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The Soviet Educational and Research Revolution: Implications for Management Development

In yesteryears' less complex Soviet economy, broad training in modern management theory and techniques was unnecessary. Today, the Soviet economy can not progress without such training.

IN AMERICA AND ELSEWHERE, much publicity has been given in recent years to industrial and administrative reforms in the Soviet economy—most notably, the growing stress on profits as an evaluation of managerial performance, the greater decentralization of authority, and the reorganization of the industrial setup. Just as significant, but much less publicized, is the emerging educational and research revolution in the Soviet Union which has definite implications for industrial management in that country.

Historical perspective.[1] The vast majority of Soviet industrial managers have been narrowly trained—through formal educational programs or on-the-job experience—as engineers and technicians. Such training has been much more specialized than typical engineering and technical training in the United States. A much smaller proportion of managers have received training in economics and various business fields, such as accounting, finance, procurement, trade, etc. (All business subjects are considered part of the economic field in the Soviet Union.) However, training in these fields has been characterized by heavy doses of ideology and dogma, and little, if any, attention has been given to operational theory, problem solving, analytical ability, creativity, or behavioral factors. As for management per se, it is only now that the Soviets are beginning to perceive it as an independent field of knowledge, research, education, or application.

In the highly centralized and less complex Soviet economy of yesteryear, their system of research, education, and training for management development was adequate. Narrowly trained and well-indoctrinated technical specialists provided a fast return for investment in Soviet education. In a rather unsophisticated economy, substantial gains could be made by utilizing even crude administrative techniques. Coordination and industrial organization were not highly complex problems. Planning and control in the various functional areas of business could be carried out fairly effectively in a highly centralized manner. Staffing and direction over

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subordinates were not serious problems since the labor force was, in effect, a captive audience.

In the past, major industrial problems were viewed as technical in nature, and specialists were narrowly trained to seek the "one best way" in the solution of technical problems. Innovation was not a significant problem since substantial gains could be made by borrowing and adapting the simplest innovatory techniques of more advanced countries.

The enterprise manager's job was essentially that of a technical expert who could command the obedience of his subordinates in the solution of technical problems and in the execution of plans prescribed in considerable detail by central authorities.

Decentralization

By the late 1950's it was becoming obvious to the Soviets that overcentralization in administration was leading to extreme waste and inefficiency; thus, greater decentralization of authority to enterprise managers was deemed essential. However, the most important reforms, now resulting in substantially more power and freedom of action for enterprise managers, have been initiated only recently by the new Soviet leadership—most notably, Alexei Kosygin and Leonid Brezhnev.

The Soviet manager plays a greater role now in planning, organizing, controlling, staffing, and directing enterprise functions and activities. The problems of coordination become more complex as enterprises grow in size and acquire more complex technology. Changes and innovation are occurring rapidly in the new dynamic Soviet economy, and its leaders are concentrating on automation and mechanization to increase labor productivity. The work of a complex hierarchy of enterprise specialists and technicians has to be coordinated and integrated by managerial personnel. With increased labor mobility and growing shortages of skilled manpower, the direction and motivation of subordinates has become more difficult. Employees and workers can no longer be considered a captive audience. It has become clearly evident to the Russians that human behavior is not always easily controllable.

Compared to the past, the Soviet economy is now faced with increasingly larger and more complicated market structures. Rising living standards and greater consumer choice have made the problems of demand analysis and product mix more important. The input-output relationships among the interdependent productive sectors of the Soviet economy also have become more complex and delicate in terms of product specifications and quality. Important aggregate decisions with respect to market requirements are still made by high-level planners, but enterprise managers now play a substantially greater role in determining their product mixes. Even the basically planned Soviet economy now requires the use of well-trained specialists and managers in connection with marketing decisions.

Today the Soviets are aware that their research and educational system is no longer adequate to prepare students to become the industrial and business managers, leading industrial specialists, or management scholars of tomorrow. Thus, a new research and educational revolution appears eminent. This article focuses on the research trends and educational changes taking place (and those likely to occur) which have implications for the development of managers and other related high-talent manpower for business and industry.

Neglected Training

Liberalization and broadening of Soviet higher education and research activity. One major consequence of the Soviets' successful education of highly specialized manpower is neglect of general or liberal education. The social sciences and the humanities have suffered the most during this process. As the Soviet manager is granted more authority and as his job becomes increasingly complex and requires more judgment, his breadth of training and creative ability become more important.

