

Recent Developments in American Business Administration and Their Conceptualization

Author(s): Alfred D. Chandler, Jr. and Fritz Redlich

Source: *Weltwirtschaftliches Archiv*, Bd. 86 (1961), pp. 103-130

Published by: [Springer](#)

Stable URL: <http://www.jstor.org/stable/40434798>

Accessed: 29-12-2015 21:06 UTC

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Springer is collaborating with JSTOR to digitize, preserve and extend access to *Weltwirtschaftliches Archiv*.

<http://www.jstor.org>

المنارة للاستشارات

Recent Developments in American Business Administration and Their Conceptualization

By

Alfred D. Chandler, Jr.,

Cambridge, Mass.,

and **Fritz Redlich,**

Belmont, Mass.

I.

The evolution of large-scale, twentieth-century-style business organization raises certain problems for the economic theorist who deals with the personal element in business and economic development. This is because in the all-important process of decision-making for business enterprise change was reflected in two different ways. Or to put it in other words, two trends have appeared simultaneously in this connection, trends which all but contradict each other.

On the one hand, the decision-making process in large-scale corporations has become increasingly complicated as more and more persons participate in it, while at the same time the *preparation* of decisions has turned into a more pressing and critical function to be carried out by the officers and employees plus outside advisers. When their work is completed these men report facts and figures, analyzing and submitting them in such a form that conclusions can easily be drawn by the "top management" actually making the decisions. Those preparing them select what they consider important information and drop what they consider of no immediate interest and concern. By molding the result into a digestible form, they gain, often unbeknown to themselves as well as to the top personnel, an extraordinary influence on decision-making.

Remark: This study was partially supported by the Sloan Research Fund of the School of Industrial Management at Massachusetts Institute of Technology.

If the theorist then starts from the inherited concept of the entrepreneur as the decision-making man or team of men, he runs into difficulties. More and more unidentifiable employees below the top level participate in the process just described, or at least prejudice it by actions of their own. If we consider them part of the entrepreneurial team, the latter term loses its significance, for one can speak of a team only where there is personal contact among the members. If, on the other hand, we use the word "team" so loosely as to exclude that criterion, the concept of the "entrepreneur" becomes a mere symbol for human interplay within the large-scale corporation.

As a matter of fact, this solution was the one preferred by Professor Frederick Harbison, partly because of his loose interpretation of what the entrepreneurial function is¹. As a result, he considers the "entrepreneur" as essentially an "*organization* which comprises all of the people required to perform"² that function. Even one of us, the writers, veered at one time towards this answer to the undeniable problem³.

If this were the only answer possible, the consequences would be serious. Those interested in pertinent empirical studies and historians who use the theoretical terms of entrepreneur and entrepreneurship are usually interested in the personal element in business and economic development. By that concept, they hope to identify the men who are or were the leaders within enterprises, the men molding them and fitting them into the market and the national economy; at the same time, if creative individuals, they are or were also the leaders in economic development. Consequently, in using the term of "entrepreneur" to stand for human cooperation in business enterprise, an important topic indeed, we lose the very tool which many of us most need in our research. Such a road cannot be followed.

Fortunately, there is a second possible approach. While on the one hand, more and more persons are drawn openly or tacitly into the decision-making process, those who have the ultimate authority and actually make the final and strategic decisions have become increasingly remote from the daily operations of their enterprise. This alienation from daily operations has proceeded to the point that some authors have seen these leading figures in enterprises as having risen beyond the decision-making

¹ Frederick Harbison, "Entrepreneurial Organization as a Factor in Economic Development", *The Quarterly Journal of Economics*, Vol. LXX, Cambridge, Mass., 1956, pp. 364 sqq.

² *Ibid.*, p. 365.

³ Fritz Redlich, "Unternehmungs- und Unternehmensgeschichte", in: *Handwörterbuch der Sozialwissenschaften*, Lfg. 26, Stuttgart, Tübingen and Göttingen, 1959, p. 540.

process. This is certainly incorrect, as will be shown, but one of us himself temporarily adopted this false way of reasoning.

The second avenue to the solution of our problem lies in resolutely taking a step further in an ideological process by which the "entrepreneur" was developed out of Adam Smith's "capitalist." Adam Smith's "capitalist," as will be remembered, was the conceptual counterpart of the eighteenth-century merchant. He was the individual who provided the capital for his enterprise and, therefore, bore the financial risk, made any necessary strategic decisions, and functioned all the while as the day-to-day manager of his concern. The term "capitalist" stood for an undeveloped, unanalyzed genus.

With the coming of the business corporation, the providing of capital split off from that of running the enterprise, and Jean Baptiste Say was the first to recognize what he called the "entrepreneur" as separate from the capitalist. In Say's days, the "entrepreneur" was the counterpart of a man doing a fairly extensive business by using other people's capital. As we would say today, he was a manager-entrepreneur who, like the eighteenth-century merchant, had occasionally to make a strategic decision and for the rest managed his plant, industrial, commercial or what have you. Many decades passed before this figure was scrutinized closely, although some mid-nineteenth-century economists sensed intuitively that the type needed further analysis. The latter became urgent with the development of a new kind of large-scale enterprise in the late nineteenth and early twentieth centuries. In such enterprises, men were needed to spend time preparing and making an increasing number of strategic decisions for the solution of major problems arising in their concerns, while they left their daily round of work to another set of men. For the latter, the term "managers" came to be used to distinguish them from the former, the "entrepreneurs." To the "entrepreneurs" an enterprise appeared as an organism to be kept alive, to the "managers" as a mechanism to be kept in working order. Here, of course, we deal with an analysis of two functions which in reality overlap.

By 1960, however, new steps in economic development had come to be reflected in new forms of business organization. "Progress," if you please, demands a parallel step in economic analysis. More concretely, the early twentieth-century concept of "entrepreneur" needs further splitting up, so that new tools may emerge with which to handle mid-twentieth-century reality. However, before we can start our theoretical reasoning, we must present in the next two sections of the paper a description of the development of mid-twentieth-century large-scale business organization and business administration in the United States out of earlier nineteenth-century forms.

II.

An historical survey of American business points to the development in this country of three types of enterprise¹. The oldest one prevailing a hundred years ago was what one might call the single-function firm, i.e., a firm fulfilling one function only. The mercantile house only bought and sold goods. The shipping company as well as the canal and turnpike companies were interested in the single activity of transportation; while the mining concerns specialized in extracting raw material from the ground. Finally, the manufacturing firm only produced goods and, at the same time, produced only a single line of goods. Like the plantation owner, the mid-nineteenth-century manufacturer purchased the necessary materials from and sold his output to commission agents or a few wholesalers. Thus we can characterize a manufacturing firm of that period as a single-product, single-function concern. To be sure, the phrase used above, "fulfilling one function only," should not be taken literally. It means only that one function dominated or dominates a certain kind of enterprise; all others were or are subordinated to the main one and, as far as possible, left to other independent enterprises. Thereby these became or become auxiliary to the enterprise concerned which could not have existed or cannot exist without their contribution.

