

TRENDS IN INDUSTRIAL PROCUREMENT

7 February 1950

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Publication No. L50-87

INDUSTRIAL COLLEGE OF THE ARMED FORCES

Washington, D. C.

1336

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COLONEL McCULLOCH: Gentlemen, you may recall that, in the orientation discussion on the Procurement Course that took place, as I recall, on the fifteenth of December, I indicated that we not only would consider the procurement organization as being built up in the Department of Defense and the three services, but that we would take a look at other procurement organizations in the Government and procurement practices of private industry. That was done with a little forethought, because, in defending the type of procurement organization that is being set up, the stock argument normally employed is, "This is in accord with 'accepted commercial practice.'"

I know of no one who is in a better position than our speaker this morning to advise us as to whether or not this statement is, in fact, accurate. You have his biography. There is no point in repeating any part of that. But he has had long experience as Professor of Marketing at the Harvard Business School. Also, he served as Editor-in-Chief of the "Harvard Business Review" and now is chairman of the board of that publication. I think, in that capacity, he is well qualified as an expert to discuss the procurement problems of the Department of Defense from a purely disinterested and academic point of view. Professor Lewis.

PROFESSOR LEWIS: In speaking before the Industrial College a year ago, I undertook to make certain comparisons between governmental procurement policy and practice and that of private industry. This morning I should prefer to confine my attention more particularly to certain trends in the area of industrial procurement, leaving the comparisons between it and governmental procurement mainly to be drawn by you.

I hasten to add, however, because I do not try to point out the similarities and differences, believe me when I say that I do not underestimate either the importance or the difficulty in making such comparisons. Yet such comparisons should be made with a definite objective in view, and that objective should certainly not be the purely academic one of being able to recognize and to list the similarities and the differences. The purpose of any such comparative study should be to increase the effectiveness of governmental procurement through understanding how industry buys and why it buys the way it does. The purpose of this understanding is not to learn primarily the best and easiest manner of forcing industry to adapt itself to particular governmental procedures set up by law or regulation, but rather so to "mesh" the two that the Government--particularly the armed services in time of national emergency--may have its material requirements met most promptly and satisfactorily. At the same time, such comparisons should lead to definite improvement in Federal procurement in and of itself.

Here I must voice a warning. Let us not become so obsessed with the peculiarities of governmental buying that we posit all these peculiarities as insuperable and unchangeable. Industrialists are fast learning that the man who says, "My business is different from anyone else's and I can learn nothing from others," is the man who restricts his own accomplishment by virtue of his own blindness. The parallel with governmental procurement is clear. The greatest single obstacle to more efficient and effective governmental procurement is not to be found in the maze of laws and regulations, or in clumsy organization and inadequately trained personnel, or in poor advance scheduling, serious though these things may be. The greatest obstacle to improvement is the attitude of mind of those who, often unwittingly, are so circumscribed by their own intellectual and emotional obtuseness that they fail to recognize supply as one of the major executive functions--just as important as engineering or design or personnel or finance--and who, in consequence, refuse to see, for example, that the supply problem originates not after the specifications have been drawn but occurs concomitantly with the development of those specifications. This attitude of mind is by no means confined to governmental personnel but may be found in industry as well. Nevertheless, it is too common in governmental circles and must be altered before much real improvement can be made. Captain John H. Keatley of the Navy expressed this same thought in the "Journal of the American Society of Naval Engineers" last November in a model of understatement when he wrote, relative to the cooperation between the various services: "Necessarily also, the habits acquired by each service and the psychology which created these habits present some difficulty in reconciling disparity of concept and policies."

One additional comment in this general area of comparison between governmental and industrial procurement: In last analysis, every governmental procurement officer is trying to do exactly the same thing in his job as is the industrial buyer. Each is trying to secure those goods which will best serve a particular need--at the proper time and at the best obtainable price. This common basic principle should never be forgotten, and this is true in spite of the fact that, from time to time, there is an attempt made in some quarters to use procurement for purposes quite foreign to its true objectives. For example, in industry there sometimes is a feeling that purchasing may be used as a form of sales promotion whereby, in return for orders given, the good will of a prospective customer is sought and that of an old customer retained.

A similar diversion from procurement's basic objective occurs when a Federal agency uses its buying power primarily to serve some more or less vague social objective, or for purely political reasons. In some instances, many of these other objectives constitute an outright perverse and unjustifiable use of procurement.

