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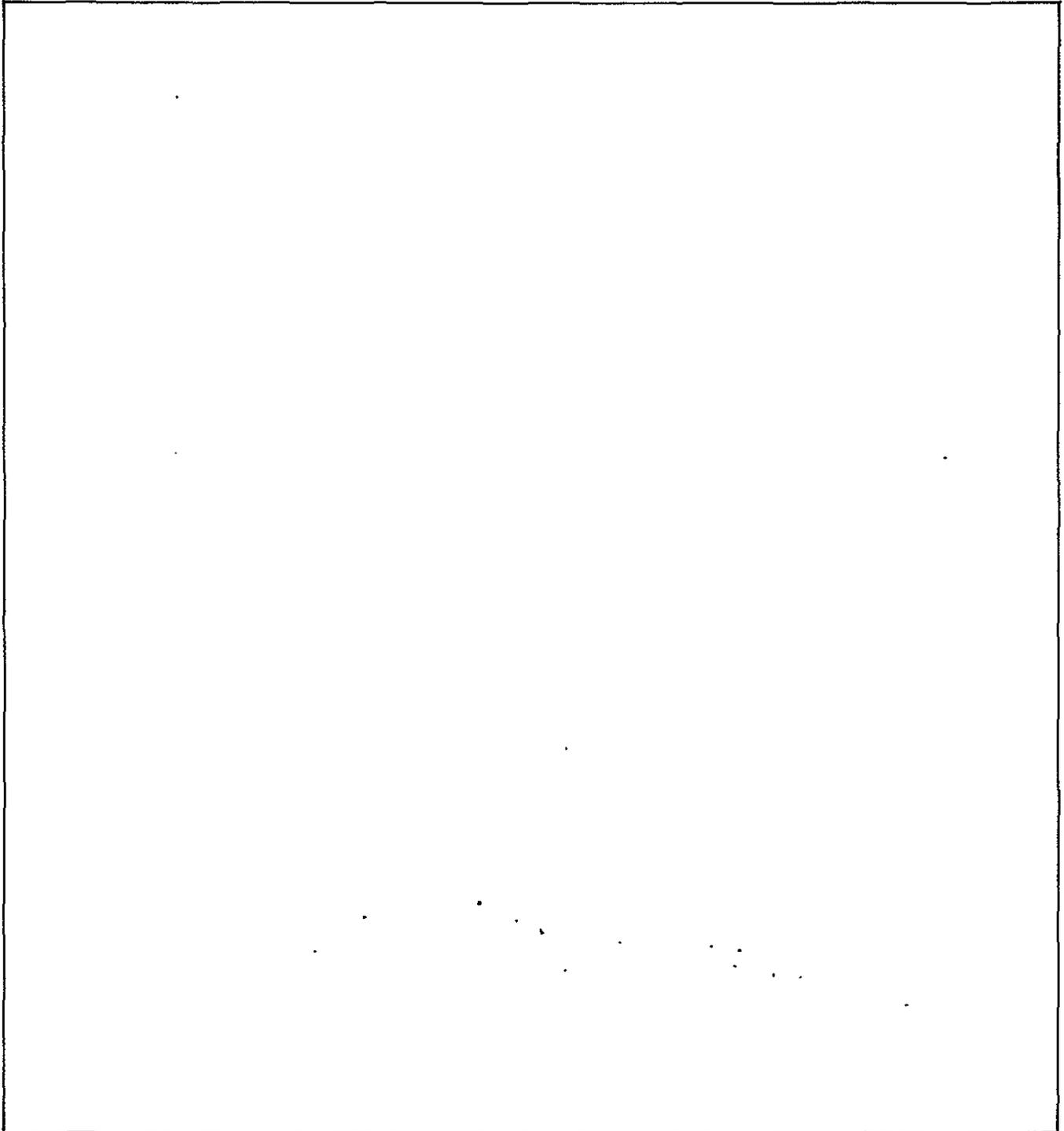
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MIDDLE MANAGEMENT FOLLOW-UP PROGRAM
POST-ACTIVITY REPORT

Contract No:
AID/NE-C-1700 (Egypt)

October 1980

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The first seminar of the Middle Management Follow-Up Program (MMFP) was held on September 12-14, 1980, at El Salam Hotel in Heliopolis, Cairo. The focus of the seminar was on "financial planning and control, accounting and management information systems." A few weeks in advance of the seminar, each participant was asked to prepare a statement of managerial issues of concern to him/her. These statements were collected on the evening of September 12. Exhibit I shows these issues classified by seminar topic.

To make the seminars as relevant as possible to the Egyptian business environment, the issues stated by the participants were used as the bases for discussions during the first seminar. The second and the third seminars will evolve around the particular issues shown in Exhibit I.

The first two-day seminar opened on the evening of September 12 with a general meeting for all the participants. The purpose of the meeting was to welcome the participants and to make sure that they had received the seminar materials mailed to them from the U.S. Following the meeting, dinner was served. Mr. Niazî Mostafa and Dr. Adel Gazarîne delivered speeches to the group at the end of the dinner on behalf of the Joint Egypt-U.S. Business Council (JBC).

For the sessions on September 13 and 14, the participants were divided into three groups. This was done mainly to achieve manageable group size for

discussion purposes. In addition; it provided some degree of homogeneity within each group. The four cooperating Egyptian faculty were teamed with the four American faculty. As a result, three faculty teams were formed. Each faculty team conducted three daily sessions (one session for each group of participants). The sessions lasted for two and one half hours each. The addition of the Egyptian faculty enhanced the local environment emphasis of the seminar.

Although SIU-C faculty prepared nine case situations for possible use in the seminar, only two were actually used. Namely, "The Volkswagen New Stanton Project" and "The General Company for Trucks" were used. The nine case situations were mailed to the participants in advance of the first follow-up meetings. Exhibit II shows the nine case situations.

Seminar Participation

Response by the Middle Management Education Program's (MMEP) participants to the first follow-up seminar was very encouraging. Sixty-eight participants, or 71 percent of the 96 pilot project's trainees, showed up for the first seminar. Exhibit III reveals the names and companies (or organizations) of the 68 managers classified by the three discussion groups.

The supervisors' participation in the seminar, however, was very disappointing. Despite the fact that all the supervisors were invited to the sessions (see MMFP Pre-Activity Report), only three chose to attend. A different approach, discussed later in this report, will be used to encourage participation by supervisors.

The chairman and four members of the Egyptian section of the JBC participated in the activities at both the opening and closing of the two-day seminar. These were Mr. Niazi Mostafa, Dr. Adel Gazarine, Mr. Hussein Zaki, Mrs. Hussein Zaki, and Mr. Yehia Hafez. Dr. Gazarine and Mrs. Hussein Zaki are

also members of the JBC's Education Committee. This participation was very gratifying, and clearly demonstrated the interest and involvement of the JBC in the follow-up project.

The Site Visits

The objectives of the site visits were:

1. to evaluate the participants' attitudes and behavioral changes as a result of their MMEP training;
2. to evaluate the participants' approaches for improving their managerial effectiveness;
3. to evaluate the participants' on-the-job performance; and,
4. to help the participants and their supervisors in formulating strategies to achieve both personal and organizational development goals.

The first follow-up visits were to concentrate on banking and engineering industries. Out of the 14 MMEP participant firms from these two sectors, 11 were visited. Exhibit IV shows the names and positions of the supervisors interviewed and their companies. The four SIU-C faculty were divided into two teams. Each team of two faculty members concentrated on one sector.