The years between the Civil War and the turn of the century witnessed the evolution and rapid growth in manufacturing of what can be characterized as multi-function enterprises. Under the stimulus of the development of a national market, created with the help of the railroads and becoming quickly and increasingly a predominantly urban market, manufacturing firms not only came to have plants in different parts of the country but also took upon themselves the simultaneous handling of different activities. Many industrial enterprises developed an elaborate marketing organization dealing directly with consumers. They thereby freed themselves from the dependence on the wholesaler. Simultaneously they started producing one, several, or all of the raw

¹ The following section is based on a historical analysis of the changing corporate structure and strategy in the United States. It includes case studies of organizational innovations made by du Pont, General Motors, Jersey Standard, and Sears, Roebuck; and also a broader investigation of the experience of more than seventy of the largest industrial and transportation companies in the United States. Preliminary results of this investigation can be found in Alfred D. Chandler, Jr., "Management Decentralization: An Historical Analysis", *Business History Review*, Vol. XXX, Boston, Mass., 1956, pp. 111-154. — *Idem*, "The Beginnings of 'Big Business' in American Industry", *ibid.*, Vol. XXXIII, 1959, pp. 1-54. — *Idem*, "Development, Diversification and Decentralization", in: *Postwar Economic Trends in the United States*, Ed. by Ralph E. Freeman, American Project Series, Center of International Studies, Massachusetts Institute of Technology, New York, 1960, pp. 235-54.

materials needed in the process of manufacturing. In taking over what can be called the procurement function, they again freed themselves from the dependence on wholesalers and at the same time from that on the producers of raw material. Some manufacturing firms even took over the control of the transportation of their raw materials and finished goods. To a lesser extent, mining and marketing firms moved into manufacturing. Yet, as should be stressed, nearly all such multi-functional manufacturing concerns operated within the confines of one industry: they produced one major line of products and a few by-products. Thus they must be characterized as single-product, yet multi-function industrial concerns.

During the first half of the twentieth century, a new stage in the development was being reached. Many single-product, multi-function industrial enterprises in meeting the needs and opportunities created by a highly dynamic technology developed different lines of products, each with its own set of by-products. From single-product, multi-function manufacturing enterprises, they now grew into multi-product and multi-function industrial concerns, the maintenance and expansion of which required the tackling of more complicated tasks and the solving of more difficult problems than those involved in operating the older types¹. The different ranges of decisions in these three types of enterprises — single-product and single-function, single-product yet multi-function, and multi-product and multi-function — led to three different types of industrial administration. (*Mutatis mutandis* this was the case also in other lines of business besides manufacturing.)

Modern structure and administration of industrial enterprise began in the United States with the geographical dispersion of such firms. That is, it began when manufacturing enterprises came to possess a number of factories by building or buying new units or by combining with other firms. Geographical dispersion was the initial step in making modern industrial enterprise, because it made necessary the distinction between headquarters and field. This distinction implies that the executives responsible for a firm's affairs had, for the first time, to supervise the work of other executives, those charged with managing the factories or branch offices in the field. The leading men at headquarters also had to coordinate the activities of the several field-units, that is to say, they

¹ The term multi-product firm will be used in this paper to refer to one making quite different product lines, each with its own set of by-products, for quite different markets. An example of such a multi-product firm would be a large chemical company which has such different lines as plastics, film, textile fibers, polychemicals, explosives, paints, pigments, rubber products, electro-chemicals, and photographic products.

had to standardize the procedures for these various units. The development of such procedures as well as the planning for expansion, maintenance, or contraction of the activities in the field became part and parcel of setting the goals and objectives of the firm in question.

The new trend gained momentum after the Civil War as the expanding market permitted an increased volume of manufacturing and marketing. In this period evolving modern industrial enterprise was fortunate in that it could draw on the administrative experience gained in another type of dispersed and single-function enterprise, railroading. In this field the development had started as early as the 1850's, when the rapidly growing railroads demanded far more capital, equipment, and professionally trained personnel than did enterprises typical of the time. They were more complex than other contemporary geographically dispersed single-function firms because of their need for careful, minute to minute, coordination and supervision of the operating sub-divisions. Such control was necessary to assure not only effective use of existing operating equipment, but also the efficient movement of goods and the safety of the passengers.

In the early railroads, the key decisions were usually made by the so-called general manager, a full time specialist, acting in close consultation with the representatives of the large investors. Like the manager of a contemporary textile mill, he made the major operational decisions, but was also responsible for the basic strategic ones, such as those on expansion, rates, and so forth. Moreover, he was one of the very first American businessmen to work out an explicit operating structure, that is, to establish clearly the channels of authority and communication within the organization. Naturally the executives of a railroad, sprawled out over a large geographical area and employing, as early as the 1850's, as many as five or six thousand men, could hardly supervise personally all of their company's activities¹.

To deal with their new problems, the basic structure of American railroad corporations was worked out during the 1850's. In running a railroad its executives had to supervise three sets of activities — the moving of the trains, getting freight and passengers, and handling the financial transactions involved. Therefore, the organization of most railroads consisted of three major departments, transportation, traffic, and finance². The most important department, transportation, in turn, was divided

¹ Thomas C. Cochran, *Railroad Leaders, 1845—1890: The Business Mind in Action*, Cambridge, Mass., 1953, Chs. 5—9. — Alfred D. Chandler, Jr., *Henry Varnum Poor — Business Editor, Analyst, and Reformer*, Cambridge, Mass., 1956, Ch. 7.

² Ray Morris, *Railroad Administration*, Appleton's Railway Series, New York and London, 1925, Chs. 2—3.

into three functional sections — transportation, maintenance of way, and maintenance of motor power. Because the moving of trains was the critical task, the officials in charge of transportation had to assume the authority and responsibility for all operating decisions. They became communication centers both on the local and central levels. On the former, namely, the level of the so-called division, which covered usually two to four hundred miles and was the smallest operating unit, headed by a “division manager,” those who handled motor power and maintenance of way, as well as the conductors and freight agents, were made responsible to the division’s transportation manager. On the central level, the manager in charge of transportation was senior to the heads of the other two departments. He and the division managers, reporting to and receiving orders from the general manager, came to be called line officers and the others to be considered as staff men.

After the Civil War and the great expansion of the railroad networks, the railroad system rather than the individual road became the dominating operating organization. The more complex became operations, the more an explicit over-all structure was needed. On such great systems as the Pennsylvania, the Vanderbilt roads, the Illinois Central, the Chicago and North-western, the Louisville and Nashville, the Rock Island, the problems of coordination, appraisal, and over-all policy planning became too complex to be handled by two or three men who had operational and other duties as well. Thus it became necessary to devise new organizational structures. These, formed at the time when the great systems emerged in the 1870’s and 1880’s, had characteristic features in common, and consisted of a central office and several operating units, each of which was comparable to a single large railroad company¹. The Pennsylvania had four such units — the lines east of Pittsburgh, west of Pittsburgh, those in New Jersey, and those to St. Louis. Each was headed by a general manager. The comparable units of the Vanderbilt system were essentially the roads that had existed prior to their absorption, such as the Lake Shore, the Michigan Central, and, after 1889, the Cleveland, Cincinnati, Chicago and St. Louis, and the New York Central. The general managers of these operating units now became primarily concerned with the mechanics of day-to-day activities, while the central office team took over the responsibility for those over-all decisions which we have come to call entrepreneurial. The central office became responsible for assuring effective coordination or traffic flow between the different major operating units. It appraised operating performance and took executive action on such

¹ Morris, *op. cit.*, Ch. 4. The following is based on a survey of the Annual Reports of the Pennsylvania Railroad and the New York Central system.

appraisals. The most vital task of the general officers, however, was to consider the major strategies of new construction and of purchases and sales of lines.

