services (the head-office) and brings them into accord with each other. The level and quality of linear management are substantially upgraded. However, with numerous problems, the workload of the linear manager becomes excessively high.

That is why experience gave rise to the creation of other combined structures with *the structure of limited functionalism* being the most widespread today. Under this system, head-offices themselves can issue instructions to the lower links, but only on a certain range of problems included in their terms of reference. For example,

the personnel department of a ministry can instruct the plant manager to dispatch some employees for study. Sometimes high-level offices can get in touch not only with linear offices but also with the corresponding head-offices of a lower level. Thus, in tackling some problems the accounting department of a production association supervises the work of the accounting department not only through the manager of an enterprise, but directly.

The main advantage of the system of limited functionalism is that it combines the principle of special functions of management with the principle of one-man management. However, this advantage can be realised only through the establishment of more complex links in the structure. While the links remain essentially the same as in the linear head-office structure, their number is growing.

In the 1950s - 1960s new types of managerial structures emerged and developed in various countries: structures with *ad hoc* bodies, committees formed on the inter-sectoral basis and comprising of representatives of various bodies, project management (by site, product) and matrix structures. Project management and matrix structures are the forms most extensively used in the socialist countries.

Project management is used at enterprises and associations which require frequent restructuring due to the introduction of new technologies and techniques. To accelerate this restructuring, a special body of management is set up which is the only body responsible for carrying out this transition. This body drafts a plan for the transition period which defines future changes, the role and tasks of managerial bodies, and schedules.

Upon approval of the plan by the manager, this body puts this plan into life and supervises its implementation. Acting as an *ad hoc* establishment, the body is however, provided with the necessary staff and material and financial support. Upon the fulfillment of its task it is dissolved.

Matrix structure. In the matrix structure each worker of the functional services is in charge of a certain project (product). The application of the matrix system for organising work within the management apparatus engen-

ders dual subordination for the same worker because he is listed on the staff of two services simultaneously: the project management and the functional service. However, the system of management becomes more flexible and, what is more important, more purposeful, thereby rendering it much more efficient. At the same time it becomes imperative to define more clearly the rights and duties of each individual management service.

4. MODERN TRENDS IN THE DEVELOPMENT OF ORGANISATIONAL STRUCTURES

At the present stage in the socialist countries' economic development there exist the following clearly discernible trends in their organisational structure:

—activities of economic organisations geared to the attainment of final economic results are becoming more purposeful;

—sections ensuring scientific and technological progress are acquiring a more prominent role;

—more attention is devoted to the bodies dealing with the problems of raising the efficiency and quality of production;

—there is a growing significance of structural links involved in the solution of the problems connected with the social development of work collectives.

As regards the more purposeful activities of economic organisations, one should note that this trend implies their further development and expansion by supplementation of new forms rather than the repudiation of the traditional organisational forms of management. With this approach, as distinct from the established and prevailing practices of sectoral planning, the basic aims in the elaboration of the plans are the solution of comprehensive problems, rather than the attainment of certain quantitative indicators in the development of a particular economic sector or within a certain line of production. They include the attainment of ultimate results in terms of meeting national economic priorities, which are ensured by various activities, rather than the achievement of some intermediate goals.

With the growing sophistication of the economic structure and more complex internal links, it is becoming increasingly difficult to correlate the input of resources in one sphere with the results achieved in another one and to ensure the concentration of resources and concerted efforts of individual sectors of economy in resolving its important problems. All this calls for setting up managerial bodies which would supervise major economic complexes. In the Soviet Union one such body is the State Agro-Industrial Committee established in 1985 (Gosagroprom) which is responsible for the implementation of the Food Programme intended to make the country self-sufficient in foodstuffs and agricultural raw materials, and to ensure a steady growth of agricultural production.

It should be noted that as a rule a more purposeful thrust in the activities of economic bodies does not entail a major reorganisation. Rather, it involves a certain redistribution of responsibilities and powers. It supplements and reinforces the existing system of sectoral, functional and territorial management. The main goal of the purpose-orientated organisational links is to supervise the implementation of the programmes on a daily basis and to have tangible powers allowing them to overcome sectoral and territorial barriers in the use of the available resources.

At present, all socialist countries pay particular attention to the most expedient introduction of scientific and technological breakthroughs in production. However, shortcomings in the organisational structure impede this process. For example, not in all socialist countries are research and development establishments actively engaged in production as is the case in the German Democratic Republic. Far from all enterprises set up departments which are specifically assigned the task of dealing with the problems of scientific and technological progress. It should be noted here that in many cases the problems are tackled more expediently and efficiently if they set up *ad hoc* teams of specialists entrusted with the task of supervising the introduction of the most important technical innovations at all stages, from the very beginning to the serial production and

bringing products to the consumers. The Hungarian People's Republic can serve as an example in this respect.

In the Soviet Union, the 27th Congress of the Communist Party (1986) drew attention to the need to concentrate the efforts of managerial bodies on outlining the strategy of scientific and technical progress in the sector, prospects for its development, raising the general level of economic work and, eventually, supplying society with all necessary products of high quality. The country embarked on the course of radical improvement of the organisational economic structure mainly aimed at setting up a two-stage system in which science-production associations are assigned the major role.

A more pronounced social orientation of management requires the establishment of a corresponding organisational structure. At present, enterprises in many countries establish special sociological sections dealing with the problems of social development of their staff.

Particular attention is paid to quality control and the establishment of closer ties with consumers. At present producers of machinery are becoming increasingly involved in servicing and repairing their products. Associations set up their service centres and organise corresponding repair, assembly and other services in the localities where their machinery is used on a wide scale. Departments supervising these activities now are acquiring a major role in the managerial structure.

Today, systems analysis is a major means of upgrading the management of the socialist economy.

SELF-TEST QUESTIONS

1. What are the major elements of the organisational structure of management?
2. What are the basic principles in the formation of the organisational structure of management?
3. What types of organisational structures of management exist nowadays?
4. What are the major trends in the development of the organisational structures today?

Chapter 8

ORGANISATIONAL STRUCTURE OF MANAGEMENT OF THE SOVIET ECONOMY

KEY POINTS

1. State management bodies of the Soviet economy.
2. Organisational structure of management of a branch of the Soviet economy.
3. Combination of the branch and the territorial principles of management.
4. Production association: its role and place in the structure of management.

Discussion Hints

In studying the *first point*, it is essential to bear in mind that the difference in forms of state management in socialist countries does not imply the absence of unity in the fundamentals of the managerial relations whose main vehicle is the socialist state. For under socialism state ownership of the means of production is the predominant form of social property.

For that reason, Soviet experience in creating and developing organisational patterns of directing socialist economy may be useful in solving general and specific problems of improving the functioning of management in the other socialist countries, as well as in the developing countries.

The *second point* provides an analysis of the organisa-

tional structure for directing branches of the national economy in the USSR, each of which constitutes a huge and complex economic object due to the branch specialisation of social production.

The need to consider the territorial aspect of management is central to the study of the *third point*. The fundamental significance of combining the branch and the territorial management of the economy should be revealed, showing how it is done via the organisational structure of state management.

In studying the *fourth point*, one should take account of the fact that there can be no universally accepted organisational patterns for directing a production association. The only correct solution must be sought for in each particular case. At the same time, the experience gained by the USSR and other socialist countries in applying specific organisational patterns of managing production associations may prove useful.

1. STATE MANAGEMENT BODIES OF THE SOVIET ECONOMY

Under socialism, most managerial functions are fulfilled by specialised state bodies, whose structure and composition have their own distinctive features, varying from country to country. This is due to the specific historical and national peculiarities of each country, the conditions in which they embarked on the road to socialism. At the same time, all socialist countries have one particular feature in common—they all are states of a new, socialist type, expressing and upholding the interests of the people.

The socialist state has borrowed from the capitalist state certain organisational and structural patterns of directing the economy, whose social usefulness derives from the need to conduct common affairs inherent in any society and to establish the division of labour in the management proper.

Compared with the national economic complexes of the other socialist countries, the Soviet economy is the most complex and the largest object of management.

The unique experience in the field of state construction, the socialist economic management in particular, of the world's first country of victorious socialism, has always helped and continues to promote the interests of the nations following the road of socialist development.

In the USSR, Soviets of People's Deputies form the basis of state government bodies. The Soviets are bodies of state authority elected by the working people on the basis of universal, direct, and equal suffrage. The Soviets are accountable to the people. All the other state bodies are under the control of, and are accountable to, the Soviets. The Soviets of People's Deputies guide directly or through the bodies they set up, all the activities in the political, economic, social, and cultural spheres.

The system of Soviets of People's Deputies comprises higher and local bodies of state power.

The federal nature of the Soviet state system determines the composition of the higher bodies of state authority. These are the Supreme Soviet of the USSR and the Supreme Soviets of the Union and Autonomous Republics. Local bodies of power are set up in conformity with the administrative and territorial division of the USSR into Territories, Autonomous Regions and Autonomous Areas, Districts, Towns, Districts in Cities, settlements, and rural communities. They are state bodies close to the people, fully capable of responding promptly and effectively to their needs, inquiries, and proposals. The entire state system represents a well-balanced hierarchic structure built on the principles of democratic centralism.

The Soviet system of state management (Fig. 3) consists of higher executive and administrative bodies of state authority which are daily concerned with the practical job of guiding and managing the national economy (the Council of Ministers of the USSR, the Councils of Ministers of the Union and Autonomous Republics), central branch and inter-branch bodies of state management (Ministries, State Committees and Departments) and of local bodies of state management (Executive Committees of the local Soviets of People's Deputies, their Departments and Boards).

As a result of this organisational structure of the man-

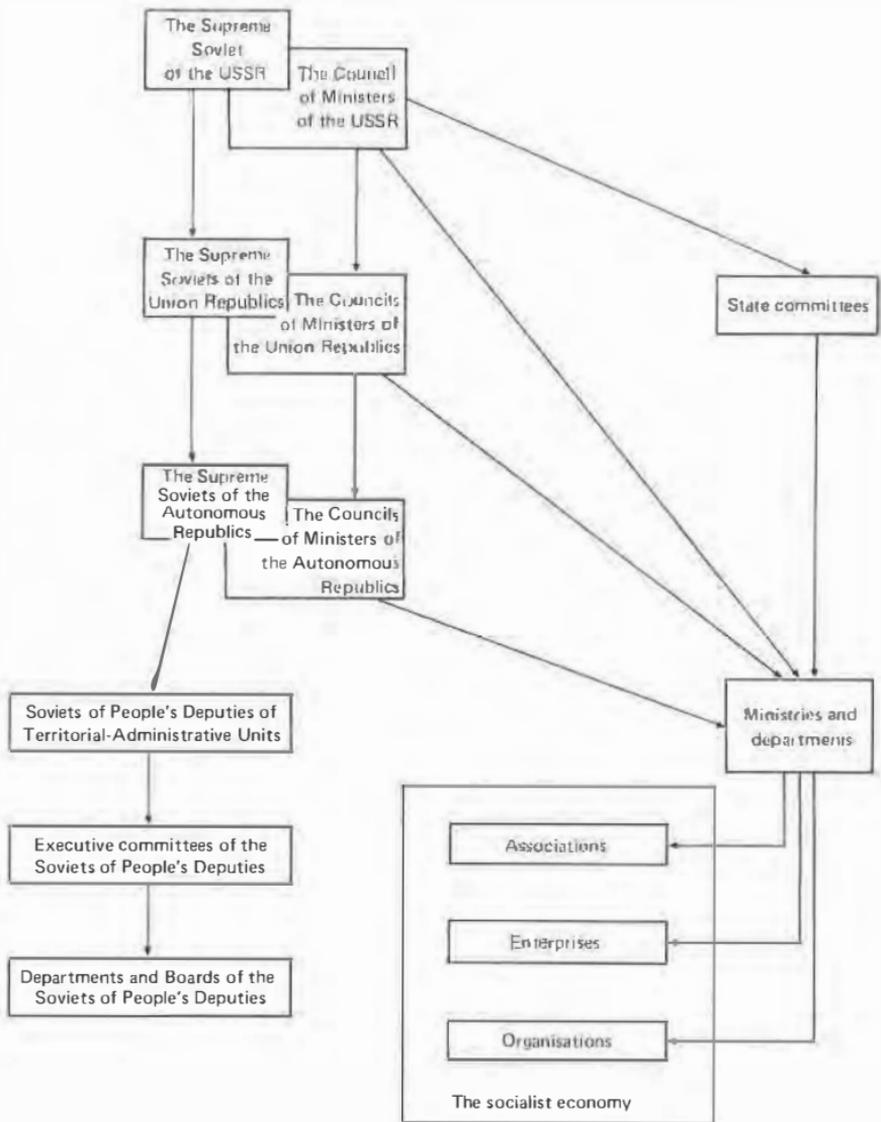


Fig. 3 Organisational structure of state management of the Soviet economy

agement of the economy in the USSR, any of its economic links (production association or an enterprise) finds itself integrally incorporated into a single national economic mechanism. Under a particular Ministry or a Department, each enterprise is the object of the branch management by the corresponding Ministry (Department). At

the same time, the location of a particular enterprise on the territory of an administrative and territorial area makes it subordinate to the respective local Soviet of People's Deputies (its Executive Committee in particular).

It should be noted, that the place of a particular body in the hierarchic organisational structure of management sets the limits to its competence, determining the sphere of its influence, the confines of its powers and responsibilities. Thus, all bodies of state authority, from the highest and to the Executive Committee of Soviets of People's Deputies, and the Councils of Ministers are bodies enjoying general competence. This means that they are vested with powers to decide all the vital issues of the population in the areas they control. The issues include development of industry, farming, construction, land tenure, environmental protection, use of labour resources, services, welfare services.

The bodies of state management, from the highest and to the departments and boards of the local Soviets of People's Deputies, are bodies enjoying branch competence. Their main objective is to ensure effective development of a respective branch of the national economy, with due account of the local conditions of the areas where the enterprises are situated.

A number of central bodies of state management have been established and are now operating to provide for a rational interaction of the national-economic branches. The specific nature of the problems these bodies consider, indicates they are bodies enjoying the special competence. They include the State Planning Committee of the Council of Ministers of the USSR (GOSPLAN), the State Committees of the Council of Ministers of the USSR for Science and Technology, for Material and Technical Supplies, and for Construction and others.

Decisions and recommendations of State Committees are binding on all branch management bodies, making it possible to integrate state decisions in the field of planning, pricing, scientific and technological progress and other issues by harmonising general state interests with those of the particular national-economic branch or the economic region.

The practice of setting up complexes of interconnected branches constitutes a fundamental means of improving the structure of management. It is applied in two ways.

First, by integrating the existing branches of the national economy into the national-economic complexes on the basis of the homogeneity of the social and economic final results. Thus, the agro-industrial complex was established, operating today throughout the country and run by the Gosagroprom of the USSR and its regional bodies.

Secondly, by setting up special governmental (departmental) bodies co-ordinating and controlling the activities of a number of ministries. These bodies have the task of effectively pursuing a single technical policy in the respective national-economic complexes. They are empowered to issue directives concerning the concrete work of the ministries they direct. For example, the Bureau of the Council of Ministers of the USSR for Machine-Building, the Fuel-and-Power Complex and the State Construction Committee of the USSR.

Creation of such bodies helps to overcome departmental isolation and to solve specific production and technical problems more thoroughly and promptly.

2. ORGANISATIONAL STRUCTURE OF MANAGEMENT OF A BRANCH OF THE SOVIET ECONOMY

In the national economy of the USSR, industry is the largest and the most complex sector of material production exerting a decisive influence on the development of the other branches to which it is closely linked.

The rise of industry as an independent branch of the national economy and its subsequent intra-branch differentiation, are the results of the increasingly greater social division of labour. Moreover, the same process takes place in each particular branch of industry, involving production associations and enterprises.

Each branch of the national economy represents the sum total of production associations and enterprises characterised by a single economic designation of output, a homogeneous productive and technological basis, the

specific composition of the labour force, and the specific working conditions.

Each branch enjoys a certain degree of autonomy expressed along the following lines:

—as a rule, the branch incorporates enterprises turning out products of a similar economic designation (machine-tools, machines, textiles);

—its enterprises consume the same kind of raw and other materials, be it metals, timber, minerals or farm produce;

—the branch enterprises possess a common production and technological base enabling it to tackle effectively the tasks facing it;

—by their specialisation and skills the personnel meet the economic tasks set;

—the branch is confined within certain administrative-economic framework, defining the terms of reference of the respective management body controlling it—the ministry.

The branches of the national economy of the USSR vary in scope and in their significance for the country's economy. Correspondingly, the ministries directing various branches have different statuses. There are three kinds of ministries in the USSR:

—All-Union ministries (subordinate to the USSR Council of Ministers), guiding the branches of the national economy which play a leading role in the economic development as a whole and require a high degree of centralisation of management (machine-building, fuel and power complex, iron and steel, transport);

—Union-Republican ministries (under the joint competence of the USSR and the Union Republics), directing light industry, food industry, trade. In directing these sectors, the branch approach to management is combined with consideration for local conditions of production;

—Republican ministries (subordinate to the Councils of Ministers of the Republics), directing the branches of the national economy located in the area of a given Republic (peat extraction in Byelorussia, cotton production in Kazakhstan, and so on) or designed to promote the comprehensive social and economic development of the region (local industries, welfare services, housing).

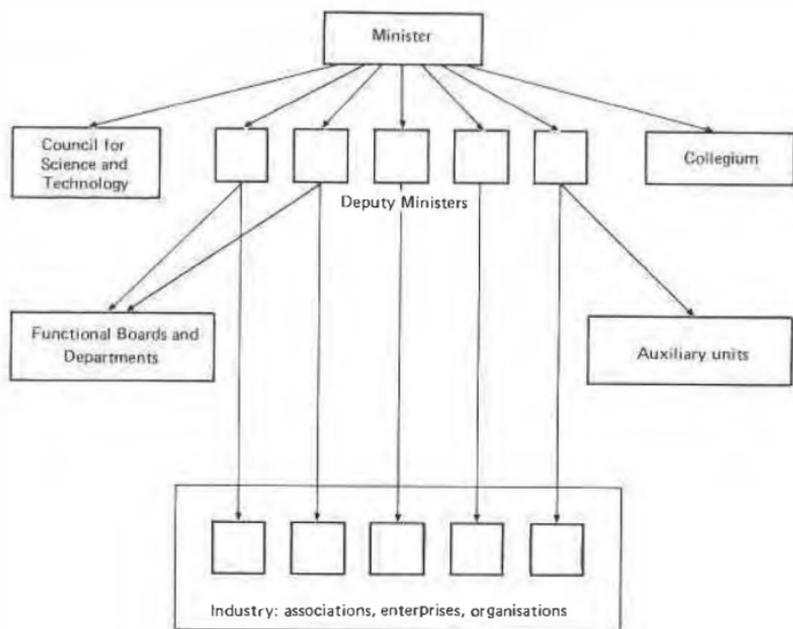


Fig. 4 Organisational structure of management of a branch of the Soviet economy

The inner structure of ministries of these three kinds is roughly the same (see Fig. 4): the ministry's leading staff (minister, his deputies, collegium, Council for Science and Technology); basic functional subdivisions (departments and boards) and servicing subdivisions.

The minister is personally responsible for the state of affairs in the branch. He endorses the structure and the staffs of the ministry's departments and boards.

The collegium is an advisory body under the minister. It consists of deputy ministers and heads of major functional services. It examines regularly the basic problems of the development of the branch and considers reports by heads of associations, enterprises, and organisations.

The Council for Science and Technology (CST) is an advisory body on matters of the scientific and technological development within the branch. It maps out the main directions of the technological policy and controls the introduction of the latest achievements of domestic and foreign science and engineering, and organises

exchange of advanced experience.

The functional departments act as the headquarters ensuring a thorough consideration of problems, the preparing solutions to and deciding upon them as provided for in their statutes. They comprise the following departments: planning and economics; finances; labour and wages; personnel and educational establishments; capital construction; technical development; routine administration of production; material and technical supplies.

The servicing subdivisions comprise the business-management department; administrative and service department; the office and the secretariat.

