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People, Events, Techniques

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people, events, techniques

Mergers Still Increasing, Ernst & Ernst Tells Des Moines Group; Six Guiding Principles for Mergers and Acquisitions Listed

Even though glamor mergers aren't in the headlines the way they were several years ago, more companies are combining than ever before, Thomas J. Smith, Ernst & Ernst partner, told a client seminar in Des Moines.

According to some authorities, 1971 saw 25 times as many companies combine as did 1951. Ernst & Ernst's computer search file presently lists over 1,100 merger-inclined companies, the summer, 1972, issue of the firm's quarterly, *E & E*, reports.

The Des Moines meeting, *E & E* explains, was one of the activities of its merger and acquisitions group designed to give clients an over-

view of the salient points in buying or selling a business. The M&A group was originally brought together to serve the needs of small- and medium-size businesses.

Six foundation stones

The six foundation stones of merger and acquisition are planning, finding, evaluating, negotiating, financing, and integrating, explained Ernst & Ernst's Tom Smith to the Des Moines clients.

In the areas of planning, evaluating, and integrating, technical abilities not usually found within a small company are needed, said E&E's Bob Wesley.

"Any company going into a merger program should clearly spell out its objectives which should be derived from its overall goals and long-range plans, including desired rates of growth in sales and profits," Mr. Wesley said.

Sometimes the planning process uncovers business strategy options other than a merger. When a merger is indicated, planning can help to steer the company away from an unfortunate alliance, Mr. Wesley explained.

"Whether you're a buyer or a seller you should have a profile of your ideal partner," Mr. Wesley advised the E&E clients. "Here are some of the questions you

should be asking: How important to you is the calibre of the company's executives? Does management expect to continue in the company if you are the buyer?

"Or if you are the seller, does your management want to continue? Is the company's management philosophy compatible with yours? Should there be employment contracts and non-complete covenants?"

"You will certainly want to know production capacities, the age and condition of the equipment, and whether or not the facilities can be consolidated. You will want to know the engineering or creative talents of the company you are interested in buying. And if you are the seller, you will want to ask yourself if you have the technical know-how which would be especially attractive to buyers.

"You will want to know: Are the products competitive or complementary? Are they cyclical or seasonal? Are they used in some parts of the country or are they used universally? If their use is restricted, are they compatible with other products in the combined line? You also will want to identify the geographic areas making up the markets, and the compatibility of present marketing channels."

Meshing compensation

Integrating different compensation structures is an important phase of a merger, the Ernst & Ernst panel members pointed out. This would include pension plans, accounting policies, unions, and such fringe benefits as who is entitled to drive a Cadillac.

If a company has the necessary managerial and technical talent available, it can conduct an assessment of its merger plan itself. In the case of a large industrial company that was planning to acquire another, E&E's resources were used. Mr. Wesley explained, "Our team included industrial engineers, cost accountants, data processing technicians, marketing specialists, and personnel consultants. In short

order we developed a detailed profile of the candidate company, which disclosed a group of products which couldn't easily be assimilated into the buyer's product line . . . and there were some incompatible production facilities . . . it was enough to cause the buyer to back off."

Clark K. Sprinkle of Ernst & Ernst's national mergers and acquisitions group said, "There are now more clients who are thinking about expanding by way of a merger than most people realize."

Michigan County Actively Solicits Polluting Firms

Polluters — Muskegon County, Michigan, wants you! If you are in food processing or agricultural chemical production and the local authorities are on your trail because you are polluting the environment, just relocate your plant in Muskegon County.

"We know that from Maine to California both agricultural chemicals and food processing operators are being harassed by increasingly stiff ecological guidelines," said James S. Russell, executive director of the Muskegon Industrial Expansion Commission (INDEX), a privately sponsored area development group. "We, therefore, believe that Muskegon County's open invitation for such companies to participate in our spray irrigation system will be greeted with enthusiasm, and early indications suggest exactly that."

It seems Muskegon has developed a water-borne waste disposal system that has been commended by President Nixon as a "pioneering work" in the field.

Muskegon is using a spray irrigation system which uses the soil as a "living filter." The system uses food processing agricultural chemical waste products as nutrients for the growing of crops.

According to the Muskegon development group, "The system is

based on several widely used processes, which have not previously been integrated for the purpose of waste disposal. Waste water from the urban areas of the county is piped away from the shoreline to a suitable location inland where it is given the equivalent of conventional secondary treatment.

"After storage and disinfection, the water, with its abundance of nutrients, is spray irrigated on a variety of crops. Passage through the 'living filter' of the soil purifies the water before it is collected in an underdrainage system, monitored to assure that it meets drinking water quality standards and discharged to the surface waters of the County to augment low flow. A closed system, total management approach is attained."

Virtually all food processors can be "plugged into the system," the Muskegon group says. The first spray irrigation equipment will be installed within the next few months and the whole system will be operational in calendar 1973.

An information package, "Opportunities for Foods and Agricultural Chemical Processors in Muskegon County, Michigan," is available without cost from Department A, Muskegon Industrial Expansion Commission, 1111 Fourth Street, Muskegon, Mich. 49441.