Nevertheless as time passed, these senior officers did not stay clear from, but became again increasingly involved in operational duties. There were several reasons for this relapse. First and foremost, as the systems were rounded out and completed, the need to buy and build lessened and strategic problems became fewer. They decreased further as the Interstate Commerce Commission took over rate setting. In addition, systems of appraisal and coordination worked out in minute detail became more and more routinized. Thus by the early twentieth century, the duties of the railroad central offices assumed more of a routine character and the men occupying these positions handled anew operating functions.

We shall return to this subject in the fourth section of this paper after we have developed theoretical concepts by which we can better explain administrative progress in one period of railroading and administrative relapse in a later one. Suffice it here to sum up in empirical language what is essential from the point of view of this paper. While modern business administration evolved in the field of railroading, the character of that business forbade carrying the achievement to its logical conclusions. For a time, separation of operational functions from strategy determination was attempted. It did not become permanent. Major decisions in either area remained unseparated in the hands of the same top personnel.

We are now ready to turn to the single-product yet multi-function *industrial* enterprise that developed out of the single-product and single-function organization which dominated the American industrial scene until about 1860. A typical industrial enterprise such as a textile works, rolling mill, or shipyard of the ante-bellum days manufactured only one product or a single line of products and sold, usually in bulk, to one sales agent or a very few wholesalers. Even after such an enterprise expanded its operations in the 1870's and 1880's to include a number of geographically dispersed plants, it remained a single function activity. Twenty years later, however, major sectors of American industry were dominated by great single-product yet multi-function firms. As these consolidated enterprises, the result of vertical integration, came to do their own marketing, their own purchasing from the primary sources and often their own producing of raw materials, *the different functional activities soon became organized into different departments.*

In a typical single-product yet multi-function firm, each functional department was as important as the others. The line and staff set-up

of the railroads had little relevance for the over-all structure here. The major departments might have their own auxiliaries like engineering in manufacturing and advertising in sales. But each department head was a specialist and supreme in his own sphere. Usually a vice-president, he had his managing director for dealing with the routine activities of his department. The vice-presidents, as individuals, planned the broader developments within their functionally determined departments. Collectively, together with the president and chairman of the board, they guided the destinies of their vast business empires. For this purpose, the men concerned usually cooperated in so-called executive committees. In making the distinction between vice-president and manager or managing director, the corporations in question were defining the difference between policy making and operations.

The executive committees of the single-product yet multi-function enterprises had the same underlying duties as the "general managers" of the railroad systems. But as the nature of their business was different, so was the nature of the appraising, coordinating, and policy making duties. Appraisal was the least different from that of the railroads. It meant constant concern for the development of increasingly meaningful profit and loss figures. But because more basic and quite different functions were involved, the over-all determination of profit and loss proved more difficult. So, too, the senior officers in those enterprises had to assess performance, not just in one, but in nearly all major parts of the over-all industrial process.

Coordination of the enterprise's various activities was more complex than in a geographically dispersed single-function firm, including even the large railroads. A steady flow of product through the different departments — from the raw materials to the ultimate consumer — had to be assured. The rate of flow depended on market demand. Thus coordination of interdepartmental activity with market demand was necessary if for no other purpose than for making effective use of the company's total facilities and resources. Therefore, coordination became a critical central office function. Yet where the markets and sources of supply remained fairly unchanged, as was true after 1900 in many of the agricultural processing and metal industries, it became increasingly a routine task.

Even more critical was planning for the maintenance and expansion of the enterprise as a whole. This meant that the senior officers had to make basic decisions with respect to the several very different functional activities. The executive committee had to allocate funds among departments and thus decided whether to expand or contract in sales, manufacturing, the control of raw materials, engineering, etc. In so doing,

it had to face a new specific difficulty. Since this top committee was made up of department heads, i. e., of functional specialists, the final policy tended to be the result of negotiations and compromise between the different departments. In addition, the top level team, so composed, had neither enough time, nor enough impartial information to handle over-all problems satisfactorily. Its members spent most of their working day on departmental matters, and the information on which the executive committee acted was biased just because it was framed by these executives in their capacities as functional operating officers. Factual and analytical reports were usually presented so as to favor one of the alternatives under discussion, although this was not always done consciously.

In some single-product yet multi-function industries, just as in railroading, the administrative pattern froze once it had been elaborated. As long as the enterprise in question sold one major line of goods manufactured from one group of raw materials by means of one relatively simple marketing technique and in a comparatively unchanging and steady market, the questions and problems decided by the top team became relatively simple as time went on. This held true of the steel, copper, nickel, and some other metal industries, of meat packing, tobacco processing, distilling, flour milling and other agricultural processing industries. But resting on one's oars was not possible where the decision-making remained difficult, because markets, production-techniques, or sources of supply were changing continuously or rapidly.

Let us sum up what is essential from the point of view of this paper: the administration of single-product yet multi-function industrial enterprises pivoted and pivots around functional departments whose heads — specialists — together with the corporation president and chairman of the board formed and form an executive committee. That is to say, the committee, set up to make strategic decisions, consisted and consists of men who were and are themselves rooted in the fulfillment of certain functions. Once more, major decisions in two fields, operations and strategy, rested or rest in identical hands.

By 1910, the *threshold* of a new administrative development was being raised in those industries which came into the orbit of the two new generators of power, the internal combustion engine and the electrical motor. The development gained momentum with the rapid growth of the science-based industries. By 1940, however, it was still concentrated in five major industries: electrical and electronics, power machinery including the automobile, rubber, petroleum, and chemicals. It resulted primarily from product diversification, based on new and expanding technologies. After 1900, Allis Chalmers, for example, moved from building steam machinery to making electrical apparatus and equipment,

to developing trucks and other commercial vehicles, and finally into the producing and selling of tractors and farm machinery. International Harvester, after applying the internal combustion engine to farm implements, moved to making tractors and then trucks and commercial vehicles. As new lines were developed in individual enterprises, it became increasingly hard to handle the purchasing, manufacturing, and marketing of each within the same centralized, functionally departmentalized operating organization. Marketing was particularly difficult since the new products went to quite different types of customers.

In the electrical and chemical industries, the continuous development of new products raised even more intense difficulties, for their markets were still more varied. By the mid 1920's, companies like General Electric, du Pont, and Union Carbide had not only moved into the making of quite different producers' goods, ranging from metal products to plastics, but also had begun to sell consumers' goods. The chemical enterprises sold paints, batteries, and anti-freeze directly to consumers, and the great electrical firms began to move into the same broad market by making appliances such as refrigerators, washing machines, vacuum cleaners, and stoves. In the rubber and oil industries, there was less strain on the existing functionally departmentalized organizations. Although revolutionized by the coming of the automobile, some leading companies tended to stay within the bounds of a single industry. On the other hand, firms like Goodrich and United States Rubber, when taking up the production of a broad variety of rubber products, including rubber chemicals, and the oil companies developing petro-chemicals, faced structural problems initially comparable to those met by the electrical and chemical firms.

The strategy of diversification and concomitantly the development of the multi-product and multi-function industrial enterprise quickly demanded a new form of organization. The old functional departments were wholly unable to handle the problems arising from the engineering, producing, and marketing of entirely different goods, to say nothing of those of supplying materials for the manufacture of each. *Consequently, as the enterprises moved into the new lines, the administration of each major line was organized on a multi-function basis*¹. In other words, the major operating unit within the enterprise came to be based on a product line, not a function. Each head of a product division had under his control a full set of functional departments — manufacturing, sales, finance,

¹ This same type of organization was developed by the single-line firm, particularly large oil companies, whose activities had become world-wide — or multi-regional — in scope. The head of each regional unit usually managed the several functions of the business and operated quite autonomously within the framework set by the central office.

purchasing, engineering, and research and development. Within the bounds and limits, i. e., the policy established by the central office, the chief officers of those product units made major decisions. These, however, must be distinguished from those emanating from headquarters.