The essential unsoundness of using procurement primarily to attain racial equality or to provide artificial aid to small business is illustrative of this point. This has been pointed out forcefully and clearly

in a previous lecture. Some politicians and some businessmen forget that the primary purpose of procurement is to get needed material efficiently. It is not to promote or support social programs, however worthy in themselves, or to save some particular business firm from the bankruptcy which would normally follow from its own inefficiency. If, from time to time, either Congress or business believes that it can justify the use of procurement for something other than its basic objectives, it still ought to be true that the monies so spent should be well spent. There should be no exceptions to the rule that the manufacturers and the Government be assured that the goods they do buy--whatever the purpose behind the purchase--are of right quality and are bought at the right time from dependable suppliers and at the best (although not necessarily the lowest) price obtainable.

However, I am not here to discuss governmental procurement but, rather, the question of what manufacturers are doing in an effort to perform this function properly. Even this is too broad a definition of my assignment, for it is not what the average manufacturer is actually doing so much as it is the trend in what may be termed procurement evolution as it appears among some of the more progressive companies. In short, recognizing fully that the average or most common firm is, by definition, seldom the most advanced, and remembering also that all generalizations are dangerous and likely to be false in any particular situation, are there any well-marked tendencies with reference to industrial procurement practice, and, if so, what are they?

I think there are evidences, and encouraging ones, of progress in this general area. I should like, in the time at my disposal, to mention five of them:

1. A growing recognition by top management of the basic importance of procurement as one of the major functions of business, coordinate with and not subordinate to sales, engineering, and production.
2. A growing recognition of the integral interdependence of design, production, and supply in determining proper quality. Put another way, engineering and design are not the sole judges of what should be acquired or produced. Price and availability are of equal concern.
3. A growing awareness of the essential nature of inventory control-- particularly so far as production materials are concerned--and that the most difficult problems in this area are related to purchasing and not to production.
4. In part as a result of this growing awareness, a corresponding organizational trend is becoming evident by an attempt to consolidate the several aspects of procurement (including inventory, purchase, receiving, stores, and, in some instances, even inspection) into an executive department to be grouped under some such title as that of "Materials Management."

5. An increasing concern over the definite need for acquiring and developing a type of personnel qualified to measure up to the higher standards of performance recognized as imperative under modern competitive conditions.

These five interrelated trends seem to me to be fundamental. Others might place the emphasis elsewhere, and, admittedly, the list is not complete. A growing participation of purchasing executives in the acquisition of major equipment, for instance, appears to be observable. There is an increasing adoption of the principles of simplification and standardization. More attention is devoted to cost and product analysis as applied both to one's own company and to suppliers. Procurement techniques are being improved upon, and these "tools of the trade" are being used much more effectively. All of these--and more--belong in the picture, and to some of them I shall refer again. But the five which I have enumerated seem to me to be the more fundamental, and, if I am right, it would be well for us to review them more specifically.

The first is growing recognition on the part of top management of the basic importance of procurement as one of the major functions of business, coordinate with and not subordinate to sales, engineering, or production. You will note that I have said "a growing recognition." This implies three things: That this recognition has not always been apparent in the past, that there is now developing a definite feeling that it should be given more consideration, and that its place as a major function is well established among progressive manufacturers. To me, this is not surprising but, on the contrary, inevitable. What is the thinking that lies behind it?

Let us start our approach to this aspect of our problem by reminding ourselves that the first responsibility of the management of any business seeking to keep our economy dynamic, and at the same time reasonably stable, is to operate that business profitably--a responsibility it owes to its stockholders, its workers, and the public. Unless management can make a profit, it can accomplish nothing else and sooner or later must be rated a failure.

But just who do we mean by "management"? Is it the board of directors, the president, the executive committee, or the general manager--the chosen few who traditionally have arbitrarily decided both the policy and the method of carrying it out? There are still companies today, and many of them, operating on this basis--and, it must be added, with at least apparent success.

Moreover, in any company, some one person must, in last analysis, assume final responsibility for making decisions. As Father Bernard Dempsey of St. Louis University wrote last July: "In any society, for the expeditious management of its affairs, authority is necessary..... Authority is required to make decisions, to get things done, to choose

among the various possible ends, and among the numerous ways in which a given end may be reached." Nevertheless, I am one of those who believe practical experience is demonstrating that, save in abnormal cases of rare managerial genius, and even then over only comparatively short periods of time, the pooled judgment, initiative, enterprise, and ideas of an entire organization produce better results in terms of one man. In other words, pooling the judgment of those in a company qualified to contribute and then channeling that judgment through a capable administrator is more likely to insure that business will meet its responsibilities than any other way.