The pressure from educators for corrective action along these lines is steadily mounting. For example, a professor at a leading Moscow engineering institute condemns text materials because they do not touch on debatable problems and criticizes rigid central direction over curricula for stifling the abilities of both faculty and students. He states:

> The basic requirement for a textbook is that its presentation of materials must not give rise to questions in the student's mind. The idea is persistently brought home to him that everything written in the textbook is eternal truth. Which means there is nothing to think about, the only thing to do is memorize. . . . More

often than not a stream of directives, regularized and qualified with scores of instructions on how and what to teach, how and what to ask on tests, engulfs the teaching collective, gives it no chance to find out the capabilities of each student.[2]

Igor Tamm, a Soviet Nobel Prize winner and ranking member of the Union of Soviet Socialist Republics Academy of Sciences, condemns the existing educational system for suppressing original thought and creativity. He goes on to state that the key talent that an individual can possess is that he be a gifted organizer in any sphere of human activity and that the educational system stifles such talent.[3] Several prominent authorities urge that engineers be trained to create the technology of tomorrow rather than merely to borrow and adapt technology from other countries.[4] This requires better analytical and theoretical training with a view to the long run.

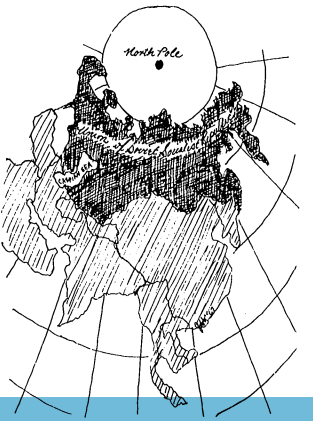
Conference Called

Many leading Soviet educators, scientists, and researchers took part and presented reports at a two-day conference of the General Assembly of the U.S.S.R. Academy of Sciences held in Moscow in 1962 under the title, "The Building of Communism and the Social Sciences."[5] Participants represented a large segment of the "Who's Who" among the Soviet intelligentsia. The pronouncements and recommendations on social science research and education which evolved are closely in line with those presented at the Party plenums in 1960, 1961, and 1962.

At the meetings, Joseph Stalin was blamed more vigorously than ever before for existing shortcomings in the humanities and social sciences, particularly in economics. One participant stated:

> During the period of Stalin the social sciences were suffering the most because research was not based on statistics, facts, and analysis, but on directives and slogans from higher up.[6]

In turn, a leading economist stated: "During the period of Stalin there was a systematic liquidation of all scientific research institutions in the field of economics."[7] Another prominent economist had this to say: "The economic sciences (including planning and management) have suffered greatly under Stalin because of the separation of theory from its applications."[8]



The resolutions adopted at the Academy meetings for overcoming existing shortcomings in social sciences will undoubtedly, in large part, shape the future course of Soviet research and education. In fact, major changes had already been made by the end of 1965.

The consensus at the conference was that there is now a definite need for more liberal, higher education and that students should be exposed to disciplines outside their field of specialization. The curriculum would include psychology and sociology. At present, psychology is reserved primarily for teachers colleges, and there are no Ph.D. degrees given in sociology. Moreover, sociology has traditionally not been viewed as a professional field by the Soviets.

It is widely acknowledged that the design of appropriate courses and textbooks in all social science fields must be preceded by intensive research activity. Steps are now being taken to improve social science education through extensive research not only in economics, but also in psychology, sociology, anthropology, logic, and other fields. In light of the meetings, there has already been an increase in the number of research and educational organizations dealing with the social sciences and humanities. At the same time, it is clear that Communist ideology will continue to play a major role in both social science research and educational activity and that much lip service will continue to be given to dialectic materialism. However, there will be much more emphasis on operational results.

It was strongly urged and resolved at the 1962 meetings that social science research be based on "scientific methodology, especially mathematics, statistics, cybernetics, experimentation, and empirical studies." In economic and business fields, wide use is to be made of empirical studies and testing of theories at industrial enterprises, with a view to improving economic education and managerial decision making.

Several participants advocated that more attention and study be devoted to human needs, motivation, and behavior in the industrial society.[9]

At the meetings, it was revealed that the Department of Industrial Psychology of the U.S.S.R. Academy of Sciences is engaged in extensive socio-psychological research.[10] It is likely that the accumulated data and findings will be utilized in the design of courses and textbooks in this area, and these will probably be adopted at both economic and engineering institutes. Some topics under investigation that may well have implications for management development are:

- The most efficient managerial system composed of man and machine.
- The role of man in highly automated systems.
- How to provide man with all the information necessary for decision making under the best conditions for his perception.
- An investigation to find the algorism of man's digestion of information and the output of that process in connection with the optimum distribution of functions between man and machines.
- Ways to provide man employed in productive activity with acceptable conditions which will free him from monotonous, tiring activities in favor of more creative work.