Within the framework of central policy, the duties of a division head were quite comparable to those of a senior executive of a single-product yet multi-function enterprise. Divisional performance was appraised by the financial success (return on investment) and to a lesser extent by the share in the market which the division chiefs could conquer or maintain. From these units, data flowed continuously to the headquarters in the form of statistics, charts, reports, etc., supplemented by oral communications during visits, both of unit heads to headquarters and of the central office executives to the operating units.

A relatively small team of four to a dozen men, located in adjoining offices in the central headquarters, became responsible for the enterprise as a whole. The team's functions were appraisal, coordination, and the determination of policy both for the enterprise as a whole and for its multi-function, product-based operating units. In carrying out these duties, the general officers at central headquarters had the assistance of a staff of specialists. Normally, the new advisory staff had offices pertaining to one or several of the major functions to be performed, such as advertising, marketing, production, purchasing, engineering, labor relations, public relations, research and development, and so forth.

In such a structure, then, the top team is an easily identifiable group, and it is recognizable by what it does — by its functions and activities — rather than by the personality traits of its members. It cannot be stressed strongly enough, as did Sombart and other researchers, that such business executives are not necessarily possessed of *charisma*. Personally unknown to the possibly tens of thousands of workers and employees, they need no *charisma* and usually have none. If one of them has this quality, it may show up in his relations to the other members of the team, in his political influence, and in his role in trade associations and the like.

This team communicates directly and interacts only with the men responsible for operations, but is in no way the latter's captive. In making *critical* decisions as to the maintenance and expansion of the enterprise, its alternatives are *sui generis* and not forced on it by the operators. Its decisions are concerned with balancing conflicting interests between the operators whose demands are determined by the products and/or functions for which they are responsible. In making those decisions, the top team has data and opinions presented by the functional staff specialists at headquarters who have little or no divisional connections or biases.

This new type of organization started immediately after World War I at General Motors and du Pont. A few others followed in the twenties and thirties. But it was only with the great economic expansion during and after World War II, with the rapid increase of systematic research and development, and with the demands of the present day economy and technology, that this modernized, decentralized type of structure became widespread. Increasingly used by multi-product and multi-function firms in the five industries already listed, it was taken over also by some of the older agricultural processing companies, such as Armour or Procter and Gamble, to the extent that they too moved into chemicals and other highly diversified products.

We can consider as the characteristic feature of the newest kind of business administration that not only are operations (management) and policy making separated but that also a middle level which has essentially administrative functions has been inserted. We will return to this matter in the fourth and analytical section of this paper. Suffice it to stress here what should be evident from our presentation that the delegation of functions by the top team has not left it without tasks. New ones had to be and were added to the traditional functions. While, for example, in a single-product enterprise, the question of what to produce is solved once for all with the establishment of the works and reappears only in cases of critical reorganization, the current determination of what to produce becomes a major type of strategic decision in the modern multi-product and multi-function industries.

Goal determination takes the time and energy of the top team. And since its members are no longer responsible for operations and administration, they are psychologically more committed to seeing the concern as a whole. They have the time for planning and, last but not least, they have excellent information. The steady flow of relevant data assembled by the central staff, supplemented by those on the performance of the divisions and by regular visits with the administrators, provides such information as is necessary for policy making.

A General Motors report of 1937 is of the greatest interest in this context. It stated that the administration was being left to the divisions and the formulation of policy to the central headquarters, and it defined the distinction in this way¹: "By 'administration' is meant the daily conduct of the Corporation's affairs. By 'formation of policies' is meant both the establishment of the broad principles by which administration is to be guided and the determination of the fundamental concepts of the

¹ *Twenty-ninth Annual Report of General Motors Corporation, Year Ended December 31, 1937*, Prepared for Presentation to the Stockholders at the Annual Meeting to Be Held in Wilmington, Delaware, Tuesday, April 26, 1938, p. 37.

business. The prime objectives of the business; the scope of its operations, both as to products and markets; the desirability of expansion, horizontally or vertically or both; the provision of the essential capital for its operations; and the question of distribution of its profits as between the amount paid in dividends and the amount retained in the business — all are problems involving ‘formation of policies’ and illustrate the principle involved.”

III.

We have painted with broad strokes of the brush the development of American business organization between about 1850 and 1950. From our point of view, the significant finding can be characterized as the evolution of a three-level out of a two-level organization. We have now to look for the tools which were developed parallel with the organizational evolution, for the tools which made the latter possible. Critical and crucial was progress in the field of communication, the more so the closer we come to our own time. As the top team of our day became increasingly concerned with over-all policy and strategy and less involved in the day-to-day conduct of the business and as both the operating and administrative structures of the firms concerned became larger and more intricate, the need grew for free flowing and efficient channels of communication between the top team and the various levels of the organization. At the same time and on all levels, more and more precise data were also needed concerning the all but bewildering external situation, particularly in the markets. And naturally, as the business units grew in size and the activities in complexity parallel with the spreading industrialization and urbanization of the nation and as the industrial technique and its scientific basis became more and more involved, effective communication became harder and harder.

Two methods could be used for improving communication lines between the top team and the lower levels or for guaranteeing at least a steady flow of communication. One was to define more clearly the *channels* of communication and authority; the other was to develop more useful *kinds* of information to move through the channels. Thus began systematic, periodic reports, operating statistics, forecasts, and so forth. In this country, the creation of the first precise internal channels of communication and of detailed operating statistics was again the work of the railroads. Contemporary mercantile houses or textile or iron mills had as little need for a detailed reporting system as for formal operating structures, as has been described. Nor would they have been able to get much information on the external situation other than prices current or shipping news.

In the early years of railroad expansion, particularly in the decade of the 1850's, much thought was given not only to formal organization, but also to the development of operating statistics. While many companies defined their lines of communication and authority, in an *ad hoc* way, i. e., as particular problems had to be worked out, some attacked them more systematically. The Erie had a detailed organization chart by 1854; the Pennsylvania a printed organization manual by 1858¹. In 1889 when the Illinois Central, planning a reorganization, made a survey of twenty-two major railroads, it found that one third of these had printed codes or rules "defining the power and duties of [their] officers"². Some others had carefully regulated their organizations, although the result had not been published and was not available for distribution. The rest still operated under informal codes of "usages and procedures," built up over time.

Statistics as first developed by the railroads reflected, like their organizational structure, the basic need of assuring the safe and efficient running of the trains. Hence the roads assembled a wealth of satisfactory *operating* data. Reporting and statistical procedures worked out as early as the 1850's came into common use after the Civil War³. Railroad officers were soon to learn the value of these data for determining cost and with it profits, an extremely difficult problem. By the early 1870's, Albert Fink and other railroad men had worked out quite sophisticated techniques for establishing cost per ton mile operated⁴. By the end of the century, the term "control through statistics" was regularly used in railroading⁵.

But this control remained operational rather than anything else. The railroads developed satisfactory data for appraising past performance, but they did almost nothing to work out forecasts, budgets, or such statistical procedures as might be used to plan ahead. This lack can undoubtedly be explained by the fact that after 1900 strategy and planning became less important in railroading, as described earlier in this paper. The existing data and procedures were sufficient to carry out the major central office functions of appraising the performance of the different operating units and of coordinating traffic flow between the units.