In Muskegon they don't let waste go to waste.

Many respondents to a recent MANAGEMENT ADVISER survey protested that the Business Reply envelopes they were asked to return the questionnaires in wouldn't accommodate the survey form. The reason is that the survey sample was very small, and it didn't seem wise to order special Business Reply Envelopes for such a small study. As some exasperated but patient readers found, the Questionnaire would fit into the envelope provided it was refolded.

New Service Promises Screened Job Resumes Within Two Hours

Two hours after an executive job opening arises, a new service can provide 10 to 20 screened resumes of candidates to fill it. Executive Register, New Canaan, Conn., says it is able to offer this service by combining the computer, telecommunications, and its staff's screening experience.

Executive Register's Data Bank System is presently serving the New York City and San Francisco metropolitan areas. However, the firm expects to expand its service to Chicago, Los Angeles, and Dallas by January 1, 1973. Other cities will be included after that date.

The way the Data Bank System works is an employer calls Executive Register and gives it the qualifications he is looking for in a job candidate.

Executive Register then uses its computer to scan the 10,000 resumes it has on file which are coded with 164 different characteristics. After the computer selects potential candidates' resumes, a staff member reviews the resumes to pick out those most suitable for the job opening. Then an appointment with the employer is made and an Executive Register representative brings him the screened resumes without the candidates' names or addresses on them.

After the employer reviews the resumes and determines which ones he is interested in, the Executive Register representative uses a Xerox telecopier to get the names and addresses from his firm's data file.

The cost to the employer for using the data bank service is \$50 per resume he finally selects, with a minimum price of \$350. If none of the resumes interest him he pays nothing. The candidates listed with Executive Register never pay a fee, the firm states.

Executive Register claims that

when an employer advertises a position there is no way to know in advance what the ad will produce. "The direct cost of a mid-to top-level executive opening can range upwards to several thousand dollars, and the average cost for each 'on target' resume you receive can be several hundred dollars. In addition, your time and trouble in screening all these ad responses is certainly worth something," the Executive Register states.

The firm handles positions in the \$15,000 to \$100,000 plus salary range. From 60 to 70 per cent of its listed executives are employed but have expressed an interest in changing positions. These executives come from all over the world, an Executive Register official said.

Flood Victims Hear Microfilm Should Be Kept Wet to Lab

When flood waters drench your microfilm business records, what do you do? Keep them wet — until you can get them to a lab, is Eastman Kodak's advice.

Kodak told its microfilm customers who suffered this summer's flooding that they should bring their drowned records to one of its business systems markets division's laboratories as quickly as possible, and, in the meantime, soak them.

Hosing down cargo

"One Pennsylvania plant sent its film to New York via truck with the driver stopping every several miles to hose down the cargo," explained Ted Montuori, manager of processing services. "But total immersion in a clean container is the recommended procedure."

Another company transported its flooded microfilms to Kodak in clean plastic garbage pails filled with water.

"Speed is the most important



Eastman Kodak's recipe for protecting flood-damaged microfilm records until you can get them to a laboratory: "Keep them soaking!"

factor in salvaging soaked film. A long delay could mean the financial death of a company," Mr. Montuori said. "Because of this, we try to start returning rewashed film in less than 24 hours. Naturally, the extent of the damage, the customer's distance from the lab, and the amount of film damaged will affect turnaround time, but in most cases we've begun returning the damaged film well within this period."

The Kodak reclamation service was free to its customers, Mr. Montuori said. One flood victim took advantage of this service by bringing in 59 miles of his microfilm that had to be washed, dried, and respliced, all because of Hurricane Agnes.

— While Punched Cards Simply Swell Until Files Are Jammed

Did you know punch cards expand when they get wet? This is just one of the sad facts Todd Spare, general manager of Computer Utilities of Central Pennsylvania, in Harrisburg, found out when his computer center flooded on June 22.

Although the banks of the Susquehanna River were expected to

crest at 23 feet, the flood actually crested at more than 35 feet. Measured in more concrete terms, the water reached a height of one foot above Computer Utilities' IBM 360 computer.

The flood's toll in the facility included one IBM 360 computer, about 500,000 punch cards, and several metal file cabinets which had to be broken apart to get the wet expanded punch cards out. (In the flood-stricken area 17 IBM System/3s and three 360s were lost.)

Problem anticipated

"Several months ago we anticipated the need for a high and dry back-up file of payroll and general ledger master information," Mr. Spare explained. "In a meeting of the firm's executives, we decided that we would start doing this some day. Unfortunately, the some day that we needed it came before the some day that we did it. No flood insurance is available to us here because of our proximity to the river. Fortunately, because our computer is leased from IBM, their policies covered that cost."

It took 15 days with extra key-punch help to regenerate some of the source data that was lost. Computer Utilities is a licensee of Western Union Computer Utilities, Inc., so it was able to get duplicate software from WUCU's headquarters in Ft. Lauderdale, Fla.