Pooled judgment means the combined judgment of those persons particularly qualified to perform the essential basic functions of a business--the chief engineers, the production managers, the sales managers, and the procurement officers. The last of these is now being put on "the first team," and he is being put there because of the conviction that a manufacturing company cannot make and sell a product in a competitive market unless the materials and component parts out of which it is fashioned, and which represent 50 percent to 60 percent of its manufactured cost, are procured efficiently. In short, the qualified procurement officer himself constitutes an integral part of what we term "management." This means that he is no longer a mere clerk, nor is he a subordinate reporting to a production chief, but an officer of first rank in his own right, so recognized because of his knowledge of materials, sources, markets, prices, and negotiating practice, a knowledge and experience possessed to an equal measure by no one else in the organization. This recognition comes about, not by virtue of organization charts, executive directives, or mere definition of responsibilities, but rather because the procurement officer contributed something of significance to the "judgment pool." It is the gradual infiltration and willing acceptance of this conviction throughout the entire organization that has led, as I put it earlier, to a growing recognition of the basic importance of procurement as one of the major functions of business. This same thought was expressed in the words of a National Industrial Conference Board report of 1948, after that organization had surveyed 280 manufacturing companies:

"Until recent years, however, management has not given the attention to purchasing that it has to other major activities within a manufacturing concern.

"The increased recognition that is now generally accorded to purchasing is reflected in a higher organizational status for this activity. In a growing number of concerns, purchasing is a major department, the head of which reports directly to the president and has a voice in the formulation of general management policies. Accompanying this organizational evolution has been the emergence of new and improved purchasing policies, procedures and techniques. Of particular interest is the growth in purchasing research. Progressive management has become increasingly aware of the value of current and pertinent data concerning price, supply and

demand trends, and future prospects which can be supplied by procurement specialists who are in constant touch with the market. Such specialists can often make significant contributions to reduced production costs by uncovering new sources of supply and substitute materials, by assisting in the work of standardization, and by suggesting new and more efficient manufacturing techniques to suppliers."

Let me emphasize, too, that it is not enough for merely the president, the general manager, and the purchasing executive to see the importance of sound procurement. It must be accepted by the entire personnel of the company. It must be recognized by every person within the organization who has any part in the direction of its affairs, no matter how small, just as there is a general recognition of the necessity of a production line or a sales organization.

The second trend, as I see it, is a growing recognition of the integral interdependence of design, production, and supply in the determination of proper quality. Put rather bluntly, this means that, when a design or development engineer finally emerges from his ivory tower with, "This is it and nothing else will do," or the production manager says, "We have always used this brand and certainly have no intention of changing," their words no longer carry the conviction they once did, nor do they always go unchallenged. For, in the type of company I am talking about, the procurement officer, as a member of management itself, has not only the right but the responsibility of challenging these decisions if and when he sees good reason for so doing.

Again let us ask, "What is the thinking behind this evolution?"--- if I may be pardoned for expressing it in terms that I have used before. Quality is that which fits a product to a given use. A product is not simply good, it is good for a certain purpose, and the work "quality" is meaningless apart from the use in view.

To this thought must be added another; namely, that "quality" is a combination of characteristics, not merely one characteristic. Furthermore, the specific combination finally decided upon is almost always a compromise, since the particular aspect of quality to be stressed in any individual case depends largely upon circumstances. In some instances, the primary consideration is durability. In other instances, the lifetime of the item of supply is not so important; efficiency in operation becomes more significant. Certain electrical supplies will suggest themselves as illustrations. While a long life is desired, it is more important that the materials always function during such life as they may have than that they last indefinitely.

Assuming dependability in operation and a reasonable degree of durability, the ease and simplicity of operation may become the determining factor. Thus, it is not essential that a typewriter last indefinitely; therefore, the mechanism of the modern typewriter is such as to make it dependable under all ordinary usages. Given these two factors,

which are more or less standardized among various types of machines, the determining factor is the ease with which the machine can be operated. What constitutes a satisfactory quality, therefore, depends largely upon what a person is seeking in particular goods.

"Best quality," technically speaking, is that combination of physical and chemical characteristics which is best suited to the intended use. It is equally clear that mere technical perfection is by no means the whole story. For, clearly, no matter what degree of technical perfection for a given use an item or material may have, it must be reasonably procurable, or it is useless to discuss it. Or if the cost is so high as to be prohibitive, one must then sacrifice something in technical quality and get along with an item somewhat less suitable. Or if, at whatever cost or however procurable, the only available suppliers of the technically perfect item lack adequate productive capacity or financial and other assurance of continued business existence, then, too, it must give way to something else.

Obviously, also, frequent reappraisals are necessary even when a workable balance between technical and economic quality has once been established. If copper rises from 14 cents a pound to 21 cents or more; if magnesium drops from \$1.25 a pound to 20 cents or less; if aluminum should drop substantially in price, the balance to which we have referred needs re-examination. The experiences of the war are still too fresh in our minds to forget the fact that many an item, a component, or even a finished product rated as "essential because theoretically superior" had to give way to one technically "less suitable but procurable."