¹ Chandler, *Poor*, *op. cit.*, pp. 147sq. — *Pennsylvania Railroad Company, Organization for Conducting the Business of the Road, Adopted December 26, 1857*, Philadelphia, 1858.

² "Minutes of the Meeting of the 'Board', Appointed by the Resolution of the Illinois Central Board of Directors, May 15, 1889, Held at the General Offices in Chicago, Friday, June 21, 1889, 11 A. M.," from the Illinois Central Railroad Company's files.

³ Chandler, *Poor*, *op. cit.*, pp. 137sq., 145sq.

⁴ Particularly valuable in this connection is the *Annual Report of the Louisville and Nashville Railroad for the Year Ending June 30, 1874*, written by Albert Fink.

⁵ Ray Morris (*op. cit.*) has a chapter entitled "Control Through Statistics."

Little of what the railroads had achieved in this field was carried over into the single-product yet multi-function manufacturing enterprise because of the different character of its business. However, by the turn of the century, in working out a specific structure of its own, it also had to develop lines of communication and authority that suited its own needs. In so doing, some of the big enterprises proceeded quite systematically¹. Questions relating to structure and the means of sustaining it came to be discussed by the end of World War I in the business and industrial literature of the day, such as trade journals and other periodicals and even in text books². At the same time, the data flowing through the more clearly defined channels were being greatly improved. In industrial enterprises, unlike the railroads, internal statistics grew out of the need for cost analysis rather than for detailed day-to-day operating information. Effective means for allocating overhead and for determining variable costs led, in turn, to the recognition that variable costs are closely related to volume and that realistic cost analysis called for the determination of expected future as well as past performance.

The needs of inter-departmental coordination also brought pressure on the large-scale enterprise to predict its future in addition to gauging its past performance. Ultimately the total of product flow through various departments depended on demand. The more accurately demand could be forecast, the more evenly the flow could be channelled and thus the over-all organization could be operated closer to maximum capacity. The importance of forecasting demand for the purpose of determining quantities to be produced, of coordinating product flow, and of finding variable costs was greater for firms operating in the mass-consumer market than it was for those making producers' goods, and greater also in the production of consumer durables than in that of consumer perishables. The great meat packers like Armour and Swift could maintain flow by keeping a constant telegraphic communication between the sales managers of the branch houses in the great eastern metropolises and the buyers of cattle and other livestock in the stockyards of western cities³. On the other

¹ Some of the large companies which had systematically worked out their structures before World War I included United States Rubber Company, International Harvester, American Smelting and Refining, Westinghouse, Allis Chalmers, General Electric, and Bethlehem Steel.

² A brief examination of the first volumes of the journal, *Management and Administration*, New York, which began publication in 1921 is useful in this connection. — So also is Leon Carroll Marshall, *Business Administration*, Chicago, Ill., 1921, one of the best anthologies of business literature. — Two of the best early books on structure are Russell Robb, *Lectures on Organization*, privately printed (Boston?), 1911, and Dexter S. Kimball, *Principles of Industrial Organization*, New York, 1913, p. 22.

³ *Report of the Commissioner of Corporations on the Beef Industry*, Washington, D.C., 1905, p. 21.

hand, General Motors discovered, right after World War I, that the maintenance of any kind of steady flow and with it the steady use of plant and personnel called first of all for careful forecasts of annual demand and the development of detailed production schedules based on these estimates¹. Then came the need to work out procedures to make possible the *adjustment* of the forecasts and production schedules to the *actual conditions* of the changing market. This was done at General Motors by obtaining reports every ten days from the dealers as to the actual number of cars sold and also frequent reports on new car registrations. After 1925, the year in which General Motors started basing nearly all its activities on expected market demand, the use of forecasts and of statistics for anticipating market behavior was becoming a fairly widespread practice in American industry.

The needs of planning, like those of coordination and appraisal, equally turned American industrialists to acting on the basis of anticipated rather than past performance. The development and expansion of the different functional activities and the resulting problems of allocating funds among departments and within departments led in many enterprises to the systematizing of appropriation procedures. Senior officers asked that each request for capital expenditures include carefully worked out cost information, indicate an estimated return on investment on the proposed project and the project's relation to the over-all program of the operating unit involved and of the company itself. Soon comparable reports were requested for estimated operating as well as capital expenditures.

Both came to be combined into regular — semi-annual or annual — budgets. The budget became both a means of supervision and an expression of policy. As to the former, operating performance could be checked against the estimates and proposals in the budget. As to the latter, the budget by its allocation of available funds set the limits on the departmental or divisional activities, and at the same time it indicated the areas where the senior officers believed the company should expand or contract its activities. The budget was and is considered more as a guide than as an unadjustable schedule to be followed without questioning. Budget making forced firms, as early as World War I, into forecasting the financial and economic conditions outside of the companies

¹ Donaldson Brown, "Pricing Policy in Relation to Financial Control", a series of articles appearing in *Management and Administration* in the spring of 1924. — Also C. S. Mott, "Organizing a Great Industrial", *ibid.*, pp. 527sq. — Albert Bradley, "Setting Up a Forecasting Program", American Management Association, *Annual Convention Series No. 41*, March 1926. — Donaldson Brown, "Decentralized Responsibilities With Centralized Coordination", *ibid.*, No. 57, February 1927.

concerned, so that financial planning and the allocation of funds might be put on a rational basis. In those same years — those immediately following World War I — periodicals and books on business came to take an increasing interest in the discussion of forecasting, budgeting, techniques of inventory, production, and marketing control¹.

The coming of the multi-product and multi-function enterprise brought, besides increasing stress on formal structure, a further refinement of existing statistical and other communication techniques. The problem of structure in this new type of enterprise was essentially one of redefining channels of authority and communication to meet the new complexities. In addition, statistical procedures were refined in two new ways. There was the need of getting *precise* information in as *compact* a form as possible. Otherwise the general officers at headquarters would not have found the time to make effective use of it in appraising performance, coordinating the units, and making over-all policy. Secondly, statistical techniques had to be *perfected* so that the *rapidly* increasing amount of all kinds of information on production, purchasing and marketing could be used more effectively on all levels, particularly in the administrative divisions. Also the reports and personal visits between the policy makers at the center and the administrators on a lower level became more and more important in assuring communication between central headquarters and the administrative divisions. In the development of these new statistical techniques and procedures, the central staff played a more significant role than did the operating units.

These practices thus provided the executives with data essential to supervising and maintaining control over their increasingly intricate enterprises in an external situation growing always more complex. Such statistical and financial controls made possible the delegation of major decisions to the men in charge of the multi-functional product divisions. Through such constant objective checks on divisional performance, errors and mistakes of these subordinates could usually be caught before major harm was done to the over-all enterprise. The senior men could take action because, they controlled the selection of executive personnel and because, through budgeting, they allocated the funds to the operating divisions. In the way they allocated their resources — capital and personnel — and in the promotion, transferral and retirement of operating executives, they determined the framework in which the operating units worked and thus put into effect their concept of the long term goals and objectives of the enterprise.

¹ Again the articles in the early numbers of *Management and Administration* are particularly revealing.

IV.