The functional boards and servicing subdivisions may come under the direct supervision of one of the deputy ministers.

The organisational structure of management of a branch of the Soviet economy shown in Fig. 4 is a two-link structure: the ministry and the basic production unit (an association, enterprise, organisation) are under and directly linked to each other: deputy minister—director of an association (an enterprise or an organisation).

A three-link pattern of management can be sometimes encountered, when production associations (enterprises, organisations) merge to form a larger unit, as, for example, an All-Union Industrial Association (AUIA). However, to raise the efficacy of management structures and reduce the managerial rings, preference should be given to two-link pattern.

3. COMBINATION OF THE BRANCH AND THE TERRITORIAL PRINCIPLES OF MANAGEMENT

Natural conditions have always been a major factor to be considered in the development of the national economy of any country. This holds true especially for the USSR whose area, climatic conditions, density of the population, and availability of mineral resources vary from region to region. For that reason, the branch principle of management through industrial specialisation is supplemented by the territorial organisation of management.

Historically, production took shape in the country's different areas depending on the essential availability of

mineral and labour resources. As industry and transport developed, the number of the industrially developed regions grew accordingly and their specialisation deepened. Simultaneously, another process got under way: specialisation of regions in particular products output was accompanied by the cooperation of production and the growth of economic ties between them.

The territorial specialisation of production is determined by both the economic and social and political factors of development. Immense potentialities for raising managerial efficiency lie behind a rational combination of the branch and territorial approaches to the management of social production.

The need for a territorial approach to the management of the national economy is dictated by the necessity of locating production facilities rationally throughout the country, ensuring a comprehensive development of its regions, and organising the most efficient use of labour and material resources, with due consideration for the local (national) conditions.

In combining the branch and territorial principles of economic management, the leading role is played by the former. It is resorted to in tackling the tasks of scientific and technological progress, pursuing a single technological policy and organising industrial specialisation and mass production.

At the same time, planning and development of industrial and agro-industrial complexes yields greater results within the framework of individual areas. This makes it possible to substantially lessen the costs for industrial infrastructure by using common communications, roads, and sources of heat and power. The territorial management bodies have a great role to play also in planning a fuller use of local resources for the production of building materials.

The territorial approach is of great significance in organising the manufacture of products needed by several branches in small quantities. These branches would not themselves launch such lines of output as unprofitable. The regions, however, can organise large-scale manufacture of this type of product for enterprises of a number of branches and other regions of the country. The setting

up of the territorial-production complexes and the elaboration of the comprehensive national economic plans of development is increasingly becoming a major form of combining the branch and the territorial approaches to management.

To provide for a most rational harmonisation of the branch and the territorial principles of management, economic levers and stimuli are used. Starting in early 1980s, the enterprises operating in the various branches began to share more actively in the joint use of the natural resources of the given region (building and other materials). In cities with a population exceeding 100,000 a one-man management is established responsible for the distribution of resources for housing construction. The reciprocal links of the enterprises of the region with the local budget grow stronger, while the range of enterprises participating in the formation of the budget widens.

The local Soviets of People's Deputies play a leading role in shaping and promoting the socio-economic interests of development of Territories, Areas, Regions, Districts, Cities and Towns. They control the use of land, mineral deposits, waters and forests, environmental protection measures, and the observance of sanitary, anti-fire and other regulations. The interaction of the branch and the territorial principles of management reflects the development of socialist democracy.

4. PRODUCTION ASSOCIATION: ITS ROLE AND PLACE IN THE STRUCTURE OF MANAGEMENT

Tens of thousands of production and research-and-production associations, combines and enterprises form the lower rungs of the hierarchic structure of the national economic management. Production associations merit special mention today.

The production association is a promising form of running modern production. It has arisen as a result of a merger, extension or cooperation of the formerly isolated enterprises. It is the natural result of the production concentration process and has a number of advantages as compared with an isolated enterprise.

An associated production makes it possible to develop

the lines of specialised production and to centralise auxiliary services. It makes it possible to concentrate financial, material, and labour resources in the most important sectors. Association also makes it possible to use more rationally the managerial staff, engineers and technicians and to accelerate the social development (build more association-run kindergartens, crèches, apartment houses, etc.).

Associations are set up with consideration of the specific conditions of the enterprises to be amalgamated. The major characteristics considered are production structure, predominant specialisation, location, size of the enterprise, experience of joint activity, and the personnel potential. For that reason, organisational structures of associations differ considerably.

As regards the centralised functions of management and the specific legal statuses reflecting the particularities of these structures, all production associations may be divided into the following groups:

Group 1—those with fully centralised management. The enterprises joining the association completely lose their juridical autonomy and are reorganised into the specific lines of output, their managerial apparatus being dissolved.

Group 2—those retaining only part of centralised management functions, the associated enterprises partially preserving their autonomy.

Group 3—some enterprises are denied legal autonomy, while others preserve it.

Group 4—all enterprises making up the association remain autonomous.

The organisational forms of associations in Group 1 may be recommended for enterprises situated near each other, roughly equal in size, and with very similar characteristics of production. Their merger into an association provides for a sharp cut in managerial staff, improves the structure of economic contacts with suppliers and consumers, and permits faster social development.

The structures of the second group of associations may be applied in cases when the partners are approximately equal in size, but differ considerably in the nature of the

production process and stand widely apart territorially. The resultant gain accrues from the centralisation of technical and economic services and the concentration of resources on the decisive sectors.

The third pattern may be suitable for partners differing in scale of production. Small-scale enterprises may be turned into lines of specialised output. The managerial personnel may be somewhat reduced. The financial resources are re-distributed more rationally.

In setting up research-and-production associations which incorporate research and designing organisations it is convenient to preserve the enterprises' autonomy in relation to the association (Group 4). If the partners do not tally in terms of production scale and the volume of research and design work done this gap cannot be overcome through the redistribution of the available means. It is expedient that the bigger partner (a works) fills part of the orders using the designs and specifications prepared outside. In this case, the enterprises making up the association should retain their legal autonomy.

The association retains many patterns of economic management that were earlier practised at the associated enterprises, provided this does not lower its production efficiency. Only what is superfluous, duplicating or irrational is eliminated.

The socialist enterprise, both autonomous or associated, acts as the national economy's primary unit. Its administration exercises general management and consists of director, his deputies, shop chiefs, and foremen. Management of the enterprise and its subdivisions accords with the accepted organisational structure: sites, shops, services, subsidiaries or separate lines of output. Depending on the organisational structure, from three to six links of management are used: director—shop chief—foreman; director—site chief—foreman: director—shop steward—head of a board (production)—section chief—shift chief—foreman.

Too many links complicate management leading to parallelism in the work of individual link. That is why, the more effective the structure of managing an enterprise, the higher its performance.

The linear-functional structure of management tending

to evolve into a matrix structure or a project management structure (dealt with in the preceding chapter) is today the most widespread structure of managing a modern enterprise.

Every enterprise is headed by a director, who is entrusted by the state to dispose of all the enterprise's assets in the interest of the state. The director discharges his duties with the aid of the management apparatus subordinate to him. That apparatus consists, as a rule, of five basic services: technological, economic, supplies and marketing (commercial), routine management, and servicing.

It should be stressed that the management functions of the enterprises remain basically the same even if their scale and nature of production are different. However, the intensity and distribution of functions among the particular subdivisions of the management apparatus may vary from enterprise to enterprise in one and the same branch of the national economy. The organisational structure of management should reflect the specific features for directing a given enterprise, and is to be endorsed by a higher management body.

The shop is the basic structural subdivision of the enterprise. It is headed by the shop chief, who organises its production process and is responsible for its economic performance. Guided by its chief, the shop personnel works to fulfil the planned assignments, ensures the smooth operation of the equipment and introduces new machinery and technologies. In discharging his management functions, the shop chief gets help from section chiefs, foremen, and heads of the shop's bureau and services. The shops and sections also have their own management apparatus, consisting, as a rule, of the production-dispatching bureau (technologist), the labour organisation and rating group, an economist, an accountant, and some other personnel.

The team directed by its leader is the primary management link in the shop (production group). The teams using the profit-and-loss accounting methods of work set up team councils consisting of its members enjoying trust and prestige among their fellow workers. The councils act as collective bodies of management on a voluntary basis.

Today, the tendency is to develop associations, enabling them to cover all stages of research and development, production, circulation and use of output. The size and composition of an enterprise is considered to be best when it ensures the planned and uninterrupted realisation of technical, economic and organisational ties between its subdivisions aimed at a most efficient and full achievement of end results.

The medium-size and relatively small enterprises, specialising, as a rule, in the production of general-purpose completing items (parts, assemblies, spare parts) and in the production of consumer goods, will likewise be further developed.

The flexibility and efficiency inherent in associations and their growing share in the sum total of enterprises and organisations forming the social production fabrics of the Soviet economy, make them a leading link in the country's socialist production.

SELF-TEST QUESTIONS

1. What is the structure of the state management bodies of the USSR?
2. What do we mean by general, branch or special competence? Cite examples of the respective state bodies.
3. What is the objective of the branch specialisation of the economy?
4. What is the significance of the territorial approach to the economic management?
5. What was the reason for the rise of production associations and what functions do they fulfil?

Chapter 9

MANAGERIAL PERSONNEL. SYSTEM OF WORK WITH PERSONNEL

KEY POINTS

1. Managerial personnel. Its composition and role in improving the managerial system.
2. The system of work with the managerial personnel.
3. Improvement of selection of managerial personnel.
4. Methods of assessing the managerial personnel.
5. Training the managerial personnel and improving their skills.

Discussion Hints

In examining the *first point*, it is important to show that as the tasks of perfecting socialist society grow more complex and the need to combine the achievements of the scientific and technological revolution with the advantages of the socialist economic system and more urgent need to place the economy on the path of predominantly intensive development, the role played by the managerial personnel also grows substantially.

The personnel of the management system comprises administrators, specialists, and the subsidiary (technical) staff. It is necessary to consider the basic hall-marks uniting these three groups, and those differentiating them.

As to the *second point*, it is necessary to show how the work of providing the national economy with highly

qualified managers is organised and what conditions are created for their effective performance.

In studying the *third point*, one should reveal the meaning of the Leninist principles of selecting cadres and show how these principles have been developed to meet present-day requirements.

Dealing with the *fourth point*, it is necessary to consider the criteria and methods of appraising the business qualities of the managerial workers and familiarise oneself with the basic normative documents governing the system of certifying their proficiency, and business and political abilities.

The *fifth point*, deals with the system of training managers in the USSR and improving the skills of the managerial personnel. Considered here should also be the aims, forms and methods used in training the managerial personnel.

1. MANAGERIAL PERSONNEL. ITS COMPOSITION AND ROLE IN IMPROVING THE MANAGERIAL SYSTEM

The managerial personnel is the main element of the system of management. Lenin regarded the selection and shaping of the managerial personnel as a major constituent part of the organization of social production management. He defined the role of the professional cadres of managers—specialists and executives—who should direct the socialist economy as follows: “Without the guidance of experts in the various fields of knowledge, technology and experience, the transition to socialism will be impossible.”¹

As modern economic experience in the USSR bears out, the more complex the tasks of the socio-economic development and the faster the rates of social and technological progress, the greater is the volume of managerial work and the more complex it becomes. The effectiveness of social production increasingly depends on the

¹ V. I. Lenin, “The Immediate Tasks of the Soviet Government”, *Collected Works*, Vol. 27, Progress Publishers, Moscow, 1965, p. 248.

standard of management. This is due, first and foremost, to the growing role of management and the greater significance of the subjective factor in it.

Under the accelerated socio-economic development new preconditions arise for the role of subjective factor to be strengthened. Expansion of the national economy, dynamic rates of economic growth and qualitatively new structural changes in social production, application of the results of the scientific and technological revolution—all increase the range of possible decisions and make it harder to choose the best one, thus, naturally, raising more intricate problems before the managerial personnel. The prolonged duration of economic processes, remote results of the decisions made and greater significance of the non-economic aspects of economic activity (social issues, environmental protection) also considerably raise the managers' responsibility, confronting them with increasingly more complex tasks.

The management personnel is today usually designated as workers fully or partially engaged in the managerial labour (discharging the functions of management), in other words, as those participating professionally in the management process as part of the management apparatus.

Three categories of workers are usually singled out in the management apparatus: executives, specialists, and subsidiary (technical) staff. Each category has a specific role to play in the management system and possesses its own distinctive features of labour activity.

Executives are the management apparatus workers vested by the state with special powers. They head the work collectives, guide and regulate their activities, make managerial decisions and are fully responsible for their implementation. In decision-making, the executives should primarily be guided by the interests of the whole people and the state.

According to the functions they discharge and the specific activities of the work collectives they head, the executives may be either linear or functional.

The linear executives are those executives and their deputies who carry out the entire range of managerial functions in directing the collectives of the enterprise's produc-

tion subdivisions, the enterprise itself, the association or the branch. They are team leaders, foremen, chief foremen, section chiefs, shift chiefs, shop assistant chiefs, shop chiefs, directors of enterprises and their deputies.

As distinct from the linear executives, the functional executives discharge only part of the managerial functions: they head the collectives of the functional services or their subdivisions in enterprises, associations, and ministries. In industrial enterprises and in production-and-research associations, they comprise the chief specialists (chief engineers, chief mechanics, chief economists, chief designers) and heads of the functional subdivisions (heads of labour and wages units, planning and economics units, marketing and supplies, personnel division).

Depending on the level of the post held by economic executives in the general national economic management system of the USSR, they are customarily classed as lower-, middle- or higher- category executives.

The lower-category executives in industrial enterprises and associations comprise team leaders, foremen, assistant foremen, shift chiefs, section chiefs, chiefs of small shops, as well as heads of functional services and subdivisions.

The middle-category executives in industrial enterprises and associations are heads of large shops, directors of enterprises, general directors of associations and their deputies.

The higher-category executives comprise heads of ministries and their deputies and heads of the functional subdivisions in ministries and departments.

Specialists are the management apparatus workers, who, using their special skills, prepare managerial decisions or solutions of production problems. As distinct from the executives, specialists do not have their own staffs of workers subordinate to them, and they are responsible only for the quality of the managerial decisions or solutions of production problems they work out and submit to the executives as possible variants. The specialists as category comprise engineers, economists, accountants, jurists, technologists, dispatchers, sociologists, psychologists.

The *technical personnel* consists of workers servicing

the management process and doing the office work. They comprise secretaries, typists, keepers of archives, messengers, draughtsmen, laboratory men, filling clerks.

The function of these workers is to aid the executives and specialists in preparing and submitting the business documentation, retrieving, primarily processing, storing and providing the necessary information.

The accepted classification of the management apparatus workers makes it possible to formulate the requirements of their work depending on the category they belong to, and organise a suitable work system for selecting, appointing, training and re-training them.

2. THE SYSTEM OF WORK WITH THE MANAGERIAL PERSONNEL

The system of work with the managerial personnel rests on the totality of principles, forms, methods and areas of this function which helps provide the national economy with the highly qualified managerial personnel and create the conditions for their efficient performance.

That system consists in the planned and organised selection of the personnel, their rational assignment, probation, training and retraining. It also provides for the creation of the promotion reserve, as well as regulates and supervises the personnel's activity, organising it on a scientific basis.

In planned socialist economy, work with the managerial personnel also follows a planned pattern. Long-range plans of work with the managerial personnel employ a systematic and comprehensive approach. These plans form part of the five-year plans of the economic and social development of a particular branch of the national economy. They envisage the required number of managerial workers of every category, their fluctuation for various reasons (retirement, quitting the job for work in another industry). They also take into consideration the number of executives and specialists to be retrained, specialists needed by the enterprises to be turned out by the country's higher and secondary specialised educational establishment and the numerical strength of the reserve

of the personnel to be promoted to the leading posts in the branch.

3. IMPROVEMENT OF SELECTION OF MANAGERIAL PERSONNEL

Lenin who worked out the basic principles of work with the managerial personnel, stressed that the system of work with personnel, the cadre policy, constitutes a decisive sphere in the Party directing the national economy. As the priority, Lenin advanced the task of selecting and promoting the right people, holding them personally responsible for what is done and verifying what has been actually done. To avoid grave mistakes in selecting executives he insisted that they should be examined "(a) from the standpoint of honesty, (b) from the political standpoint, (c) business qualifications, (d) executive capacity".¹

At the same time, Lenin pointed to the need to take into account the purely individual traits of workers, the psychological peculiarities of their character. In his "Letter to the Congress" he stressed the importance of the personal qualities of the executives, noting that "... it is not a detail, or it is a detail which can assume decisive importance".²

One of the Leninist major principles of personnel policy deals with the organisation of the systematic work to select from among the gifted rank-and-file workers and peasants, talented organisers and to promote them to leading positions. Lenin warned against formalism in work with personnel, counseling patience in looking for and discovering true organisers, sober-minded people with practical ingenuity, who combined faithfulness to socialism with the ability to arrange, without much ado, vigorous, well co-ordinated and effective team-work. He believed that only after such people had been tried and tested on increasingly more complicated jobs could

¹ V. I. Lenin, "Telegram to N. M. Knipovich", *Collected Works*, Vol. 45, Progress Publishers, Moscow, 1981, p. 243.

² V. I. Lenin, "Addition to the Letter of December 24, 1922", *Collected Works*, Vol. 36, Progress Publishers, Moscow, 1971, p. 596.

they be promoted to the responsible posts of leadership.

The principles of work with personnel which have proved to be viable in the experience of building up the economy in the USSR, are as follows:

--a clear-cut delineation of duties and responsibilities of personnel;

--a systematic replenishment of the leading cadres by promising and energetic workers, ensuring continuity between the old and the fresh cadres; creating conditions for their development and advancement; all-round help to enable them to master knowledge and gain experience; trust in the cadres coupled with verification of their decisions.

In present conditions, a major principle underlying the personnel policy is the compatibility of a nominee to a leading post with the object of management he is to direct. In other words, the worker in question should have the necessary knowledge and work experience precisely in that sphere of management where he is going to work. Thus, a good executive heading a functional department of an enterprise cannot be made a linear executive at the same enterprise without previously learning whether he meets the necessary requirements of being an able one-man manager. If he does not, the appointed executive may not do as well at his new post as at his former job.

It is very important to combine harmoniously the executive's good business qualities with those of his immediate assistants. The faculties one worker lacks may be filled in by those of others, thus contributing to the smooth and efficient operation of the management apparatus.

Selecting suitable personnel means establishing the ability of the nominees to discharge functional duties in a definite post and appointing to that post the one who best meets the requirements. The selection process means collecting information about the aspiring candidates and the assesment analysing the requirements to be met by them. It also involves a comparison of the candidates and selection of the one whose qualities meet best the requirements; his appointment to the contested post.

A system of competition for selecting and appointing

executives and specialists is widely employed. To find out whether a candidate is suitable to be promoted to a leading post, so-called "professiogrammes" are compiled at the enterprises, listing the necessary qualifications for the post.

Selection of suitable personnel proceeds along two directions: selection and enlistment of outsiders and promotion of the enterprise's own workers from the personnel reserve. This work is carried out by work collectives and their executives aided by the labour recruitment service—personnel department, welfare and social development service, training and retraining department. Selection, proper placement, and training of personnel is done in close contact with the enterprise's Party and public organisations.

Together with the departments of planning and economics, labour and wages, production and technical training, the personnel department draws up annual and long-term plans to provide the enterprises or organisations with the managerial personnel, their training and retraining.

The work of the personnel service to provide enterprises with executives and specialists for all their subdivisions, is systematic. On the basis of the analysis of the professional, educational and age composition of the personnel and other social-demographic data, the demand for personnel is forecasted and planned, and practical assistance given to the management in selecting and appointing the required executives. Proficiency certifications and recertifications are regularly held at enterprises and steps are taken to raise the qualifications of the personnel. The personnel reserve is developed and its standards improved.

Today, the personnel service focuses attention on such issues, as the setting up of a rational system of registering the personnel, its movement inside the enterprise (the association or the branch), analysing the causes of turnover, generalising and implementing advanced experience, organising the training of all executives to help them learn progressive forms and methods of selecting and appointing the management personnel.