To achieve the objectives of the site visits, a supervisor interview questionnaire was used to collect needed information. A copy of this questionnaire is shown in Exhibit V. As a complement, the participants were asked to complete a different questionnaire during the seminar, a copy of which is also shown in Exhibit V. The latter questionnaire contained some sections which were previously used during the participants' training in 1979. This should help in measuring changes in the participants' attitudes and behaviors as managers.

Analysis of the data collected has not been completed yet. The data have been coded in preparation for computer processing. The findings and

their implications will be reported to USAID as soon as a study of the data is completed.

During the interviews, however, most supervisors felt that their subordinates who participated in the MMEP have improved their interpersonal skills. This has made them better managers, thus, has improved their performance. Moreover, it became clear to the interviewers that managerial issues of concern to the supervisors generally were not different from those stated by the participants, as shown in Exhibit I. When an issue was raised by a supervisor during an interview, the faculty offered advice on how it could be resolved in a satisfactory way. In addition, the supervisors were urged to write to any member of the project faculty team concerning management related problems they encounter.

Conclusions and Recommendations

The first round of follow-up activities brought more than 70 percent of the MMEP participants together for two days. This reunion and the interaction which took place among the participants, the SIU-C faculty, the cooperating Egyptian faculty, and members of the JBC was of great value. First, it facilitated the exchange of management information among participants of specific industry sector and among participants from different sectors. Second, the seminar demonstrated that management training is a continuous process, and a management trainee should try to keep up with new developments in his/her field. Third, the seminar took the participants away from their jobs for two uninterrupted days and allowed them to reflect on their methods and effectiveness as managers.

Data were collected from the participants and their supervisors. When analyzed, these data will help the faculty in evaluating the participants' attitudes, behavioral changes, managerial effectiveness, and on-the-job performance.

The lack of participation by supervisors in the seminar's sessions was noted earlier. One way of encouraging such participation is to invite a number of supervisors to stay, full board, with the faculty and the participants in the seminar's hotel. This approach will be tried, subject to prior approval by USAID, for the second seminar.

Furthermore, most of the participants and the faculty felt that the seven and one half contact hours per day should be reduced. This is to allow for more informal interaction, which is an integral part of the seminar's activities. Thus, only six contact hours per day will be scheduled for the second seminar.

EXHIBIT I
ISSUES OF CONCERN TO THE
MMFP PARTICIPANTS

ISSUES OF CONCERN TO THE MMFP PARTICIPANTS

I. General

1. Bureaucracy in dealings with government agencies
2. Frequent changes in laws and regulations governing business activities and the planning function
3. Examples for setting objectives to a company and setting the policies and activities to fulfill these objectives
4. Feasibility studies (new projects)
5. The efficiency of holding companies in the Egyptian environment

II. Financial Planning and Control, Accounting and MIS--First Seminar

6. Incorporation of computerized systems in handling various banking activities
7. Lack of reliable statistics needed for forecasting
8. Control of working capital especially inventory
9. Determination of the right level of cash balances and guidelines to be used
10. Decision tree in capital investment decisions
11. Evaluation techniques for capital investments
12. Depreciation and financing equipment in the construction industry
13. Evaluation of new projects by banks for credit extension purposes
14. Management information systems
15. Supervision of accounting department's activities, e.g., books, projects' costs, income control and assets control
16. Determination and significance of cash flows.

III. Sales, Marketing and International Business Management--Second Seminar

17. Competition faced by banks since the adoption of the "Open Door" policy
18. Wide diversity among the different countries in the region due to their economic, social and cultural differences

19. Deficiency in available data making it difficult to carry out market surveys
20. Inefficient means of transportation and communication in the area
21. Insufficient international orientation of American businessmen (perhaps due to perviously having been concerned only with their local market). Perhaps this deficiency can be reduced by more frequent visits to the area so that they become more familiar with the market and the cultural background of the people.
22. The use of facilities offered by governmental agencies aiming at promoting exports to different western countries.
23. Financing imports for the private sector
24. Foreign exchange management
25. Establishing arrangements with correspondent banks to facilitate the handling of foreign transactions.
26. Investment of foreign currency surplus
27. Pricing, distribution channels and product mix--textile
28. Doing business with a foreign company--licensing, joint venture, etc.

IV. General Management, Interpersonal Skills and Motivational Techniques--
Third Seminar

29. Performance appraisal and evaluation in the presence of the following barriers:
 - a. inaccurate job description,
 - b. inaccurate system of follow-up, and
 - c. lack of efficient measures of work performance
30. Promotion problems--seniority versus efficiency
31. Conservative and liberal leadership. Which is more appropriate for management in a small firm or company?
32. List of issues: understanding people at work, control and conflict management, and relationships with the environment
33. Some aspects of managing change that can affect enterprises
34. Lack of coordination between different departments and the need for the application of a systems approach

35. Motivation
36. Career development and training
37. How to create a tight system to overcome the problem of low output per factory even with skilled persons but lack of tools, lack of maintenance, and lack of material as well as some other avoidable delays?

EXHIBIT II
CASE SITUATIONS

NASR TIRE COMPANY .

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NASR TIRE COMPANY
Inventory-Management System

In April, 1980, Mr. El-Shimi, manager of retail sales for the Nasr Tire Company, had asked the operations research staff to develop an inventory-management system that could be used by the company's service managers to control their inventories of tires, batteries and accessories (known in the trade as TBA items). Mr. El-Shimi knew that reducing inventory levels by more frequent reordering would put an increased load on the distribution system and perhaps be disruptive for operations. Larger inventories were generally frowned on by the firm's general manager, who considered excessive inventories to be unproductive assets. Mr. El-Shimi was interested in a rapid completion, test, and implementation of the system, since quite a few of the service managers were relatively new on the job and had not really developed a "feel" for managing TBA inventory under the existing system.

The existing TBA inventory system was not considered to be very effective by Mr. El-Shimi. Experienced managers would order TBA items, periodically, based upon their "feel" for demand. If new shortages occurred, they purchased TBA items from local supply stores. New managers were given a standard, recommended inventory list. Often, this list was not very appropriate for a particular store due to competition.

Overstocked items had to be returned to the central warehouse. However, if the item was received at the warehouse in a damaged condition, it was charged against the store's sales. Groups of stores constituted a sales division, which was supervised by a division supervisor. Damaged goods were also charged against division sales. Thus, the usual procedure for a division supervisor was to try to arrange for the transfer of overstocked and damaged

goods between the stores in his division. This was beneficial for both the store managers and the division supervisor. However, this procedure was highly inefficient from Mr. El-Shimi's viewpoint.

Mr. Guindi from the operations research staff, who was assigned to develop the TBA inventory-management system, decided to evaluate the use of the order-quantity/order-point (OQ/OP) system. The OQ/OP system is designed to indicate how many items should be ordered and when. This system would require each station manager to forecast demand, and then utilize tables to determine order quantities and when the orders should be placed. The concept of the OQ/OP system is illustrated in Exhibit 1.