Another major resolution adopted at the conference pointed out the need for increasing ties and the exchange of information between and among the different branches of the natural and social sciences and, particularly, between educators and researchers in different disciplines. Rigid compartmentalization greatly hinders the exchange and dissemination of knowledge which is necessary to solve the problems facing the country.

However, the dominant form of Soviet higher education is through specialized institutes rather than universities; these institutes are not organized in such a way as to enable much interdisciplinary research or education. Consequently, the universities rather than the institutes are emerging as the major force in interdisciplinary research and education, particularly in the social sciences.

Recent Growth

Current progress. Since the early 1960's, a growing number of research organizations, groups, and projects dealing with the social sciences—including the behaviorial sciences of sociology, psychology, and socio-psychology—have emerged in various major Soviet cities such as Leningrad, Moscow, Kiev, Novosibirsk, and Sverdlovsk. Leningrad has become the leading center for social research in the Soviet Union. Social research studies are being widely published in specialized journals and also in the popular press; social science is the subject of much more discussion and debate than in the past.[11]

Some of the important organizations, groups, and projects in the field of social science research are outlined briefly below.[12]

Leningrad State University currently has a number of laboratories, institutes, and groups undertaking major social research projects. The Laboratory for Sociological Research is studying the factors influencing the attitude of young workers toward their work; the emerging social structure of Soviet society; and the processes of cognition and motivation. The Social-Psychology Laboratory is investigating interrelationship in work collectives (groups) and optimal conditions for effective performance of the collectives. This study is based on experiments being conducted at industrial enterprises. The Laboratory for Economic Research is focusing on long-term planning and the preparation of qualified manpower for industry; this project deals with changes in the structure of the labor force in the Leningrad region.

A group of Leningrad University researchers (primarily sociologists and economists), with the aid of numerous enterprise personnel, has conducted a large-scale questionnaire survey, with 11,000 respondents, of the causes of labor turnover in Soviet industry. The project was coordinated by Leningrad University's Institute for Integrating Social Research. The results of this study are providing guidelines for both macro- and micro-managerial action. For example, many enterprises are reducing personnel turnover on the basis of the findings, and several management training seminars have been organized in order to disseminate the findings of the study.

Some applied social research projects in Leningrad are being conducted on a contract basis for other organizations. For example, the Economic-Mathematical Methods Laboratory at Leningrad University, in collaboration with several of the university's sociologists and psychologists, undertook a project during 1964-1965 on long-term scientifically based plans for the training and retraining of industrial personnel, and the changes in qualifications required of the industrial labor force. The Labor Reserve Institute financed a research project at Leningrad University's Social Psychology Laboratory which deals with effective forms and methods of vocational-technical training.

The **Leningrad Public Institute for Social Research**, established in 1963, is investigating socio-psychological problems linked with technological innovation and progress, rationalizing the activities of workers and man's labor activity in general. The Socio-Economic Department of the **Leningrad Mechanics Institute** is studying such problems as interclass differences in industry and society-at-large and factors affecting occupational choice. A research group at the **Leningrad Electro-Technical Institute** is concerned with problems of communication and information theory.

Novosibirsk State University Laboratory for Economic-Mathematical Research is exploring a broad range of economic, sociological, and psychological problems, including the social prestige and attractiveness of different occupations, occupational characteristics and social mobility, and labor turnover. Other research groups in Leningrad, Novosibirsk, and other cities are undertaking projects that deal with motivational factors bearing on work satisfaction and productivity, human needs and performance, optimum range of labor turnover, and various aspects of human behavior in individual and group contexts. Several studies are being conducted in industrial organizations.

Problem of Dogma

While considerable progress is being made in the expansion of social research in the Soviet Union, methodological problems still serve as a significant restraint with regard to the quality of research in most instances. With very few exceptions, it is unlikely that the current social science research studies would be published in the better American or western European professional journals on the basis of their scholarly merits.

More often than not, the Soviet studies are much more philosophical than scientific or objective, since the researchers attempt to rationalize their findings in terms of traditional Marxist-Leninist dogma. Of course, it is difficult to eliminate value judgments completely in social research, even in the United States. However, in many cases, the Soviet researchers seem to set out to prove that Communist values and attitudes are dominant by using leading, rigged and/or highly naive questionnaires, interview techniques, observational methods, and classification schemes.

Soviet sources and leading experts are urging that much greater use be made of objective question-

naires, observation, empirical studies, quantitative methods, and computers in social science research.[13] An editorial in the highly influential party journal, *Kommunist*, agrees that objective, concrete, empirical, scientific research is necessary, but at the same time points out that research in this area should adhere to and support the party line.[14] Whether a substantial amount of high-quality research which will be meaningful for planners, policy makers, and managers can emerge with this dichotomous attitude remains to be seen. It does appear doubtful.