4. METHODS OF ASSESSING THE MANAGERIAL PERSONNEL

The need to assess the personal abilities and the work performance of the managerial employees is always an urgent question in the system of management. Its resolution makes for the effective selection and appointment of the personnel (enlistment of new workers and replenishment of the personnel reserve). It also makes it possible to improve the system of stimulation (bonuses, provision of material and moral incentives, and to raise the skills of the managers (assessment of candidates for training and their assessment after training).

The practice of assessment shows that it is necessary to estimate the worker's store of knowledge (what he actually knows), his skill (what he can do), and character traits especially essential for the industrial manager (what sort of a worker he is).

In assessing the knowledge, experience, and character traits of a worker one should use political, managerial, and production criteria, taking into account the peculiarities of the branch, the association and the enterprise where the manager under the assessment works.

To assess the managerial workers correctly, it is important to choose the proper procedures and methods outlined in the special normative documents. These documents contain general rules of proficiency certification, lists of the categories of workers to be certified, the time limits and procedures of such certification.

As Soviet experience bears out, it is expedient to certify the proficiency of engineers and technicians of the enterprise every three-five years. During that period, specialists get to know their jobs thoroughly and that makes it possible to assess the quality of their performance objectively. The concrete time-limits of the certification are set by the head of the enterprise jointly with the trade union organisation. The workers to be certified are notified of these time-limits at least one month in advance of the certification date.

It is very important to choose the right methods of assessing the complexity of the work and the abilities of the managerial workers. The method of assessment

aided by experts making up part of the certification commission has today received a widespread practical application. Such a group comprises workers holding positions higher than that of the person undergoing the certification, his authoritative colleagues, and representatives of public organisations.

The worker's qualities are usually assessed in points or coefficients. For every good performance the worker is given a definite number of points or coefficients as agreed previously. These are then added up. The drawback of the point methods is that it is not devoid of subjective reactions. For that reason, other methods of assessment are used, such as estimation of the abilities of the workers in respect to his position; comparison of the performance of the given worker with that of other workers who excellently discharge their duties. But the main and decisive method of assessing the managerial worker's qualities is to test him in practice. Testing in practice is essentially a universal method making it possible to reveal and assess the entire complex of the basic qualities of the managerial worker. Although other methods play a subordinate role, one cannot do without them, for they, too, help improve work with personnel.

Recently, accounting for their work by heads of enterprises to their work collectives, has become a widespread practice.

5. TRAINING THE MANAGERIAL PERSONNEL AND IMPROVING THEIR SKILLS

The training of economic executives, specialists, and subsidiary (technical) personnel, constitutes a major element in the system of work with personnel. The bulk of future managers and specialists is trained in the country's higher and secondary specialised educational establishments. As to the technical managerial staff, they are trained in vocational technical schools or at special courses (type-writing, stenography). After graduating from a higher or a secondary specialised establishment and one or two years of work as specialists, the workers may be promoted to the posts of lower-category ex-

cutives, thus becoming professional managers with the prospect of ascending the administrative ladder.

The Soviet Union as other socialist countries, has established a wide network of vocational centers for training executives of the lower and the medium levels. They enroll young specialists having service records of one to two years and with promising organisational abilities. The term of study in these centers is from three to six months, after which the specialists are entered into the personnel reserve to be subsequently promoted and appointed to leading posts.

The scale of training specialists in the USSR is very large. Annually, more than 5,000,000 students study in more than 800 institutions of higher learning, while the total number of specialists with higher or secondary specialised education employed in the national economy in 1985 exceeded 30,000,000.

The rapid development of science and engineering and the switch-over to the methods of intensive economy, necessitates the technical re-equipment of the branches of national economy and the creation of conditions for the better use of all kinds of resources. This, in turn, calls for the retraining, or the upgrading of those specialists and executives, who have a fairly long record of service after graduation from educational establishments. Today, the USSR has an efficient system for improving the qualifications of specialists and executives. For one, there is the Academy of the National Economy under the USSR Council of Ministers working to improve the qualifications of executives in the higher link of the management of the national economy: ministers and their deputies, heads of large associations, as well as the leading executives of the functional bodies of the USSR Council of Ministers.

The Institutes for Improving Qualifications (IIQ) set up under the branch ministries, serve as a basic means of raising the skills of economic executives as well as specialists in the lower and medium brackets. These institutes together with their branches in some regions form a leading link in the system of improving the skills of the high-ranking executives and specialists in line with the long-term plans worked out and endorsed by the

ministry or department which directs them. The term of study is fixed depending on the forms of training and the subject-matter taught: up to two months for students temporarily on off-leave from their jobs, and up to six months for students who study after working hours.

Faculties for raising the qualifications run by higher educational establishments, as well as the analogous courses sponsored by ministries, technical schools enterprises, and production associations do much to cater for the needs of the lower- and medium-category executives and specialists.

Improvement of the skills of specialists and executives largely follows a branch pattern, although in the USSR there are also several educational centres run on an inter-branch basis. They help improve the qualifications of specialists in the field of planning, finances, accounting, banking, and patents.

Various organisational forms make it possible to use different interim periods in retraining and improving the qualification of specialists and executives. Customarily, they are fixed depending on the rates of development of the various areas of science and engineering in the branch. But generally, there is an average period of four-five years for many branches of the national economy.

The district and town CPSU organisations also do much to raise the political and managerial level of heads of the respective industrial enterprises. Their Houses of Political Enlightenment run Universities of Marxism-Leninism, special seminars, and courses for the directors and chief specialists of enterprises. The Party Higher Schools have also considerable achievements to their credit in training leading functionaries and executives. They are set up as republican or inter-regional centers for training party, government, and economic functionaries and executives. In this way, the system of work with the managerial personnel that has developed in the USSR makes it possible to tackle effectively the task of providing the national economy with the highly-qualified personnel.

SELF-TEST QUESTIONS

1. What accounts for the increasingly greater role of the managerial personnel at the present stage?
2. Into which categories is the managerial personnel divided?
3. Name the basic areas of the system of work with the managerial personnel.
4. What are the main principles of selecting and placing leading personnel?
5. What is the personnel promotion reserve?
6. What are the main forms of training the managerial personnel and improving their skills?

Chapter 10

THE STYLE OF WORK OF EXECUTIVES IN THE ECONOMY. STEPS TO IMPROVE IT AT THE PRESENT STAGE

KEY POINTS

1. The executive's place in the system of economic management. The nature and essence of his work.
2. The Shaping of the style of work of the executive: its essence and peculiarities.
3. Improvement of the executive's style of work—the need of the time.
4. Forming the reserve of executives.

Discussion Hints

In analysing the *first point* it is important to demonstrate the special role the executive plays in the system of management, showing that it is considerably enhanced as a result of the expansion of the national economy, the structural changes in production, the application of the achievements of the scientific and technological revolution, the increased responsibility of the managerial personnel. Describing the executive's work, one should stress that he has to direct the entire management system within his competence, and coordinate the activities of the units subordinate to him. In addition, he should act as a specialist of production and management, an organiser and educator of the collective he heads.

In dealing with the *second point*, it is necessary to

clarify what we mean by the style of work of an executive in the economy, what underlies shaping and improving his work.

As regards the *third point*, it is necessary to show what requirements the executive should meet at the present stage of development of the socialist economy.

Study of the *fourth point*, should familiarise you with a major means of building up the personnel potential—the setting up of the reserve of executives.

1. THE EXECUTIVE'S PLACE IN THE SYSTEM OF ECONOMIC MANAGEMENT. THE NATURE AND ESSENCE OF HIS WORK

The executive in the economy holds a special place in the system of economic management. This is due first and foremost to the rising role of management and, consequently, of the managerial personnel. The executive leads the collective he is in charge of, being a trustee and representative of the Communist Party and the socialist state.

The executive's role is today increasing in importance, since a new dimension has been added to the management system, the links between the branch and the territorial management bodies, and within them—all increasing in scale and complexity. Today it is necessary to ensure the coordinated and balanced work of all the links of the management system and consider more thoroughly the political, economic, technical, and ecological consequences of the decision process.

New and promising solutions of production problems are on the constant rise under the impact of the scientific and technological revolution. The nature of most of these calls for a comprehensive approach and the combining of the economic, social, political, scientific, technological and other aspects of a particular solution. It is only the executive, holding as he does an appropriate position in the system of management, who can ensure such a comprehensive approach. It is he who is personally responsible for the timely adoption (● or non adoption) and the carrying out of strategic and routine decisions.

Modern production is characterised by an increasingly wider application of technical devices and computers in the system of management. This makes it possible to relieve the managerial workers of non-creative operations, giving scope to the adoption of imaginative and basic solutions. This implies that as the production grows more sophisticated, the more complex become the management itself and the manager's problems. His main task is to exercise general guidance over the functioning of the management system as a whole, coordinating the activities of its individual links and uniting the efforts of all the participants in the production process, of all his subordinates, to effectively accomplish the tasks facing them.

The work of the executive differs from that of the other members of the managerial apparatus. Above all, this is expressed in the fact that he is responsible for the solution of the entire range of production, economic, technical, and social problems and for making decisions on these issues. He has to organise all workers operating directly in the specific sectors of production entrusted to them.

Being of a creative nature, the work of the executive may be called the art of management. On the one hand, the executive is guided by certain principles or regulations. On the other, he creatively applies these regulations to the concrete situation.

Being responsible for the solution of basic problems, the leading executive entrusts his assistants with the solution of other (specific) problems. He delegates his powers to the heads of lower subdivisions.

The leading executive should focus his attention on the preparation of the strategic and tactical decision within his terms of reference, on considering and working out the perspective for the development of production, foreseeing and forecasting the conditions that would enable the collective to accomplish the set tasks. In the process of his routine work, he discharges a number of more specific functional duties. These make up the bulk of his work. He decides on the ways of solving the problems before the collective, and directs the drafting of the organisational plan for their realisation, project-

ing concrete tasks for the collective. He ensures the smooth functioning of the management apparatus, improving the structure and the functional system of management. He directs the activities of the collective aimed at saving and utilising effectively the available resources, achieving high rates of development of production, the large-scale application of the latest equipment and technologies and the scientific organisation of labour.

The leading executive organises the drafting of current and long-term plans of production and economic activities, mobilises the collective for the task of meeting in time or ahead of schedule the targets set by the state plan according to the commitments the collective has undertaken.

The executive is responsible for the selection, proper placing and use of the collective's personnel, and together with the work collective and public organisations he conducts work to educate the employees in the spirit of the communist attitude to work, observance of state interests, and labour and technological discipline.

Provision of good working conditions for his collective and improving their housing, cultural and welfare conditions is a major duty of the leading executive.

The executive at any level of the economy is the organiser of production. He decides the matters related to the technical development and organisation of production, raising its quality, and the organisation of labour, better use of the machinery and equipment, saving on raw and other materials.

As the organiser of production, the executive makes decisions on the key problems of its development, mapping out the best ways of ensuring this.

The executive organises and directs the work of the apparatus of management. He is the first to receive the directives and assignments of the superior organisations. In the process of his work with the management apparatus, he has the opportunity of ascertaining whether its organisational structure and the distribution of functions among its workers meet the requirements. Together with the functional subdivisions, he may make decisions on changing their composition and functions, and redistribute the duties of individual workers.

As was already stressed, the executive acts in the collective on behalf of the Party and the state, he has the task of implementing Party policy, displaying concern for both the interests of the state and the whole people, and of the collective he heads. He should seek to harmonise these interests.

2. THE SHAPING OF THE STYLE OF WORK OF THE EXECUTIVE: ITS ESSENCE AND PECULIARITIES

Discharging his functional duties, every executive enters into certain relations with a wide range of people: his superiors, colleagues (executives of the same level), subordinates, representatives of Party and public organisations. His impact on the totality of these relations is to a great degree determined by his style of work.

The style of work of the given executive is based on various factors, the main being the socio-economic conditions of social production and the level of development of the productive forces of the society. The objective laws of socialist society presents the conditions for a qualitatively definite style of work of the executives—the socialist style of management, which is often termed the Leninist style of leadership. Lenin was both a great theoretician who had succeeded in discovering the demands the new socio-economic formation makes on the style of work of leaders, and a talented organiser who materialised these demands in his practical activity. By and large, the Leninist¹ style of work implies such an impact of the leading executive upon the entire system of production relations, as would make it possible to use most fully the advantages of the socialist system of economy. But the style of work always bears the imprint of the personality, of the unique personality of the concrete executive. However, the particular features of the executive determined by the degree of his development (his store of knowledge and the ability to realise it), experience in life do not reveal themselves at random. They are

¹ Here and elsewhere by the Leninist style of work is meant the objectively conditioned socialist style of work.

conditioned by the actual relations in which he acts.

Thus, by the style of work of the specific executive we mean his individual manner of affecting the operation of the entire system of management.

Under socialism, it is both possible and necessary to purposefully cultivate the Leninist style of work among executives.

In assessing the style of work of an executive, it is necessary to ask: to what extent does the style meet the demands made on the managers of the socialist social production at its present stage of development? Thus, one has to compare the Leninist style of work with that of a particular executive.

The Leninist style of work necessarily presupposes the use of the basic principles of managing the socialist economy.

The principle of the political approach to the solution of economic problems helps shape the following features of the Leninist style of work: high ideological consciousness, conviction and persistence in carrying out the Party aims; a scientific and state approach to the making of decisions; observance of socialist legality; high responsibility to the Party and the people.

These traits are formed in the process of profoundly studying Marxist-Leninist theory, Party and government decisions, mastering a communist world outlook, deep conviction and boundless devotion to the cause of the Party. Loyalty to the ideals of communism should find expression not only in deep understanding of Party policy, but also in the ability to implement it. Lenin noted that "All non-partyism, even under exceptionally favourable conditions, invariably indicates that clarity and maturity are lacking in the political consciousness."¹

The principle of democratic centralism helps shape such traits of the Leninist style of work as one-man management coupled with the collective making of decisions and reliance on the work collective, the Party and other public organisations; highly disciplined and well organised conduct of one's own managerial affairs and personal

¹ V. I. Lenin, "Once More on Partyism and Non-Partyism", *Collected Works*, Vol. 16, Progress Publishers, Moscow, 1974, p. 62.

responsibility for the entrusted task, wide involvement of the working people in the management of production and the creation of conditions for their activity and initiative.

The executive's ability to organise efficient team-work of the collective, is a major trait of the Leninist style of work. The rights and powers given to the executive by the socialist state to discharge his functions raise his responsibility not only for the thrifty and rational use of the means of production, but also for taking effective advantage of the abilities and potentialities of each of his subordinates. He is vested with powers to impart to the collective a single will, rallying it for purposeful and coordinated activity to most effectively accomplish the state tasks.

At the same time, the principle of centralism applied by the executive is, essentially, democratic, for he applies it to promote the interests of the collective. It will not bear fruit unless the workers are widely involved in management, and the collective brain of the executive and the worker alike is competently used. Power is given to the executive so that he could use in the best way all the forms of attracting the workers to the management of production.

For that reason, the style of work of the manager of the socialist social production may be termed as essentially democratic. To master it one must have a high level of development and the talent of the organiser. To master it is to master the art of management.

Expounding the principle of democratic centralism, Lenin pointed out that the single will can be realised in the executive's activity in many ways depending on how conscientious, diligent and responsible his subordinates are. Submission to the executive's will may remind one of the situation where "the mild leadership of a conductor of an orchestra ... may assume the sharp forms of a dictatorship if ideal discipline and class-consciousness are lacking".¹ The democratic style of management calls for a creative approach. It calls for a differentiated ap-

¹ V. I. Lenin, "The Immediate Tasks of the Soviet Government", *Collected Works*, Vol. 27, Progress Publishers, Moscow, 1977, p. 269.

proach to choosing the specific ways and means of interaction with subordinates, taking into account their individual traits and concrete situations.

In his leadership, Lenin employed a great variety of approaches to the people with whom he collaborated. Displaying great concern for the people and respecting every one's dignity, he was an irreconcilable and merciless enemy of those who hindered, or caused harm to, the building of socialism. Lenin tirelessly fought against "communist arrogance", red-tape, and violations of labour discipline, which he considered as crimes against the people, demanding that those guilty of them should be brought to trial and ruthlessly punished.¹ Lenin demanded capital punishment—shooting bribe-takers and rogues.²

The democratic style of management does not reject sharp forms of coercion in relation to those who violate labour discipline and do not want to work honestly, trying to give society as little as possible and to grab from it as much as possible. Moreover, the executive's democratic principles oblige him to apply to such violators a system of coercion that would make them observe labour discipline and the laws of socialist society. In contrast to authoritarian, commanding methods, these methods of coercion are taken not in disregard of public opinion, but based on it. For the anti-social acts and negative behaviour of some individuals are justifiably condemned by the members of the work collective.

The democratic style of management has nothing to do with liberalism. The so-called "liberal style" of management implies a passive role for the manager, the lack of principles, and the fear to come to bad terms with his subordinates. A liberal executive shirks supervision over his subordinates' performance and fails to appraise their work, especially when the latter has certain flaws. He tries to evade quarrelsome situations and pictures the actual state of affairs in rosy colours. The contradictions that arise (and they represent a moment of development) are not thus resolved. This results in an unsavory socio-

¹ *Ibid.*, p. 266.

² *Ibid.*, p. 252.

psychological climate in the collective, hindering its good performance. If such an executive is given free rein, this may bring about a veritable disintegration of the collective.

It is much harder to master the democratic style of work than the "authoritarian" or the "liberal" one. The talent and development of the executive should be judged by his ability to apply the democratic style in fulfilling his managerial functions.

The Leninist style of management calls for the wide involvement of the members of the work collective into the management of production, the executives' constant concern for the development of the socialist emulation movement, dissemination of useful initiatives and advanced experience, taking advantage of the impact the Party and public organisations have on the collective, and developing positive criticism and self-criticism. All this creates a favourable microclimate devoid of indifferent people fencing themselves in by their exclusively personal interests.

Attaching great significance to the ability to cooperate with people, Lenin stated that "the Communist leader must prove his claim to leadership by *recruiting* a growing number of experienced teachers to help him, and by showing his *ability* to help *them* in their work, to promote *them*, and take account of and bring out *their* experience".¹

The sense of political purpose, the ability to organise the work of his collective in effective and harmonious way, a high cultural level—all these qualities combine to raise the prestige of the executive and for the people around him to willingly accept his leadership. The executive must be an accepted leader.

The formal authority of the executive based as it is on the prestige of his position, rights, and power in relation to his subordinates, is just the groundwork on which the real authority has to be built. The real authority of the executive depends on how he actually realises the rights and powers vested in him, his style of work. The

¹ V. I. Lenin, "The Work of the People's Commissariat for Education", *Collected Works*, Vol. 32, Progress Publishers, Moscow, 1977, p. 126.

prestige of the executive is the product of his ability to direct activity of his subordinates without resorting to domineering ways.

The art of leadership is the most complicated of all arts. You cannot master it unless you possess certain faculties and a talent. These faculties can be developed in the process of ideological seasoning, persistent and ceaseless study, gaining experience and know-how, fostering lofty moral views and constantly striving for self-perfection.

3. IMPROVEMENT OF THE EXECUTIVE'S STYLE OF WORK—THE NEED OF THE TIME

Improvement of economic management in the USSR is a prerequisite for accelerating the Soviet society's social and economic development, the best use of all the available resources and the uniting of the efforts of Soviet people to implement the policy of the CPSU and the Soviet state.

The standard and effectiveness of management largely depend on the performance of the executives heading the various subdivisions at all levels of management. Each executive is a trustee and a plenipotentiary representative of the CPSU and the Soviet state. He directs, coordinates, and integrates the activities of the workers and subdivisions subordinate to him, playing the role of the "conductor" of social labour. The more he considers the objective laws, the higher is the economic and social effect resulting from the collective's work, and the larger is the scope of self-government.

The role of economic executives and their style of work is especially decisive today. Intensification of production on the basis of the accelerated scientific and technological revolution, the utilisation of the organisational, economic and social potentialities, call for considerably improved methods and style of work of all executives.