ORDER QUANTITY (OQ) Mr. Guindi used the following formula for determining order quantity:

$$OQ = \sqrt{\frac{2DC}{MP}}$$

where D = annual demand in units

C = cost of reordering in dollars per reorder

M = maintenance cost, fraction per year

P = purchase price

REORDER COSTS Mr. Guindi wanted to make sure that reorder and maintenance costs were properly estimated. He interviewed the store managers and accounting supervisors, and found that reorder costs were fairly difficult to determine. He learned that certain variable costs were difficult to identify. The placement of an order by the service manager fell in this category. Mr. Guindi felt that this cost would be approximately 1 piastre per line item. That is, each size of tire was considered to be a separate line item. The number of items in a line ordered at the same time did not affect order costs. At the regional office, the clerical labor cost was estimated to be 20 piastres per line item. The computer time to process orders was determined by regression analysis to be 1.5 piastres per line item. Other direct labor costs were determined to be 37.5 piastres per lone item. No costs were associated with truck delivery, since the company-owned truck followed a fixed route; regardless of the items ordered or stores ordering. A summary of these costs is shown in Exhibit 2.

MAINTENANCE COSTS Property taxes were 4 percent of 70 percent of the purchase price. The cost of capital was 10 percent. The inventory of stores was insured by Nasr Tire through a master policy. Thus, no direct costs were available. However, the accounting office stated that insurance would be 1 percent of the purchase price. Obsolescence was determined to be 5 percent of the purchase price based on the national average. Finally, based on inventory turnover, average annual rent per square foot, TBA item volume and stacking properties, the storage costs were estimated to be 1 percent. These costs are summarized in Exhibit 3.

Based upon these reorder and maintenance costs, Mr. Guindi was able to develop an order-quantity table, which could be utilized by the store managers to determine the order quantity. This table is shown in Exhibit 4.

ORDER POINT (OP) Mr. Guindi assumed that, 95 percent of the time, the store would be able to provide a customer with an item from its inventory. The store with the longest lead time was used to establish the lead-time distribution. Based upon prices, and the probability distributions of demand and lead times for various TBA items, Mr. Guindi was able to develop a table for order points. This table is very similar in concept to the table in Exhibit 4; however, it is not presented in this case.

Mr. Guindi decided to test the system by using data from a store. He obtained the following data:

<u>Items</u>	<u>Price</u>	<u>Annual Demand</u>
Tires Size A	L.E. 20	240
Batteries, standard	20	84
Filters	3	240
Belt	1	120
Lamps	1	36
Tune-up kit	10	240

The above items, of course do not refer to all types and sizes of TBA items. For example, the first two items refer to just one particular size and type of tire, and one type and size of battery. For the items listed above, Mr. Guindi estimated that present average inventory to be L.E. 530. The total average inventory for all items in the store was estimated to be L.E. 11,897. Mr. Guindi was interested in calculating average inventory under the new system to see if he would recommend its implementation to Mr. El-Shimi.

EXHIBIT 1

Nasr Tire Company
Graphic Illustration of OQ/OP System

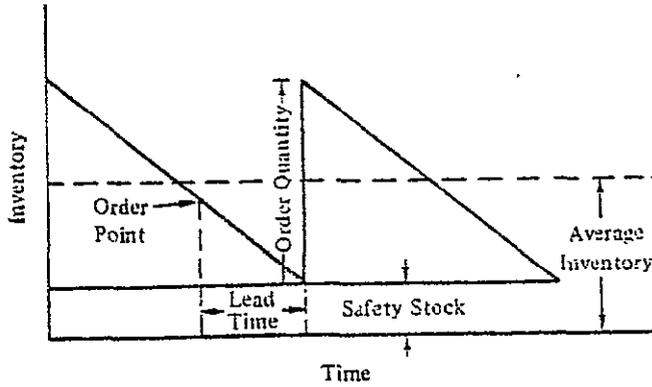


EXHIBIT 2

Nasr Tire Company
Summary of Reorder Costs

<u>Source</u>		<u>Costs</u>
	L.E.	
Store		.010
Regional Office		.200
Computer time		.015
Warehouse labor		<u>.375</u>
Total	L.E.	.600

EXHIBIT 3

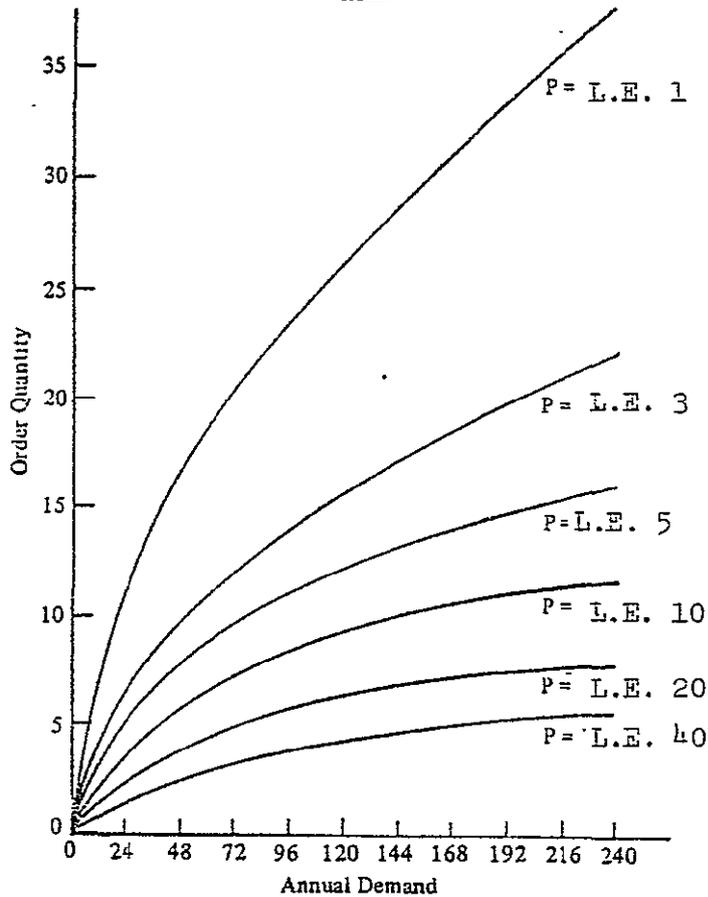
Nasr Tire Company
Summary of Maintenance Costs

<u>Source</u>	<u>Costs</u>
Taxes (4% of 70%)	3 percent
Insurance	1
Cost of capital	10
Obsolescence	5
Storage	<u>1</u>
	20 percent

EXHIBIT 4

Nasr Tire Company
Order Quantity Table

Reorder costs = L.E. 0.60; Maintenance costs = 20%



QUESTIONS:

1. For the first item on which Mr. Guindi obtained price and demand information-- tires--determine the order quantity and the number of orders the store manager will place for tires every year.
2. Mr. Guindi determined that for size A tires, based upon the distribution for lead-time and stock out requirements, six days of inventory should be carried as safety stock. How many tires would be in the safety stock, and what will be the average inventory for the size and type of tires mentioned in the case?
3. For the six items that Mr. Guindi used to test the OQ/OP systems, calculate the total average inventory in Egyptian pounds. How does this compare with the same cost, without using the inventory system? In use of the system justified?

ALEXANDRIA MANUFACTURING DIVISION

by

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ALEXANDRIA MANUFACTURING DIVISION

Financial Forecasting

Cairo Corporation had acquired Alexandria Manufacturing almost by accident. Cairo Corporation was basically a major manufacturer of industrial chemicals. In the early 1960's, Alexandria Manufacturing (then a privately held firm) had been one of Cairo's bigger customers, although it accounted for only 5 percent of Cairo's sales volume. Alexandria used Cairo's products to make a line of consumer goods which was sold through distributors. Due to eroding profit margins, Alexandria had experienced financial difficulty in 1965. Cairo did not want to lose this outlet for its product, so it bought Alexandria's assets and had been operating it as a division.