An article in a 1965 issue of the prominent, progressive Soviet literary journal *Novy Mir* (*New World*) points out that more Soviet books on sociology and the other social sciences are being published in the last few years and more Western works are being translated into Russian. This article goes on to state:

> There is something to be learned from Western sociology in the field of techniques and methods of research, the selection and processing of information.
>
> Until just recently [Soviet] sociology, the Cinderella of our social sciences, was kept in the background. Even the very word sociology was in effect banned. Social research, like the study of facts in general, was neglected. In recent years, the situation has been changed and great attention has been focused on sociology. Only the first steps have been taken. Not all of the consequences of the personality cult have as yet been fully overcome in this field.[15]

Other influential sources are also urging that Western behavioral science concepts and research techniques be used wherever practical in the Soviet Union. Some point out that the works of Soviet scholars in the field in the 1920's and early 1930's—before the "personality cult" evolved—warrant careful study and reappraisal at this time.[16]

Even where Soviet social science researchers make a serious attempt to conduct objective scientific studies, they are typically handicapped because of inadequate training and preparation in research methodology. Since the behavioral sciences are a newly emerging field in the Soviet Union today, there is a virtually complete absence of operational conceptual frameworks, sound classification schemes, and testable hypotheses. Hence, even when useful information is gathered about the behavior or attitudes of a particular group, organization, or administration, the absence of sound research methodology frequently leads to insignificant findings and results.[17]

Another serious methodological problem is the lack of workable concepts and consistent definitions of key terms. Some Soviet social science experts[18] recognize this problem in connection with such concepts and terms as:

- Social and work group.
- Social relations.
- Structure of social consciousness.
- Motivation and its effectiveness.
- The content and nature of labor.

Effective courses and programs dealing with the behavioral sciences would be of considerable benefit for management education and training in the present-day Soviet economy, but much remains to be done before this type of education and training for management development can become effective on a substantial scale. More high-quality social research is needed before such courses can be designed and implemented, although much of the work done in the United States and other Western countries (as well as various Communist countries, such as Poland, Czechoslovakia, and Hungary) is probably applicable to the Soviet Union.[19]

The behavioral sciences, as a profession, are gradually gaining greater status through the support of the Soviet leadership and party. The fact that so much is currently being published in this field is one strong indication of acceptance and support.

Several leading Soviet sources and experts are calling for the establishment of new departments of sociology and of the other behavioral sciences at many higher education institutions, including engineering and economic institutes.[20] These would involve such disciplines as statistics, mathematics, economics, data processing and electronic computers, demography, philosophy, social medicine, and so forth.

Since 1962, the Social Research Laboratory, in conjunction with the Philosophy Department of Leningrad University, has been conducting courses on concrete sociological research. Similar courses are being given by the Leningrad Public Institute for Social Research.[21] In both these programs, the ultimate aim is to prepare and train personnel to undertake significant empirical research studies which would result in a high degree of theoretical generalization and extensive application.

The development of new and improved curricula and course materials in such applied fields as management and organization theory, decision making, personnel, and marketing is dependent to a considerable degree on the effectiveness of research and education in the behavioral sciences.

Economic Education

Economics and business. Influential Soviet experts and leaders acknowledge that economic research and education need expansion at this stage of Soviet industrial development,[22] because it would greatly improve both macro- and micro-managerial decision making. Since engineers will continue for some time to constitute the prime source of managerial personnel in Soviet industry, it is essential that economic training in engineering, engineering-economics, and on-the-job programs be substantially improved and expanded.

The Soviets realize that mere expansion of economic education is not enough; the quality must be greatly improved as well. New applied courses in economic analysis that will provide operational criteria for (and thus improve) managerial decision making are urgently needed. Courses which integrate economic and technical problems are deemed important, as are courses that deal more scientifically with such concepts as marginal analysis, price and value, costs, criteria for investment choice, and other studies of Western macro- and micro-economics. Leading Soviet authorities are putting forth proposals for subjects to be covered in new economic courses, and many of the proposed topics are similar to those dealt with in American courses.[23]

Much more use of quantitative tools and techniques—econometrics, operations research, mathematics, statistics, linear programming, input-output analysis, cybernetics, information theory, and computers—is essential if economic research, education, and application are to be improved, and **the Soviets are clearly moving in this direction.**[24] In all likelihood, new courses and specialties in these fields will continually be added to engineering and economic programs, probably at an increasing rate.

Production, procurement, financial planning and control, cost accounting, research and development, and marketing courses can be substantially improved by greater emphasis on quantitative methods and economic analysis. The behavioral sciences can make major contributions to courses dealing with marketing research, demand analysis, sales promotion and advertising, as well as personnel administration. The trade institutes, in particular, need major revisions in their curricula if they are to turn out competent marketing managers and specialists.