The material presented in the two preceding sections of this paper is of great significance. Focusing his attention on the development of large-scale industry in the last hundred years, the writer of those sections discovered three types of enterprise, designated here as single-function or, in manufacturing, as single-product and single-function, single-product yet multi-function, and multi-product and multi-function. In the course of his investigations, he found that to each type of enterprise there belongs a specific type of business administration functionally related to the tasks to be fulfilled in that type. The three kinds of enterprise and the concomitant kinds of business administration appeared in historical sequence and can, if you please, be considered as stages in the development of large-scale business enterprise and of business administration. Yet, if we do so, we must see them as what they are, namely, ideal types, and so we must heed Sombart's warning. He taught us that any generic type including those of formal organization, once brought into existence in the historic process, does not disappear with the evolution of new ones. Old and new come to stand side by side for decades if not centuries. The forces which brought them into existence and the needs to which they cater are liable to persist for shorter or longer periods as do the forms to which these gave rise. It is doubtful whether the American graduate schools of business administration are aware of this fact in planning their teaching in that field.

When we examine our material from another point of view, it becomes evident that the two kinds of business administration which were developed to fit the needs of the older forms of enterprise are two-level affairs, while that corresponding to the most modern type of enterprise takes place on three levels. The first two levels are operations (management) on the one hand, and coordination of operations, goal determination, and planning on the other. In the multi-product and multi-function enterprise, however, the top level was split up by the delegation of one of its activities, the coordination of operations of the various functional departments within the major lines of products. The coordination of these functional units, working possibly in the most disparate fields, demanded such special care that it became necessary to give full time attention to administering the operators (managers) of these units. This then became the task of a new, middle level of business administration. For want of a better word, we will characterize it as the "locum-tenential" level, because certain officers other than the top team, but *in lieu* of it, undertake to administer on their own responsibility particular lines of products, a situation which implies supervision and coordination of the functional

operators concerned. Thereafter, the top team could specialize on goal determination and planning. Since typically we deal, in this area, with what Arthur Spiethoff has called "historical theory," the theorist of today must take notice of these changes, replacing the distinction between manager and entrepreneur with that between operator (manager), "locum tenens," and entrepreneur, reserving this latter term for those who determine the goal of and plan for the enterprise in question.

Once cannot emphasize too strongly that operator (manager), "locum tenens," and entrepreneur are ideal types with which the generic figures of reality must be compared, if analysis of reality is desired. Of course, while a theoretical model must be clear-cut to serve as a useful tool for the analysis of reality, reality itself never is precise. The performers of any one of those critical functions fulfills other, i. e., non-critical ones also. Moreover, those working on the higher levels may also have a hand temporarily or permanently in the performance of the typical functions of the one just below. Vice versa, an able man serving on a lower level may, because of his ability or insight, be called to advise the next higher level. Yet the larger the enterprise tends to be and the nearer to the present time, the clearer becomes the separation of functions.

In any enterprise, including one active on a small scale, two functions *must* be fulfilled: namely, operation and goal determination; or from another point of view, running the whole or some departments, on the one hand, and keeping the enterprise alive on the other. But the functions may remain cojoined. The need for separation appears only gradually as the enterprise grows and/or becomes more geographically decentralized, i. e., with plants dispersed over a wider area. Under such conditions, the "headquarters" and the "field" part company, the former cutting loose from the actual operations (management). Nevertheless, and absurdly, the top level is still today called "top management" in business and by many business historians as *lucus a non lucendo*¹. A French adage can also be adapted to our purpose: "*l'entrepreneur* [i. e., the theoretical figure standing for the top-level team] *règne mais il ne gouverne pas.*" On the other hand, the coordination of operations appears only with and is incumbent on large-scale and geographically decentralized enterprises but under such circumstances, the need appears automatically. Originally, it was included among the functions of the top team, until in the latest type of business administration it was divorced and emancipated on the middle, "locum-tenential" level.

¹ For the origin and history of this phrase see Henry T. Thomas, *Dictionary of Latin Quotations*, London, 1859, p. 209.

Once the conceptual frame here proposed is adopted, new light can be thrown on several phenomena, two of which are of interest here¹. First, we can see that the initial steps towards a three-stage business administration was taken in railroading, and in stressing this fact we take up an earlier thread. As early as the 1870's we find the planning entrepreneur at headquarters in railroad enterprises. The heads of the regional units stood for the "locum tenens" of theory, while the heads of the various departments corresponded to the operators (managers) of theory. The relapse into a simpler and, from the point of view of the historian, older type of administration, described earlier, can then be explained by the need for fewer decisions once the railroad net was practically completed with the concomitant and continuous systematization of day-to-day operations. Railroads could return to the simpler two-stage administration with only headquarters and field organized in functional departments.

Secondly, the phenomenon of decentralization comes up for a new interpretation. The term of "decentralization" has been used to denote geographical as well as administrative decentralization. Of these, only the latter type is of interest to us. Within our conceptual frame, administrative decentralization, predicated on the delegation of functions, i. e., the power to make decisions in the delegated field, appears on two levels, the operational (managerial) and the "locum-tenential." The former is historically the older one. In large-scale nineteenth-century enterprise, certain decisions were made at headquarters, others in the "field." A historically later and different kind of decentralization appeared first in the 1920's when the middle level of business administration, the "locum-tenential," became semi-independent. Consequently, today we find in some enterprises two levels of decentralization, a fact which has only begun to be recognized by researchers. Operators and "locum tenentes" have in common a concern with day-to-day activities, while the top team, being rather remote from these, acts, one might say, from year-to-year and intermittently. But in this connection, one needs to guard against a misunderstanding. Day-to-day actions are by no means synonymous with routine.

The fact that many modern economists are inclined to overlook this difference is an evil by-product of Schumpeter's magnificent vision. Schumpeter is not to blame, but rather those economists who use a figure designed for a model of economic development when they study the theory of business enterprise and of business leadership. To be sure, this does not exonerate Schumpeter from the blame of having used an

¹ The following is a schematic somewhat over-simplified sketch.

unnecessarily confusing and impractical terminology. Once he had reached the pinnacle of his prestige, his theory and terminology all but blocked the road to satisfactory insight. Day-to-day actions can, but should not, be taken in the spirit of routine. They can also be tackled in the spirit of innovation and it is high time that the creative operator (manager) and creative "locum tenens" should be studied from this point of view. But again, the term of "innovation," as defined by Schumpeter, is too narrow and untenable even in his own model. There are primary and derivative innovations; there are subjective and objective ones¹. There are some business innovations which imply new combinations of the factors of production, i. e., change in the production function, and there are very important ones, especially in the field of business organization, which do not. In our scheme, the former are typical of the entrepreneurial, but are possible also on a "locum-tenential" level; the latter can be introduced on any level. As a matter of fact, an enterprise whose day-to-day operations have become mere routine is doomed, while there is also an unavoidable and safe routine element in planning.

To repeat, in the study of business enterprise the difference between entrepreneur, "locum tenens," and operator (manager) is one between tasks to be performed by these various cooperating and complementary figures. This holds true even though it would appear at first glance that they have one task in common, namely, coordination. But a mere word should not deceive us. On every level of the hierarchy, different kinds of coordination take place. On the operational (managerial) level, executives — plant managers, heads of branch offices or groups of product salesmen, purchasing agents, or scientists — are coordinated to carry out a single basic function — manufacturing, sales, purchasing, or research. On the "locum-tenential" level, functions relating to the processing of a major line of products, all the way from the raw material to the consumer, are coordinated. Finally, the top team (the entrepreneur) coordinates the various lines of products in the best interest of the enterprise.

The performance of the various tasks is reflected in the different horizons of the officers in question. The operator (manager) thinks in terms of a single function, the "locum tenens" in terms of a line of products or an industry, while the entrepreneur has the national economy and even the whole world in his mind in making his decisions.