In an effort to make Alexandria a profitable operation, a new, modern, high-capacity plant had recently been constructed, adjacent to the old, fully-depreciated plant. Despite the investment of money and personnel, the operation was only marginally profitable. There were several other producers of products similar to Alexandria's in the immediate area, and price competition was rampant. Since Cairo also sold products to the other competitors, it was felt that the Alexandria Division should not instill any hostility in these firms by pricing too aggressively. Consequently, Alexandria was a price-follower, always lagging in price reductions, and thus, suffering lower-than-potential sales volumes.

Further, not much attention had been paid by the corporate finance people to Alexandria's problems. There were several causes for this. The Cairo Corporation had traditionally de-emphasized the finance function in favor of the sales department, and the finance department consequently was understaffed. Alexandria's assets and sales were a very small part of the total corporation. The people at Cairo's corporate headquarters were unfamiliar with the markets and operations of Alexandria, and did not feel equipped to question Alexandria's people on financial topics. Alexandria was physically separated from other Cairo facilities. Finally, because of its hectic marketplace, the management at Alexandria was continually "putting out fires" and had little time to familiarize the corporate people with its operation.

Matters had come to a head when, as part of a new corporate program, Alexandria had been requested to submit its five-year sales and profits forecast (see Exhibit 1). After reviewing it briefly, Mr. El Beltagy, the vice president of finance was not happy. He called Sami Tolba into his office and said, "Sami, this forecast from Alexandria is impossible. I can't believe they're going to sell that much product

or make that much money. Get out there and check it out." Sami had just enough time to make appointments with Alexandria's accountant, marketing manager, production personnel manager, and purchasing manager before he left his office.

His meeting with Mr. Azim, accountant for the Alexandria Division, had revealed the basis used for the original income forecast. Azim had proven himself unfamiliar with forecasting techniques. He had estimated sales volumes by asking each of Alexandria's salesmen for an estimate of "the amount he could sell" for the next five years. Azim had totaled these estimates to arrive at the sales forecast. He had calculated the cost of goods sold and the gross margin on sales by assuming that the cost of goods sold was 70 percent of net sales; this had been the average for the last three years. This figure was to include direct labor, overhead, and cost of raw materials, under Cairo's system of reporting. Selling and administrative expense estimates were based on the 1975 payroll expenses for this class of employees.

The Cairo Corporation had a policy of charging each division a carrying cost for the book value of accounts receivable and fixed assets. This was the interest-expense entry shown on the forecast; in reality, no division borrowed money independently. The rate of charges was currently 10 percent. Azim has applied this rate to the book value of fixed assets (L.E. 45,000,000 net in 1975, being depreciated, for corporate-reporting purposes, on a straight-line basis over 20 years starting in 1976) and to accounts receivable, which were currently L.E. 5,000,000. Azim had used this figure for accounts receivable in future years, also. The remainder of the calculations were straight forward.

Sami's other interviews had provided much additional information. The marketing Manager, Mr. Awad, had been very helpful and interested, "Well, Sami," he said, "you know salesmen. They're given to overestimating their selling capacity in the long run, and they don't have much feel for prices. I'm sure Azim felt he was getting information straight from the source when he went to them for estimates, but they don't see the market as a whole, and they don't see our constraints. We sold 60,000,000 pounds of our product last year; we'll sell 80,000,000 pounds in 1976, and sell at capacity in 1977 and thereafter. Prices, as you know are unstable, but I'd guess they'll increase about 3 percent per year over 1975 levels in our marketplace. We'll be selling to the same customer base, but in bigger volumes. Once we reach capacity, we believe that the market growth in this area will have peaked. We don't plan to put in requests for plant expansion in the foreseeable future." From his interview with the production manager, Sami found out that practical production capacity was about 90,000,000 pounds per year.

The personnel manager, Mr. Tawfic, and the purchasing managers, Mr. Farag, had also been cooperative. From Tawfic, Sami Tolba had found out that the plant was now fully staffed with production workers, and that a new union contract had just been signed which would keep the production payroll at its 1975 level of L.E. 6,300,000 per year through 1978. After that, Tawfic expected that the new three-year contract would result in a 20 percent wage increase. The payroll expense for selling and administrative employees is expected to increase 10 percent per year above 1975 levels.

Mr. Farag had grumbled about inflation and the cost of raw materials. "We're paying 20 piastres for raw materials per pound of product sold in 1976. We paid the same in 1975. I can remember when it was 10 piastres. I guess that will go up about 5 percent per year after this year. Fortunately, I've tied all suppliers we classify as overhead with contracts; we're safe from their increases beyond 1975 levels for five years at least.

QUESTIONS

1. Compute a new income forecast based on the information Sami Tolba got from the Alexandria personnel. (Hint: to get overhead from cost of sales, compute the other two components, and subtract.)
2. Assuming that the information gleaned by Sami Tolba from the department managers was valid, what incorrect assumptions did Mr. Azim make in deriving his original forecast of sales and income? Why did he make them?
3. Make a chart showing Azim's profit forecast, your profit forecast, and the differences. Given Cairo's 10 percent return policy on fixed assets and accounts receivable, is this Alexandria Division making a reasonable contribution to corporate profitability?
4. The Cairo Corporation's method of evaluating corporate profitability based on allocation of a percent of assets (see question 3) is called the ROI (return on investment) method. The accept-reject decisions for projects yielded by this method are not necessarily consistent with the more modern net present-value method. However, the ROI method is still used by many firms and is used by the Cairo Corporation; the student should be familiar with it, and therefore, we have illustrated it here.

EXHIBIT 1

Alexandria Manufacturing Division

Five-Year Income Forecast
(rounded thousands of L.E.)

	1975 (actual)	1976	1977	1978	1979	1980
Net sales	L.E. 31,200	L.E. 35,000	L.E. 41,000	L.E. 50,000	L.E. 63,000	L.E. 75,000
Cost of goods sold	<u>21,840</u>	<u>24,500</u>	<u>28,700</u>	<u>35,000</u>	<u>44,100</u>	<u>52,500</u>
Gross margin on sales	9,360	10,500	12,300	15,000	18,900	22,500
Selling and administrative expenses	2,000	2,000	2,000	2,000	2,000	2,000
Interest expense	5,000	4,775	4,550	4,325	4,100	3,875
Depreciation on new plant	<u>0</u>	<u>2,250</u>	<u>2,250</u>	<u>2,250</u>	<u>2,250</u>	<u>2,250</u>
Net profit before taxes	2,360	1,475	3,500	6,425	10,550	14,375
Taxes (50 percent)	<u>1,180</u>	<u>737</u>	<u>1,750</u>	<u>3,212</u>	<u>5,275</u>	<u>7,187</u>
Net profit after taxes	L.E. 1,180	L.E. 738	L.E. 1,750	L.E. 3,213	L.E. 5,275	L.E. 7,188

SULTAN MANUFACTURING COMPANY

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SULTAN MANUFACTURING COMPANY

Operating Leverage

The Sultan Manufacturing Company was a small manufacturer of consumer products, located in Cairo. The firm operated primarily as a contractor producing consumer products for larger firms to service their peak-demand seasons. The firm also did some manufacturing of proprietary items, which were sold by retailers in the area. The management of the Sultan Manufacturing Company liked to do the latter type of business when the firm's machines were not occupied with contractual production. It preferred to manufacture items with specialized local appeal, where there was an opportunity to make a significant contribution to company profits in a short period of time. Such an opportunity occurred in the winter of 1979.