Housed in client space

CU's computer replacement was installed in temporary space provided by one of the firm's clients, Harrisburg Dairies. The dampness has to dry out completely before the computer can be placed in CU's own office.

Despite this natural disaster, CU's eight clients had their payrolls on schedule. Some quarterly reports due shortly after June 30 were delayed, but service to two clients was not affected at all, Mr. Spare said.

Special Programs For Disadvantaged Improve Work Record, Study Says

Specially designed company programs for disadvantaged workers have helped to keep them on the job, a Conference Board study finds. Companies supplying special training and support programs for their disadvantaged employees tend to keep between 40 and 50 per cent more of these workers than firms that treat them simply as regular workers, the study states.

The experiences of 2,300 companies in hiring the disadvantaged were recorded by The Conference Board research team during 1970 and 1971. The study's findings were released in June of this year under the title of *Employing the Disadvantaged: A Company Perspective*. Funds for the study came from The Conference Board and the U.S. Office of Economic Opportunity.

"Disadvantaged" defined

The Conference Board used the National Alliance of Businessmen's definition of "disadvantaged workers." These are "poor persons who do not have suitable employment and who are either (1) school dropouts, (2) under 22 years of age, (3) 45 years of age or over, (4) handicapped, or (5) subject to special obstacles to employment."

According to The Conference Board researchers, "Those companies providing informal on-the-job site training as their only form of special training retained about 50 per cent of their trainees. Where OJT was supplemented by training programs off-the-job site, such as work-study programs or vestibule training, median six-month retention climbed to 58 per cent; and where off-the-job training was used exclusively, the companies reported retention climbing to 67 per cent."

Even though the blue collar jobs offered the disadvantaged paid

more than the white collar jobs (such as clerical, secretarial, sales, public contact, and technical jobs) did, the retention for white collar jobs was found to be higher.

The study pays special attention to the role of the National Alliance of Businessmen, a joint business-Government effort that was started in 1968. According to President Lyndon Johnson's statement then, the NAB's target was "to put 100,000 men and women on the job by June, 1969, and 500,000 by June, 1971." The organization has not been phased out and the number of jobs needed is now seen as 3.5 million, The Conference Board observes.

Hiring new emphasis

The study found that the NAB "today is much more oriented to improving the results of hiring and training the disadvantaged than to 'selling the corporate way of life.' The client group it serves in business is no longer chief executives, but personnel, training, and minority employment staffs. Yet NAB is still largely the lean, largely amateur, sales-organization that Henry Ford II put together in 1968."

Over the past three years the NAB's influence has been negligible on those companies that never before hired the disadvantaged, the researchers found. However, the NAB was successful in getting companies with previous experience in employing the disadvantaged to hire larger numbers of them.

According to The Conference Board, the NAB's most significant accomplishment has been the creation of a widespread belief among businessmen that companies must take care of the special needs of the disadvantaged. The study states, "Whether or not they individually felt special programming to be a legitimate business concern or not, the vast majority of executives interviewed saw such programming as an accepted part of doing business today."

Although the NAB's training programs were intended to "break the back of hard-core poverty," participating businessmen have come to realize that solving the problems of the unemployed and the marginally employed is a long, difficult, and risky enterprise.

"Employing the disadvantaged, moreover, is not tantamount to typical business problem-solving in that once the problem is identified it may be 'handled.' If an individual's punctuality or attendance problems trace to an inability to tell time, the company can teach him to tell time, or even buy him a clock. But if they stem from family circumstance and responsibilities—as they often do—they are less amenable to change. Also, it is questionable whether companies would want to get involved in these 'personal' matters. Companies are learning to cope with what cannot be changed," The Conference Board observes.

Employing the Disadvantaged: A Company Perspective is a 76-page study available from The Conference Board, 845 Third Avenue, New York, N.Y. 10022. For non-associates the price is \$17.50, for associates and educators, \$3.50.

Business Techniques Could Help in Social Problems, Executive Says

By the year 2000, a more people-oriented society can be created if we apply some of the managerial procedures used in operating a successful corporation, Fletcher L. Byrom, board chairman of Koppers Company, Inc., Pittsburgh, Pa., predicted.

Mr. Byrom's prediction was made at the 30th Anniversary Conference of the Japan Management Association, held in Tokyo, Japan, on June 7.

A universal human problem, such as the demand for improving the environment, could be solved

by using the five steps that comprise his company's management procedure, Mr. Byrom said.

Step one is to determine where we stand at this point in history. In the case of pollution, the problem has developed from unpleasant to desperate, Mr. Byrom observed.

Determining the mission of the organization is step two. Although everyone wants to improve the environment, comparatively few people are willing to pay their share of the cost, the Koppers official said.

The third step is to translate the statement of mission into measurable objectives. Mr. Byrom explained, "We are approaching the day when we can design all of our social programs in terms of our investment potential: that is, to make certain that our limited pools of money and effort are fed into those programs that offer the best long-term advantages for their beneficiaries. We must be receptive to the notion that we can apply numbers where, before, numbers made no sense."