A higher level of organisation, discipline and responsibility for one's work, intensive and creative search for the more progressive solutions to ensure revolutionary break-throughs in engineering and technology, introduc-

tion of rational forms of organising labour and production, the ability to interest people in the best possible use of all resources, raising their labour and social activity and making them feel the masters of their country—such are the tasks set by the CPSU before the executives in the economy. These tasks have to be resolved to reach, in the shortest possible time, the world's highest level of labour productivity—the main condition for ensuring substantially faster rates of the economic and social development of Soviet society.

The CPSU has worked out the concept for the radical improvement and the restructuring of the economic mechanism which envisages:

- the further development of the principle of centralised management, designed to ensure a comprehensive approach to the solution of the strategic tasks of developing society and social production;

- provision of greater powers and autonomy to enterprises, laying stress on the profit-and-loss accounting methods of work and raising the incentives for the work collectives to reach better end results;

- democratisation of the work collectives' activities.

The main thing today is a highly productive and creative labour, squaring words with deeds, greater initiative and responsibility, an exacting attitude to oneself and to others, the sense of the new, a skillful raising of problems and ensuring their effective solution, constantly striving to learn and work better. The way these tasks are accomplished is controlled by the work collectives, which regularly meet to consider reports delivered by the executives at all levels.

4. FORMING THE RESERVE OF EXECUTIVES

The personnel promotion reserve is a contingent of workers drawn from among the recently graduated specialists (young specialists), linear and functional executives and specialists who have passed the proficiency certification and have taken a course in the science of management (including those who, lacking sufficient managerial experience, have worked on probation as acting executives).

In the USSR, the young specialists can be included into the promotion reserve after they have worked at an industrial enterprise or in an organisation for at least two years. During that period, they work under the guidance of experienced workers and should master thoroughly the specialty they had received in college, demonstrating their organisational abilities. Commissions are set up headed by the enterprises' chief engineers or their deputies which supervise the young specialists' performance, determine the standard of their skill and organisational abilities, and make proposals about their future careers. Those with the best background and training are enrolled into the promotion reserve.

The linear and functional executives working at lower or medium levels, constitute another group of workers eligible for the promotion reserve. In the future they could be appointed to higher managerial posts.

Young workers finishing correspondence schools and colleges and having a good service record may also be enrolled into the reserve of executives to be subsequently promoted to lower-level managerial positions.

The managements of enterprises and organisations jointly with the Party, trade-union, and YCL organisations, nominate the candidates to the reserve, taking into account the opinion of the entire work collective. After thorough consideration and in consultation with the superior Party bodies, lists of the personnel promotion reserve are compiled.

At present, two categories of the personnel reserve are formed:

- the listed reserve of ministries and industrial associations (chief departments);
- the listed reserve of production associations, enterprises, and organisations.

The listed reserve of ministries and industrial associations (chief departments) is the source of providing enterprises and production associations of the branch concerned with leading personnel. It should be pointed out, that workers included in the listed reserve of ministries and industrial associations may be appointed to leading posts not only at the enterprises and organisations where they had been nominated, but also at enterprises

which, in the period under review, do not have their own suitable candidacies to fill vacant leading positions. One has also to consider the circumstance that small-scale enterprises do not always have adequate opportunities to nominate their workers into the reserve. That is why the ministerial reserve provides greater manoeuvrability for providing leading executives for the branches of the national economy as a whole.

The personnel reserve is constantly replenished and renewed. Every year, fresh specialists and executives of the lower link with good theoretical background and organisational abilities come to the fore at enterprises and organisations. Besides, a natural movement of specialists and executives enrolled in the reserve is registered yearly (change of work or the place of residence).

To conduct planned work with the reserve, its numerical strength and composition are determined. The structure of the reserve should be suitable to cover all levels of management and correspond to the structure of posts and functions the worker in the reserve could be placed in the future.

Every worker in the reserve should know to what post he is scheduled to be promoted. At the same time, the reserve should be sufficiently mobile. In the reserve, the prospective executive must be ready to discharge, if need be, the functions assigned to other posts, but similar to his own in nature and content of work.

The basic criteria in selecting the candidates for the reserve are as follows: a high ideological and theoretical background and moral integrity; the specialised education conforming to the nature of the future occupation; experience in contacting people; the state of health and definite age limits; his consent to fill the proposed post.

The demand for executives is planned for a long-term period, consideration being given to possible dropping out for unpredictable reasons. In planning the reserve, it is important to provide for the rate of reservation (to have in the reserve several candidates from whom to choose the most suitable).

After the reserve has been formed, a systematic work with it is needed (including training, probation and proficiency certification). The main task of training the re-

serve consists in helping the reserve worker master in a brief period of time modern theory and methods of management, preparing him for new, more intricate and responsible work.

The kind and place of training are chosen with due account of the nominee's background and the proposed post. The training of the reserve personnel in various educational centers is necessarily accompanied by the probation period at the respective enterprises, preferably the advanced ones from the standpoint of their equipment, technology, economics and organisation of management. The probation period is guided by the experienced executives.

Work with the reserve personnel culminates in the certification of their proficiency, which serves as a basis for making recommendations concerning their appointments to the specified leading posts.

To make promotion work with the reserve more effective, managements and public organisations should exercise a systematic control.

SELF-TEST QUESTIONS

1. What place does the executive hold in the system of management?
2. What are the specific features of the executive's work?
3. How would you define the executive's style of work?
4. What factors help shape the style of work of the particular executive?
5. What are the demands made on the style of management at the present stage?
6. What is the personnel promotion reserve?
7. What are the basic criteria in selecting candidates for the promotion reserve?

Chapter 11

THE SCIENTIFIC ORGANISATION OF MANAGERIAL WORK

KEY POINTS

1. The essence, significance, and basic principles of the scientific organisation of labour (SOL).
2. Basic areas of the application of SOL in the managerial apparatus.
3. Assessment of the effectiveness of SOL measures for management workers.

Discussion Hints

In dealing with the *first point*, it is important to understand the essence of SOL and its main features and to familiarise oneself with the fundamental rules (principles) of the process of organising labour on a scientific basis.

As to the *second point*, it is necessary to reveal the meaning of the work to introduce SOL in the management apparatus, considering its basic areas of application. These are: division and cooperation of managerial work; better organisation of the selection and the training of personnel, raising their qualification; improvement of the labour rating system; better organisation and servicing of work-places; rationalisation of labour; improved forms and methods of providing material and moral incentives to labour; improvement of working conditions; the strengthening of labour discipline and promotion of creative activities.

In studying the *third point*, it is necessary to demonstrate how the organisation of the labour of the managerial workers affects socially and economically the entire activity of the work collective.

1. THE ESSENCE, SIGNIFICANCE, AND BASIC PRINCIPLES OF THE SCIENTIFIC ORGANISATION OF LABOUR (SOL)

By the scientific organisation of labour (SOL) we mean organisation of labour that is based on the achievements of science and advanced experience systematically introduced into production, that makes it possible to fuse most rationally the technological potential and the labour force into a single production process, that provides for the most efficient use of the material and labour resources, and an uninterrupted growth of labour productivity, that helps to preserve health and to gradually turn labour into life's primary necessity.

The tasks that may be solved with the aid of SOL, may be divided into three groups:

The *economic tasks*. Their solution makes for a rational use of labour, material and financial resources, and creates conditions for the growth of labour productivity, which, in the final analysis, results in a higher efficiency of social production.

The *psychophysiological tasks*. These are tasks of creating the most favourable working conditions, diminishing the fatigue factor affecting workers and at the same time preserving their high capacity for work, protecting and upholding their health.

The *social tasks*. These are aimed at providing conditions for the constant improvement of the workers' cultural, educational, professional, and political standards, ensuring their all-round and harmonious development, a greater interest in labour and its becoming life's primary necessity.

Stressing the significance of SOL for accomplishing the task of developing the socialist economy and especially for raising labour productivity in all the spheres of the social activity, Lenin noted that "there necessarily comes

to the forefront the fundamental task of creating a social system superior to capitalism, namely, raising the productivity of labour, and in this connection (and for this purpose) securing better organisation of labour."¹

At the present stage of development of the USSR, when the CPSU directs the course towards accelerating the country's socio-economic development, the role played by SOL in intensifying to the greatest degree of production on the basis of scientific and technological progress, basically restructuring the economic mechanism, and creating a flexible system of management, is growing with particular momentum. Furthermore, it has been generally recognised that fairly fast returns can only be attained if all organisational, economic, and social reserves, primarily the human factor, are fully activated, if each worker conscientiously discharges his duties, making an all-out effort to achieve the best results.

The scientific organisation of managerial work is designed to raise in the shortest possible time, the standard and efficiency of the socialist economic management and realise the CPSU strategy in the best way.

Work to introduce SOL is largely based on the fundamental principles of management—a political approach and democratic centralism.

The principle of the political approach to working out SOL measures dictates the need to consistently implement the social and economic policies of the CPSU. On the one hand, these measures should help save the greatest possible amount of social labour (the sum-total of expenditures of living and materialised labour) per unit of the useful effect expressed in the end results. Thus, reduction of the administrative and managerial personnel of an enterprise, wider use of computers should, in the final analysis, result in the greater output of top-quality goods and a most rational use of all available resources. On the other hand, SOL measures should provide for better working conditions and more creative labour. In raising the efficiency of labour, its socially normal level of

¹ V. I. Lenin, "The Immediate Tasks of the Soviet Government", *Collected Works*, Vol. 27, Progress Publishers, Moscow, 1977, p. 257.

intensity should not be exceeded.

A political approach presupposes the best harmonising of the personal, collective and public interests, with public interests given predominant consideration, use of material and moral incentives in improving the distribution factors (rating of labour, organisation of wages).

The principle of democratic centralism implies the rational distribution of functions between the higher and subordinate management bodies, between the leading executives and their subordinates, and a higher responsibility of both for the discharge of their functions. With the best combination of rights, obligations, and responsibilities, this principle defines the core of activities of each worker and simultaneously provides scope for his initiative and creative endeavour. One-man management and collective formulation of decisions, a high level of organisation and discipline coupled with the wide use of the various forms of the managerial personnel's participating in the solution of the general problems of management in each sector of the national economy—this is a *sine qua non* for the success of SOL.

In addition, the organisation of managerial work on a scientific basis should proceed from the general principles of the organisation of production, with account being taken of the specific features of the management process itself.

Thus, the principle of specialisation requires that similar jobs be concentrated in the specific management bodies. For instance, the job of planning should be concentrated in the department of planning.

The principle of parallel operation implies such a distribution of functions amongst the managerial staff as would help use the working time in the best possible way and cut down on the total duration of managerial operations.

The principle of proportionality calls for the observance of definite proportions between the various functional groups of managerial workers in respect to their number, qualification, and the amount of work to be done, to ensure that all managerial functions are fulfilled in time and competently, as well as interconnected in space and time.

The principle of direct flow calls for such a form of organisation of managerial work as would take advantage of the shortest routes of information flowing from their place of origin to the users.

The principle of continuous operation presupposes the rational fusion of the various managerial functions into a single process, provided duplication and the possible elimination of some functions is prevented.

The principle of rhythmic operation implies a smooth functioning of all the managerial links tuned to the single rhythm of production and precluding hitches in work.

All these principles are mutually interconnected. That is why a comprehensive systems approach is a major organisational principle. For it is only when work is carried on in all SOL areas, that the achievements of science and engineering can be used to the full and the potentialities for raising labour productivity and effecting great economy be tapped.

2. BASIC AREAS OF THE APPLICATION OF SOL IN THE MANAGERIAL APPARATUS

What then, are the basic areas of the scientific organisation of the managerial work? They comprise: division and cooperation of the managerial work; improving the skills of the managerial personnel; better rating of their work; organisation of work-places; rationalisation of labour; introduction of rational forms and methods of providing material and moral incentives to the management workers; provision of better working conditions; strengthening labour discipline and giving scope to creative activities.

Study of the working time spent by the management apparatus workers is the starting point of the scientific organisation of managerial work. Analysis of the use of the working time makes it possible to reveal cases of idleness, the facts and causes of the irrational use of the highly qualified specialists and to pinpoint the simplest managerial operations that can be readily mechanised or automated.

In studying losses of the working time, the following

methods are used: momentary observations, chronometry, photography and self-photography of the working time, questionnaires and verbal inquiries, and comprehensive surveys.

Let us consider in greater detail the following basic areas of the scientific organisation of the managerial work.

1. *Division and combination of managerial work.* The rational division and combination of managerial work is a major prerequisite of building up the best system and structure of management bodies and the most suitable organisation of interaction between the specific subdivisions and administrators. Each subdivision and executive in the management apparatus should deal with a limited number of functions which are fairly similar in their nature. This makes it possible to raise labour productivity, improve the quality of work, and amass practical experience.

Division of managerial work implies the singling out (partially isolating) its specific types. This means dividing labour horizontally, vertically, and functionally.

The horizontal division of labour cuts across every level of the management system (at the level of branches, enterprises, shops, and production groups). It depends on the extent of production concentration, its specialisation or combination, and serves as the basis for establishing ties (relations) between the equal partners.

The vertical division of work is patterned according to the powers wielded by the specific subdivisions of the national economy, these powers being the organisationally fixed rights and duties to make decisions and be fully responsible for their consequences.

Lastly, the functional division of work is the determination of the various functions and subsystems at one and the same level of management in relation to the particular subdivision of the national economy. Thus, the following functions are singled out in managing an enterprise: planning, organisation of production and labour, routine management (operative work). In addition, some subsystems enjoy relative autonomy in the enterprise management system. They deal with scientific and technological progress, material and technical sup-

plies, the enterprise's personnel. The need for specialised training to discharge the relatively autonomous functions is a distinctive feature of the functional division of managerial work, which may have both horizontal and vertical inner ties.

In dividing and combining managerial work, such problems have to be singled out as the delegation of powers, the economy of qualification, the documented fixing of the rights, duties, and responsibilities.

The powers enabling one to make current decisions should be delegated downwards, to the immediate performers. It is important that the right to decide certain matters be given to subdivisions or persons having the maximum of objective information essential for this.

The economy of qualification provides for an effective use of the highly qualified specialists. The highly qualified specialists (who are highly paid too) should not be used on jobs requiring lower qualifications from their executors.

The documentary fixing of duties implies the establishment of the rights, specific tasks, and responsibilities of the management workers in the regulations, listing of positions and other business documents. This specifies the relations between the workers more clearly, making for a smooth and well coordinated operation of the executors and their greater responsibility.

The issues of combined work deal with the fusion of the different and relatively isolated types of the managerial work into a single process of management, coordinating the activities of the individual workers, agencies and services in space and time.

Division and combination of managerial work is regulated by the structure of the given management apparatus, the regulations governing its structural subdivisions, and instructions on positions and duties. Moreover, it is important to have a unified approach to the denomination of positions and specialities of workers employed in the management apparatus. This is attained through a single listing of managerial positions, respective post qualifications, and salaries reference-books.

The basis for delineating and coordinating of managerial functions is laid down by the legal acts of the

state. The law, however, provides great scope to improve the forms and methods of sharing work both between the management bodies themselves and within them. A constant search for the best solutions and the best ways of dividing and combining work, guaranties success for the rationalisation of management.

2. *Raising the qualifications of the managerial personnel.* The efficient operation of the management apparatus largely depends on the science-based solution of the personnel problems. Lenin attached immense significance to the selection, proper appointment and education of the personnel. The CPSU carries out extensive work to constantly improve and develop the Leninist principles of work with cadres. This major area of the scientific organisation of the managerial work is dealt with at length in Chapter 9 of this manual. We shall only stress that this organisation presupposes that the worker's qualification should fully meet the complexity of his job.

3. *Fixing work standards.* You cannot arrange any work in the management apparatus properly unless you know how many workers and how much time are needed to fulfil it.

To determine the labour intensity of the particular types of work and the number of workers needed to accomplish it, is a major task in the rating of managerial work. Calculation of the labour intensity of the particular types of work makes it possible to solve effectively the problems of labour division and to use workers in line with their qualification characteristics; to pay for work according to its quantity and quality; to determine analytically the efficiency of the labour process and the requirements for technical equipment.

The determination of work standards is essential to establish the correct proportions between the particular categories of performers, create a rational apparatus of management, plan the staffs and wages fund and determine the economic efficiency of the measures designed to improve the organisation of labour and the evaluation of the results of the socialist emulation movement.

In fixing work standards for the managerial staff the following criteria are used: time, output, servicing, manageability, ratio rates and rates of numerical strength.

Since the above procedure represents an essential element of SOL, the elaboration and implementation of measures to widen the sphere of fixing the output standards and their improvement are considered to be part and parcel of the entire system of SOL. In deciding the question for which jobs and for which positions (groups) of personnel standards should be worked out and introduced, one should proceed from the ratio of such jobs (positions) in the sum-total of jobs (or in the total number of personnel). Consideration should also be given to the economic effect accruing from the fixing of standards, the costs of working out new standards and the resultant effect of their introduction.

4. *Organisation of work-places*. Better organisation of work-places¹ based on SOL principles presupposes the carrying out of the following measures:

- locating the managerial staff on premises permitting a rational interaction of the employees and services;
- outfitting the work-places with furniture corresponding to the physiological peculiarities of the operators concerned;
- the placing of furniture and equipment with due consideration to the succession of operations;
- provision of work-places with modern business machines and other aids in conformity with the proposed amount and type of the managerial work.

The way the work-places are organised and serviced has a great effect upon the intensity, fatigue and attractive factors of labour. The better the work-place is organised and the more comfortably and rationally it is outfitted with equipment essential for a smooth and rhythmical operation, the greater is the efficiency and labour productivity of the employee.

5. *Rationalising the work of the managerial personnel*. With respect to all other forms of work, the managerial work has its own specific peculiarities. The manager takes part in creating material values not directly, but by way of organising the labour of those immediately engaged in the production process. Information, on the sifting of

¹ By the work-place of an office employee we mean a limited zone of the administrative premises designed for a particular type of work and fitted out with the essential organisational machinery and furniture.

which managerial personnel spend over 70 per cent of their working time, comes forward in management as the direct object of labour. The vehicle and source of information in this sphere is more often than not a document, which serves as the basis for making formalising and managerial decisions. The document makes clear what decisions have been taken before and which of them have been implemented. It makes it possible to fix the time of some particular facts and to communicate them, serving as a source for generalisation and as reference material. For that reason, the bulk of work to rationalise managerial labour is aimed at improving documentation and document circulation (that problem is considered at greater length in Chapter 13).

Rationalising managerial work also means improving the planning activities of the management bodies, the adequate preparation for, and proper conduct of, business sessions and conferences, as well as improvement of the system of control over the implementation of decisions. Of great significance is the application of progressive managerial techniques (the working out of instructions, organisational time-tables, technological charts).

6. *Introduction of rational forms and methods of material and moral incentives to managerial work.* Of great significance here are the forms and systems of organising the salaries of the managerial personnel; the scientific use of the established position-salary lists; the granting to the work collective of the right to raise (or lower) wages depending on the specific labour inputs of each worker; and the development of the socialist emulation movement.

An important problem is being presently solved — to find the most suitable forms of involving the managerial personnel in the system of the profit-and-loss accounting relations. Their salaries (especially bonuses) should depend on the end results of performance of a unit as a whole and on the indices directly affected by the contribution of the specific management body (worker). Thus, the staff of the department of labour and wages should be made directly and materially responsible for the ratio between the growth of labour productivity and the average wages and salaries.

7. *Provision of better working conditions.* Improvement of working conditions¹ is a matter of great economic and political significance. On the one hand, it creates the prerequisites for raising management efficiency, and, on the other, it has an impact on the workers' state of health and satisfaction with their work.

Working conditions are characterised by a set of parameters reflecting the meteorological conditions (temperature, humidity, pressure, air velocity, levels of dust and gas), luminosity, noise, vibration, ultra-sound, sanitary and hygienic conditions, cultural and welfare services and, lastly, the social and psychological climate.

Since the manager's work is predominantly intellectual and creative in nature, SOL provides for him to have fairly comfortable working conditions as envisaged by the accepted standards.

