didn't enter into the manufacture of it, he would. In fact, before the study was completed, officers of that firm and mine met to discuss the contract. The study also turned up the interesting information that five other firms had studied these markets and each of these was investigated to determine its decision or position. These data can only come from the field. This procedure can help eliminate that familiar tragedy of two or more plants being built to serve the same market.

Information from the field can be used in many other areas than marketing and managing. Purchasing decisions can be affected. For instance, the manufacture of phenolic resins is essentially custom tailored to each user's needs. Yet we have some that we like to think of as standard resins. Nevertheless, one of these resins is made with different suppliers' otherwise identical raw materials because our salesmen learned from a customer that one batch gave better results than another. Another customer had a reverse preference. So these companies buy the same numbered resin but with different suppliers' raw materials and our purchasing schedule is adjusted accordingly.

Everyone can agree that the more accurate information available, the better the resultant decision or program will be. For accuracy and for availability to the decision-maker or planner, someone must go out from behind his desk and get that information. It must then be collated analyzed, verified, and organized. Those who prepare the information can only hope it will be utilized, not much of the time, but most of the time.

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A System for Organizing Chemical Marketing Information*

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The techniques we use in collecting chemical marketing information, storing it, retrieving it, analyzing it, and disseminating it to interested parties will be described.

I am sure we all agree that no information has any value until it is transmitted into the mind of a person who can usefully employ it in his work.

In any large company, information developed in one part of the operation can often be useful in other locations within the firm. One of the problems to be solved here is to develop a communications system which can determine who is interested in receiving the information now and in the future.

Traditionally, information gathered by salesmen has been passed along in the form of trade reports which discuss matters dealing with the salesmen's accounts. Our company generates about 300,000 trade reports per year. Even assuming 50% of these contain no information of interest to anyone other than the writer and the receiver, it still means that 150,000 trade reports are generated with potential information of value in other points within the company.

It would be impossible for everyone to wade through all of these reports, and this is only one source of commercial information. Market research reports, economic justifications, interoffice correspondence, and minutes of meetings within the company are other potential gold mines of commercial intelligence that are not always used to the maximum benefit of the company.

The daily and trade press grind out massive quantities of commercial intelligence or raw data from which it can be developed. Technical literature can frequently answer questions which have a bearing on commercial decisions, if this literature is available at the proper time and place.

Annual corporate reports and other corporate literature can frequently assist in developing a considered analysis of the company's activities, it profitability, its products, its management, and its productive activities.

Several substantial firms provide a living for thousands of people by supplying such information on a routine basis to credit and financial personnel.

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Product data sheets issued by companies making new products can assist people within the company in forming a considered opinion as to the possible results of lines of research being conducted by the company, its competitors, suppliers, or customers.

All of these sources of data are readily available to anyone who knows where to look for them. However, sometimes those aware of the published material do not know who else wants to know about it.

These are some of the reasons that have led to the formation by several companies of a central clearing house for information of this nature.

At Cyanamid, a Commercial Information Center has been established within the Market Research Department of the Commercial Development Division. It endeavors to bring to the attention of proper personnel within the company any pertinent information on new technology and products. It also serves as a clearing house and screening point for inquiries directed to the company in cases where the inquirer does not know if Cyanamid is buying or selling the material in question.

The Commercial Information Center works in cooperation with sales, purchasing, development, planning, and executive personnel. As we have mentioned, the flow of knowledge from one part of the company to another may be erratic. Therefore, the Commercial Information Center assists employees searching for information by bringing them in touch with those who have worked on similar projects in the past. It conducts this function by:

1. Maintaining a bibliography of reports prepared by personnel in various other parts of the corporate organization and circulating this on a monthly basis.
2. It endeavors to develop an awareness of experts on the company's products in various areas within the company.
3. It arranges and conducts meetings between potentially interested parties both within and outside the company and acts as a coordinator for gathering information which may have been collected across individual areas of interest.
4. It directs interoffice correspondence to all personnel with a known interest in a given subject.
5. It conducts oral discussions with various individuals to develop the appropriate means of studying future efforts on the part of the company in a given area of interest which has been referred to the Commercial Information Center.
6. It serves as a focal point of information for multi-client surveys. By informing all the groups within the company of a particular subject, it may make possible a consortium of support for an individual survey being offered on a multi-client basis.

A schematic representation of the flow of this type of information is shown in Figure 1.

Figure 2 indicates the basic functions which are performed in Cyanamid's Commercial Information Center.

First is the central product information.

Second is the collection of commercial intelligence from the sources indicated in Figure 1.

Third is the storage and retrieval of commercial intelligence by various categories.

Fourth is the analysis of the commercial intelligence available in the system. Where the material is not in the

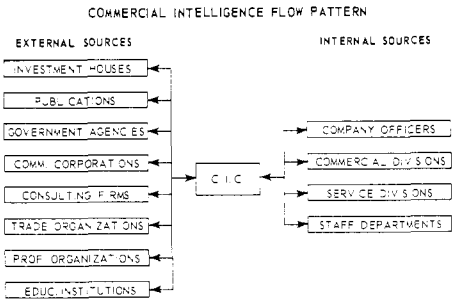

Figure 1.—Commercial intelligence flow pattern.

system, methods must be organized to get the desired information from the sources indicated.

Fifth is the dissemination of the commercial intelligence generated in the system.