Multinational possibilities

Step four is to create an organization that can accomplish those measurable objectives. A prime factor for good in shaping the world's destiny may be the multinational corporation, Mr. Byrom suggested.

Step five in Mr. Byrom's plan is setting up a sensing system that will tell us whether we are really making progress. "When I speak of a sensing system, I refer to something that will detect advances and setbacks more accurately than ever before—and more quickly," he explained.

Mr. Byrom said he foresees "The Human Century," a period that will produce greater personal dignity, more equitable distribution of resources, greater influence of non-material values, and a limited sacrifice of national sovereignties to provide better worldwide conditions.

"The urgent necessity to preserve

our soil, air, and water dictates that we sacrifice some of our separate sovereignties for the general good . . . something like the tentative understanding reached in 1971 by representatives of Japan and the United States at the ministerial conference on environmental pollution. Such conferences demonstrate how nations can work together without undue sacrifice of sovereignty," Mr. Byrom stated.

Traffic Manager's 'Isolation' Hurts Firm, Consultant Says

The traffic manager is an "isolated man" in many organizations. His exclusion from the company decision-making process results in sizable potential profits that are never realized, writes Robert M. Sutton, a director of Drake Sheahan/Stewart Dougall, Inc., management consultants, in his firm's newsletter.

"Ironically, the most common penalty paid by companies which sequester their traffic departments is the penalty of paying too much for their transportation," writes Mr. Sutton. Transportation expense is typically the third or fourth largest expenditure by the firm, a highly visible item on the P&L statement.

"So, the traffic department is charged with holding the expense to its absolute minimum—by a management which quite frequently does not realize that high transportation costs are often the result of conditions over which the traffic department has little or no control because of its characteristic isolation from the company decision-making processes."

A typical situation in which the traffic manager is frequently left out when he should be included in company planning is the selection of a site for a new plant or distribution center, Mr. Sutton says. After the fact, the traffic depart-

ment is given the task of setting up transportation arrangements.

In the case of one housewares manufacturer, the new site was outside of the city's free switching limits, meaning an extra charge for each carload of freight that moved in and out of the plant. For more than a year, while negotiations with the Interstate Commerce Commission were going on, the housewares company had to pay for its mistake of not calling in its traffic manager at the outset.

Another example of a company that paid for not consulting its traffic manager, Mr. Sutton points out, was a chemical company that claimed a "100 per cent customer service standard." In some instances this resulted in the cost of transportation exceeding the value of the shipment.

Mr. Sutton complains that "traf-

fic departments spend a great deal of time putting out brush fires" and very little time on organized research into new transportation technology. Too much of the typical traffic department's time is spent on fighting rate increases proposed by the carriers.

As Mr. Sutton sees the situation, "by the time the increase is ultimately approved, their [the carriers'] losses on the traffic in question have been such that they find it necessary to propose another increase. And the cycle continues, with shippers and carriers alike committing an inordinate amount of time and effort to an activity which provides little lasting benefit for either."

The consultant believes major transportation changes are "in the wind." Some of these are containerization, intermodal transportation

systems, sophisticated shipper information and control systems, and greater use of air freight on a regular basis.

"The Interstate Commerce Commission is increasingly attentive to shipper-carrier cost sharing—the premise that the shipper who develops systems that will enable carriers to save money is entitled to share in those savings through more favorable rates. Then, too there is talk of deregulation, which for many shippers could create a crisis of major proportions."

The traffic department should be adequately staffed and budgeted to deal with these changes, Mr. Sutton advises. The traffic department should also be fully involved in company decision-making, he urges, because traffic is an area which offers opportunities for cost reduction and profit improvement.

For the Executive in Finance—

Subtle Problems—Human Error, Accidents, Responsive Controls—May Be

The Most Critical for EDP Installation, Says Diebold Executive

Companies that effectively use EDP find their vital business information subject to new and extraordinary risks, Theodore J. Freiser, senior vice president of John Diebold & Associates, management consultants, observed recently in New York.

"Most press accounts highlight the bombings and bomb threats, the embezzlements, thefts of information, and lawsuits that center around computerized information and EDP facilities. Actually, the problem of security of key business information is much broader, including human error, accident, and responsive controls for an EDP environment," Mr. Freiser said.

In the case of a major retailing organization, an audit of the EDP security of each division found that critical information was highly vul-

nerable in three areas: physical, procedural, and software security.

In the physical area there existed: easy access to the data by unauthorized personnel; no procedures for deciding who should have access to the data bank; no computer back-up arrangement; and an unprotected tape library.

In the procedural area, there was no protection from employees entering spurious data or establishing fictitious accounts. There was also no control over additions or changes to the data base or programs.

In the area of software, security was weak because there were no effective error detection routines and no effective input control.

Mr. Freiser suggests that management should consider when evaluating its data security what

inherent risks exist. Risks from internal and external sources should be defined. Potential vulnerability to these risks should be established, and an estimate of the cost and business implications of the materialization of the defined risks should be made.

Management should also evaluate the level of security that currently exists, taking into consideration the current security safeguards, their effectiveness and cost.