8. *Strengthening of labour discipline and promotion of creative activities.* Joint labour activity is inconceivable without labour discipline. The conscious and voluntary nature of labour discipline under socialism is its basic and meaningful distinction from the discipline in antagonistic societies. Lenin noted that "the communist organisation of social labour, the first step towards which is socialism, rests, and will do so more and more as time goes on, on the free and conscious discipline of the working people themselves."²

Analysing the causes of the violation of labour discipline, one can map out the main directions of work to strengthen it. This, on the one hand, means taking more rigorous measures in relation to those who violate it, and, on the other, improving the entire system of the organisation of labour, production, and management.

The socialist emulation movement—the socialist method of raising the efficiency of labour and instilling in the people a new attitude to labour—is a tried and effective means of promoting the initiative of the workers

¹ By working conditions are usually meant the external environment of the worker on his job and the production milieu around him. The external environment has a great impact on the worker's body, his physiological and psychological potentialities and, consequently, on his working capacity and labour productivity.

² V. I. Lenin, "A Great Beginning", *Collected Works*, Vol. 29, Progress Publishers, Moscow, 1977, p. 420.

to secure a better organisation of labour. SOL is called upon to enhance the efficiency and the attractive power of labour and create conditions for the all-round development of workers, educating them in the spirit of the communist attitude to labour. A large-scale introduction of SOL cannot be achieved, unless the managerial personnel themselves take an active part in this endeavour.

3. ASSESSMENT OF THE EFFECTIVENESS OF SOL MEASURES FOR MANAGEMENT WORKERS

The economic effect resulting from the introduction of SOL measures is defined as the magnitude by which the expenditures of the living and materialised labour have been lowered per unit of output. In other words, it finally results in a higher labour productivity. To calculate it, it is necessary to compare the existing standards of labour, material, and financial costs per unit of output or work done prior to the introduction of SOL measures with the ratios of costs achieved after these measures have been carried out. If such standards are not used at the enterprise, actual costs should be compared. Calculations of this kind are made at the stage of projecting (planning) SOL measures to determine the *calculated or expected effect* (to substantiate their feasibility). After SOL measures have been introduced, their *actual effect* is calculated.

The basic overall indicator of the economic efficiency of SOL measures, determining their expediency, is the growth of labour productivity and the annual economic effect (economy of common costs). In addition, other (partial) indicators are used, such as lower labour intensity of managerial work, relative economies (reduction) of the managerial staff, economies of the working time, economies of specific elements of production costs.

For substantiating and choosing the most effective pattern of organising labour an analysis is made of the economic effect which could be achieved by the measures aimed at performing managerial work on a scientific basis.

The economic effect of SOL measures is a very impor-

tant criterion, since a better organisation of managerial labour constitutes an integral part of the restructuring of the entire system of management and an indispensable condition for the intensification of production and attainment of the world's highest level of labour productivity.

At the same time, an accelerated social and economic development makes it imperative to bear in mind not only the economic but also the social effect of SOL measures intended to ensure the socially natural intensification of labour, raising its significance and creativeness, broadly involving working people into industrial management activities and perfecting the system of public relations as a whole.

SELF-TEST QUESTIONS

1. What is SOL?
2. What tasks does SOL help accomplish to improve management?
3. How can the level of the existing organisation of managerial work be assessed?
4. What do we mean by improving the division of managerial work and its combination?
5. How can the social and the economic effect of measures to improve the organisation of the managerial work be evaluated?

Chapter 12

FUNDAMENTALS OF WORKING OUT AND IMPLEMENTING MANAGERIAL DECISIONS

KEY POINTS

1. The managerial decision: its role in the managerial process,
2. Classification of managerial decisions. Principles of their substantiation.
3. The process of managerial decision-making.
4. The implementation of managerial decisions.

Discussion Hints

In studying the *first point*, it is necessary to demonstrate the role of managerial decisions as the central point in the management process, revealing their major features and functions.

In respect to the *second point*, it is important to familiarise oneself with the main characteristics used in classifying managerial decisions and learn how to apply them in practice.

As regards the *third point*, attention should be focused on the organisational aspect of decision-making and the range of problems the executive has to face as the organiser of work.

The *fourth point* presupposes your familiarisation with the way in which decisions are implemented. One should be able to specify each stage of this work and cite respective practical examples.

1. THE MANAGERIAL DECISION: ITS ROLE IN THE MANAGERIAL PROCESS

The management process in any unit of the socialist production (an enterprise, branch or region) is expressed in the constant interaction of the subject and the object of management aimed at accomplishing the tasks facing that unit. In this connection, it would be interesting and important to trace all the phases of an individual act in the management process from its origin to conclusion, revealing its causal factors and reason for being.

To fully reveal the fundamentals of the process of management, it is necessary to get an insight into the meaning and role of the category of the managerial decision. The managerial decision is a formula defining the goal of an economic system and the way to reach it in a definite period of time. That formula may be expressed verbally or in written form depending on the conditions and nature of the situation which stimulates activity.

The managerial decision, in a way, crowns the preparatory stage of the managerial action taken by the subject of management in relation to the object of management. That part of the management process which precedes decision-making, may be called a preparatory phase or the phase of the origin of the managerial action. The managerial activity as such is associated with the active side of the management process—implementation. It follows the formulation of the managerial decision.

Thus, it is apparent that the managerial decision plays the key role in the process of management as a whole. Formulated at the initial phase of the management process, it determines its entire further course. On its feasibility and propriety depends the end result of the economic activity of the particular link or the object of management as a whole.

The managerial decision possesses a number of simple, but rather important characteristics.

First, it is necessarily linked with the object of management by organically close ties. The formula itself exactly specifies, directly or indirectly, those units in the object of management, which have to be oriented for the ac-

accomplishment of a particular task. If such a link is lacking, the mobilising force of the decision is undermined, transforming it into a mere declaration or wishful thinking. Essentially, the link between decision and the object of management implies the practical interaction between the subject and the object of management.

Secondly, the managerial decision is adopted when there arises a certain problem (a task) to be resolved by the work collective. It is true, that in the well-organised planned economy, the tempo of life of any economic unit of socialist production is set by the plan directives. If in the given period the activity of an economic unit (the object of management) proceeds according to plan, there is no need for management bodies to disrupt the planned tempo of operation by making and carrying out non-planned managerial decisions. But there are also cases when deviations from the plan arise and a situation develops necessitating decisions to eliminate these deviations. It is precisely in these cases that management bodies should search actively for the best solution to the problem that has cropped up, mobilising all the available forces and resources. At this juncture, the managerial decision becomes the pivotal point in the work of the management bodies. An effective dovetailing of the problem and its managerial solution determines the correct orientation of the latter.

Thirdly, the managerial decision bears a fundamentally creative character. The range of the so-called typical problems that can be solved using the ready-made recipes for choosing the needed formula of the respective decision, is very narrow indeed.

Experience of managing various economic units has raised a host of specific problems, unique in their essence and nature and requiring an individual approach to their solution. Preparing a managerial decision is, thus, a creative process, while its result—the formula of the managerial decision—represents the fusion of the profound scientific prevision and rich practical experience.

In the process of the management of the national economy the managerial decision has a number of functions to fulfil:

—a directing function—it sets the goal and the tasks of

developing the object of economic management;

— a providing function—it indicates the means and ways enabling the development of the economic system in the desirable direction, with the highly effective use of the available resources ensured;

— a coordinating and organising function—it defines the order and the system of operation of the object of management in the period when the decision concerned is being carried out;

— a stimulating function—it points out specific material and moral incentives given to reach the goals and the objectives set.

The role of managerial decisions is constantly growing. Economic decisions that are well-substantiated act as the guiding and organising factors of the highly qualitative performance, contributing to a more efficient operation of the work collectives, rallying them and raising the enthusiastic response of the people. The inadequately substantiated decisions adversely affect economic activities and the morale of the workers.

2. CLASSIFICATION OF MANAGERIAL DECISIONS. PRINCIPLES OF THEIR SUBSTANTIATION

Decisions are classified to help define their content and role in the management process.

The classification characteristics of managerial decisions are rather numerous. Thus, according to the problems they are to resolve managerial decisions are broken into the following categories: political, economic, social, technico-economic, structural or organisational.

Managerial decisions may differ from each other also in orientation: they may relate to the object of management as a whole, one of its parts or deal with the interaction processes between the object being managed and the other objects of the economic system concerned.

Depending on the time characteristics, managerial decisions may be classified as relating to a specific phase of the management process: preliminary management (the setting up of objectives, forecasting, planning), operative management and supervision.

Lastly, by their degree of complexity, managerial decisions are divided into three groups: simple, and those of medium and high complexity. Simple decisions are applied in cases when the problem to be resolved is a typical one and stands in need of a generally known managerial solution. Decisions of medium complexity call for working out a number of possible solutions to the problem and choosing the best one through the use of one preferential criterion known previously or several such criteria.

The high complexity decisions are worked out for situations in which the goal set can be reached not only by choosing the suitable variants of solution, but by applying different preferential criteria, such as minimal outlays, maximum profits. Decisions of this type are characteristic for those situations in which heads of large-scale economic or scientific and technological projects find themselves most often.

Besides these, there are other classification characteristics: goal of management, degree of necessity, preparatory techniques.

Every managerial decision should be thoroughly thought out, and its consequences well weighed. It must be a scientifically-based solution taking into account the previous decisions made, legal and other normative documents and regulations. It should conform to the actual conditions of the particular management system.

To maintain this conformity in working out managerial decisions, one should observe the following principles.

The first principle is that a managerial decision should meet the requirements of objective economic laws. The national economy as a whole and each of its parts constitute economic systems governed by these laws. Understandably, one should strive to arrive at managerial decisions that would help develop these systems, contributing to economic progress. And such decisions can only be those corresponding to objective economic laws.

The second principle of substantiating managerial decisions considers the social factor. People are the most active component of the production process. That is

why, industrial management, the making of managerial decisions, in particular, is inconceivable without considering the nature of the relations of production, the cultural and technical standards of the personnel, their working and living conditions. Decisions that are essentially similar will be realised differently depending on the social characteristics of the workers in a particular economic system. More than that, the social position and the psychological make-up of the person who makes the decision, the leading executive himself, plays no little role here, since the post he holds and his social interests cannot but affect the nature of the decision.

The systems approach represents the third principle of substantiating managerial decisions. Its essence is that it views the objects and phenomena of the socio- and techno-economic spheres as being interconnected and interdependent. Executives who equate the method of the systems approach with "common sense", run the risk of committing grave blunders in implementing that principle. By itself, common sense cannot serve as a reliable foundation for decision-making. The experience of management knows of cases when common sense failed the executive, boomeranging against him with resulting economic failures. The concept of the systems approach is derivative of common sense, scientific substantiation and calculation.

Timeliness and working with a prospect is another principle of managerial decision-making. The time factor plays a major part in the making of decisions. The advantage of acting on time is self-evident and does not require explanation. Premature decisions are just as bad as belated ones.

The making of decisions with a prospect may be interpreted in two ways. All managerial decisions are aimed at achieving the desirable results in the near or the distant future, whether in an hour, a day, a month, or a few years. The decision-making process is succeeded by its implementation, and this takes time. Thus, the initial projection of the particular decision into the future and the "belatedness" of its result, constitute one side of the decision being perspective.

The other side consists in that the managerial decision

preceding its result may change its designation already in the process of its implementation because of the changes inside or outside the object of management in relation to which it had been taken. It is the task of the decision-maker to see to it that the decision do not lose its relevance and effectiveness by the time it is implemented. If the decision preserves its relevance until it is consummated, it is indeed a competently formulated decision.

The making of decisions must not be separated from the process of implementing them. Thus, the principle of providing for their being carried out is of great importance. Failing to observe this principle means to doom the most urgent and best of decisions to an unavoidable failure. A base for the implementing of decisions made, should be the adequate material, technical, labour, and financial resources. Without these one cannot count on success.

Needless to say, these principles do not cover the entire range of factors and situations one has to consider in preparing and making managerial decisions.

Sometimes they differ from each other so greatly, that it is hard to compare them using criteria other than those employed by the subject who makes the decision. These factors are associated with social motives, the psychological atmosphere in the collective, satisfaction with one's own work and an outlook for the future, a striving to achieve greater authority, rights and powers.

An important factor affecting decision-making is the relations among a particular group of people, i.e., the impact of the informal ties in that group on its members' attitudes, primarily to managerial acts and decisions.

Considerable complexity and sometimes even vagueness concerning the problem to be solved, primarily the difficulty of establishing the cause-and-effect connections between that problem and other problems and the situation in which the decision is being made, also substantially affect managerial decision-making. The manager cannot always find the best solution and realise it in every situation. Because of this, he has to confine himself to a "suitable" one, based as it is on merely "common sense". But this can lead to serious oversimplification, especially when it concerns managerial decisions involving

many factors, which in turn greatly diminishes the efficiency of the management activity.

Although it is not always possible to realise an optimal decision, one should, undoubtedly, strive for it, since the effect of the decisions made is judged, in the final analysis, by the extent to which they have been fruitfully put into practice.

3. THE PROCESS OF MANAGERIAL DECISION-MAKING

The scientific and methodical side of the process of preparing and adopting decisions is closely connected with its organisational side.

It should be stressed, that at the present stage of development the organisational issues are increasingly assuming ever greater significance in the leading executive's activity in this sphere. There are several circumstances to account for it.

First, ensuring a high level of all the decisions made becomes not only an indispensable, but also a more complicated matter, for the scale of the problems to be solved is growing, their time horizons are widening, the economic processes are being intensified, while their ties with the other spheres of social life are becoming more varied.

Secondly, managerial decisions grow in number. Heads of enterprises adopt yearly thousands of decisions. In turn, the number of executives vested with the right to make decisions increases apace.

Thirdly, an ever greater amount of effort and resources is being spent on preparing economic decisions. Specialists spend up to 80-90 per cent of their working time on the retrieval and processing of information essential for drafting orders, instructions, etc., on compiling progress reports on the decisions taken earlier. Naturally, if these processes are rationalised this will bring about a great saving in the effort of the qualified managerial personnel.

The great variety and complexity of problems facing the executive notwithstanding, definitive stages may be singled out in the process of decision-making.

The first stage may be defined as the stage of substantiating and formulating the problem.

As was noted, a managerial decision has to be formulated in close connection with the problem to be resolved. The problems vary in significance and scale, and it is the ability of the executive that enables him to sense and realise what new problems are cropping up that will confront him. Some specialists consider, and not without reason, that the competent formulation of the problem is half way to solving it. This is no easy task, however. For more often than not, problems arising from the current contradictions inherent in the development of the productive forces are not readily discernible. At the point of its origin, the negative nature of the contradiction may be very feeble. To be prepared to solve the maturing problems, an experienced manager organises a study of these problems to analyse the resulting consequences. Thus, looking far ahead, he avails himself of the opportunity to fittingly face the new problems, eliminating or mitigating the effects of particular contradictions.

In practice, problems arise and have to be evaluated in two situations:

- the “new-problem” situation,
- the “new-possibility” situation.

The two different situations affect in different ways the executive’s organisational efforts to solve the problem. Actually, the concept of the “new problem” denotes an unexpectedly complicated economic situation, the worsening of indicators showing the performance standards of the object of management. The difficulties that have thus arisen call for additional and non-planned outlays, the mobilisation and rallying of the work collective, the elimination of negative moods among the workers.

The “new-possibility” situation looks differently. For example, the introduction of a happy innovation which made it possible to cut down the consumption of the raw materials in short supply, increase the efficiency of a power unit, and improve the quality of output. In cases like this, reserve capacities are formed and the possibility presents itself of using them. These conditions help to exceed the planned rates of development, result-

ing in a better performance. It is evident that in this case the economic situation at the object of management would undergo a positive change.

The second stage of decision-making is the utilising of information.

Use of information to work out a decision constitutes a most responsible stage at which the essential logical and creative operations are carried out. It is here that man's creative powers are expressed most forcefully.

Specific solutions stand in need of the specially retrieved and sifted information. It may happen that there is a surplus or a shortage of information. Both cases are bad and from the very beginning one should do all in his power to prevent them. Excessive information usually results from the difficulty to determine, for one, whether a particular document has a bearing on the given problem or not. The shortage of information is often caused by the circumstance that the needed informational items had not been covered by the information collection process. Therefore, the executive should direct the process of collecting information, giving it concrete guidance. When a large amount of information has to be processed, it is expedient to use technical means increasing the information outflow: calculators, automatic business machines, and computers.

The third stage of decision-making consists in working out its possible variants.

Certain contours of the decision appear already at the first two stages, but they are just its outlines. They grow clearer as they are processed in greater detail, formulated, assessed and compared. This is the process of the maturing of decisions. It is, of course, impossible to consider all the variants of decisions. One should be competent enough to choose the right one from the multitude of variants. This is not so simple. At this stage, the criterion of the future result, the capability of the chosen variant to solve the given problem, may well be applied. If the problem to be solved is oriented on achieving many aims, the executive's task becomes more complicated. In that case, one should not hurry to discard a variant which does not provide for reaching all the goals. It may well be that such a variant is non-existent. A com-

promising solution then has to be found and a variant that previously seemed useless may come in handy. The concluding phase of the third stage consists in a profound and comprehensive consideration of the chosen variant. New criteria are called into play and economic feasibility studies made.

The work of decision-making culminates in elaborating the decision—its formulation and formalisation in the shape of resolutions, ordinances, directives, orders. Each decision should spell out precisely and explicitly the essence of the problem, specify volumes of work to be done to resolve that problem, carry the necessary amount of information and indicate responsible executors and time-limits of execution.

4. THE IMPLEMENTATION OF MANAGERIAL DECISIONS

After the managerial decision has been made, it is necessary to carry out a number of organisational and instructional measures in the system being managed, which should guarantee its implementation. Experience demonstrates that realisation of decisions is a very difficult matter. Some decisions remain unimplemented, thus impeding the economic development.

For that reason, in present conditions special attention is paid to the implementation of decisions and the enhancing of discipline. That process is also divided into stages.

At the first stage, the plan to implement a decision is drawn up. The total volume of the planned work is distributed according to schedules and objects, as well as in respect to sub-targets necessary to reach to implement the decision as a whole. Sometimes, a schedule of the planned work is charted to enable one to see clearly the progress of the work to implement the decision. Its main stages are specified as well as those responsible for their realisation.

At the second stage, the group of executors of the decision is defined, with due consideration of the peculiarities of the collective as a whole, the qualification

standards and the experience of the executors, and the means of motivating and stimulating them. Bringing decisions to executors' notice is vital to achieve success. In particular, executors should be promptly familiarised with the objectives provided for in these decisions. A broad involvement of workers in the process of preparing decisions has also proved to be a fruitful practice. The discussions by work collectives of major decisions (plans) at general meetings, conferences of activists, special seminars are also very productive.

The third stage is associated with the operative work to carry out decisions. It comprises an analysis of the progress of work; the necessary modification of decisions, operative control over them, and utilisation of resources as well as defining and granting rights and functions to the executors. Co-ordination of the efforts of executors and those of decision-makers to create an atmosphere of mutual assistance and comradely cooperation and to enhance discipline, play a major part at the operative stage of implementing decisions.

At the fourth stage, control is exercised over the progress of the decision, the chief aim being to reveal in good time the deviations from the planned programme and to eliminate them. Control must be strict and cover at once a host of solutions relating to numerous indicators. Much depends here on the way this work is organised and the extent to which the mass of the workers is involved.

To make the control more effective, special systems employing modern computers are set up in some cases. Experience demonstrates that day-to-day control over the progress of decisions is a powerful means of ensuring their realisation.

The fifth stage sums up the results of the realised decision. A penetrating analysis is made of the entire process of implementing the decision and the goals that had been set are compared with the actual results achieved.

This, conclusive stage in implementing managerial decisions is of great educational and managerial significance, for it gives the work collective an insight into the positive and the negative aspects of its performance.

SELF-TEST QUESTIONS

1. What is a managerial decision?
2. How are the managerial decisions classified?
3. Name the basic stages of work to prepare and make a managerial decision.
4. Name the basic stages of organisational work to implement an adopted decision.