Solder provides an example. Various combinations of lead, tin, zinc, cadmium, and silver can be used to produce a thoroughly satisfactory solder. Such illustrations could be multiplied almost indefinitely. In all such cases, where various alternative material are suitable for an intended use, or where various combinations of materials give completely satisfactory performance, it is no more than common sense to say that the decision as to which use should depend upon relative cost and procurability. To specify the crating material for an item that is flameproof, waterproof, mildew-proof, and intended for the roughest of outdoor use--to use one actual example--as clear, all-heart redwood lumber, which is often scarce and always expensive, at a cost of \$97,000 above the cost of standard commercial packing material, just doesn't make sense, and no purchasing officer should buy it without challenging the requisition. On the other hand, it does make sense when a purchasing agent suggests to the engineers that the specifications for a switch cell housing structure be changed from copper to aluminum at a net saving of 37 percent.

So procurability and cost (bearing in mind that we are talking about ultimate cost, not lowest unit price) are scarcely matters with which technical men can be expected to be thoroughly familiar. They are matters that lie peculiarly within the area served by the procurement officer. In any functional organization, whether governmental or civilian, it is

apt to be true that neither the purchasing officer nor the technical expert is familiar with all the factors that are involved in determining the "best buy." Moreover, in the large-scale organization--this includes the armed services--there is a definite tendency for specialists to act independently and to fail to consider the effect of their actions either upon others or on the total result. The continual development of, and insistence upon, special nonstandard or obsolete specifications in lieu of equally acceptable, up-to-date, standard commercial specifications is an example of the sort of thing I am talking about.

To illustrate somewhat more specifically the thoroughness with which the so-called product value analysis division within the purchasing department of one major company attacks its problem, let me list the points on which it challenges, at one time or another, every part and each material it is asked to procure:

Does its use contribute value?

Is its cost proportionate to its usefulness?

Does it need all of its features?

Is there anything better for the intended use?

Can a usable part be made by a lower-cost method?

Can a standard product be found which will be usable?

Is it made on proper tooling, considering quantities used?

Do material, reasonable labor, overhead, and profits total its cost?

Will another dependable supplier provide it for less?

Is anyone buying it for less?

Clearly, since suitability for the intended use is one prime essential of proper quality, and since final decisions as to suitability are peculiarly within the province of the technical expert or the engineer, a very difficult problem, procurementwise, constantly arises. If specifications are to be set first and finally by the engineer, then the purchasing agent has to accept them without question and "as is" and do what he can to get a good price, or he has to reserve the right to challenge the specifications or to refuse to buy until an agreement has been reached. His problem is made none the easier because the amount required and the time the item is needed may also be specified.

The answer to this dilemma is by no means simple, but it is not a reasonable answer to assert that technicians are never to be challenged,

any more than it is to say that the procurement officer should decide questions of suitability. Industry, under stress of competition, is finding a way to reconcile such differences of opinion through cooperation. One step has already been made by advanced management when it recognizes the true nature of what we call "quality." It is definitely making progress toward the second step, that of securing that reasonable measure of cooperation so essential to success.

I may also add that intelligent industrial sales managers are also beginning to see that it is a serious mistake, in view of the active participation of procurement executives in these matters of determining "best quality," to by-pass the purchasing agent and are seeking their cooperation instead.

The third trend I see is a growing awareness of the essential nature of inventory control, particularly so far as production materials are concerned, and of the fact that the most difficult problems in this area are related to purchasing and not to production.

This problem of production inventory management has been discussed by many men and from many angles, and I do not propose today either to summarize or to analyze what has already been said. I should like also to eliminate from our consideration those very troublesome problems of inventory valuation. This is not to say that such issues are unimportant; on the contrary, they are very much so. But valuation problems are essentially financial, accounting, and fiscal in character, and I am rather concerned with operating problems. Moreover, I am concerned primarily with those problems having to do with raw or semi-processed materials; in other words, those volatile commodities that are essentially speculative in nature.

And, in this area, I should like to point out that, whatever may be true of governmental procurement, in the private, industrial organization, there are increasingly being raised some serious doubts as to whether inventory management is basically a matter for either the design engineer or the production manager to determine. These doubts as to the soundness of placing inventory management wholly in the hands of production personnel rest partially on experience and partially on rational analysis.

Experience seems to indicate that a production man is far less concerned with a reasonably balanced inventory than he is with being certain that he never, under any circumstances, runs short of supply, with the result that he is very prone to overstock, sometimes to a fantastic extent. The real dangers in the inventory are not shortages but overages.