Finally, management should determine the practical opportunities that exist to reduce the vulnerability to risk from identified potential internal and external hazards. This would include estimating the cost implications of measures to increase security in relation to their reduction of vulnerability to risk. It would also mean developing a time-

phased implementation plan specifying action, personnel, and equipment required to improve security.

The Diebold Group recommends that the amount of the security budget spent on a system element be correlated to the probability of the loss. High value elements, elements where the loss is not likely but if it occurred could be devastating, should be protected, Diebold advises.

New York Bank Shows Software System for Financial Forecasts

The First National City Bank of New York (Citibank) unveiled COMMAND II, a software program that uses forecasting techniques to project financial statements for a business, in late July.

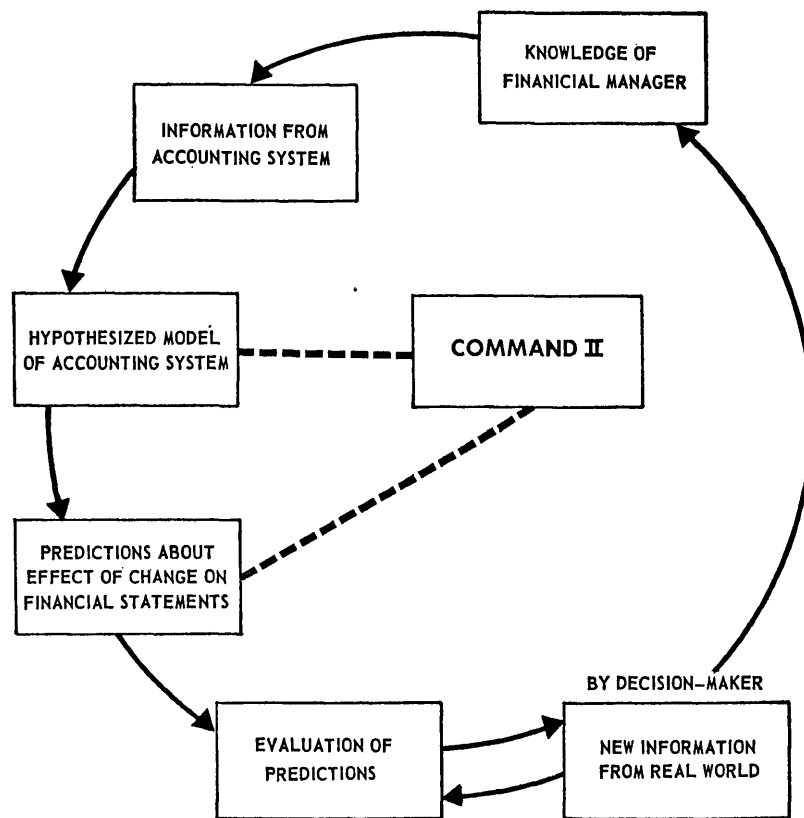
The program is not available to consultants since it is the property of Citibank which has its own internal consulting group, the Financial Consulting Unit of the Information and Advisory Services Group of the bank.

Ironically, the announcement of the bank's new software system came less than two months after Marvin Stone, chairman of the AICPA's committee on the nature of accounting services, had warned a CPA audience in Dallas that banks are becoming potent competitors of CPAs in providing services traditionally performed by accountants. (See M/A, July-August, '72, p. 5 and p. 49 this issue.)

The new COMMAND II system allows a number of forecasting techniques to be used projecting the financial demands of a diversified business, according to bank spokesmen. It makes it possible for company management to weigh the effect of financial policy alternatives on future accounting statements, Citibank said.

COMMAND I, the new system's predecessor, was originally designed for First National City's own

SCHEMATIC REPRESENTATION OF THE SIMULATION TECHNIQUE OF COMMAND II



Schematic depicts closed loop basis for COMMAND II.

management, but its principles proved so valid that it was later marketed to about 40 other firms, including one of the bank's chief competitors.

The designers believe the new system is so much more powerful than its predecessor that it can be marketed to a much greater number of companies for their own financial guidance.

As many as 24 projection methods can be applied to 400 individual components involved in a complicated forecast. Projected financial statements are tailored to the accounting nomenclature of the product line, division, or profit center under analysis and can be limited to print only the essential portions of the total accounting framework.

Besides the financial management of companies, other subscribers include some investment banks, which often use it to judge the future profitability of a company.

Evaluating merger possibilities

It is also extremely valuable in weighing the wisdom of proposed mergers and acquisitions, Citibank said, citing one instance where it had proved quite conclusively to one company management that its firm's profitability would be greater if it grew at a rate of 5 per cent a year rather than 10 per cent as it had originally planned to do.

The COMMAND II system, which is available anywhere in the country over local phone lines, can, if used properly, make it possible

for financial officers to have a significant effect on a company's earnings per share, Citibank said.

According to Citibank officials, the new system provides data "for use in forecasting working capital requirements, scheduling overall cash flow needs, evaluating budgets, analyzing capital structure requirements and shaping dividend policy, planning and control of divisional performance, evaluating consistency of internal forecasts, analyses of product lines, and calculations of breakeven on price and volume for specific product lines."