Chapter 13

INFORMATION IN PRODUCTION MANAGEMENT

KEY POINTS

1. Management as information processing.
2. Classification of information.
3. Properties of management information.
4. Information processing stages.
5. Improvements in information exchange technology.
6. Mechanisation and automation of information processing.

Discussion Hints

Discussion of the *first point* should emphasise the organic connection between management activities and the information flow reflective of such activities, and define information as the object and product of managerial work.

Analysis of the *second point* presupposes disclosure of the qualitative aspects of the category of information by identifying a set of classification features. A clear idea should be formed of the objectives of the proposed classifications.

The *third point* is concerned with the major properties of management information to be ensured as part of information support for managerial activities.

Information processing proceeds by identifiable stages. The *fourth point* provides an insight into the

function and role of each stage in the overall process of information exchange.

The *fifth point* emphasises the idea that improvements in information exchange are of an integrated nature and serve the basic objective of eliminating the effect of information interference of various descriptions.

Hardware plays a particularly important role in improving the effectiveness of information handling. The *sixth point* focuses on the role of computers as a tool to improve data processing and on the ability to evaluate the effectiveness of their application.

1. MANAGEMENT AS INFORMATION PROCESSING

In a sense, the entire process of management may be seen as a combination of perception, processing and transmission of information.

All the units of a management system and their personnel are tied together by relations of communication into a unifying communications network. The provision, operation and continued improvement of that communications network is essentially what the business of organising management is all about.

Information may be defined as a body of data generated and collected as a matter of progress in science and of practical human activity, and usable in social production and management as a tool to improve the effectiveness of such production.

Originally, the term "information" referred to knowledge in general. With the rise of the systems theory and information science, this term, while retaining its original meaning, has been narrowed down to refer to the observer's knowledge of a system and its functional environment. The observer develops his system information through active experimentation or observation and, in the case of abstract systems, by logical deduction.

Accordingly, a communications network must place high priority on the control of information interference of various descriptions, i.e., control of irrelevant or redundant information.

The same body of information may admittedly possess

different values as seen by the subject and object of management. For the object of management, information is a guideline for selecting ways to attain the end objective at minimum cost or in accordance with some other criterion for optimal performance. For the subject of management, information is not only a guideline for finding the best way to manage the given object; it is also the object of its own activity. The subject of management analyses and interprets available information in order to transform it into new information to be addressed to the object of management. Thus, for the subject of management, information is both the work-in-process and the end product resulting from his information-transforming work.

Information is reflective of natural and social processes and conditions as recorded in research projects and studies, design and engineering documentation, statistical reports, procedures and instructions, concepts and judgements. Information, in other words, is concentrated in technical publications, business and administrative documentation, human memory, etc.

No management system can operate without information on the status and condition of the environment and the object to be managed, without transmission of information on managerial decisions to the operator, management progress reports, etc.

For a management system to operate effectively, there must be a mechanism to define the optimal amount of information going into the various management units and to provide for its optimal distribution in time and space.

Information flows maintained by a management system are the sum total of information exchange between the various structural units of the system.

Not all messages, data or reports involved in the flow may be equally regarded as information. The main criterion necessary for a message to be regarded as information is its value and usefulness to the management system in terms of the system's objectives. Seen in this light, information is a relative entity: the same message may be regarded as information for one system while constituting information interference for another.

2. CLASSIFICATION OF INFORMATION

For information circulating in a business management system to be applied effectively, it must be relevant to the objectives of the management. Classification plays an important role in the organisation of information flows. There exists a range of information classification features, data acquisition and usage in the course of information exchange which is characterised by many different aspects.

The first point to be noted is that all management information is divided into three major classes depending on its nature, source, application and storage.

Class 1 includes scientific and technical information, its source being the academic world and applications specialists. Research findings which are intended for application to specific projects undertaken by design, engineering and production organisations are found in scientific and technical publications, patents, design, engineering and process documentation, etc.

Class 2 comprises management information proper generated and circulated within the management process *per se*. Its range includes planning information, standards and other technical and business information used in the business of running an individual facility, an association, an industry, etc. This type of information is recorded in business contracts, procurement orders and all sorts of managerial messages.

Class 3 is comprised of accounting and statistical information, its source being any administrative or business unit of a socialist production (office, enterprise, etc.). This information is reflective in its totality of conditions and events in various areas of social activity, including economic production. It is recorded in special documents of standard form and is of a periodical nature. Providing a picture of the actual state of production and socio-economic processes, current economic levels, growth of national income, etc., accounting and statistical information serves as the initial basis for national government-level management decisions.

Other features of information classification include content, organisation, function and level.

In terms of content, information is classified as follows:

- by object (labour, material resources, means of production, financial assets);
- by production phases and processes (production *per se*, circulation, distribution, consumption);
- by field of economic endeavour (industry, agriculture, transportation, construction, etc.);
- by type of relations (economic, social, political, etc.).

In terms of organisation, information is classified either as systematised, i.e., ordered by indices, addresses, periodicity, transmission deadlines and forms of presentation, or as non-systematised.

In terms of function, information is classified under the headings of planning, coordination, accounting, monitoring, etc.

Level-oriented classification is concerned with the direction in which information moves: thus descending information is that which is transmitted from the subject to the object of management, sometimes referred to as command information; ascending information (reports), submitted by the object to the subject of management; and horizontal (or cooperative) information, that which is exchanged between parties of the same echelon.

Classification of information is important both for analysing existing information exchange in management system and as a tool to help develop and organise it in a newly established system. Classification reveals areas of excessive or insufficient information. For example, a rational balance needs to be struck in a management cycle between planning, coordination, monitoring and accounting information. In a management system where little attention is paid to the business of collecting accounting information, the management is reduced to the necessity of developing planning documentation based on insufficient information about the actual conditions prevailing in particular sections of the object of management, e.g., the enterprise, thereby sacrificing the rationality and detracting from the effectiveness of planning decisions.

3. PROPERTIES OF MANAGEMENT INFORMATION

Let us look at the most important properties of information which find application in management systems. Reference has already been made to the *value* of information. This is defined as the ability of information to help in the attainment of the objective posed before the system. From this viewpoint, the value of information is defined by the nature of the object itself and by its functional environment. This property of information is not a constant condition: in the course of time it may gain maximal significance or, on the contrary, lose its strength.

In addition to its general property of being oriented toward the solution of the main problem of a management system, information may also have a *purpose-specific aspect*. What this means is that as it circulates within the framework of a communications network, information may be applied to define management problems, to furnish justification for a decision, to carry out operative control, etc.

Authenticity is a very important property of information. False information (noise) may be present in the information exchange of a management system, a condition that seriously interferes with system functioning. Noise control represents a major thrust of improvement in information exchange processes. Authenticity is reflected by the accuracy of data concerning a particular current or past event in the management system in accordance with the actual facts constituting the event. Authenticity is controlled to a significant extent by the means and methods employed to reflect actual facts in the form of information data as well as by the means and methods of storage and transmission.

Timeliness is yet another important property of information. The content of this property is closely associated with the value of information. At times, the value of information may be an immediate function of its timeliness, which reflects the instantaneous value of information, i.e., value as of this moment. On the other hand, the property of timeliness is important in its own right since it has to do with information exchange discipline:

information of a particular level of value must be made available to particular management units at carefully defined moments in time.

Another important aspect of information which should be mentioned is *completeness*. Complete information is that which is adequate for the solution of problems faced by the systems. Incompleteness or information inadequacy, complicates the situation under which management decisions are made. A work shift in a machine-tool plant cannot be organised properly unless complete information is provided on the necessary stock available in the material and parts store; no clear plan for conducting political discussion with a work team can be developed unless the content and nature of previously discussed issues are known; no rational municipal public transit system can be planned unless the demographic situation in the region concerned has been evaluated, etc.

Yet another important aspect of information is *compactness*. This is a matter of special concern in the context of the constantly growing volumes of data circulating in information flows. By achieving compactness, the capacity of communications channels to pass on information is increased, information is made more graphic and digestible, and redundant information is excluded from the information flow, subject to the condition that the completeness of information is not sacrificed in the process.

To sum up, information circulating in communications networks must possess the properties of value, authenticity, timeliness, completeness and compactness.

4. INFORMATION PROCESSING STAGES

Information involved in management cycles passes through several stages—transmission, transformation, processing, storage, evaluation, application and, occasionally, destruction.

Information transmission may be defined as the process of routing information, via a communications channel, from the source to the receiver (user). This step ensures the timely provision of appropriate data to organs which are formulating or making decisions.

The underlying principle of correct organisation of information transmission is for the information to take the shortest possible route with the minimum time and work expenditure. Cross-transmission must be eliminated or limited. This is largely a function of the layout of the management system's organisational chart and of the relative arrangement of individual work places.

Information transformation consists in the analytical-synthetic review of information content and the preparation, on that basis, of reconfigured (secondary) information. This step aims to reduce information to a form convenient for the later steps of processing, transmission and storage.

Information processing is defined as the totality of various operations carried out on information to produce a particular change in its form or presentation mode. Oftentimes, a set of individual elements will be united or aggregated to produce a qualitatively novel message, thereby generating information which is new in content.

Information storage may be defined as the transmission of information in time. It involves providing for the permanence of the actual information disk. To save search time, stored information should be systematised by the above-mentioned classification features.

Information evaluation is defined as the process of assessing its usefulness. Information being of varying practical and scientific value, it must be regularly evaluated for utility—for subsequent application. It should be borne in mind that storing information that has lost its value raises costs unnecessarily and interferes with the search for needed information. On the other hand, premature destruction of needed data may have a negative effect on the operations of the related organisation.

Information application is defined as the handling of information in order to identify data necessary for decision-making. Effective application of information is largely a function of timely provision of information, ease of interpretation, authenticity and other aspects.

Information destruction, which involves the destruction of both the actual disk and the information stored thereon, is carried out when information becomes obsolete or when the disk has been used many times over.

5. IMPROVEMENTS IN INFORMATION EXCHANGE TECHNOLOGY

As noted above, improvements in information exchange technology for management systems involve suppression of the harmful effects of information interference—physical noise, semantic noise and pragmatic noise.

Physical noise comes from a range of causes—the sophistication of information transmission channels (quality of sound, image, print, etc.), properties of receivers, etc. Examples of physical noise in information transmission include radio static, loudspeaker distortions, and audience noise during public appearance.

Semantic noise is generated by errors occurring in the sequence of transmitted signals (data), distorting the meaning of the message. For example, erroneous placement of the decimal point in a numeral results in a totally different number, while erroneous use of an exclamation point in place of a question mark may produce a sentence with different meaning altogether.

Finally, there are situations when correctly transmitted information which accurately reflects the facts in question may be irrelevant in terms of the aims and purposes posed before a management system. This presence in an information flow of data irrelevant to the issue is described as pragmatic noise.

Elimination of the effect of noises of every description on information exchange clearly renders the latter more effective.

Control of physical noise, to take one example, requires a carefully devised procedure for the collecting, processing, storage and transmission of data and strict compliance with the same in the course of the operation of the system; it calls for the application of state-of-the-art information handling facilities of superior performance characteristics (wide-band, high resolution capacity, etc.) and properly selected and trained operators.

Semantic noise control procedures include a system of characteristics to describe every condition affecting solutions to management problems; comparability of interrelated characteristics, provision of a standardised documentation system, document routing system, and

documentation instructions; ready data perception, and improved training for the organisation's information personnel. Implementation of this complex of measures and procedures will help minimise semantic noise.

Control of pragmatic noise includes review of management objectives and their interrelationships; definition of the information flow required to support this activity (irrelevant information must be eliminated and necessary information added); definition of the importance and periodicity of information and its deadlines; definition of routes; and construction of what is known as a management information model, which defines all information links between the system's structural elements in qualitative and quantitative terms.

6. MECHANISATION AND AUTOMATION OF INFORMATION PROCESSING

Essential to any programme to improve data processing technology are technical facilities which are classified as mechanised, automated and automatic information systems.

Mechanised information systems represent the most common type in day-to-day management operations. The reason for this predominance is to be found in the fact that most operations on information are manual and employ a limited range of office equipment, e.g., manual and mechanised files, rudimentary writing facilities, typewriters and automatic equipment; copying and palletising equipment, etc.

Special mention should be made of manual punch card information systems. The most common variety is a system of edge-coded cards which, most importantly, permit a multi-parameter information search. While edge-coded cards for manual processing do not lend themselves to computerisation, they offer the advantage of quick and ready selection, grouping and sorting of objects by any desired principle or any number of parameters as well as establishing relations between individual quantitative and qualitative parameters or any sets of the same.

Manual punch cards are more cost effective than machine cards for any size of data bank provided the retrieval rate is low. Manual punch cards are simple in form, replaceable and often require less sorting time than machine cards. However, where the data bank is over 50,000 cards and the retrieval rate high, the use of machine punch cards is recommended.

Automated information systems have passed through several stages in their development. At the early stage in the beginning of the 1960s they were built around first- and second-generation computers and organised as application packages. Each programme came with its own data bank, with frequent data duplication.

The second stage (mid-1960s) saw disjointed data pooled in a unified data bank applied to the solution of most problems and the development of standardised sets of problems with related application packages.

The third stage in the development of automated information systems (mid-1970s) came with the third- and fourth-generation computers and direct-access memories, leading to the development of general-purpose, integrated automated information systems. These are built around automated data banks which enable flexible data structures to be formed and linked in order to minimise redundant information, and which give two or more programme users simultaneous access to the same data bank.

The ever broader application of automated data processing technology calls for information compatibility between the various management systems linked to the common communications network. To meet this requirement, the USSR is currently developing a standardised documentation system, unified systems of uniformly structured economic performance parameters (name, codes, etc.)

The standardised documentation system serves to improve the job of data input and simplify document routing and processing procedures, eliminate duplication, improve data authenticity, and save time otherwise used in developing new documentation forms.

The creation of an information base is a complex, dynamic process that involves analysis of the informa-

tion needs of management, review of economic links between objects, and organisation of procedures to collect, store, up-date and retrieve data.

SELF-TEST QUESTIONS

1. How do you define “communications network” and “information exchange”?
2. What makes information a relative entity?
3. What classes of information do you know?
4. What is the relation between the value and timeliness of information?
5. What are the harmful effects of physical, semantic and pragmatic noises?
6. What are the main stages in the development of automated information system technology?

Chapter 14

TECHNICAL TOOLS OF MANAGEMENT

KEY POINTS

1. Need for technical tools of management.
2. Types of technical tools of management. Office equipment and its uses.
3. Advances in the development and use of computers.
4. Effective use of technical tools of management.

Discussion Hints

The *first point* should bring out the objective need for management automation under modern conditions of social production. Attention should be given to such conditions as growing production volumes and accelerated development of social production and management; growing use of intensive economic methods; special characteristics of managerial work, and problems involved in achieving more effective and efficient management.

The *second point* should identify and discuss the composition of the two principal groupings of the technical tools of management (office equipment and computers), defining their principal application areas and giving special emphasis to the idea that only integrated application of office equipment can provide the desired beneficial effect.

The *third point* discusses the fast growing role of com-

puters as a powerful tool for raising management efficiency. Practical operations involve the use of different classes of computers whose effectiveness is largely controlled by how they are used, the most rational computer utilisation concept being represented by time-shared computer systems.

The *fourth point* should focus on the need for feasibility studies in the selection and use of the technical tools of management and on helping the student learn to identify the economic parameters of such tools.

1. NEED FOR TECHNICAL TOOLS OF MANAGEMENT

The growth of social production and extension of inter-industry ties creates a need for management personnel to process a burgeoning volume of information. The reasons for this condition are as follows.

First, the growing volume of production. For a double or treble increase in production over a unit of time the amount of information circulating within a plant or organisation and between them will grow four and ninefold, respectively. In 1970-1985 alone, the amount of information in the Soviet national economy grew tenfold; a twenty five-fold increase is predicted by the year 2000.

Second, the revolution in science and technology leads to a rapid changeover in products and increasingly sophisticated product designs. In the mid-1980s, the Soviet economy produced some 24 million industrial and agricultural items. Obviously, product changes require restructured proportions of product distribution and redistribution, creating increasing volumes of information and documents of all sorts, especially those which are process-related. Certain modern products require for their design and development some 10 to 15 million design and process documents.

Third, the rise of more advanced technologies and industrial reconstruction programmes cause obsolete solutions and associated procurement plans to be revised. Situations are growing more dynamic, hence the need to process information ever more quickly.

Fourth, time brings fresh management problems which earlier did not receive sufficient attention—shorter design-to-manufacturing lead time; integration of accelerated progress in science and technology with the enterprises' socio-economic development plans; improved target plan balance and adjustment procedures; due account for domestic and foreign market conditions, etc.

For physiological reasons, man cannot process more than six to nine units of information per second. As information volume grows he simply ceases to keep up with it, which leads to the need for more personnel. The rapid development of the national economy produces an ever greater volume of economic, social, scientific, technical and other classes of information involved in the management process. Today, information flows are more diversified and circulate at an incomparably higher rate. There is a clear trend both toward a continued and significantly greater increase in information volumes and toward higher processing rates and enhanced information authenticity and quality. These conditions have produced an inevitable contradiction between the continually growing volume of socio-economic information and the obsolete methods and equipment used to collect, process, evaluate and apply it.

The management apparatus is nearing a point where it will be too cumbersome and hard to control. The volume and complexity of information are already such that management personnel can no longer use old methods and equipment to effectively manage increased production. Hence the urgent need for more efficient managerial performance and for an environment enabling personnel to process more information per unit of time.

Given modern production conditions, even minor slips and errors in the decision-making process may involve major losses. Hence the need to apply the advances of science and technology in order to make managerial performance more effective.

Addressing the essence of technological progress, Lenin said: "There is nothing 'absurd' in replacing hand by machine labour: on the contrary, the progressive work of human technique consists precisely in this. The higher the level of technical development the more is human

hand labour ousted, being replaced by machines of increasing complexity".¹ Lenin went on to say that technological progress consisted of the changing balance between living and machine work, with the growing share of the latter and an ever smaller input of work per unit of production. Since the object and product of managerial work is information, a reduction in the cost of a unit of information also depends on the changed balance between the input of living and materialised labour.

The revolution in science and technology has generated a range of technical tools for the quick collection, storage and rapid processing of production management information. The application of various automatic tools to management has become a social, economic, organisational and production need.

In the production sphere this need is dictated by the short response time and continuity of production processes, two conditions that can only be met through automation of the management function.

Production automation and automation of selected management functions opens the way for greatly enhanced efficiency of managerial performance, which lags far behind increases in production efficiency. In the USSR, managerial efficiency has increased by only 100-150 per cent in the last 50 years.

Automation equipment brings considerable improvement to organisation of production and business management and administration. Millions of men and women—economists, planners, rate-setting analysts, etc.—are employed in Soviet business administration and management. They spend a significant portion of their office time figuring and calculating, formulating and writing up various documentation, transmitting and receiving all kinds of information. However, due to an extremely low level of mechanised and automated administrative operations, the effectiveness of management work has been limited.

The introduction of automated facilities in management under conditions of accelerated socio-economic develop-

¹ V. I. Lenin, "On the So-Called Market Question", Vol. 1, Foreign Languages Publishing House, Moscow, 1963, p. 105.

ment also has a social aspect. Automation saves society work; it makes work easier, more meaningful and more productive.

It must be remembered, however, that while technical tools play an important role in improving management, they are not the only condition for management rationalisation. If the efficiency of managerial work is to be raised, careful organisation of management operations and an improved business machinery are required.

Automation makes it possible to adopt an innovative and progressive management technology employing economic theory, mathematical methods and state-of-the-art computers; it provides opportunity for information to be processed more quickly and fully, and for optimal decisions to be made.

2. TYPES OF TECHNICAL TOOLS OF MANAGEMENT. OFFICE EQUIPMENT AND ITS USES

In all spheres of the national economy, management makes use of a broad range of equipment—from the simplest writing tools and calculators to sophisticated computers. This equipment may be subdivided into two classes: office equipment and calculating equipment.

Incomplete understanding of what technical tools of management are all about sometimes makes people think that these are limited to computers. In fact, technical support for managerial work comes in a wide variety of forms.