Sultan Manufacturing Company felt that demand for ice coolers for 1980 was going to be high. Ice coolers in different colors could be sold for L.E. 4. The management of Sultan Manufacturing decided to enter the market with the new ice coolers.

The marketing and sales manager, Mr. Seif, seemed to have come up with a good plan for marketing the item: a set of four water glasses which fit into holders in the ice cooler itself. The cooler was to be molded in different colors. Mr. Seif had estimated that the demand for an item of this type would be high, initially, but would taper off as more units were sold. Consequently, he intended to use a staggered pricing strategy, pricing the first 25,000 units at L.E. 4 and any remaining sales at L.E. 3 (prices are received by Sultan Manufacturing from retailers, after allowances and discounts).

Mr. Salam, the production manager, agreed that the item could be produced on Sultan Manufacturing's primary assembly line. Fixed costs for partially new plastic molding machinery were L.E. 50,000, and he estimated that the item would cost L.E. 1.75 to produce in variable costs (materials, direct labor, and so on), if manufactured on that line. However, if volumes of over 35,000 units were to be produced, the firm would have to use an out-moded line, which was presently idle. This would increase fixed costs by L.E. 28,750 (for additional indirect overhead, maintenance, etc.), and items produced on this line would cost L.E. 1.80 per unit in variable costs. Alternately, Mr. Salam suggested that totally new equipment be purchased to do the whole job, which would increase fixed costs to L.E. 75,000, but would have variable costs of only L.E. 1.70 per unit for any output level.

Mr. Sultan, president of the firm, considered Mr. Seif's plan and Mr. Salam's cost estimates. The decision to use present equipment or buy new machinery seemed to hinge on the expected sales volume. Mr. Sultan asked Mr. Seif if he had any idea of how many units might be sold. Mr. Seif replied that it depended on whether the item caught on, but that sales in the 40,000 to 50,000 units range seemed most reasonable.

QUESTIONS:

1. Construct break-even graphs for both the present, obsolete equipment system and the new equipment system. What are the break-even points from these sales?
2. Calculate the break-even points for both prospective systems. (Hint: Some revenue and cost functions contain inflection points and discontinuities. Standard break-even formulas cannot be used over regions where these occur. Break-even points can be calculated, however, by calculating the loss at the last previous inflection point or discontinuity; then applying the break-even formulas, using the loss as fixed cost.)
3. From the break-even graphs, are there any output levels where one method or another is superior? Are there any levels where they seem to achieve nearly the same profit results?
4. From the break-even graphs and Mr. Seif's estimates, what should the firm do? (Hint: the firm does not necessarily have to produce and sell the entire 40,000 to 50,000 units, despite demand levels.)
5. If Mr. Seif is wrong and demand turns out to be 60,000 units, how much profit will the best strategy provide?

Please read this case carefully. At the end of the case are nine questions. The solutions to questions 1-5 in part A are provided you. Please prepare for discussion your answers to questions 6-9 in Part B. No numerical analysis or calculations are needed for answering questions 6-9.

THE VOLKSWAGEN-NEW STANTON PROJECT
Capital Budgeting in the Public Sector

In the early 1970's Volkswagenwerk AG of West Germany was faced with the prospects of having to raise sharply the prices of its products in certain export markets, including the U.S. The strength of the German economy had resulted in a very tight labor supply and escalated many labor-related costs. In addition, the Deutsche mark had emerged as a currency in demand. The flight of dollars into marks had produced both dollar devaluations and mark revaluations. The net result was that the exchange rate went from four marks to the dollar in pre-1969 to DM 2.36 to the dollar by 1976 (see Table 1).

The above - mentioned factors were creating a situation for Volkswagenwerk (VW) where its product prices would have to be raised sharply in the U.S. to merely recover costs. For example, in the pre-1969 era, to recover costs of DM 10,000, a product would have to be priced at \$2,500. In 1976, recovery of the same amount of DM 10,000 would require a price of

This case is intended as a basis for class discussion rather than to indicate either effective or ineffective handling of administrative situations. Information for this case was obtained from a variety of sources including the House Committee on Business and Commerce, Commonwealth of Pennsylvania and the Special Assistant for Government Programs, Commonwealth of Pennsylvania.

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\$4,200. Exchange rate adjustments, increasing labor and materials costs and a maturing product--the "Beetle"-- combined to affect VW's financial performance. Its sales and net income figures are summarized in Table 2.

From a product marketing viewpoint, VW decided to phase out its "Beetle" model and replace it with the "Rabbit" model. The other factors mentioned above combined with the need for easier access to product markets and to skilled and semi-skilled labor pools led VW to start seeking a site in the U.S. for establishing a manufacturing plant.

By late 1975 - early 1976 VW management had narrowed its site considerations to two locations - one in Brook Park, Ohio, near Cleveland and the second in New Stanton, Pennsylvania, near Pittsburgh. The New Stanton facility was a partially completed Chrysler Corporation assembly plant. If VW selected the New Stanton site it could start production of VW Rabbits by late 1977 or early 1978. Number of Rabbits produced was expected to increase from 60,000 the first year to 200,000 by the sixth year of operations. The VW plant would initially employ 3,000 workers. Over a period of six years the number of workers was expected to rise to 5,000. The Commonwealth of Pennsylvania estimated that direct, indirect and induced jobs resulting from location of the VW plant in New Stanton would be 7,557 in the first year of operation. These estimates implied that 4,557 jobs would be indirectly related to the VW plant location. In six years total direct and indirect jobs related to the VW plant would be 12,595.

Financing Arrangements

VW estimated that the total cost of opening the plant in New Stanton would be \$225 million. Of this amount \$135 million would be made available

by state agencies. The State Employees' Retirement System would provide \$50 million and the Public School Employees' Retirement Fund would provide \$85 million. Part of this \$135 million will be made available to Greater Greensburg to purchase the Chrysler plant. Greater Greensburg would lease the plant and site to the Westmoreland County Industrial Development Authority, which in turn would lease it to VW. The lease payments would be used to amortize the loan. Part of the \$135 million would be loaned to VW over a period of time as its plant and equipment needs rose. The interest rate would be 9 percent on these funds.

The Commonwealth of Pennsylvania, as an inducement for VW to locate in New Stanton, developed a substantial financing package for VW. The Pennsylvania Industrial Development Authority (PIDA) would loan \$40 million to VW. \$10 million of this amount was a special appropriation made by the Pennsylvania legislature. The amount would be loaned to VW for a 30 year period. Under normal circumstances PIDA made industrial development loans at 4 percent. However, for VW during the first 20 years, only the interest would be payable at a 1.75 rate. The interest rate during the following 10 years would be 8.5 percent and payments would include both interest and loan repayments at a rate of \$4 million annually. The Commonwealth would also issue \$20 million in 30 years serial general obligation bonds at 6.25 percent to improve the highway facilities leading to the plant site. The loan amortization schedule is shown in Table 3. The Commonwealth would also issue \$10 million of general obligation bonds to construct a service yard and a railroad spur to link the plant with both the Baltimore and Ohio and Norfolk and Western Railroads. These general obligation bonds would mature in thirty years and carry a coupon rate of 6.5 percent.

The Commonwealth Departments of Education and Community Affairs would commit up to \$585,000 for recruitment of and training courses for potential VW employees. The Westmoreland County would forego 95 percent of local property taxes on the plant for the first three years and 50 percent for the next two years while VW moves into full production. The Federal government would make a \$3.2 million grant under the Federal Comprehensive Employment and Training Act to the counties of Westmoreland, Washington, Allegheny, Lawrence and Butler for training unemployed and underemployed county residents for employment at the VW plant. This amount would not have to be repaid to the Federal government.