Cost of the basic service is \$2,500 a year, and computer costs are additional. The actual computer application is handled by Applied Logic Corp., Princeton, N.J.

Facilities Management Relationships Good, Says ADL Newsletter

Most facilities management relationships appear to work well, despite the many caveats attached to these contracts, observes ADL Systems, Inc., Boston, in a recent company newsletter.

Facilities management, the contracting out of a company's computer operations (see M/S, Sept.-Oct., '70, p. 41), is now better than a \$200 million market, ADL estimates.

ADL Systems, the software subsidiary of Arthur D. Little, Inc., is involved in various facilities management agreements. A company spokesman said that the future thrust of the company will be in this area. Its newsletter's observations on the field were drawn from company experience and a questionnaire sent to facilities management users and potential users.

The prime requirement for successful user implementation of facilities management is, according to ADL, the user's willingness to turn over complete control of the

activities to be managed to the outside firm. This includes the power to hire and fire EDP department staff. In the case of companies spending \$1-5 million on EDP annually, successful implementation can mean a cost savings that exceeds 25 per cent, the firm says.

ADL finds that the initial company decision to investigate facilities management is often based upon frustration, usually resulting from a "cumulative dissatisfaction with the results of in-house EDP efforts." Facilities management offers these companies general improvement in operating performance, substantial cost reductions or controls, "permanent solutions" to chronic internal problems, or "temporary solutions" to problems requiring immediate attention or specific types of skills, ADL states.

Problems listed too

There are potential problems in facilities management arrangements, which the firm points out in its newsletter, even though it obviously is in favor of the service.

Some of these problems are: the potential conflict arising from the coexistence of two staffs (the user's and the service firm's); lack of responsiveness by the manager to new user needs, partially because of poorly constructed contractual agreements; user vulnerability "to the imperfections and inadequacies" of a management firm.

Other problems listed by ADL were: overcommitment by the facilities manager; improper preparations by the user, i.e., shifting priorities for the computer installation.

ADL believes that the unwillingness of the user to accept the shift of responsibility from him to the management firm is another problem in facilities management arrangements. "This is at the heart of the service, and a user contemplating such a move must accept a shift in control as a principal fact," the newsletter says.

Opponents of facilities manage-

ment view this same issue as an essential problem of these arrangements, but view it differently. Some businessmen feel that a company's management is giving up control of the very heart of its organization when it allows a facilities management company to take full control of its EDP department (see M/S, Sept.-Oct., '70, p. 41).

ADL does say that facilities management is not for every computer user. "Like an old shoe, it must fit well or not at all," the newsletter concludes.

Too Much Economy Called Perilous In EDP Applications

Don't be penny-wise and pound-foolish when it comes to making EDP expenditures, is essentially the advice C. C. Rice of University Computing Company gave a meeting of the Six Flags Chapter of the Data Processing Management Association in Dallas recently.

The "dumb" way to reduce costs in an EDP installation is to "hire low potential people, use obsolete, unreliable machines, buy the poorest quality supplies, and house your operation in a cow barn," the general manager of operations for the southwest region of UCC's computer utility group explained. These methods might result in lower costs, but also in fewer satisfied customers.

High quality people, machines, supplies, and facilities offer many opportunities for cost reduction, Mr. Rice said. The number of job reruns can be cut and management is able to "effectively service customers with less total machines, labor, and supplies cost."

Obsolete machines seldom are able to use presently available plug-to-plug compatible peripherals, Mr. Rice pointed out.

Giving his company's service a boost, Mr. Rice said that "it is often less costly to buy high quality data processing from a com-

puter service firm rather than provide it within the company." He mentioned that one of his company's clients experienced effective cost reduction which resulted in savings of \$3,500,000 per year in areas of operations labor, machines, and supplies.

AMS Releases Two Surveys on Salary Levels and Turnover

The Administrative Management Association has released the results of two of its personnel surveys, the Annual Salary Survey and the Biennial Turnover Survey.

According to the AMS salary survey, the average clerical worker in the United States is now earning \$117 per week, which represents a 4.5 per cent increase over last year's average weekly rate of \$112. The average weekly salary for the seven data processing jobs in the survey is \$145, or a 6.6 per cent increase over last year's average of \$136 weekly.

In Canada, the average clerical worker earns \$107 per week, an increase of 12.6 per cent over last year's rate of \$95. The Canadian average weekly rate for the data processing jobs surveyed is \$125, a 7.8 per cent increase over last year's \$116 rate.

The turnover rate for office workers in the United States and Canada in 1971 was 19 per cent, a decrease of 7 per cent from the findings of the last turnover survey conducted by the AMS in 1969.

Complete survey results have been sent to the members of the Administrative Management Society. Others interested in the society's *1972-1973 Directory of Office Salaries for the United States and Canada*, a 40-page publication, may purchase it for \$30 a copy from the AMS Personnel Division, Willow Grove, Pa. 19090. The AMS's turnover report is available only to its members.