Soviet industry and the industry of other CMEA countries are regularly turning out ever-growing quantities of appliances, instruments, apparatus, machinery and other office and computer equipment designed to bring integrated mechanisation to all aspects of managerial work. Managerial automation would be unthinkable without, first, mechanisation of individual management operations, and, second, total mechanisation of selected management processes. It is the integrated mechanisation of management processes that brings about the new and advanced stage of development, viz., automated control systems.

The many and varied types of mechanisation and mechanised facilities may be classified according to principal kinds of information processing under the following headings:

- tools for document compilation;
- document processing facilities;
- copying, Xeroxing and microfilming facilities;
- document storage, search and handling facilities;
- calculating facilities;
- draftsmanship tools;
- management communications facilities;
- office furniture.

The use of selected forms of office equipment, while obviously assisting a particular related activity, does not, of itself, represent a changeover to an innovative management technology. A tangibly higher efficiency of managerial work is made possible only through the integrated application of information collecting, processing, transmission and storage facilities. If properly organised, totally mechanised work improves not only the efficiency and effectiveness of the entire management system, but also the quality of specific decisions being made. Given this effect, it can help reduce the number of personnel engaged in the business of merely collecting and processing primary information, while setting the stage for devising an innovative technology and introducing automated control systems into the work process.

3. ADVANCES IN THE DEVELOPMENT AND USE OF COMPUTERS

Progress in science and technology is bringing about a qualitative new management system with its own technical and information facilities and characteristic methods and procedures for dealing with management tasks.

The automation of the heterogeneous aspects of information processing has been made possible by improvements in computer technology. Computers have set the stage for certain successes in bringing automation to production and management. This is especially true of the power, ferrous and non-ferrous metallurgy, chemical and oil refining industries. It will be remembered that

first-generation computers were built around electronic valves and were capable of handling only a few thousand operations per second. They required specially designed, large rooms equipped with high-power electrical facilities and cooling units. At that stage, computers could not be relied on to fully meet the needs of industry.

Modern computers, on the other hand, are built around semi-conductor microcircuits of very high capability. A thin slice of a semi-conductor chip is equivalent to tens or even hundreds of thousands of elements and is capable of performing all the principal functions of a first-generation computer. A modern computer has a rate of tens of millions of operations per second.

To compare, the operator of a keyboard calculator performs one operation in 30 seconds or about 200,000 operations a year. In other words, it will take him 50 years of continuous work to perform 10 million operations, a work load a computer can handle in 3 to 4 seconds.

A modern multiprocessor computer can handle from 100 to 200 million operations per second. Its memory is capable of storing enormous data banks equivalent to millions of printed pages. Management computers are expedient wherever there is need to perform a large volume of calculations or logic transformations on data. Scientific and technological advances have enabled remote control of continuous processes and of many forms of programmable machine tools. The computer can store data required to control machinery and equipment according to preset performance specifications, write new programmes, and reduce retooling time when changing over to a new product line.

With the diversity of available computer performance characteristics, the right type of computer can always be selected for each particular management application in a particular economic project, the principal criterion being the maximum cost efficiency of applying the computer for management purposes.

Computers are classified under four headings: high-power, medium, small and microcomputers. The main performance characteristics dictating classification are speed (number of operations per second), capacity of

on-line and external memories (expressed in bytes), floor space area or overall dimensions, and support requirements.

High-power computers have a speed of more than 1 million operations per second ($\frac{\text{mln ops}}{\text{s}}$), an external memory capacity of over 100 million bytes (Mb), take up more than 100 square meters of floor space and require special conditions for operation (stable power supply, air conditioning, full-time operator staff etc.).

Medium-sized computers have a speed of up to 1 million operations per second, an external memory capacity of up to 100 Mb, and take up no more than 100 square meters of floor space. This class of computers calls for less stringent support requirements than high-power computers.

Small-sized computers have a speed of up to 250 operations per second, an external memory capacity of up to 10 Mb, take up 20 to 30 square meters and require no special support.

The fourth class—microcomputers—is making very rapid headway, spurred on by progress in microcircuit technology, the printed board being the main building block for the key components of modern computers. The name of this class of computers primarily reflects their compact size, suitable for desk-top application. Microcomputers are comparable in performance to small-sized computers and in the future are expected to have specifications equivalent to medium-sized hardware.

Small-sized computers have found extensive management uses in scientific, technological and economic analysis, automatic data processing, information analysis, process control, product quality control, etc.

Experience with small-sized computers indicates that they can be used in virtually any production process, especially in those which do not require a large memory. Such computers do not need a special room and can be plugged in to a large computer to draw on its memory, thereby having additional resources available to deal with more complicated problems.

The running of a whole group of machine tools or installations may be controlled by a system of electronic

hardware feeding data into small computers. These collect and analyse data and feed the results into a large time-shared computer which, in turn, feeds the generalised information into a central computer or supplies it to the management so it can review plant performance and make decisions. A small computer may also have plugged into it primary data entry hardware and output devices or terminals located on the factory floor and in plant offices.

Despite the fast rate of growth, computer output still lags behind the needs of the Soviet economy. Small and medium-sized industries and research organisations have limited access to this innovative technology.

Current Soviet progress in developing computer technology is moving in the following directions: microprocessors and small-sized computers for a broad range of users; medium-sized computers for industries and offices; large and super-large computers, including multiprocessor hardware, for automated process control in national, industry-wide and regional applications, for scientific information retrieval systems and public-access centres.

High-power computers provide the best effect when used in a network of public-access centres.

Having computers linked into networks extends their availability not only for industry and management, but for general use as well. This approach allows the use of displays and peripherals to gain access to the data banks of large computer and information centres. In the future, this will make possible a public-access information retrieval system, producing savings in library and filing networks, and will bring greater effectiveness to information retrieval and application.

To ensure effective performance of public-access computer centres it is necessary to develop more advanced hardware, innovative peripherals, shorter lead time for commercialisation, and the availability of terminals, magnetic discs, data preparation and remote processing facilities for users.

With this aim in mind, in 1975 the USSR began to commercially produce standardised general-purpose data transmission hardware in order to make multiple-user systems for on-line service possible. With all the commu-

nications media tied into a centralised network, the benefits will be an effective communications and switching technology, better hardware usage, lower operating costs and fewer personnel.

A unified communications network will cut down departmental data collection systems which require a broad range of customised hardware, with corresponding organisational complications and higher operational costs. The establishment of a unified communications network depends not only on the availability of hardware, but also on improving organisational structures and the planned management of developing such a network on the basis of an integrated approach to management automation for the entire national economy.

The world trend is toward personal computers which, designed for an individual user, require that he have an understanding of programming and electronics. Software for personal computers is being developed in factories. Designed to teach the user to use an extensive range of programmes, simple and easy to operate as well as relatively inexpensive, personal computers are enjoying a mass market.

With the wide variety of computers and peripherals available in the market, there is a need for continued standardisation of the technical tools of management and hardware. The use of standardised systems will cut development and operational costs for computer complexes by streamlining document routing and process flows, improving data accuracy, saving document formulation time and minimising document output packages.

Computerisation provides a realistic opportunity to control all production and economic processes simultaneously, i.e., to ensure a complete framework for automated production. In the USSR, this application in its early stages is found in continuous process industries, such as gas, liquids, bulk materials and other manufacturing processes.

Advances in high-capacity computers and information transmission, processing and storage technology provide a firm technological basis for bringing automation to a broad range of both management and production processes.

4. EFFECTIVE USE OF TECHNICAL TOOLS OF MANAGEMENT

The application of any technical tools to management is not an end in itself, but rather a way to bring added efficiency to, and save labour in, management operations. The end result must be the economic effect actually achieved. Accordingly, the selection and purchase of hardware must be carried out on the basis of a feasibility study of the actual need of the related project and of the potential effective application of such hardware to individual project operations.

Just how effective the hardware will be depends to a large extent on a successful solution to the problem of its total application for management purposes. Experience, especially with automated control systems, indicates that even a single non-mechanised operation in what is otherwise a totally mechanised and automated process will severely hinder the effectiveness of the entire system. Accordingly, technical tools of management for a particular organisation should be specifically selected so as to merge all management operations into a single process.

In assessing the effectiveness of technical tools, care should be taken to balance the advantages against the costs of their use. Among the primary advantages of mechanised management work are improved efficiency plus labour savings and a reduction of monotonous, repetitive work. Managerial staff work and time are saved, which, in the light of continually growing information volumes, produces a dramatic increase in the number of documents processed without having to expand managerial staff. The costs of office mechanisation include relatively substantial expenditures in connection with the initial capital investment and the operating costs of office equipment, the training of operators and servicemen, and any retooling to meet changing management needs.

In order to decide on the most effective options a review of available technical tools of management should begin by specifying the aims and purposes of mechanisation and automation, followed by identifying the particular manner of implementation and the equipped-need for the purpose.

The decision to settle on a particular type of technical tools should be based on a consideration of the capital investment and operating costs; operational reliability and performance; compatibility in terms of the main specifications with hardware used in the overall management process, and convenience in operation. Also, a simultaneous review should be undertaken of existing document forms and information flow patterns in order to adapt them as much as possible to the available hardware.

The critical considerations affecting the economies of office hardware include capital investment, annual returns on investment, depreciation charges, length of payment period and total adjusted costs. Analysis of these factors will give an indication of the economic efficiency of using particular hardware in each specific management application.

Integrated use of office equipment is a condition for efficient automated management operations and effective computer utilisation. Computers are becoming a powerful means of enhancing management efficiency by opening up essentially new opportunities for bringing automation to the various information processing, storage and retrieval operations in virtually every field of management. Under the centralised planning of socialist economy, their wide use provides the answer to a number of problems, enabling a radical improvement in production in general and a mobilisation of resources to speed up economic and social progress.

First, they make it possible to establish large information storages known as data banks to serve as national information systems to support management, planning and accounting functions.

Second, they considerably facilitate the solution to many complex problems in national economic management. This applies to current planning and day-to-day management, coordination of supplier/user operations, itemised scheduling of production, inventory and resource planning and management, expansion and modernisation of resources to prevent and eliminate imbalances, etc.

Third, favourable conditions, i.e., a national data

acquisition and processing system for monitoring, planning and management applications, are created, effectively permitting the organisation of optimal planning.

Fourth, the computer makes it possible to create a highly effective tool for providing information on multiple social and economic processes, and to develop a forecasting system in the interest of long-term scientific planning of the national economy.

Thus, it can be seen that progress in high-technology tools of management, computers of various types with different capacities for information input and output, provides a solid technical basis for broad automation both of management functions and of production as a whole, furthering the acceleration of economic development.

SELF-TEST QUESTIONS

1. What role does technology play in improving management?
2. What role does office equipment play in management? List the main classes of office equipment.
3. What are the management applications of computers?
4. Name the different classes of computers. Make a comparative analysis of their characteristics.
5. What is a computer network? What is its role as a management support tool?
6. What conditions control effective use of technical tools of management? What can the computer contribute to this end?

Chapter 15.

AUTOMATED CONTROL SYSTEMS AND HOW TO MAKE THEM MORE EFFECTIVE

KEY POINTS

1. Automated control systems, their types, subsystems, and how they are developed.
2. Unified national data acquisition and processing system.
3. Economic effectiveness of automated control systems.

Discussion Hints

In *point one* a clear distinction should be made between automated control systems for management and business administration applications and automated process control systems, identifying their content, including management support subsystems, technical facilities including computer hardware and software, and economic organisation subsystems.

Point two should focus on the main trends in the continued application of automation to industry and nationwide management, with special emphasis on a unifying, methodological approach to questions of linkage and integrated development.

In *point three*, consideration should be given to special aspects of defining the economic effectiveness of automated control systems. Important factors in improved effectiveness of automated control systems include the

availability of standardised systems adapted to the needs of particular industries and production environments, and improvements in production to promote effective operation at all levels of an automated control system. Conditions for control system standardisation are already coming into being, resulting in significant savings in system design and utilisation.

1. AUTOMATED CONTROL SYSTEMS, THEIR TYPES, SUBSYSTEMS, AND HOW THEY ARE DEVELOPED

Every control system basically has three main functions: (1) acquisition and transmission of data on the controlled objects, (2) data processing, and (3) generation of instructions to control the object. The automated control system brings automation to these functions.

A distinction is made between two main classes of automated control systems: (1) process control systems and (2) management or business administration systems. The principal distinction between these two classes lies in the nature of the controlled objects—equipment, instruments and apparatus in the former case and mainly personnel in the latter.

The term “automated process control systems” is used to define systems which utilise computers and other hardware to perform multiple functions under automated control based on an integrated processing of data in order to optimise process conditions and to make maximum use of available manufacturing capacities. Automated process control systems are many and varied and are designed and developed in terms of each particular process.

Automated control systems for management or administration applications used in the USSR are classified as nation-wide systems, automated systems for planning, national statistics, standardisation and other functions; enterprise automated control systems; territorial organisations' automated control systems; and ministries' and government departments' automated control systems.

Automated control systems supporting individual en-

terprises, territorial organisations, ministries and government departments bring maximum efficiency to management functions through the use of economy-related computing procedures and technical facilities, including computer hardware and data acquisition, processing, transmission and storage facilities.

The term "automated data processing system" is used to define a system which employs economy-related computation methods and computer hardware for data processing, automation in research and other applications. Systems of this class are generally found in research, design and development organisations.

For all their diversity, any automated control system has the following elements:

- organisational and economic (system structure, set of instructions specifying its position in the management network, functional links, etc.);

- software (production and control models, formal data processes, computer languages and programming systems, etc.);

- technical (hardware, its integration into a system, hardware applications);

- operators (liveware).

The software, hardware and liveware constitute support subsystems, which are the material framework of an automated control system. During operation of the automated control system the elements of these subsystems register initial data, enter it on carrier media, transmit it to the managerial and operating staff, organise it for processing and storage, process and store data.

The key element of an automated control system is the managerial staff. As a component of a support subsystem, man is capable of fulfilling every function of the management process—from data registration to decision making. With an automated control system, he is relieved of data acquisition and processing work in order to focus on decision-making based on pre-processed data.

The *organisational and economic system* with its functional subsystems is a chief element of an automated control system. In general terms, the functional subsystems are economy-oriented mathematical models describing the controlled object's processes of development and

functioning in formal terms. They are called upon to support every management function in an individual plant or industry.

Functional subsystems are actively involved in providing solutions to problems of business management. Development of such subsystems is a complex and time-consuming undertaking generally involving specialists both from research organisations and from the enterprise for which the system is being created.

Although different controlled objects require different functional subsystems, it is possible to identify the more general subsystems in an industrial enterprise, which will dictate the nature of tasks dealt with by the enterprise's automated control system. Examples include manufacture support subsystems (design and process development), economic planning, accounting, inventory control, day-to-day control of the main production functions, sales management, personnel management, quality control, financial management, etc. While each of the subsystems corresponds to a particular field of an enterprise's operations, greater integration and more efficient joint action between the various operating units can be achieved by dealing with all tasks in a single framework and lending the strength of computers to their implementation.

The actual content of functional subsystems is dictated by the properties and special characteristics of the particular operation and the degree to which it has been analysed. Each subsystem is called upon to provide solutions to a range of complex problems. For example, the economic planning subsystem will be responsible for optimising the enterprise's annual and long-term production and financial target plans, subject to the production quotas set by the next higher authority; calculates the amount of marketed gross product and the volume of incomplete production, costs of the main and supplementary materials, semi-finished products and purchased items; draws up estimates of company and plant costs; evaluates costs and calculates prices. With a wide range of production management options available, analysis and comparison of their individual economic performances are necessary in order to identify the

most effective option.

The day-to-day control subsystem provides support for the following functions: day-to-day planning (development of planned quotas for various production, production support, procurement and marketing units, production scheduling, setting load capacities of equipment under approved production quotas, etc.); accounting and monitoring functions (production report generation, planned progress report generation, economic performance monitoring, statistical monitoring of production quotas and the nature of random factors affecting production, etc.); optimal regulation (analysis of planned and actual production progress for agreement, daily job assignments to every production unit subject to the actual production situation, production schedule correction, analysis of potential for starting up a particular operation, etc.).

The *software* of an automated control system is a set of algorithms, programmes, job instructions and programming procedures which provide an effective solution to production problems through the use of computerised procedures.

Software is classified as general computer software and special software consisting of programmes and procedures designed to enable the automated control system to deal with economic tasks.

Production management on the factory level is generally concerned with four types of economic tasks: control (manpower analysis and assignment by class, category, etc.), analysis (plan progress report generation, etc.), calculation (evaluation of required material resources, finance, manpower, etc.) and planning (plan formulation, determination of optimal plan, planned quotas, etc.). In order for these tasks to be dealt with by computers they must be converted into mathematical form and economy-related mathematical models must be designed. It is this that makes the formulation and development of economic tasks for an automated control system so expensive. Software currently accounts for approximately 70 per cent of all automated control system related costs in the USSR, a percentage which is liable to grow as the applications of these systems expand.

Hardware is a critical part of an automated control system. From the hardware point of view, an automated control system is built around advanced technology that brings automation to data acquisition, transmission, storage and processing functions. A set of system hardware may be classified under these headings: a mainframe computer, indicators (counters, transducers, devices for storing data on carrier media, etc.) and data links connecting the system with the controlled objects and the different operating units among themselves.

The hardware of an automated control system centers around computers to read data from carrier media, store and process it, perform computation logic operations, provide print-outs, load data into carrier media. Computers permit a continuous increase in the rate of acquisition and processing of an enormous mass of data, bringing significantly higher efficiency to management and providing documentary support for its decisions.

Experience gained with automated control systems in the various fields of the Soviet economy has determined the procedure of their development and introduction. This can be broken down into the following stages: examination of the object to be controlled or managed and formulation of specifications for the automated control system; detail design; contractor design; commissioning of the automated control system.

The detail design forms the initial stage of this work, including a careful all-round analysis of the existing management control system in order to streamline and improve it. Development of specifications requires that the specialists involved have both training in certain procedures and methods and knowledge about the object to be controlled. In practice, specifications are generally drawn up through a joint effort by a research and development organisation and the user organisation.

Parallel with work on the specifications, a cost sheet is drawn up for the automated control system. The first stage ends with approval of the automated control system specifications.

With the specifications approved, the developer proceeds to the next stage—a detailed design of the automated control system. This includes:

- development of the system's overall structure;
- identification of system tasks, document flows, description of the general principles of software;
- development of a block structure of hardware;
- evaluation of economic effectiveness;
- development of key measures to set up the user facilities to transfer over to an automated control system, and the working out of a block schedule of system implementation.

The next stage is the contractor design stage which defines a network model of automated control system implementation procedures, pilot studies to identify ways to implement the decisions made, documenting supplementary draft decisions, development of data acquisition and processing procedures, development of engineering specifications and drawings, and detailed analysis of the system's economic effectiveness.

The final stage of implementation consists of progressive transition from the existing to the new control system. To minimise lead time, it must begin at the contractor design stage and continue to proceed as the individual parts of the system are completed. Implementation includes personnel training, preparation of the object to be controlled for automated system implementation, a pilot run on the subsystems and their introduction into production processes; acceptance of the automated control system by a State Commission.

The pilot run on the subsystems is performed to test all of its components, data base, data acquisition and processing facilities, computer centre and management personnel training levels in the context of a working subsystem.

2. UNIFIED NATIONAL DATA ACQUISITION AND PROCESSING SYSTEM

The next level of automated control systems above the enterprise and association level is represented by industry-wide systems. By the mid-1980s industry-wide automated control systems had been set up in practically every national-level ministry and in about one-third

of all constituent republic-level ministries. These control systems are designed to bring automation to higher and middle-level management functions.

The content of automated control systems on the ministry and government department level is dictated by the nature of their respective operations and management functions. The pivotal link of an industry-wide automated control system is the main computer centre which processes data and routes it to the appropriate functional units and associations. The computer centre collects, processes, stores and retrieves data for use as needed by the ministry to run the respective industry, provides on-line support for management functions, stores and transmits directives to subordinate organisations and industrial units and follows up on their implementation. Information exchange between the individual components of the industry-wide system in enterprises and organisations is handled by the enterprise's own automated control system in order to create a unifying control system embracing the entire industry. Industry-wide automated control systems are, on the other hand, a part of the nationwide control system which deals with economic tasks on the national level.