Revenue Considerations

The railroad facilities constructed by the Commonwealth would be leased to Baltimore and Ohio and Norfolk and Western Railroads at a charge of \$20 per loaded car. The average number of loaded cars expected to use the facility per year was 30,000.

The commonwealth estimated that the bulk of benefits would come from increased tax revenues. There would be increases in Corporate Income Tax, Sales Tax, Personal Income Tax, Realty Transfer Tax, and the Liquid Fuels Tax.

It was difficult to estimate the financial performance of VW in the U.S. Selected financial statistics for Chrysler, Ford and General Motors are shown in Table 4. VW, with a U.S. scale of operations considerably smaller than the "Big Three" was expected to generate return on assets which would be less than the average return on assets for the "Big Three.". It was assumed that VW would generate profits of 7 percent on total

New Stanton plant assets of \$225 million. Pennsylvania would be able to tax 70 percent of the amount reported as net income at a corporate tax rate of 9.5 percent. For the first year of operation, under the .7 percent return on assets assumption, this tax was estimated to be $\$225 \text{ million} \times .07 \times .7 \times .095 = \1.047 million . This amount was expected to grow at a 10 percent annual rate for six years and, for estimation purposes, was considered to stabilize for the remaining years. A summary of the estimated corporate income taxes based on these assumptions is shown in Table 5.

The Commonwealth of Pennsylvania assessed a capital stock and Franchise Tax annually. The revenues this tax would generate are shown in Table 5.

The Foreign Corporation Excise Tax was a one time tax and amounted to 1/3 percent of total assets. Another one time tax was the Realty Transfer Tax. It was one percent and was applicable only to the purchase price of land and building. The VW land and building cost was \$75 million.

VW was expected to spend \$1 million for electricity, \$2 million for gas and \$100,000 for phone service the first year. The Utility Gross Receipts Tax was 4.5 percent of the total utility payments. This revenue base was expected to grow at a 10 percent rate for the first six years after which it would become stable.

It was estimated that each of the 3,000 employees in the first year would pay \$166 in sales tax. Each of the 3,000 employees would receive an average wage of \$13,574 the first year and pay personal income tax of two percent on their wages. Both of these revenue sources on a per employee basis were expected to grow at a ten percent rate for the first six years of operation and then stabilize.

Based on 225 work days per year the Commonwealth estimated that fuel consumption by VW plant workers would increase by 1.1 million gallons in the first year. At a Liquid Fuel Tax rate of \$0.09 per gallon the Commonwealth expected to generate \$99,000 in revenue from this tax. This amount was expected to grow at a rate of four percent per worker for the first six years of the VW plant operation after which it was expected to stabilize.

The Commonwealth must decide if the magnitude of subsidies or incentives offered to VW are justified on a cost - benefit basis. In addition, what is the appropriate treatment for the \$40 million PIDA loan to VW? Since PIDA usually lends these funds at 4 percent, what is the "true" cost of the loan to VW? Some neutral observers felt that it is proper to charge interest at four percent on \$40 million for the first 20 years and on the declining balance for years 21-30. The cash inflows implied by this repayment schedule would then be discounted at 6.25 percent. The net present value derived this way would constitute the cost of the VW loan. The calculations are summarized in Table 6.

Still other observers reason that PIDA has only \$30 million to lend and that the \$10 million special appropriation by the Pennsylvania legislature is cost-free. This \$30 million amount should be considered as loaned at four percent with 30 annual payments of \$1 million each needed to repay the loan. The implied cash inflows discounted at 6.25 percent would provide a basis for determining the cost of the VW loan. The cash inflows and present values are shown in Table 4. A third group of observers have a different perspective on the cost of the loan. They contend that cash inflows and outflows need to

be adjusted for the time value of money by considering a weighted average cost of capital which is higher than 6.25 percent.

QUESTIONS, Part A

1. What assumptions are needed to solve the case?
2. What is the appropriate discount rate to use in this case; that is, what is the cost of capital?
3. Estimate the total dollar amount of the initial investment.
4. Estimate the annual net cash inflows that the commonwealth would receive from this project.
5. What intangible factors need to be recognized by a government agency in a situation of the type discussed in this case?

QUESTIONS, Part B

6. What types of environmental, non-financial issues exist in this case that would probably exist in the Egyptian environment also?
7. From the Egyptian point of view, what implications are there for governmental subsidies for foreign firms desiring to locate plants in Egypt?
8. Is the procedure for calculating the cost of capital applicable in the Egyptian environment? Why or why not?
9. What are the implications of this case for capital budgeting in the Egyptian public sector?

TABLE 1
The Volkswagen-New Stanton Project
Exchange Rates for Deutsche marks and dollars

<u>Year</u>	<u>DM exchanged for \$1</u>	<u>\$ exchanged for DM 1</u>
pre-69	4.00	0.25
69-70	3.66	0.27
1971	3.22	0.31
1972	3.12	0.32
1973	2.70	0.37
1974	2.41	0.41
1975	2.62	0.38
1976	2.36	0.42

TABLE 2

The Volkswagen-New Stanton Project
Summary of VW's Sales and Net Income*
(in millions of Deutsche mark-)

<u>Year</u>	<u>Sales</u>	<u>Net Income</u>
1967	6,935.4	121.3
1968	8,888.1	209.1
1969	10,755.4	165.9
1970	11,915.9	151.2
1971	13,338.7	70.1
1972	15,996.0	81.5
1973	16,982.0	78.5
1974	16,966.3	d 553.1
1975	18,857.3	d 142.6
1976	21,422.5	786.3

*d denotes a loss

TABLE 3

The Volkswagen-New Stanton Project
 Loan Amortization Schedule for General Obligation Serial Bonds*

<u>Year</u>	<u>Principal Remaining</u>	<u>Amount Retired</u>	<u>Interest Payment</u>
1	\$20,000,000	\$666,667	\$1,250,000
2	19,333,333	"	1,208,333
3	18,666,666	"	1,166,667
4	17,999,999	"	1,125,000
5	17,333,333	"	1,083,333
6	16,666,665	"	1,041,667
7	15,999,998	"	1,000,000
8	15,333,331	"	958,333
9	14,666,664	"	916,666
10	13,999,997	"	875,000
11	13,333,330	"	833,333
12	12,666,663	"	791,666
13	11,999,996	"	750,000
14	11,333,329	"	708,333
15	10,666,662	"	666,666
16	9,999,995	"	625,000
17	9,333,328	"	583,333
18	8,666,661	"	541,666
19	7,999,994	"	500,000
20	7,333,327	"	458,333
21	6,666,660	"	416,666
22	5,999,993	"	375,000
23	5,333,326	"	333,333
24	4,666,659	"	291,666
25	3,999,992	"	250,000
26	3,333,325	"	208,333
27	2,666,658	"	166,666
28	1,999,991	"	125,000
29	1,333,324	"	83,333
30	666,667	"	41,666

*The principal remaining is at the beginning of the year, the amount retired is at year end and the interest payment is at 6.25% on the principal remaining at the beginning of the year.

TABLE 4

The Volkswagen-New Stanton Project
 Selected Financial Statistics for U.S. Automobile Manufacturers*
 (in billions of dollars)

	Chrysler		Ford		General Motors	
	<u>1975</u>	<u>1976</u>	<u>1975</u>	<u>1976</u>	<u>1975</u>	<u>1976</u>
Sales	11.598	15.538	24.001	28.840	35.725	47.181
Net income	d0.282	0.328	0.228	0.983	1.253	2.903
Total assets	6.267	7.074	14.020	15.768	21.551	24.442
Mkt share %	13.4	15.6	26.9	24.0	54.8	57.9

*d denotes a loss. Market share is based on sales of domestic manufacturers only.