The rational basis for divorcing inventory control from production is found in the realization that inventory management constitutes a wholly different type of problem from that of machine operations, plant layout, or the treatment of labor. Thus, to argue that, because production actually processes the material, it, therefore, knows best when

and how much to buy, makes no more sense than to say that, because the factory uses a commodity, it, therefore, should actually buy it. This concept has given way in favor of an independent centralized purchasing department in virtually all up-to-date manufacturing companies. It is production's job to set a production or usage schedule, to determine when it will require certain materials, and at what rate they will be consumed. And that is where its responsibility ceases. So long as it has what it needs when needed, there is no occasion to worry. But the real problems of inventory management only begin at that point. With that minimum in mind, the question then becomes one of how far to buy ahead, when to go into the market in order to take advantage of the "soft spots" pricewise, and how fast to move the material into the plant. This calls for a different type of experience, a knowledge of a different set of facts, and a different form of judgment.

It is on the basis of experience and analysis, therefore, that there has developed a tendency to set up an independent unit in charge of inventory, or at least to place its management in the hands of a procurement officer rather than a production, financial, or accounting executive. And this, I believe, is in line with, and perfectly consistent with, a trend toward looking upon inventory acquisition not as a source of so-called inventory or speculative profit, but essentially as a means of keeping material costs (and hence production costs in so far as they are based on material costs) as low as possible.

I wish that I had the time to discuss this whole matter of speculative profits as related to raw material purchases, but I do not. I can only say that there seems to be an increasing skepticism as to the soundness of a manufacturer seeking to increase his profit through commodity speculation. In fact, there are not a few people who actually doubt the very existence of such profits on production inventory, and that irrespective of the arguments of accountants and tax gatherers.

But, in any event, my main thought is, I trust clear: Inventory management is a top-management procurement job inseparable from purchasing.

My fourth point is closely related to the one I have just covered. Partly as a result of the thinking on this matter of inventory management, there appears to be, at least in the larger companies, an organizational trend toward placing the several aspects of this major function of procurement into one executive department for purposes of coordinated administration--a department known by some such title as "Materials Management." On this point, I proceed with somewhat less assurance, and the emerging pattern is by no means too clear. Yet the importance of reasonably coordinating these various activities becomes increasingly obvious. I have already pointed out the essential nature of the inventory problem and have indicated how intimately the questions of price, quality, and selection of suppliers are related to that of quantity. I have indicated that from the production planning department must come the essential data

regarding the kind and quality of process material, component parts, and supplies; and from it, too, comes a production schedule. Minimum material operating requirements must, of course, be met. But how much further in advance should commitments be made? What is the most economical quantity to buy at any one time? Should a reserve stock be maintained? If so, how large should it be? These and many similar questions are essentially inventory control problems; the answers to which cannot be had, except as related to strictly purchasing decisions, any more than purchasing decisions can be decisive without regard to questions of quantity.

Indeed, the negotiation and inventory control aspects of procurement are so integrally related that, as a problem in administration, they can, under ordinary circumstances, best be handled as parts of one and the same organizational unit. Only under unusual conditions can the needs of administrative efficiency best be served in any other way--a point which will be made increasingly clear in subsequent analysis. This conclusion is not vitiated by the fact that negotiation, on the one hand, and inventory control, on the other, each calls for a somewhat distinctive type of personnel to formulate judgment on somewhat unlike sets of values.

But what of the other elements in "serialized procurement"? What of receiving and stores, and even inspection? Should they, too, be included within the administrative responsibility of the procurement executive?

I cannot take the time to discuss these questions in detail, nor do you, I am sure, expect it. I can only point out that many companies are finding that there is much to be gained by at least reviewing this issue. No one of these various necessary activities is quite like any of the others. Yet close coordination is essential to greatest efficiency, and if that coordination cannot be had in one way, then it must be found in some other; for the solution does not lie in sacrificing one for the other on grounds of tradition, or personal pride or bias, or for the sake of uniformity. Moreover, not only is mere coordination desirable, but there is much to be said for an over-all policy concerning them in order that they may be viewed in proper perspective, not alone with reference to each other, but likewise in those top executive conferences when decisions affecting the company are made.

Companies differ from each other in many ways, and the form of organization and control which works well for one cannot always be expected to work equally well for another. The most to be said is that an increasing number of manufacturers are finding that putting most of these steps in serialized procurement under the immediate surveillance of some one executive--call him what you will--seems to bring about the best over-all results.