It is precisely the rise of the wide network of automated control systems run by individual enterprises and industries that led to the need to integrate them into a unifying nation-wide data acquisition and processing system to support the functions of economic report generation, planning and management. This last system is called upon to use high-power computers and a unifying communications network to integrate automated control systems at every level of the national economy.

The nation-wide system will perform the following main functions:

- store primary scientific, technical, social and economic information;
- accumulate information common to various economic planning agencies and economic units;
- route information, depending on the tasks to be dealt with; furnish the necessary information to enterprises and organisations;
- provide computation support to economic planning

and production units on the national level.

Over the long term, the nation-wide data acquisition and processing system will support the operations of every Soviet enterprise, organisation and industry by integrating them into a single automated control complex. This will provide an effective environment to ensure optimal planning for the development of social production. A unifying automated control complex, however, will require a major effort in both technology and organisation in order to set up a broad network of information computer centres around the country. This will call for substantial changes in the methods and procedures of economic planning, management and report generation and in the personnel training and re-training practices of major computer centres.

3. ECONOMIC EFFECTIVENESS OF AUTOMATED CONTROL SYSTEMS

The effects of automated control systems on production are many and varied. These systems are used to raise production and management efficiency in individual enterprises and entire industries, the end result being to increase output and improve product quality. Automated control systems mean rapid processing of large amounts of data, improved information flows and greater data usage. They free management personnel from time-consuming calculations, help make optimal economic management decisions, improve the organisational structure of management and bring a new dimension to managerial work.

It follows, then, that the principal effect of automated control systems consists in streamlining management procedures, dealing with management problems more quickly and with better results, better support for management decisions and, in the final analysis, higher production efficiency. Automated systems are progressing in their ability to handle problems in planning report generation and monitoring, as well as optimal, effective preparation for production. They allow improvements in the organisation of the entire production flow, cut lost

work time by eliminating all sorts of organisational and technical hold-ups, raise output without increasing management staffs, speed up capital turnover, and so on. In other words they improve all the principal economic performance indicators of individual enterprises and entire industries.

Automation of organisational and administrative systems of management has an increasingly greater effect on production in terms of improved opportunities to optimise plans, decisions, monitoring and other management functions. Automated control systems cut losses stemming from planning errors and inefficient inventory control and procurement procedures. They change the management cost structure; in particular management staff costs are reduced by 3 to 4 per cent and annual hardware costs increased by 20 to 25 per cent. The effect of implementing automated control systems in the economy falls under the following headings.

(a) *Production*. Improvements in the organisation of industrial production by optimising planning, effective use of production capacity, and streamlining of production. Greater productivity is achieved by cutting ineffective costs, lost work time and equipment downtime. Product quality goes up, while losses due to damaged goods are reduced.

(b) *Construction and Installation Projects*. Industry investment is minimised by optimising plans, effective location of construction sites, tighter schedules and lower costs plus improved equipment usage.

(c) *Procurement and Marketing*. Automated control systems reduce redundant inventory through efficient placement of industry resources and lower storage losses.

(d) *Research and Development*. Product quality is significantly improved through the application of the most effective R & D results based on the use of mathematical methods.

(e) *Management*. Savings in data processing time and higher management efficiency are assured, the number of managerial personnel is levelled off (or even reduced).

Automated control systems improve management performance by providing an integrated link between managements at factory, association and industry levels.

ensuring efficient resource control on an industry-wide level, and effective manufacturer-to-manufacturer cooperation.

SELF-TEST QUESTIONS

1. What are the different classifications of automated control system?
2. What are the main preparation stages in implementing an automated control system?
3. What are the main problems involved in setting up a nation-wide automated control system?
4. What makes automated control systems effective? What are the indicators of their effectiveness?

Chapter 16

CRITIQUE OF BOURGEOIS MANAGEMENT THEORIES

KEY POINTS

1. Critique of bourgeois social management theories.
2. Critique of bourgeois conceptions of socialist economy.

DISCUSSION HINTS

Discussion of the *first point* should introduce the student to the emergence, rise and application by modern capitalist monopolies of the “classical” theory of “scientific” management founded by Frederick Taylor and Henri Fayol, plus Lenin’s critique of Taylorism. Lenin called for bourgeois theories to be seen as a combination of “the refined brutality of bourgeois exploitation and a number of the greatest scientific achievements”¹ that could be applied by the victorious proletariat to the building of socialism.

Discussion of the *second point* should include analysis of the principal bourgeois conceptions of socialist economy and management, and an exposure of their anti-Marxist nature. Priority should be given to an exposure of their anti-communist and anti-Soviet slant.

¹ V. I. Lenin, “The Immediate Tasks of the Soviet Government”, *Collected Works*, Vol. 27, 1977, p. 259.

1. CRITIQUE OF BOURGEOIS SOCIAL MANAGEMENT THEORIES

Improvements in the practice of socialist economic management and progress in related studies presuppose a critical analysis both of the practical experience of capitalist countries and of theories expounded by bourgeois and petty-bourgeois ideologists.

Bourgeois management theories do not provide a unifying system of teachings with respect to the management of social economic production. Bourgeois ideologists attempt to make up for their lack of a scientific concept by a multitude of particular studies which substitute empirical analyses of selected aspects of capitalist economic management for a study of the general laws of management.

In analysing bourgeois and petty-bourgeois management theories, one should constantly keep in mind that their function is clearly ideological and apologetic. The deepening general crisis of capitalism contributes to greater social pessimism among the ideologists of capitalism. Modern bourgeois theories seek to counter-balance this trend with a glowing picture of the capitalist future centred around aggressive, "prosperous" business.

The early 20th century saw the burgeoning of general theories on business management, leading to the "classical" theory of "scientific management". From its very beginning, this theory sought to resolve the urgent problems posed by imperialism, including those associated with concentrated and specialised large-scale technological production aimed at gaining maximum profit from investments. The scientific management theory was founded by the American engineer Frederick Taylor and the French manager Henri Fayol.

Taylor sought to improve management by studying the many different aspects of business and work, and analysing the economies of human labour and installed equipment in a context of carefully assigned utilisation of materials and tools, standardisation of working operations, time study, etc. He equated workers with mere tools of production, ignoring the social and psychological aspects of human behaviour in the process of pro-

duction. Selection and training procedures were set up in industry, which tended to reduce workers to mechanical performers of "scientific instructions". Taylor's conception was also characterised by generalisation and analysis of management relations only on factory and shopfloor levels.

Fayol made an important contribution to the "classical" management theory by identifying and defining the general management functions of foresight, planning, organisation, coordination and control. Fayol developed a theory of administrative management, including the principles of administrative activity which define the organisation of managerial activity. This was to ensure division of labour, unity of supervision and command, subordination of particular, including personal, interests to a common interest, a permanent table of organisation and worker initiative. Fayol also studied the special characteristics of managerial activity at different levels of the scalar chain, attempting to define professional requisites to shopfloor workers, foremen, factory and executive managers and the higher echelons of corporate command.

In exposing the class orientation of the theory of "scientific" management, which under capitalism is a tool used in the art of squeezing three times as much work out of the worker, Lenin said that the application of certain elements of the Taylor system under socialism would spell added advances in the construction of socialism. Lenin set the objective of introducing "the Taylor system and scientific American efficiency of labour throughout Russia by combining this system with a reduction in working time, with the application of new methods of production and work organisation undetrimental to the labour power of the working population".¹

The "classical" theory of "scientific" management was limited in that it failed to take account of the human factor by reducing the worker to a cog in the machine of capitalist production, which is effective in direct proportion to the simplicity and monotony of the worker's motions.

¹ V. I. Lenin "The Original Version of the Article 'The Immediate Tasks of Soviet Government' ", *Collected Works*, Vol. 42, 1971, p. 80.

Subsequently, bourgeois ideologists conceived several new notions which, without rejecting Taylorism in principle, expanded it by targeting not only the worker's physical and professional potential but also exploiting his intellectual capacity. The theory of "human relations" was conceived and developed.

One of the contributors to this theory was the anthropologist, psychologist and psychiatrist Elton Mayo, who studied the socio-psychological aspects of human behaviour in a group work environment.

Mayo proceeded from the assumptions that:

—corporate management deals not so much with a single worker as with a work group. Accordingly, methods need to be developed to manage human behaviour in an organisation;

—a straightforward hierarchy of subordination and formalised organisational processes are incompatible with human nature. Accordingly, management methods and procedures need to be developed to get the maximum mileage out of the employees' psychological and emotional make-up and intellectual potential;

—businessmen must place special priority on solutions to the social aspects of work—the humanisation of work, workforce training and education, a respected managerial staff, etc.

The founders of the "human relations" school repeatedly emphasised that the effectiveness of a production process depends less on incentives than on the worker's social status and psychology.

One important aspect of the doctrine is promotion of human motivation in a work group. Attention was drawn, *inter alia*, to the consideration that as the basic material needs (wage, housing, food, etc.) are satisfied there is increasing emphasis on the employee's emotional and intellectual potential and on his interest in corporate affairs. The founders of the "human relations" school believed that by implementing their recommendations, e.g., involving workers in rating their foremen, participation in rate setting and merit rating programmes, discussions on quality control procedures, bonuses distribution, the worker would be instilled with a sense of "participation" in management activities and made to

feel that, notwithstanding the continued existence of hired labour, he was now the proprietor's partner.

The "human relations" theory is essentially an attempt by the monopolistic bourgeoisie to adapt themselves to working people's changing attitudes by resorting to a show of democratic and liberal policies. In this way, the actual owners of the means of production would be able to prevent social conflict and gloss over exploitation.

Current bourgeois management theories are embraced, for the most part, by the "empirical school", the "social systems" school, the "new" school and a few other approaches.

The "empirical school"—which is the most widespread and followed by top managers, company presidents and vice-presidents, consultants, etc.—sees its task as one of studying and generalising management experience to give the manager a set of scientific tools for action in the form of suggestions, instructions, etc.

Studies conducted by the "empirical school" involve specialists from a cross section of fields of knowledge, such as organisation engineers, economists, sociologists, statisticians, psychologists and so on. Seeing management as an art, this school poses the manager, the man with managerial experience, as the focal point of its research.

The range of problems studied by the "empirical school" includes management functions, managerial work organisation, selection and rating criteria for managers and operating staff, rationalised managerial structures, etc.

Proponents of this school, however, fail to take into account the social aspect of management; their bald practicalism and pragmatism severely limit the range of questions studied and detract from the value of their recommendations.

Proponents of the "social systems" approach attempt to provide solutions to global problems through an integrated management theory of universal applicability to any industrial environment. They build on the conclusions and tenets of the "human relations" doctrine, in seeing any organisation as a complex organism and a

“social system”. The object of study is the individual, formal and informal connections, the groups and group relations, types of status and role in the group, etc.

Proponents of this approach seek to study the motives of human behaviour in the organisation and to identify man’s set of values and motivations for activity. It is stressed that material incentive is an important but not the only factor, a good deal of importance being placed on prestige, power and emotional incentives—professional pride, a sense of competence, patriotism, etc.

The “social systems” school presents the organisational conflict in a different light. The “classical school”, the “human relations” school and others assume that the employee/organisation conflict is a disfunction that needs to be corrected as soon as possible, while the “social systems” proponents believe that conflict is a normal condition and that the principal task of the organisation in this respect is to minimise its negative impact.

The biggest methodological failing of this school—one which renders its teachings inconsistent—is its substitution of organisation and socio-psychological analysis within the organisation for an analysis of social relations generally, and work relations in particular. Human relations, in the final analysis, are dictated by economic rather than organisational considerations, the latter coming into being only in the course of production activity.

In recent years, the so-called “new” school has grown into a major bourgeois theory of organisation management. The main goal of this school is to apply the methods and procedures of exact sciences—notably mathematics—to the theory and practice of management. Mathematics is used to study the process of management decision-making, forecasting of scientific, technical and economic progress and systems analysis.

Studies are currently underway to determine factors affecting company strategies and to give them greater flexibility in responding to changes in capitalist market-places.

To conclude, it should be emphasised again that modern bourgeois management schools and concepts are geared to solution to particular problems and are in-

capable of providing an all-round analysis of all factors affecting the management process. The underlying reason for this is the fact that because foreign schools divorce management from society's socio-economic structure, they cannot identify all the conditions affecting the workings of a company, its units and individual employees. The primordial, objective factor dictating the capitalist economy—the law of value—acts as a natural obstacle to the development of a unifying theory of management for companies and monopolies, which develop in a fiercely competitive context.

2. CRITIQUE OF BOURGEOIS CONCEPTIONS OF SOCIALIST ECONOMY

Bourgeois literature is replete with erroneous and fallacious concepts of the socialist economy, including economic management.

Different schools of bourgeois political economy criticise the socialist economic system. Before World War II, Ludwig von Mises, Friedrich Hayek, Joseph Schumpeter and other bourgeois economists, opposing Keynesianism and state intervention in the economy, alleged that one of the vices of the socialist economy is its lack of an economic mechanism for rational distribution of society's resources.

Attacks against the socialist economy are carried on by modern apologists of capitalism. Modern "neo-liberals"—Hershel Grossman, R. Carlson and others—see the socialist economy (planning in particular) as a supercentralised mechanism that controls all of the economy from one central body, leaving no room for the play of economic interests and incentive. The system described as "command economy" is inefficient and leading to a waste of human, material and financial resources. Modern Sovietologists claim that the system dates back to the early days after the October Revolution when it arose as the economy of "war Communism". They say that although it has admittedly improved somewhat, it is still built around administrative decision by central planning authorities. In this type of bureaucratic economy, accord-

ing to the "neo-liberals", central authorities have a monopoly on decision-making, while society has no say in this function or in monitoring decision implementation. Rejecting Soviet economic advances, they see the USSR as an under-industrialised nation.

This view obviously misrepresents reality. Soviet and other socialist nations' economic advances are a matter of common knowledge just as the fact that their economic mechanisms utilise both economic planning and such value-oriented factors as price, credit, profit, wage and other incentives. This economic mechanism exhibits certain differences in the way it is applied in the USSR, Czechoslovakia, the GDR, Hungary and other socialist countries. Under its current policy of accelerated socio-economic development, the USSR is conducting a major economic experiment to promote production incentive and independence, in a context of greater responsibility for contractual obligations to deliver. The early results of the experiment indicate that improvements in the economic mechanism are moving in the right direction.

The measures to improve the economic mechanism under this experiment are not something completely new to the socialist economy. The underlying principles of socialist economic management, utilising both planning and value, were first developed by Lenin in early 1920 and were subsequently applied with a high degree of success in the course of building socialism. Today, it is a question of improving management, planning and incentives to meet the challenge of new conditions, an enormously greater economic scale and intensity, all-round growth of economic ties, and advances in science and technology.

While in some European socialist countries the economic mechanism has its own special features, public ownership of the means of production everywhere dictates the unity of public, collective and personal interests. The socialist economic system is built around the unity and combination of interests subject to the dominant role of the public interest and the desire to produce maximum social and economic results.

Bourgeois economists attempt to establish conflicts between the principles of socialism as set out by Marx

and Engels and the actual practice in socialist countries, claiming that Lenin and the CPSU digressed from Marx's theory as the socialist system evolved and that the socialist revolution was expected to take place in the industrialised Western countries rather than in agrarian Russia. Accordingly, it is argued, the Bolsheviks had to set their bearings on the needs of the here and now rather than on Marxian theory. Bourgeois economists also stress that the socialist revolution did not abolish money or put an end to class divisions. Socialist society is allegedly made up of different interest groups that do not lend themselves to unity. In putting forth these claims, they neglect the fact that a political and social union of the working class, farmers, professionals and working intelligentsia has come into being and is growing stronger in the socialist countries, that they have similar interests, that they work for the good of the people and the entire nation, and that the state channels the interests of individual social groups toward the common national cause.

Some bourgeois economists, G. Grossman, for example, claim that because of the Soviet leadership's digression from Marx's theory, that because it manages the economy in terms of practical needs, Soviet economics is at a standstill, producing nothing but dogmas and that effective management methods can be sought only in the arsenal of the bourgeois West. This is contrary to the facts of history. The establishment of workers' control and the subsequent nationalisation of the means of production—both posed as a necessity by Marx and Engels—the establishment of early socialist economic management bodies and their deliberate drive toward a socialist society are actual examples of Marxist-Leninist theory in action.

Some bourgeois economists attempt to belittle or negate altogether the role of public ownership of the means of production. Thus, according to the West German economist K. Paul Hensel, the controlling factor of an economic system is not the type of ownership, but the system of managing the major economic processes. The socialist and capitalist economic systems, it is argued, differ in that the former is managed centrally through a

system of material indices, while the latter is decentralised and based on monetary evaluation. Hensel's claims are contrary to fact: planners in socialist nations make wide use of monetary evaluations in addition to material indices, which in many cases do not lend themselves to comparison.

The advantages of the planned socialist economy, its ability to guide changes in the content and structure of the economy, and the high growth rate achieved by the Soviet Union and other socialist countries are telling enough to have forced recognition from some bourgeois ideologists. American economists E. K. Hunt and Howard Sherman note that socialist planning authorities seek to maximise social welfare rather than profit. The same view is taken by English neo-Keynesian economists Joan Robinson and J. Eatwell in their statement that socialism is free from unemployment and is oriented toward mass consumption.

The point, of course, is not these or similar admissions on the part of bourgeois ideologists. The Soviet planning experience has actually been applied in the course of attempts to regulate capitalist economies. Obviously, planning in capitalist economies can be no more than indicative and optional since they lack the social basis of planning—public ownership of the means of production—and are geared to maximising profits.

Some bourgeois economists recognise the advantages inherent in socialist economic planning only over the long term, while denying them for the shorter period. The existing planning system is proclaimed inadequate for the current stage of socialist industrialisation. At earlier, less complex economic stages, it is argued, information could be collected promptly and the economy run efficiently. But as the level and complexity of the economy grows it becomes increasingly harder to exercise direct control, forcing decentralisation and indirect control through the medium of value and economic leverage.

In this context, many bourgeois economists have welcomed—naturally, in their own terms—the current Soviet economic reform on the assumption that it represents a step toward “market socialism”. Views are being aired about “convergence” of the socialist and capitalist eco-

conomic systems. Some bourgeois economists, John Kenneth Galbraith for example, try to establish a connection between this so-called convergence and the revolution in science and technology. Postindustrial socialism, in their view, will increasingly become a consumer society, with a new "quality of life" coming into being.

Conclusions of this type will only stand up in a superfluous examination of the socialist economy. Interestingly enough, bourgeois economists and sociologists are coming up with increasingly fewer hopes for a convergence and the turning of the socialist economy into a market economy. In the 1980s, disillusioned in their predictions of the paths expected to be taken by the socialist economy and of what is claimed to be their inefficient planning, bourgeois ideologists have been increasingly focusing on the dominance of "ideological criteria" and inadequately democratic economic management.

Not infrequently, bourgeois ideologists, in criticising the shortcomings of the socialist economic planning system, make a special point of its supposed subjective and bureaucratic nature in the making and implementing of economic decisions. It is argued, for example, that prices in a socialist economy are set arbitrarily, which interferes with its normal functioning. What is passed over in silence here is the existence of an effective pricing mechanism and the practice of scientific price setting. Planning is claimed to be an administrative or political rather than an economic function. Yet it was by scientifically planning its economy that the USSR has been able, in a historically short period of time, to overcome the nation's century-old backwardness and achieve tangible results in science and technology.

It is typical of all bourgeois management theories to ignore the class distinctions between social relations under capitalism and socialism. Their proponents generally try to pass off the external features of socialist economic management as its essence. Centralisation and democratic procedures, in their view, are incompatible notions. In actual fact, it is democratic centralism implemented in the context of unity of the class interests of all social

groups that provides the underlying basis for socialist economic management.

SELF-TEST QUESTIONS

1. Why can't a single theory of capitalist economic management be developed?
2. What makes the theory of "scientific management" inconsistent?
3. What has brought about the "human relations" theory?
4. What makes the bourgeois theories of socialist economies fallacious?

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