Communication, Decisions Stressed in Three Films For Executives, Trainees

The fundamental skills required to make effective business decisions are reviewed in a three-part film series designed for managers and management trainees by Roundtable Films, Inc.

The three films included in the "Executive Decision Making" series are: "I'd Rather Not Say," about how to gather needed information and overcome communication blocks; "The Uncalculated Risk," on how to evaluate data gathered; and "The Making of a Decision," a realistic process for decision making.

The six-hour film package may be rented for \$135 a week or purchased for \$1,120. The films may be obtained for preview, but not training purposes, for \$45 for three days' rental. Additional information may be obtained by writing Roundtable Films, 113 North San Vicente Blvd., Beverly Hills, Calif. 90211.

First Two Units of 'Poor Man's MIS' Are Now Available

The first two modules of a "Poor Man's MIS" series are now available on Interactive Marketing Datasystem's timesharing network. The two management information programs are called RISK and SALES.

RISK uses Monte Carlo simulation to compute return on investment, profit margin, and profit for new ventures such as acquisitions, new products, new business prospects, etc. Outputs from the program include distribution analyses, risk profile graphs, and sensitivity analyses which identify the factors most likely to affect ROI and profits.

SALES analyzes selling performance of the entire sales force and the individual salesman. For each salesman billings, per cent of forecast achieved, and expense billings ratios are computed. Comparisons to last year's and last month's performance are made and projections for each of the next three quarters and for the end of the fiscal year are computed.

There is a one-time charge of \$250 for RISK and a one-time charge for SALES of \$320.

IMD plans to add other programs to its service so that module by module its management information system will be developed. The program packages are available from IMD, P.O. Box N, Palos Verdes, Calif. 90274.

IBM Shows 'Virtual Storage,' Raising Capacity of Models

Just in case someone hasn't heard, IBM has unveiled its System/370 virtual storage in its new Models 158 and 168.

According to IBM: "A System/370's virtual storage is created by circuitry and advanced control programming that link slower but less costly disk storage to main storage. During processing, only the active sections of each program need occupy space in main storage; the rest are stored on the disk and are automatically moved into main storage for processing when needed."

The net effect, according to IBM, is to make the System/370 appear to the user as if it had up to 16,000,000 characters of main storage, which is, in fact, many times its actual capacity. Maximum storage size for a System/370 is 4,000,000 characters.

Virtual storage will also be available on IBM's previously announced smaller-scale Models 135 and 145.

First shipments for the Models 158 and 168 are scheduled for the second and third quarters of 1973.

New Medicare Regulations Pose Potential Cost Problems For Hospitals, LKH&H Partner Warns

The new Medicare regulations for hospitals with more than 100 beds will, in effect, reduce the total Medicare reimbursement for the majority of these hospitals, writes Darwin W. Schlag, Jr., in a recent issue of *The LKHH Accountant* and the April, 1972, *Hospital Progress* magazine.

"Hospital management can best assure that the effects of the new Medicare regulation will not be unduly severe by critically reviewing the hospital's accounting and cost-finding methods as well as its pricing structure," advises the Laventhol Krekstein Horwath & Horwath partner.

"Hospital management should know how its pricing structure relates to costs for at least those items which account for the bulk of the income within each of the revenue-producing departments. To not be aware of this information is to do a grave disservice to the institution by possibly permitting under-reimbursement," Mr. Schlag warns.

The new Medicare regulations eliminate any Government participation in costs attributable to the hospital's maternity complex. Mr. Schlag fears that this may portend the setting up of each nursing service as a separate department and reimbursement on a departmental basis.

One of the options available in the original plan was the so-called "combination method" which permitted the hospital to apportion part of delivery room costs to Medicare costs. This resulted in higher reimbursement to the hospital than would have been obtained under the individual department allocation. This combination method has been rescinded as of January, 1972.

Because pediatric and maternity divisions have relatively lower oc-

cupancy, they have higher per diem costs than do the medical and surgical divisions. "If hospital management is not allowed to average these high-cost nursing centers with the lower-cost nursing centers for Medicare purposes, the result will be a financial loss," Mr. Schlag reasons.

If reimbursements do become tied to costs, it will be necessary for the hospital to know where losses will occur before the end of the fiscal year, he writes.

"The object is to recognize the known and potential trouble spots early so immediate action can be taken to forestall problems. Many steps can be taken in this respect, but they can and should include cost analysis based on the budget before the fiscal year begins and periodic interim cost analyses as the year progresses," Mr. Schlag states.

He concludes by saying many problems in the hospital financial field can be overcome with early identification of potentially troublesome areas.

Shirt-Pocket Calculator Can Perform Complex Engineering Functions

A shirt-pocket-sized calculator that has the problem-solving power of a desk-top calculator has been introduced by Hewlett-Packard. The HP-35 weighs nine ounces and performs logarithmic, trigonometric, and mathematical functions with a single keystroke.

The HP-35 has an "operational stack" of four registers, plus a memory register for constants. The stacks hold intermediate results and bring them back for further processing when necessary.