The fifth takes me, finally, to the question of personnel. I need not remind you that no theory of procurement, however sound, or no plan of organization, however attractive on paper, is workable unless the men

who do the actual work are qualified for the responsibilities placed upon them. There is nothing new in all this, but I should like to take a moment to stress the fact that, just as there are trends in industry toward placing the function of procurement in its proper perspective, so, too, is there an increased and persistent effort to find and to train men to perform that function adequately. So it is not surprising to learn that some very constructive as well as critical thinking is being done in this area.

Because there are very real differences among individuals with reference to their fitness for particular kinds of jobs, and because procurement is essentially unlike production, engineering, or any other major function, this type of responsibility calls for a type of personnel with training, experience, and personal qualities unlike those required for other executive positions. Likewise, because the peculiar types of problems with which purchasing deals are unlike those confronting other departments, the advantages of specialized training and experience on the part of its personnel should be obvious. The desirability of a peculiar interest in this type of work, and of enthusiasm for it, should be equally clear. Furthermore, if it is true that the basic personal qualities of integrity, vision, willingness to cooperate, judgment of values; and the like, are not fundamentally different from those called for in any good executive, at least they are required in a very high degree and with emphasis upon certain traits not required in quite the same proportion elsewhere.

This is not to say that men are necessarily born with inherited traits that make them good procurement officers (or, for that matter, sales managers, or engineers). Assuming that any young man is intelligent and adaptable, he may well become a specialist in procurement--or in almost any other field. Through human associations and experiences which develop in him a real interest in this function, he becomes happy and proficient in it. Hence, if management looks upon procurement as an important function, chooses intelligent and adaptable personnel, and gives them responsibility and encouragement, that personnel, new and old alike, will develop capacity in their jobs. On the other hand, no matter how capable a man may be or how broad a concept of procurement he may have, he will himself have a most difficult time convincing a management which is illiterate procurementwise of the fact that the function has any broad significance; that management, in its turn, will have difficulty in persuading capable young men to enter its employ.

The responsibility for purchase negotiation is one fundamental characteristic of the industrial procurement function. It is the characteristic of the industrial procurement function. It is the requirement of the ability to negotiate objectively plus a knowledge of trends in products and processes that makes industrial procurement basically distinct among the functions of business administration. Moreover, although procurement responsibilities should, of course, be discharged in cooperation with the other functions of a business, this

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does not mean that they should not also be discharged positively, constructively, and at times even aggressively.

What is the significance of all this, so far as the actual recruiting and developing of procurement personnel is concerned? Just this: Industry is becoming increasingly aware that unless procurement men, at whatever level, are well selected, properly trained, adequately paid, and imbued with a proper understanding of and attitude toward their responsibilities, little can be hoped for in the way of sound procurement. On the other hand, when this admittedly high standard is reached, there is almost no limit to what they can accomplish for their company.

There is much to be done before this goal can be reached. For while there are thousands of superb procurement men doing yeoman service in their chosen field--men who are alert, keen, and capable--yet there are thousands more who fall far short in performance. They operate as mere clerks, with limited or no vision; they seek to avoid rather than to accept responsibility; they have little real interest in their jobs and are quite content to operate within the narrow scope of an assigned task rather than to develop any real understanding of procurement.

Having said this, I hasten to add that real progress is being made. In 1933, only nine schools of collegiate rank offered courses in industrial purchasing; today, there are over ten times that number. To these must be added YMCA classes, regular discussion forums of purchasing agents, to say nothing of an increasing number of intraining programs. The National Association of Purchasing Agents, with approximately 12,000 members and between 85 and 90 local associations, not only holds an annual convention but sponsors regional conferences all over the country. Worth-while literature is being published in increasing amounts. Procurement men are studying not only commodities, but materials handling, cost and product analysis, packaging, and traffic. And so it goes. I am sure that it is safe to say that never in the history of business has there been so much interest in the study of procurement problems, or so many qualified men vigorously attacking these problems. Of all the trends I have mentioned this morning, none is more pronounced than this stress on procurement capacity and training.

These, then, are the five major trends that seem to me to be more or less evident in the development of procurement among manufacturers. Some may disagree with me as to their importance and even as to the presence of any such well-marked evaluation as I have outlined. Still others would select different trends from those I have stressed. And, of course, there are many evidences of progress along lines other than the five I have selected. For instance, what I may term the "tolls of the trade"--forms, records, follow-up, filing, the use of manuals, and the like--are both better and more effectively used than was once the case. The ethical standards of purchasing men are more generally in accord with that high standard set in the code of ethics of the National

Association of Purchasing Agents. But of these things I cannot speak this morning.