The number of graduates in business administration fields will be substantially increased in the future, although business administration may still be viewed as part of the economic sciences by the Soviets. It also seems inevitable that new and improved business administration courses of the types noted will gradually be designed and adopted at engineering, engineering-economic, economic, and trade institutes. As is the case with economics, many of the business courses proposed by Soviet experts involve subjects similar to those covered in American higher educational and business training programs.[25]

Management Theory

One major aspect of the emerging Soviet educational and research revolution remains to be discussed—management education in the purist sense—the utilization of a systematic body of theory for developing managerial skills and improving management practice.

The importance of managerial skills and the perception of management theory as an independent field of research, education, and application is acknowledged by a growing number of Soviet authorities. In the last few years, the Soviets have come to recognize the need for management education, research, and theory in order to improve performance.

The current emphasis on all aspects of management received support and a go-ahead signal from Nikita Khrushchev in his report at the November 1962 Communist Party Plenum when he advocated that foreign experience in management research, training, and practice be studied and introduced wherever beneficial, particularly the experience of the United States where management science has reached great heights since World War II.[26] Khrushchev's successors (Premier Kosygin in particular, who is well known and highly regarded as an efficient professional administrator[27]) have placed even greater emphasis on the improvement of So-

viet management research, education, and practice.

Premier Kosygin, in his milestone September 1965 report to the Party Plenum, clearly supported the expansion and improvement of management training:

> The system for raising the qualifications of managerial cadres that used to exist and that proved itself in practice must be restored. The abolition of this form of training executive cadres was a grave mistake.[28]

The vice-chairman of the U.S.S.R. State Committee for Coordinating Scientific Research, D. Gvishiani, writes in a recent issue of the Government newspaper, *Izvestia:*

> It is known that as specialization and the accompanying need for coordination grows, and as science and technology develop, the role and significance of management grows larger and larger.

Gvishiani, who has become the leading Soviet expert on management theory, research, and education in recent years, goes on to cite his opinion on the question of technical vs. managerial skills in education and training for management development:

> Obviously, for a manager in this or that branch of the economy the appropriate technical and economic preparation received in specialized higher education is mandatory. However, any specialist who has occasion to engage in the practical job of administration immediately runs head-on into a variegated and enormous complex of questions beyond the bounds of technical knowledge. Engineering alone, like any other production-branch training, proves inadequate for the job of management.

In another article in the leading party economic publication, *Ekonomicheskaya Gazeta,* Gvishiani strongly advocates that the system of training industry specialists and technicians be augmented by educational programs that would effectively prepare managerial generalists.[29] Other prominent Soviet experts and influential publications have joined him in this call for management education.[30]

V. I. Tereschenko is an eminent Soviet research economist who recently returned to his homeland after living more than thirty years in the United States. He has published an article[31] and a book (both based largely on his American experiences) on American management with implications for the Soviet Union. Tereschenko clearly demonstrates that managerial skills are distinct from technical skills. He has considerable praise for American management education and practice and points out that the Soviets can learn a great deal from the United States. His book, *Organization and Management,*[32] published in Russian, received a highly favorable review in the influential and widely read Soviet *Literaturnaya Gazeta* (*Literary Gazette*) in June 1965.[33]

Soviet business schools. There is growing awareness among the Soviets that technical skills alone are not sufficient for sound management; they now also realize that there is a significant and increasing gap between education and training for management development and the requirements of the managerial job. Several influential Soviet sources are now calling for the establishment of special management education institutions patterned after those in the United States.

For example, a prominent Soviet economist has recently called for the establishment of a special institute for management training similar to the Harvard Business School. He feels that, like Harvard, such schools should offer special programs for persons who are already middle- and upper-level executives, in addition to regular graduate training.[34]

In 1963 a Soviet delegation—composed of economic and engineering professors and administrators—visited the Harvard Business School. A report of the trip was prepared by an engineer-member of this group, V. Lisitsyn, and published by the *Ekonomicheskaya Gazeta* under the title, "From a Gift of God to Science: What the National Economy Expects from the Science of Administration."[35]

While Lisitsyn tends to look at the Harvard program through the stereotype view of a Marxist, he evidently approves of its general intent and educational content. In particular, he comments favorably on the following aspects:

- The case method as a means for developing problem solving and creative ability.
- Courses in general and production management.
- Courses dealing with the manager and the United States' economy (the legal, economic, and social environment of business).
- Marketing.
- Finance.
- Economic control and analysis (statistics, managerial economics, and accounting).