TABLE 5

The Volkswagen-New Stanton Project
 Summary of Estimates of Selected Tax Revenues
 (in millions of dollars)

<u>Year</u>	<u>Corporate I.T.</u>	<u>Capital Stock Tax</u>
1	\$1.047	\$1.436
2	1.152	1.103
3	1.267	1.159
4	1.394	1.216
5	1.533	1.278
6-on	1.686	1.342

TABLE 6

The Volkswagen-New Stanton Project
 Cost of \$40 Million VW Loan--Alternative 1*

<u>Year</u>	<u>4% Interest</u>	<u>Remaining Principal (000,000)</u>	<u>4% Interest</u>	<u>Present Value</u>	<u>Repaid Principal</u>
1-20	\$1,600,000				
21		40	\$1,600,000	\$449,584	\$4,000,000
22		36	1,440,000	380,952	"
23		32	1,280,000	318,835	"
24		28	1,120,000	262,662	"
25		24	960,000	211,977	"
26		20	800,000	167,496	"
27		16	640,000	125,920	"
28		12	480,000	89,280	"
29		8	320,000	56,080	"
30		4	160,000	<u>26,339</u>	<u>"</u>
	$\Sigma PV = \$18,021,600$			\$2,089,125	$\Sigma PV = \$8,752,400$

Σ Present Values = \$28,863,125

Net Present Value = (\$11,136,875)

The discount rate used is 6.25%. The net present value is viewed as the cost of the \$40 million loan.

TABLE 7

The Volkswagen-New Stanton Project
 Cost of \$40 Million VW Loan--Alternative 2*

<u>Year</u>	<u>Principal Remaining (000,000)</u>	<u>Amount Retired</u>	<u>Interest (000,000)</u>	<u>Present Value</u>
1	30	\$1,000,000	\$1.20	\$1,129,440
2	29	"	1.16	1,027,598
3	28	"	1.12	933,845
4	27	"	1.08	847,584
5	26	"	1.04	768,238
6	25	"	1.00	695,300
7	24	"	.96	628,301
8	23	"	.92	566,775
9	22	"	.88	510,312
10	21	"	.84	458,539
11	20	"	.80	411,088
12	19	"	.76	367,635
13	18	"	.72	327,866
14	17	"	.68	291,502
15	16	"	.64	258,278
16	15	"	.60	227,952
17	14	"	.56	200,290
18	13	"	.52	175,094
19	12	"	.48	152,165
20	11	"	.44	131,318
21	10	"	.40	112,396
22	9	"	.36	95,238
23	8	"	.32	79,709
24	7	"	.28	65,666
25	6	"	.24	52,994
26	5	"	.20	41,874
27	4	"	.16	31,480
28	3	"	.12	22,320
29	2	"	.08	14,020
30	1	"	.04	1,600
				\$10,626,417
		Σ PV = \$13,451,600		

Σ Present Values = \$24,078,017

Net Present Value = (\$5,921,983)

*This alternative assumes that only \$30 million of the loan has a cost associated with it. The interest rate is 4%. All cash inflows are discounted at 6.25%. The net present value is the cost of the \$40 million loan.

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THE VOLKSWAGEN-NEW STANTON PROJECT

Teaching Note

FOCUS

The focus of this case is on applications of capital budgeting procedures in the public sector. The typical issues of estimation of net cash flows, planning horizon, discount rates, and incorporation of risk are found in capital budgeting in the public sector also. The distinguishing feature is that at times, costs and benefits are intangible and not directly measurable. Such is the situation in this case also. These are discussed in the next section.

ASSUMPTIONS

Some assumptions are embedded in the text of the case. It is assumed that the revenue estimates provided in the text are correct. It is also assumed, as indicated in the case, that revenues increase for the first six years of operation at the stated rates and then stabilize for the remaining years. The life of the bonds indicate a planning horizon of thirty years. As it turns out this assumption is not material to the solution of the case.

There are some additional assumptions that need to be made to provide a proper structure for solving the case. First, it is assumed that intangible costs and benefits have no impact on the final answer. This is a somewhat constraining assumption. The intangible costs are discussed further in the next section. The intangible benefits include, among others, the improvement in the "quality of life" of unemployed and underemployed who are hired at the VW plant, the cultural benefits of having a foreign corporation locate a plant with many managerial personnel who bring with them to the community their cultural perspectives, higher county tax base for better schools, increased pride in the community, etc. These benefits are hard to measure and even harder to quantify. However, the student needs to recognize them as factors influencing the extent to which a locality or state is willing to expend funds to attract new industry.

Second, the case states that the VW plant employment increases from 3,000 to 5,000. It is a reasonable assumption that in years 1 and 2 employment is 3,000, in years 3 and 4 it is 4,000 and in year 5 and later years it is 5,000. Actually, it is not important that the 2,000 increase in number of workers be allocated over the six year period. The instructor may wish to provide students with this assumption.

Third, it is assumed that increases in state revenues due to secondary and tertiary employment factors are directly proportional to the increase in number of workers at the secondary and tertiary levels. This assumption provides the following multiplier:

Year	# primary workers	# secondary workers	multiplier
1,2	3,000	4,557	1.519
3,4	4,000	-----	1.519
5,6	5,000	7,595	1.519

This multiplier of 1.519 is applied to all revenue estimates except

those from the Capital stock and Franchise Tax. It could be argued that the multiplier effect is higher than 1.519. In fact, the Commonwealth did use a multiplier higher than 1.519. Finally, it is assumed that total Commonwealth subsidies paid to local school districts will not change, that Commonwealth portions, if any, of local municipal costs will remain unaffected and that increases in the cost of maintaining state roads will be minimal.

COST OF CAPITAL

The solution to this case requires determination of an appropriate cost of capital or discount rate for the Commonwealth of Pennsylvania. As the case indicates, part of the funds would be raised at a cost of 6.25 to 6.50 percent coupon rate. The commonwealth meets its financing needs through borrowing by issuing bonds and through "equity" by taxing its residents. The cost of debt is well defined. The "cost of equity capital" is theoretically equal to the "average marginal investment or consumption foregone by the Commonwealth residents to meet their tax liabilities." This is really begging the question since the marginal investment or consumption could be in buying a savings bond or buying services that the Commonwealth currently provides. In any case the student should recognize the vagrancies of the concept of "opportunities or consumptions foregone." A weighted cost of capital is going to be slightly higher than 6.25 or 6.5 percent. An assumption that it is 7 percent is reasonable. The instructor may choose to indicate to the students that a discount rate of 7 percent should be used in the analysis. Some students argue that the revenue estimates from the new plant location are more risky than the existing revenues and therefore a discount rate higher than 7 percent, say 8 or 9 percent, is justified. This is a perfectly valid argument and has considerable validity. Hopefully, the alert student recognizes that capital budgeting

in the public sector is not a routine task--and we have not mentioned the political overtones that generally accompany an issue of this nature.