Before I close, let me put the central theme which I have been attempting to develop into the words of a chief executive of one of the largest manufacturing companies in the United States--Mr. Harry Erlicher of the General Electric Company:

"The past decade has emphasized the importance of purchasing and broadened its sphere of influence. Progressive managements have learned that we have emerged from our position as mere adjuncts in our business to a position equal to other professional groups (engineering, manufacturing, research, etc.). This is not spoken egotistically, but rather to show that purchasing is the logical spot for management to obtain not materials alone, but also counsel, advice, suggestions, and services of various types.

"Because the Purchasing Agent has successfully met the challenge of his new role, management now recognizes that there is a permanent place at the policy-making conference table for him. He has filled this place as an all-around Company executive, capable of supplying important management 'know-how.' Today the Purchasing Agent's ability to obtain the right materials is taken for granted, and his obligations go far beyond this responsibility. He must work with production planners, design engineers, and research; he is expected to contribute top-level thinking to new products, new processes, new materials, and new sources of supply. His work begins on the drawing board and ends only when the final packaged product rolls off the assembly line. In the effort to provide a better, yet less costly, product, he must be alert for value in every phase of the operation.

"The Purchasing Agent must understand the principles of financial soundness, both from the standpoint of how he commits his own Company and, just as important, from the standpoint of the financial position of vendors. We all know that the good supplier is a financially sound one; buying negotiations must be conducted on that basis, while never losing sight of economy and quality in the supplies which are being purchased. During the past ten years, the Purchasing Agent has grown greatly in stature so that today he must not only be a buyer, but also to some extent an engineer, an accountant, and an administrator.

"With this discussion of the responsibilities and obligations of today's Purchasing Agent, we have been painting a portrait--the portrait of a man who has earned himself a full-time position in the top-management group. We have been describing a man who must have a high code of ethics and one whose personal integrity is sound. He must be forthright and honest in order to get along with his associates, with salesmen, and with the vendors' management. To be able to support his ideas and plans for improvements or modifications, he must be acquainted with basic sales,

engineering, and manufacturing principles. He must enjoy statistics and their application, and must understand raw material markets as well as purchasing and production schedules. He must be familiar with basic management principles in order that he may delegate authority, understand proper channels of communication, and fully evaluate the potentialities of his subordinates. Of special importance, he must have the confidence and respect of the salesmen and vendors so he may more fully draw upon their 'know-how.'

"As top management assigns these new responsibilities to the Purchasing Agent and as the man himself qualifies to fulfill his job, purchasing becomes more and more a 'top-policy' operation."

If my comments this morning seem to you to be unduly optimistic, and if I appear to claim for industrial procurement a degree of accomplishment beyond what you think is reasonable, I only ask you, before passing final judgment, to recall what I said at the outset; namely, I have been talking about trends toward a pattern, perhaps a goal. This emerging pattern is far from being "set" or crystallized. I have not said that it was. I have attempted to point the direction in which procurement policy, organization, and practice are moving, rather than to draw a picture of where they stand today.

Nevertheless, I have no hesitancy in asserting that industrial procurement is "on the move" and it will in time reach for the average firm, not merely the outstanding one, that full stature of recognition its importance warrants.

COLONEL McCULLOCH: If the statistics over the past several years are any guide, after graduation this year we can anticipate that about one-third to one-half of you people will be assigned to procurement jobs. Here is an opportunity to get the answers before you report for work.

Any questions?

QUESTION: Professor Lewis, in your book on procurement, you discussed both sides of centralized procurement and purchasing for industry. With the idea of transferring some of those ideas to centralized purchasing in the armed forces, would you discuss the point at which the law of diminishing returns takes effect?

PROFESSOR LEWIS: I can't answer your question directly. I do think there is a great deal of misunderstanding, however, as to just what centralized procurement really means. At one extreme, of course, you can have a highly decentralized organization in which everybody buys for himself whatever it is that he wants, without any reference to anybody else, but on his own as an individual. On the other hand, you can have an organization in which every requisition, every purchase order,

every decision has to be made through a central office. That is the other extreme. Certainly, for any large organization, I think one is just as bad as the other. Centralized procurement really means, as I see it, a centralized unit in which policy decisions are made, the administration of which may very well be delegated to a great many other people or organizations or units or branches.

What do I mean by central policy? In a business organization, I should say for example, that a policy question has to do with the extent to which major contracts should go through the central office and to what extent decisions as to how much to buy or when to buy, what price to pay, and what supplier one is to elect are to be made by a local office. I should say--to look into it somewhat in detail, if you will--it is a central policy in a business organization to decide that the company shall not practice reciprocity in dealing with its suppliers and its customers. It is a central policy decision to decide that bribery and excessive entertainment are things the company will not countenance. It may be a central policy matter to decide that contracts for the outstanding raw materials against which contracts local offices may place their local purchase orders as requirements develop shall be made in the home office. I should say it is a matter of central policy to decide what the personnel policy is going to be--what kind of people shall be hired and what kind of training shall be engaged in, in the purchasing activities anywhere in the organization. Those are what I think of as central policy questions.