Lisitsyn acknowledges that until very recently it was assumed in the Soviet Union that managerial

ability was a natural gift that could only be perfected by practice. In this connection, he states:

. . . but to rely only on innate ability and experience is wrong. . . .

Experience increasingly supports the idea that for management under contemporary complex conditions higher education at present is becoming insufficient for developing managers. The science of administration should be considered a special field which is consistently supported by the economic science.

While Lisitsyn still feels that Soviet managers should have a good knowledge in the technology and economics of a specific branch of industry, he advocates that many managerial generalists are needed with broader backgrounds as well. In this respect he states:

Knowledge concerning one branch of industry alone is becoming insufficient. The interrelation of the contemporary enterprise with the outside world has increased and has become more complex. The territorial system for industrial management, the formation of enlarged economic regions, the creation of large firms, all this calls for more managers to master general knowledge which cuts across individual branches.

Lisitsyn goes on to advocate the establishment of special schools of "management science" in the Soviet Union. He feels that such schools should have one-and-a-half to two-year graduate programs. Accepted students should have specialized higher educations, from three to five years of working experience, and the basic qualifications necessary for responsible managerial positions. These schools, he feels, should also offer three- to four-month full-time executive programs for existing managers. The emphasis in all programs would be on general management education stressing case work, management theory, the application of principles, and individual creative work, with a minimum of time devoted to formal lectures. The schools would train managers both for industrial enterprises and macro-managerial organizations.

A number of Soviet sources advocate that industrial engineers, in particular, should receive management training in postgraduate programs, since engineers are the prime source of industrial managers in the Soviet economy. Such graduate education should emphasize management theory, decision making, and problem solving, as well as economics.[36]

Other Soviet sources advocate that management education should not be confined to engineering programs, since a growing number of economic graduates also become managers. Some sources call for the introduction of courses, and even specialties, in management theory and general management at all economic and engineering institutes.[37] In this connection, N. Adfeldt, the head of the recently established Laboratory for the Study of Problems of Production Administration at Moscow University, states: "Engineers, economists, planners, finance specialists, and accountants must acquire in educational institutions systematic knowledge of the principles underlying management. . . ."[38]

Other sources point out that management education programs are needed not only to develop good higher-level executives but also middle-level managers, since there is a critical shortage of effective managers at this level in Soviet industry.[39]

The need for special management training programs for experienced managers is now also recognized by the Soviets. Since the end of 1963, the influential *Ekonomicheskaya Gazeta* has been conducting informal management development programs for high-level enterprise executives and macro-managers in a number of major Soviet cities.[40] These programs are referred to as "Business Clubs," and they entail weekly meetings at which the participants discuss, analyze, and disseminate information on managerial problems and ways to overcome them, new concepts and techniques in the field of management, and so forth. However, the Business Club approach to management training is limited in its effectiveness, because there is still no systematized and operational body of management theory available to the participants.

In the spring of 1964, Edward Lamb, a leading American industrialist (Seiberling Rubber and many other business enterprises), went to the Soviet Union as an informal United States ambassador of modern management science and education. His purpose was to inform the Soviet leadership, experts and general public of the nature, role, and significance of management research, theory, education, and practice in the United States and of the benefits that the Soviet Union could derive from the American experience.

During Lamb's trip and subsequently, various highly placed Soviet officials expressed a serious interest in the possibility of sending a number of Soviet citizens to attend United States business and

industrial administration schools and management development programs. Mention was also made of inviting some leading American management educators to the Soviet Union. In addition, the Soviets appear to be interested in establishing business schools similar to those in the United States, possibly with the help of American experts, in the foreseeable future.

While no official decision has yet been made to set up special management training institutes or business schools in the Soviet Union, a decision was adopted in 1965 calling for the establishment of departments for preparing organizers of industrial production at eighteen higher educational institutions in Moscow. As of the fall term of 1965, 2,000 directors and chief engineers of industrial enterprises were studying in them.[41] There is, however, no information available on the content of these new programs.

At the end of 1965, a tentative agreement was reached between the Massachusetts Institute of Technology (with the approval of the United States State Department) and the Soviet government that calls for five M.I.T. faculty members to visit Russia to explore the possibility of some type of collaboration in management education. This agreement, if implemented, would also permit a number of Soviet students to attend the Sloan School of Management at M.I.T. However, this agreement has not yet been implemented.

Integration of Theories

Interdisciplinary approach. There is currently considerable discussion among Soviet experts in different disciplines who are interested in the development of management theory regarding the boundaries and content of management research, education, and theory, as well as the role to be played by the various disciplines.