Storage and Retrieval of Data.—We maintain four broad categories of information, namely: company, product, industry, and geographic area. These classifications are broken down as shown in Figure 3. We file into this system between 6000 and 7000 clippings and extracts a year. We also add about 1200 outside reports into our storage system. These might be broken down in decending order of volume in terms of:

Product and industry	Reference books
Annual reports	General economic data
Consumer market studies	Geographic literature

Obviously, all the information contained in Figure 3 cannot be obtained for every product, but it does indicate the information which we are searching for and which can be useful in evaluating other data in the future. It is therefore useful as a checklist in letting others know the kind of information that we desire.

In addition to notifying key personnel of the material for which we are looking, we also endeavor to keep our potential "consumers" within the company informed as to the detailed listing of our product, industry, company, and geographic files.

We have available in the library of the Commercial Information Center a book which indicates all such file

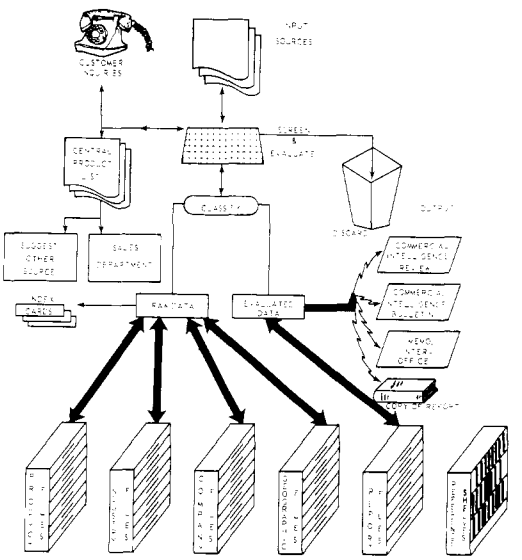

Figure 2.—Basic functions performed at the Commercial Information Center.

COMPANY	
Officers and directors	Plants
Corporate organization	Distribution system
Major products	Sales
Raw materials	Profitability
Processes	
Forecasts	
PRODUCT	
Processes	Plant cost
Capacities	Marketing patterns
	Sales
Production	Major customers
	End-uses
Technology	Prices
Forecasts	
INDUSTRY	
Products	Technology trends
Producers	Economic climate
Processes	Inter-industry patterns
Forecasts	
GEOGRAPHIC AREA	
Regional pattern	Transportation system
Population	Power availability
Raw materials	Major companies in area
Regional government	Technological development
Forecasts	

Figure 3.—Classification of information and breakdowns.

headings. Ideally, these headings should be updated and distributed to various key personnel in the company. However, lack of man power has not made this possible as frequently as we would like. In all these programs, we have to balance the dollars against the return to be expected.

The Commercial Information Center, being involved primarily in corporate operations, tends to have a broader range of material than any individual division could normally be expected to achieve. Therefore, commercial development personnel working within the operating divisions are frequent visitors to the Commercial Information Center. Their use of file headings can be quite useful in attacking their own commercial intelligence problems. For example, by studying our file headings, they know if a file has ever been established on a particular subject. A more detailed examination of the file may perhaps eliminate additional study or narrow the scope of additional market research work or other field surveys.

At the present time we maintain a deck of IBM cards indicating the products offered by Cyanamid or those of commercial interest to the firm.

We have not yet mechanized the input or retrieval of our raw data. We do maintain index cards for evaluated data which would include reports prepared by the Market Research Department and other reports received and held in the Commercial Information Center.

Dissemination.—The real purpose for which we exist is to provide rapid and timely access to commercial information. In order to provide this, the output of the Commercial Information Center is in the form of:

1. Commercial Intelligence Bulletins, which are generally spot flashes of information which would not be generally available to the personnel interested in the subject.
2. Commercial Intelligence Reviews, which are evaluated items of commercial intelligence containing a brief review of the background, the current situation, and estimated influence on Cyanamid business.
3. Copies of reports received in the Commercial Information Center, which are frequently circulated to personnel within the company for their action or information.
4. Memoranda and telephone calls, which are passed along to interested parties.
5. Preparation of special bibliographies and background files for use of the market analysts in the preparation of full scale market research reports.

Where supplemental information might be useful, additional interoffice memos are written and directed to the interested parties.

As part of our long-term effort, we have been working with our Data Processing Department to develop a system which would be suitable for retrieval of information on a company-wide basis.

Here, we visualize the use of a standard pattern for storage of information and a pooling arrangement whereby all groups within the company would contribute to the storage system, and these same groups could retrieve information without having to go through the Commercial Information Center itself.

Our Traffic Department, in generating its traffic movement studies, has outlined the Picadad system in developing considerable knowledge of freight rates at 20,000 locations within the country. Consideration is being given to the possibility of using these production sites as possible centers where material balances could be developed providing market research information or other commercial intelligence on a point-by-point basis. The inherent difficulties in this problem have not yet been resolved to our satisfaction. We expect a system such as this may materialize in the future. Again, we face the problem of dollars spent versus dollars returned.

As input techniques improve, it may eventually become possible to obtain information in a number of ways, one of which is through the use of microfilmed reports located at a definite address within the recovery system. Such microfilm reports can be extracted automatically, reproduced, and forwarded to the inquirer.

IBM has developed a system where approximately 1–2 million documents can be stored in the space the size of an office desk and retrieved by such a technique.

Looking well into the future, I would visualize that many of the external sources listed in Figure 1 should become available in machine-data form, and such data could then be fed directly into the system. For example, the Department of Defense study of the chemical formula may be a forerunner of the day when it may ultimately be possible to ask a central point for standard types of information on a day-to-day basis. However, we feel that the day is still far off where we will be able to walk up to a machine, specify five or six areas of interest, and obtain an answer to a request for a detailed analysis of the market potential of thermosetting molding products in Pittsburgh, Pennsylvania.