I can illustrate it, if I may, in another way. I spent a couple of days last week with a vice president in charge of procurement for a company. He was having a problem--there is nothing new about this--with his engineers. The president of that organization is 100 percent behind the idea that most decisions on even the purchase of equipment must be made with the full knowledge and understanding of the procurement officer, who immediately decides the details of what is needed, where it is needed, and when it is needed. And he should at least participate from the beginning, or very early, so that the engineers don't freeze things so early that he does not get but one supplier. He is having a problem on that.

Now, the relationship between those departments in this company, although stated by the president and expressed in a manual which has gone throughout the entire company, raises a basic question of policy. In the same company there are two plants, and each of them has its own purchasing office; I am sure that a great proportion of purchase orders issued by that company in a year are not placed through the home office at all but through the local offices. But it is done in accordance with a policy.

That is a long way around your query. What I am trying to say is that there are a good many people who look upon centralized procurement as being an organization in which everything is done in one office, in

one place, by the same group of persons. That, to me, is not, by any manner of means, necessarily centralized procurement. I can describe centralized procurement in which that only covers a part of the story.

Now, how far do you break it down? That is a matter of individual application. How you are going to apply it to the services, sir, I leave in your lap.

QUESTION: Sir, you suggested that procurement officers should, fundamentally, serve only the purpose of getting the right product, at the right time, at the right--not necessarily the lowest--price. It seems to me that such principle is not inconsistent with the apparent contradiction that we have to subserve another purpose, and that is keeping alive industries in peacetime that have no peacetime function but that in wartime will be essential. Therefore, a procurement officer must do other things, such as promote small business, place his contract with a critical industry, and so forth. Will you comment on that?

PROFESSOR LEWIS: I would not quarrel with that idea, sir, for a moment. I think that is true, so far as the services are concerned, and with a view to an emergency. And I think it is true of private industry. A private manufacturer is very often well advised to loan money to a supplier if it is necessary to keep him going in order that he might keep that supplier on his feet, provided, in his balance of values, he thinks that supplier is essential and that he needs him. It seems to me the same thing exactly applies in the mobilization question.

I am not raising now the question as to the effect on the social or economic structure of having many small suppliers, encouraging initiative, and keeping these individual nuclei of initiative going. That is another question.

In short, I am in agreement with your thought. But the two points should be clear: One is that we must take a long-run point of view and make a decision as to what is the best buy for this year or next year, or the best supplier for this year or next year. A point of view that calls for an immediate decision day by day is a short-run one, if that is all it is. Also, I would add that we ought to be very sure, when we use these unusual methods for keeping a supplier in business, that we really need that supplier and that there are not alternative sources that are just as good, just as effective, and just as useful in supplying our needs as that fellow is. That is just ordinary good sense to me. To keep a man going just because at some time he did something and, therefore, we may at some time want him again, regardless of the efficiency of his management, seems to me rather foolish. I would rather see encouragement of somebody else who is, perhaps, more efficient.

To answer your question, if it be an answer, I should not quarrel with your position at all, assuming, as I say, that we keep in mind that

we really do need that fellow and there are no alternative sources. I think, perhaps, in most instances, I would go further and say that provided we don't have to pay too much for what we get out of it. By "pay too much," I mean in keeping him going, not necessarily pricewise.

I am not sure that answers your question, but I am glad you asked it because it gives me an opportunity to correct an impression I may have left; namely, I am certainly not taking the position that small businesses, for example small suppliers, are not very important, not only in the economy but as sources of supply, to any procurement officer. He must look toward the future as well as toward the present.

QUESTION: The military are restricted, wisely no doubt, by the Armed Services Procurement Act. You have already indicated one or more objections to some provisions of the act. I wonder if you would care to give us a general idea of what major changes you might make if you were rewriting it.

PROFESSOR LEWIS: I don't know what I would do. I think an attempt to state a policy through some such act is probably a desirable thing. You never know how it operates until you have tried it. If it be basically sound, as it may well be, the corrections or modifications will be, I think, largely of what, in the larger picture, becomes details. But if you ask me to tell, in two minutes, what I would do with the act, I must beg off; I cannot do it. If that be hedging, make the most of it.

COLONEL McCULLOCH: Professor Lewis, on behalf of the staff and faculty and the student body, I thank you for your very excellent presentation. Thank you, sir.

PROFESSOR LEWIS: I have been very glad to be here again, sir.

(8 Mar. 1950--650)els