Economists tend to view their discipline as highly important. For example, at the important June 1965 economic conference, held at Moscow University, economic institutes were called on "to play a decisive role in the development and elaboration of theories and methods of industrial management."[42]

Sociologists interested in the field of management see their discipline as being integral to the emerging managerial research and educational revolution. For example, one prominent sociologist states: "Every higher engineering school should have at least the beginning of a sociological group for the study of management problems."[43]

Political scientists and lawyers feel that their disciplines are indispensable because they deal with such concepts as authority, responsibility, obligation, the assignment of duties, and selection, promotion, and training (indoctrination) of personnel at all levels of management.[44]

There is, however, growing acceptance that the development of management theory and effective management research and education requires an interdisciplinary approach—mathematics, statistics, logic, engineering, and so forth—but with the social sciences playing a much greater role than before. In this connection, the consensus at the June 1965 economic conference was that:

> An urgent task of the social sciences is to formulate a scientific theory of management and to broaden the scientific bases of managerial activity in all branches and levels of the economy.[45]

Gvishiani, in an article entitled "Develop the Science of Management," published in *Ekonomicheskaya Gazeta*,[46] points out that the development of management theory through research entails a concerted interdisciplinary effort, involving experts in such fields as economics, sociology, psychology, engineering, mathematics, statistics, logic, and philosophy. In the area of decision making in particular, he sees psychology and logic (as well as quantitative fields) making major contributions. He realizes that a clear definition of the management field and the managerial functions is essential as a starting point.

Content and boundaries of the field of management. There is as yet no unanimous agreement among Soviet experts as to the boundaries or content of the field of management. As one source states: "The actual determination of definition of the content of the study of socialist management belongs to the future. This will be the work of large groups of scientists."[47]

Only lately have there been serious attempts to define and delineate the key activities and problems relating directly to the managerial job. It is not surprising that the evolving Soviet concept of management—the functions of management in particular—is essentially similar to the American concept. Not only planning, control, organizing, and coordination

are being recognized as key managerial functions, but also the human-oriented functions of direction, leadership, motivation, and staffing. For example, the party journal *Kommunist* states: "They must be motivated to work better, and the manager must develop initiative and creative powers in his subordinates."[48]

An article entitled "The Art of Managing People," which recently appeared in *Ekonomicheskaya Gazeta*,[49] points out:

> Not many people understand that the art of managing is first of all the art of managing people. This aspect of management has been completely neglected. Managers should see more than machinery in the enterprise. They should command as little as possible, but rather they should train, teach, help, and motivate their subordinates.

Summary of Progress

Major steps taken to date. With growing awareness among Soviet leaders, educators, researchers, and administrators of the need for an operational theory of management and extensive research in the field, several concrete steps have been taken since 1962.

A number of research institutions have been organized specifically to undertake research projects in the field of management to develop operational management theory and improve management education in practice. These include:

1 / The Scientific Council on the Development of Scientific Principles of Management established under Gvishiani's U.S.S.R. State Committee for Coordinating Scientific Research.

2 / Adfeldt's Laboratory for the Study of Problems of Production Administration at Moscow University.

3 / Institute for Organization of Management under the U.S.S.R. National Economic Council.

4 / Central Research and Design Institute in Minsk which is concerned with the organization and technology of management in the machine building industry.

5 / The Labor Research Institute which has set up a department to undertake studies on the mechanization of management work.

Apparently, these recently established organizations and programs have not been very effective in their management research; at the important June 1965 economic conference at Moscow University, it was unanimously recommended by the participants that a new institute—staffed with highly qualified experts—be set up to deal exclusively with research and problems in industrial management and organization theory.[50] It was also revealed at this conference that some fifty other research and educational institutions have recently become interested in management theory and research, but the interest has been mostly peripheral and the results disappointing.[51]

However, some progress in Soviet management research is being made. A growing number of studies are being conducted at Soviet enterprises, and special facilities are being formed in some regions and at various industrial establishments to collect pertinent data and aid in the development of management theory. Experiments, traditionally taboo and illegal in Soviet industry, are now being encouraged at industrial organizations with the aim of devising and testing new and improved practices and techniques. This change in attitude by the Soviet ruling class can greatly enhance the evolution of a scientific body of knowledge for improving management practice.