Administrative problems of course are solved by decisions. Consequently, to our three kinds of business administration, there correspond three levels of business decisions: operational (managerial), "locum-tenential," and entrepreneurial, the last term to be used if we stick to the tradition

¹ Fritz Redlich, "Innovation in Business, A Systematic Presentation", *The American Journal of Economics and Sociology*, Vol. X, New York, 1950/51, pp. 285-99.

and call the top team "the entrepreneur" whenever we speak in theoretical terms. Correspondingly, as there are three levels of business administration, three horizons, three levels of tasks, and three levels of decision-making, so there are three levels of policy. There is the operational (managerial), "locum-tenential," and entrepreneurial policy. Only in the past could one define and describe the entrepreneur as a policy maker pure and simple in a business enterprise. We shall return to this matter of policy shortly.

Taking a cue from military language, we can designate operational (managerial) and "locum-tenential" decisions as tactical in contrast to entrepreneurial as strategic decisions. In military science, specifically in Clausewitz's language, tactics implies the leading of forces for the purpose of a battle, while strategy connotes the conducting of battles for the purpose of war. Or, as was taught in German military schools, tactics implies leading forces *in* battle, strategy leading forces *into* battle. If we adapt this terminology to the study of business administration, we could say: strategic decisions are those that allocate the means of production, including available liquid funds and available manpower, particularly skilled personnel, according to the purpose of the enterprise; while tactical decisions apply allocated means and manpower for the purpose of administering those units which are under the care of the "locum tenentes" and managers. Or to put it more pointedly, the difference is one between the allocation as against the application of means of production.

This then is the place to show how reality, i. e., what the businessman calls "top management," deviates from the ideal type, the model of "the entrepreneur." When a businessman reaches a certain place in the administrative hierarchy of enterprise, he becomes a member of "top management" and remains so until he retires. In theory, however, entrepreneurship, i. e., the participation in the goal-determining and planning team, is actualized only in making a *particular* decision. Outside of the intermittent process of making strategic decisions, any given person is a member of the entrepreneurial team only potentially while the specific entrepreneurial decisions in large-scale business enterprise are made by an ever slightly varying team.

The discussion of decisions has brought us to that of business policy. Here again the development of large-scale industry and of appropriate forms of business administration has been accompanied by historical change. Leland Jenks has shown in another context that in the nineteenth century, problems of business administration were solved *ad hoc*¹. In

¹ Leland Jenks in a forthcoming article on "Some Early Phases of the Management Movement", *Administrative Management Quarterly*, Vol. V, Ithaca, New York, 1960/61.

such a situation, business policy could develop only slowly; and by business policy we mean a consistent sequence of decisions, even if not recognized as such by the men concerned. The fact of *conscious* policy determination is established in railroading for the 1850's and in industry for the 1880's¹. Actually business policy seems to be the natural concomitant of geographically dispersed enterprise. In no other way can widely scattered operating decisions be coordinated and supervised. Ultimately, in the course of a hundred years of administrative development, the more or less conscious consistency of decisions has emerged until, at least on the entrepreneurial level, business policy has become equivalent to a master plan. To this master plan, i. e., entrepreneurial policy, "locum tenentes" as well as operators (managers) must adhere, and adherence is enforced by budgetary procedures.

At this point then, we meet a crucial problem. We have designated the functions of the top team as goal determination and planning. These functions can be performed only by men who are in control of the concern's capital, allotted and unallotted alike. Thus the function of goal determination and planning is underpinned by that of fund allocation or budgeting (synonymous terms in modern enterprise). As a matter of fact, the first appearance of a budget in business enterprise cannot be overestimated in its historical importance. It is an indicator of emerging bureaucratization of business, the correlative to modern large-scale enterprise. The budget sets a goal, while traditionally business enterprise was satisfied with gauging the result once a year by a profit and loss statement. The function of fund allocation (budgeting) which goes with that of goal determination and planning is the factor which determines the locus of ultimate authority in enterprise.

Not only the authors of this paper, but also other scholars seem to have felt that the concept of "entrepreneur" demands rethinking. G. Heberton Evans has recently made a pertinent suggestion²; and Heinz Hartmann has attempted to give the discussion a new bent³. With regard to the latter's interesting paper, we find ourselves sitting on the horns of a curious dilemma. We entirely agree with his findings, namely, that it is useful to distinguish between top level and operators both in theoretical and empirical investigations, although we also take cognizance of the new

¹ *History of Standard Oil Company (New Jersey)*, Vol. I, Ralph W. and Muriel E. Hidy, *Pioneering in Big Business 1882-1911*, New York, 1955, p. 62.

² G. Heberton Evans, Jr., "Business Entrepreneurs, Their Major Functions and Related Tenets", *The Journal of Economic History*, Vol. XIX, New York, 1959, pp. 250 sqq.

³ Heinz Hartmann, "Managers and Entrepreneurs: A Useful Distinction?", *Administrative Science Quarterly*, Vol. III, Ithaca, New York, 1958/59, pp. 429 sqq.

middle level in the administrative hierarchy. We agree that one can and should characterize the top team as the locus of the ultimate authority in enterprise. But we disagree with his starting point and his reasoning. Ultimate authority in business enterprise, as we see it, rests with those who hold the purse strings, and in modern large-scale enterprise, those persons hold the purse strings who perform the function of goal setting and planning. The difference of opinion then is that we explain ultimate authority within business enterprise by reference to a function which implies control over a concern's capital, while Hartmann thinks he can explain it without such a reference, and so it led him into metaphysics. Metaphysics, however, is not needed when the problem is how to explain, not the acceptance of business enterprise in capitalistic society, but the acceptance of ultimate authority within socially accepted business enterprise. Only in the former case is a sanctioning reference to property rights demanded.

Whoever joins an enterprise in capitalistic society does not question that he must obey; but to make him obey more willingly, i. e., cooperate, a specific department, that of personnel relations, has been established in modern large-scale concerns. It uses propaganda methods and among its other tasks builds up the participants in "top management" just as an office-seeking politician is built up in the minds of the voters. But if the top team actually needed to be legitimized *within* the enterprise by referring to the stockholders for authorization, the latter would be the real locus of ultimate authority. This they are not, as Hartmann himself pointed out. Stockholders have only a negative (veto) power, not a positive one. They can direct the top team not to do certain things, but they cannot force it to do others. Only in very special cases can they overturn a particular "top management." Therefore, we go along with and, so we think, fortify Hartmann in what seems to be his purpose, namely, in seeing the ultimate authority in enterprise, as far as administration goes, as resting in the top management team, which is in fact self-perpetuating.

Our findings can be summed up thus: if in theoretical contexts we wish to conceptualize the top team which keeps modern large-scale business alive, we cannot start from the difference between innovation and routine. Nor can we see as essential characteristics of the top team the making of decisions or the determining of policy. Like some earlier theorists, we can see as the criterion the making of *strategic* decisions, provided it is well understood what we mean by "strategic." We can and should start from the specific functions which the top team performs — goal determination, planning, and budgeting. We can and should stress

that the team holds the ultimate authority in the enterprise concerned. If then, in line with tradition, we wish to use the term "entrepreneur" to designate that top team, here are the elements to define it.

* * *

Zusammenfassung: Neuere Entwicklungen in der amerikanischen Betriebsverwaltung und deren begriffliche Erfassung. — Die Verfasser wollen im vorliegenden Aufsatz zeigen, daß theoretische Kenntnis aus geschäftsgeschichtlichem Material abgeleitet werden kann.