A single keystroke tells the calculator to: add, subtract, multiply, divide, find square roots, $\sin X$, $\cos X$, $\tan X$, $\arcsin X$, $\arccos X$, $\arctan X$, $\log_{10} X$, $\log_e X$, e^x , x^y , $1/x$, or π . The calculator displays up to ten significant decimal digits and automatically positions the decimal point, within the range of 10^{-99} to 10^{99} .

The HP-35 pocket calculator is priced at \$395.

Tennessee Puts All Narcotics Patient Records On Computer

Tennessee is applying automation to its narcotics treatment operations. The state's Department of Mental Health has awarded a contract to American Management Systems, Inc., Arlington, Va., to develop a patient service information system in support of Tennessee's methadone maintenance program.

The proposed system will automate new patient recording activities, drug handling procedures, and patient treatment procedures including patient identification and dosage records. Initially, the system will be used only in the narcotics area, but it will have the capability of expansion to include other patient services as future needs arise.

American Management Systems chairman, Dr. Ivan Selin, said, "The main problem faced by administrators of methadone maintenance programs is the requirement to maintain tight controls over methadone inventories—both bulk and measured doses—and on patient treatment schedules and records. This job can only be done effectively if sophisticated computer-oriented systems are developed to assist administrators in meeting the task.

"With the system we are developing for the State of Tennessee, responsible staff members will have

fast and effective methods of reaching information regarding every facet of their responsibility. This will ensure that the potential benefits to be derived from the treatment program are not offset by abuses or lack of responsiveness to the needs of the recipients of treatment services."

AMS has designed similar systems for the District of Columbia's Narcotics Treatment Administration and the State of Georgia's Narcotics Treatment Program.

Auerbach Publishes Minicomputer Guide For Small Business

For the consultant to small businesses whose desk is flooded with a myriad of minicomputer manufacturers' literature, Auerbach has produced its *Guide to Small Business Computers*.

The illustrated 139-page guide is priced at \$19.95 and is available from Auerbach Publishers, 121 North Broad Street, Philadelphia, Pa. 19107.

The guide includes reports and charts to aid in small business computer evaluation and selection. It contains reports that offer advice on how to decide whether a business really needs an in-house computer and, if it doesn't, the guide suggests less costly approaches to data processing.

Prices given also

A separate price structure section in the guide includes component prices and describes the financial side of vendor maintenance policies. Also included are: a point scoring system specifically developed for small business computers which yields the relative value, in computing power per dollar, of computers under consideration; a glossary of unfamiliar terms; and local supplier addresses and telephone numbers.

Eastman Kodak Introduces New Computer-Microfilm System Designed to Prevent Duplication of Work

Eastman Kodak Company is using a new computerized information system to keep its researchers from duplicating each other's work. The system utilizes microfilm to reference 40,000 of its scientific reports and more than 4,000 patents and selected literature references.

Six years ago, Kodak realized that it needed new ways of handling the ever increasing number and complexity of reports being published on a growing number of scientific subject areas. Years of company research had resulted in a large library of documents and, as the staff increased, the personal interchange of ideas and information became less efficient.

The new information system allows Kodak's report index and photographic patent index to interact with its research laboratories' automated chemical index and related data files, which contain structural information and physical data for 150,000 compounds.

Kodak's system employs computer output microfilm (COM) equipment that can be used by scientists or patent researchers to interrogate the system without the aid of a computer. This enables the workers to have a desk-top search system for a very large file of information.

According to the system's developers, Kodak's Robert W. Graham and Harry E. Roberts, COM was chosen because printing the patent indexes on paper would take more than 100 times longer than microfilm and would result in reams of paper, rather than two cartridges of microfilm. "We choose to use computer microfilm because of the time and cost savings, and the ease of distribution and use," Mr. Graham said.

Another factor, the system's developers did not give, is that Kodak makes microfilm products.

Each month the computer files

are updated and about 25 copies of the microfilms containing the Kodak Report Index and the Photographic Patent Index are distributed. This permits Kodak's researcher to scan the indexes with only a microfilm reader. In addition, for more complex questions, the system also has a computerized search capability.

Kodak's method of indexing patent literature and research reports is based on four principles:

1—The indexers employed are technically trained and familiar with the scientific subject matter covered so that they can recognize important concepts and relationships regardless of how the document is worded.

2—To obtain a high degree of consistency in the descriptions, accessing index terms are taken from a controlled thesaurus of precisely defined words and relationships.

3—Descriptive words are characterized by role, to indicate the context in which they appear in a particular document. If the word is categorized as role two it indicates that the reference contains a particularly good state-of-the-art review of the subject; role three means the document describes a way of manufacturing a product.

4—Important chemical compounds in each reference are indexed using a topological representation and a chemical fragment coding system.

Anywhere from ten to 100 descriptive words can be used on a single patent by an indexer.

The indexing and bibliographic data are keypunched and put on a computer tape so that they can be processed to yield microfilm listings. The listings include work done by Kodak's laboratories in Rochester, N.Y., Kingsport, Tenn., Harrow, England, and Vincennes, France.