Since 1964, a research project dealing with the organization of tractor enterprises has been conducted by a number of economists and engineers, including some faculty members of the Moscow Auto Mechanics Institute.[52] In 1965 a research study dealing with the planning, organizing, and directing of work in both the plant and white-collar departments of the Kirov Machinery enterprise was undertaken by key enterprise managers with the help of outside experts.[53]

A Laboratory for the Scientific Organization of Production was established at the large Leningrad Optical Mechanics firm during 1965. The staff of this department is analyzing the organization structure and managerial work at the firm with the aim of developing theoretical insights and improving performance. However, only economists and engineers have participated in this research project so far, and it is now realized that sociologists, psychologists, and even physiologists can also make major contributions. On the basis of this study, it is recommended that special departments to undertake research projects in the field of management be established at other large firms. It is also urged that such scientific studies of management problems should be interdisciplinary in nature, with outside experts

participating on a contract basis and using a coordinating major research institute.[54]

At the end of 1965 Leningrad University's Institute for Integrating Social Research began a management research study at the Svetlena plant. This pioneering Soviet effort involves an interdisciplinary team of sociologists, psychologists, economists, and lawyers, which is studying such problems as the organization of work activities, incentives, methods of selection of managerial personnel, superior-subordinate relationships, and individual-group relationships. In part, a sociometric method is employed, using unsigned questionnaires containing such questions as "With whom would you like to work and why?" "Would you prefer to work on a team or a specific individual assignment?" "Who would you like to have as personal friends both on and off the job, and why?" It is hoped that this phase of the research project has helped in distributing personnel more correctly and effectively among jobs, work groups, and departments. A limited amount of research utilizing this sociometric method has been conducted by Y. Kuzmen, a prominent Leningrad University psychologist.[55]

Reference has already been made to the Institute for Integrating Social Research. This organization recently conducted an extensive questionnaire study that dealt with the causes of labor turnover in Soviet industry. While this study has been labeled "sociological research," it clearly has direct implications for management theory and education.

Current Soviet sources and leading experts, in taking an inventory of research in the field of management to date, conclude that the projects and experiments already undertaken show that research must take place at all levels of management—thus far, almost all of the research has involved workers and/or lower-level managers. Such research should be based not only on written questionnaires and opinion polls, but also on concrete empirical research including observation, personal interviews, and the systematic cataloging of experiences.[56]

It is evident from the current Soviet experience—as well as the American experience which began in earnest several decades ago—that the development of useful management theory and the design of effective management courses and programs are difficult and lengthy tasks beset by many problems. Fortunately for the Soviets, they can utilize much of the knowledge already accumulated about management in the West. For the Soviets are faced more and more with the same basic management issues and problems as the West.

Only a few of the Soviet sources concerned with management research and education express the opinion that a socialist economy of the Soviet type requires its own special brand of management theory and education.[57] It is true that the Soviet economic-politico-social environment and Communist ideology may render some American or capitalist management theories of little or no value.[58] However, there are many, growing indications that the Soviets intend to borrow much from Western—particularly American—management theory and practice. Most of the influential Soviet sources, urging the development and expansion of theory, research, and education in the management field realize that much can be gained by carefully studying American experiences and efforts.

If the Soviets do not soon fill the growing gap between the requirements of the managerial job and their existing system of education and training for management development, the United States will have a definite advantage in the competitive development of the two economies. Without effective management education based on sound theoretical underpinnings, the Soviet economy cannot progress from an effective to an efficient economy. Indeed, it is highly questionable, at this stage of Soviet industrialization, whether it can even remain an effective economy without such education.

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I wish to thank The Ford Foundation for their financial support in my Soviet and other comparative research studies.

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4. See *Izvestia*, March 14, 1963, p. 3; V. Elyutin, "The Higher School at a New Stage," *Soviet Education*, Jan. 1962, pp. 28 ff.; *Pravda*, July 5, 1961. One Western expert points out that the two notable technological innovations considered to be genuinely Soviet

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can find translations of recent Soviet articles on the behavioral sciences, primarily sociology, in the journal, *Soviet Sociology*, published in the United States.

12. The data in this section are derived from Yadov, 1965, *op. cit.*; Zdravomyslov, 1964, *op. cit.*; Yadov and Zdravomyslov, 1965, *op. cit.*; Sventsitsky, 1965, *op. cit.*; Shubkin, 1965, *op. cit.*

13. *Ibid.*; see also Kelle, 1965, *op. cit.*; Lisavtsev and Masin, 1965, *op. cit.*; G. Grushin, 1965, *op. cit.*

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15. Epshtein, 1965, *op. cit.*

16. Cf. Yadov, 1965, *op. cit.*, and Grushin, 1965, *op. cit.*

17. *Ibid.*; see also Shubkin, 1965, *op. cit.*; Kelle, 1965, *op. cit.*; Sventsitsky, 1965, *op. cit.*

18. See esp. Yadov, 1965, *op. cit.*

19. *Ibid.*; see also Zdravomyslov, 1964, *op. cit.* These sources discuss Polish, Czech, and Hungarian research projects.

20. Cf. Shubkin, 1965, *op. cit.*; Grushin, 1965, *op. cit.*; Sventsitsky, 1965, *op. cit.*

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