In den letzten hundert Jahren haben sich in den Vereinigten Staaten drei industrielle Unternehmungstypen herauskristallisiert. Der erste ist dadurch charakterisiert, daß die betreffenden Unternehmungen nur eine Art von Produkten erzeugen und sich auf die Fabrikation als solche beschränken. Der zweite Typ erzeugt gleichfalls nur eine Art von Produkten, übernimmt aber zugleich auch die Rohmaterialbeschaffung und den Absatz an den Konsumenten. Der dritte Typ ist gleichzeitig in verschiedenen Produktionsgebieten tätig und übernimmt, wie der zweite, zugleich Rohstoffbeschaffung und Absatz an den Konsumenten. Zu jedem dieser Typen gehört ein bestimmter Typ der Geschäftsverwaltung. Der erste, zuerst von den Eisenbahnen in den 1850er Jahren herausgearbeitet, unterscheidet zwischen Generalverwaltung und Betrieben, ein Wort, das hier im weitesten Sinn benutzt wird. Der zweite Verwaltungstyp hat die verschiedenen Tätigkeitsgebiete, wie Produktion, Beschaffung, Absatz, als besondere Abteilungen organisiert. Der dritte stützt sich auf Verwaltungseinheiten, die für ein bestimmtes Produktionsgebiet verantwortlich sind, innerhalb deren die verschiedenen Tätigkeitsgebiete wieder als Abteilungen erscheinen. Über dem Ganzen steht dann eine planende, Mittel zuteilende und die Ausführung kontrollierende Spitze. Auf diese Weise ist im Laufe der Entwicklung aus einer zweistufigen eine dreistufige Geschäftsverwaltung herausgewachsen. Um solche komplizierten Gebilde zu handhaben, sind neue Kommunikationsmittel geschaffen worden.

Grundlegende Änderungen in der Verwaltung von Unternehmungen zwingen den Wirtschaftstheoretiker, die Theorie des Unternehmers erneut zu durchdenken. Die Verfasser sehen als entscheidende Kriterien des Unternehmers der Theorie: Planung, Verteilung der zur Verfügung stehenden Produktionsmittel und Kontrolle der ausführenden Organe.

*

Résumé: Développements récents dans l'administration des entreprises en Amérique et leur conceptualisation. — Les auteurs se proposent de démontrer qu'on peut tirer des leçons théoriques des données historiques en matière d'entreprise. Au cours des derniers cent ans trois types d'entreprise industrielle ont été développés en Amérique. On peut les caractériser de la façon suivante: le premier est un type à produit unique et fonction unique, le second est un type à produit unique mais à fonctions multiples, tandis que le troisième en est un à produits et fonctions multiples. Chacun de ces types d'entreprise demande un type spécial d'administration. Au premier type correspond une administration, qui distingue entre administration générale et administration locale dans la manière développée par les chemins de fer américains. Le second type demande une administration où les diverses activités, telles que la production, la vente, l'approvisionnement, etc., sont organisées en des départements spéciaux. Chez le troisième type d'administration ce sont les diverses

catégories de produits fabriqués qui constituent des sections indépendantes, au sein desquelles les diverses activités sont organisées en départements, le tout étant placé sous une administration générale, qui dirige, distribue les fonds, et juge de l'exécution. De cette manière une administration à trois niveaux a été développée de l'administration à deux niveaux. Afin de pouvoir manier d'aussi complexes organisations, il a fallu créer de nouveaux moyens de communication.

De tels changements administratifs demandent un remaniement de la théorie de l'entreprise. Les auteurs regardent comme fonctions caractéristiques de l'entrepreneur théorique: la décision du plan de production, l'allocation des moyens de production et la surveillance de l'exécution.

*

Resumen: Recientes desarrollos en la administración americana de los negocios y su conceptualización. — Los autores quieren mostrar que un conocimiento teórico puede derivarse del material histórico relativo a los negocios.

En los últimos cien años tres tipos de empresas industriales se han desenvuelto en los Estados Unidos. Para el primer tipo es característico que las empresas respectivas producen nada más que una sola especie de productos y que se limitan a la fabricación como tal. El segundo tipo produce igualmente nada más que una sola especie de productos, pero se encarga al mismo tiempo del aprovisionamiento de las materias primas y de la venta a los consumidores. — El tercer tipo es al mismo tiempo activo en diversos ramos de producción y, como el segundo tipo, se encarga también del aprovisionamiento de las materias primas y de la venta a los consumidores. A cada uno de estos tipos corresponde un tipo específico de la administración de negocios. El primer tipo, por primera vez desarrollado por los ferrocarriles americanos en la década de 1850, distingue entre una administración central y administraciones regionales. El segundo tipo de administración ha organizado las diversas esferas de actividad como la producción, el aprovisionamiento la venta como secciones particulares. El tercer tipo se basa en unidades administrativas que son responsables para un ramo de producción particular, dentro de las cuales las diversas esferas de actividad aparecen de nuevo como secciones. Al frente de toda la estructura administrativa está un team que traza planos, distribuye fondos y controla la ejecución. De tal manera en el curso del desarrollo una administración bigradual ha sido reemplazada por una administración trigradual. Para manejar tales organizaciones complejas han sido creados nuevos medios de comunicación.

Tales cambios fundamentales en la administración de las empresas exigen una reformulación de la teoría empresarial. Los autores consideran como las funciones características del empresario de la teoría: control, planificación y distribución de los medios de producción disponibles.

*

Riassunto: Recenti sviluppi nell'amministrazione americana dei negozi e la loro concettualizzazione. — Gli autori vogliono mostrare che una conoscenza teoretica può essere derivata dal materiale storico relativo ai negozi.

Negli ultimi cento anni tre tipi di imprese industriali si sono sviluppati negli Stati Uniti. Per il primo tipo è caratteristico che le imprese rispettive producono esclusivamente una sola specie di prodotti e che si limitano alla fabbricazione come tale. Il secondo tipo produce parimenti una sola specie di prodotti, però si incarica allo stesso tempo dell'approvvigionamento delle materie prime e della vendita ai consumatori. Il terzo tipo è allo stesso tempo attivo in diversi rami di produzione

e, come il secondo tipo, si incarica parimenti dell'approvvigionamento di materie prime e della vendita ai consumatori. A ciascuno di questi tipi corrisponde un tipo specifico d'amministrazione dei negozi. Il primo tipo, sviluppato per la prima volta dalle ferrovie americane nel decennio di 1850, distingue fra un'amministrazione centrale ed amministrazioni regionali. Il secondo tipo d'amministrazione ha organizzato le diverse sfere d'attività come la produzione, l'approvvigionamento e la vendita come sezioni particolari. Il terzo tipo si basa su unità amministrative che sono responsabili per un ramo produttivo particolare, entro le quali le diverse sfere d'attività si presentano nuovamente come sezioni. Alla testa di tutta la struttura amministrativa si trova un team che forma piani, distribuisce fondi e controlla l'esecuzione. Così nel corso dello sviluppo un'amministrazione bigraduale è stata sostituita per un'amministrazione trigraduale. Onde maneggiare tali organizzazioni complicate si sono creati nuovi mezzi di comunicazione.

Tali cambiamenti fondamentali nell'amministrazione delle imprese richiedono una riformulazione della teoria imprenditoriale. Gli autori considerano come le funzioni caratteristiche dell'imprenditore della teoria: controllo, pianificazione e distribuzione dei mezzi di produzione disponibili.