ESTIMATING NET CASH OUTFLOWS

The \$135 million to be made available to VW by the two State Retirement funds are at a competitive rate, subject to fiduciary constraints, not under direct Commonwealth control and, therefore, not part of the initial investment by the Commonwealth. The actual investment by the Commonwealth is:

PIDA loan	\$40.000 million
Highway improvement	20.000 "
Railroad spur	10.000 "
Recruitment and training	<u>0.585</u> "
Total initial investment	\$70.585 million

The forgiveness of local property taxes by Westmoreland County is a County and not a Commonwealth decision. As long as the county decides to forego collecting a portion of taxes due and does not seek compensation from the Commonwealth, the foregone taxes do not constitute a cost of doing business for the Commonwealth. (It should be recognized that the County itself can do a benefit-cost analysis to decide whether to provide VW the property tax relief. If the decision appears to be non-economic it may seek a grant from the Commonwealth.)

The Federal grant of \$3.2 million is similarly not part of initial investment. It need not be recovered and repaid to the Federal government. The Commonwealth's total initial investment is \$70.585 million.

ESTIMATING NET CASH INFLOWS

Some of the revenues are going to be generated on a one-time basis. These include the Foreign Corporation Excise Tax of 1/3 percent of \$225 million or \$0.75 million in year 1 and the Realty Transfer Tax which is one percent of \$75 million or \$0.75 million.

Two revenue sources that generate cash inflows over the planning horizon are the Corporate Income Tax (CIT) and the Capital Stock and Franchise Tax (CSFT). Estimated revenues from these sources are listed in Table 5 of the case. The latter tax does not lend itself to the multiplier effect. These revenue sources are also summarized in Table A in the Teaching Note.

Table 5 estimates for CIT are based on a 7 percent return on total assets related to the New Stanton plant. We have used these CIT estimates from Table 5 of the case. Some students do not agree with this percent. Table 4 of the case indicates the following return on assets for the three companies:

Chrysler		Ford		GM	
75	76	75	76	75	76
--	4.64%	1.63%	6.23%	5.81%	11.9%

The smallest of the Big Three shows a return on assets of only 4.64%. The average for the three is 8.9%. It could be argued that VW may do well to achieve a return on assets of 5%. There are many other factors such as acceptability of products, managerial skills, labor relations, etc., that influence profit margins and return on assets. All in all, the 7 percent rate is a reasonable one to use. The more aggressive student should be encouraged to resolve the case by using a return on assets figure more in keeping with his/her estimate.

VW's gross utility bill in year 1 is expected to be \$3.1 million and at a 4.5 percent Utility Gross Receipts Tax (UGRT) rate would generate \$0.139 million in revenues. This revenue base is expected to grow at 10 percent annually for six years. The estimated revenues are summarized in Table A.

Estimation of sales tax (ST) and personal income tax (PIT) are as follows:

Year	# of Employees	ST Per Employee	Total ST	PIT Per Employee	Total PIT
1	3,000	\$166.00	\$ 498,000	\$271.48	\$ 814,440
2	3,000	182.60	547,800	298.63	895,890
3	4,000	200.86	803,440	328.49	1,313,960
4	4,000	220.95	883,800	361.34	1,445,360
5	5,000	243.04	1,215,200	397.47	1,987,350
6-30	5,000	267.34	1,336,700	437.22	2,186,100

Sales tax per worker is \$166 in year 1. With 3,000 workers total ST is $3,000 \times \$166 = \0.498 million. ST is summarized in Table A.

For year 1 personal income tax per worker is $\$13,574 \times .02 = \271.48 . Total PIT is $\$271.48 \times 3,000 = \0.814 million. PIT is also summarized in Table A.

The Liquid Fuel Tax (LFT) in year 1 is \$0.099 million. For year 2 it will be $\$0.099 \times 1.04 = \0.103 million. For year 3 it will be $\$0.103 \times 1.04 \times 4/3 = \0.143 million. The year 4 amount is $\$0.143 \times 1.04 = \0.149 million. For year 5 we have $\$0.149 \times 1.04 \times 5/4 = \0.194 million and for years 6-30 we have $\$0.194 \times 1.04 = \0.202 million.

The revenues derived from leasing the railroad spur to the railroads will equal $\$20 \times 30,000 = \0.6 million annually.

CIT, UGRT, ST, PIT and LFT combined yield \$2.597 million for year 1. This amount times the multiplier gives \$3.945 million. CSFT, lease revenues and other revenues (Realty Tax and Foreign Corporation Excise Tax) combined with this amount give a total inflow of \$7.481 million. Other total inflows for various years are summarized in Table A.

The present value of the cash inflows in Table A are (for a 7 percent discount rate):

$$7.481 \times .93458 + \$6.035 \times .87344 + \$7.372 \times .81630 + \$7.979 \times .76290 + \$9.675 \times .71299 + \$10.502 (12.40904 - 4.10020) = \$118.525 \text{ million}$$

The second set of cash inflows relate to the \$40 million loan by PIDA to VW. The alert student recognizes that the "implied" cash inflows in Tables 6 and 7 are

not actual cash inflows and not germane to the issue. Cash inflows for years 1-20 are $\$40 \times .0175 = \0.7 million. Cash inflows for year 21 include interest at 8.5 percent on \$40 million or \$3.4 million plus repayment of \$4 million principal. These and other cash inflows from the loan repayment are summarized in Table B. The sum of the present values of the cash inflows from the loan repayment equal \$18.414 million.

The net present value, from the Commonwealth's viewpoint, of the Volkswagen--New Stanton project is:

$$\begin{aligned} \text{NPV} &= \$118.525 + \$18.414 - \$70.585 \\ &= \$66.354 \text{ million} \end{aligned}$$

That is, over the thirty year planning horizon and given the estimates of outflows and inflows, the Commonwealth realizes a benefit of \$66.354 million due to the location of the VW plant in New Stanton. Derivation of this benefit has assumed that after adjusting for the time value of money, a seven percent discount rate is appropriate. Given this net present value figure, it would be advantageous for the Commonwealth of Pennsylvania to have VW locate its plant in New Stanton.

TABLE A
The Volkswagen-New Stanton Project
Summary of Estimated Cash Inflows
(in millions of dollars)

	1	2	3	4	5	6	7	8=6x7	9	10	11	8+9+10+11
Year	CIT	UGRT	ST	PIT	LFT	Total	Multiplier	Total	CSFT	Lease	Other	Total
1	\$1.047	\$0.139	\$0.498	\$0.814	\$0.099	\$2.597	1.519	\$3.945	\$1.436	\$0.600	\$1.500	\$7.481
2	1.152	0.153	0.548	0.896	0.103	2.852	1.519	4.332	1.103	0.600	-	6.035
3	1.267	0.168	0.803	1.314	0.143	3.695	1.519	5.613	1.159	0.600	-	7.372
4	1.394	0.185	0.884	1.445	0.149	4.057	1.519	6.163	1.216	0.600	-	7.979
5	1.533	0.204	1.215	1.987	0.194	5.133	1.519	7.797	1.278	0.600	-	9.675
6-30	1.686	0.224	1.337	2.186	0.202	5.635	1.519	8.560	1.342	0.600	-	10.502

TABLE B

The Volkswagen-New Stanton Project
Annual Cash Inflows from Loan Repayment
(dollar amounts are in millions)

<u>year</u>	<u>Principal remaining¹</u>	<u>Interest payment²</u>	<u>Principal repaid</u>	<u>Total inflow³</u>	<u>Interest factor</u>	<u>Present value</u>
1-20	\$40.00	\$0.70	\$0.00	\$0.70	10.59401	\$7.416
21	40.00	3.40	4.00	7.40	0.24151	1.787
22	36.00	3.06	4.00	7.06	0.22571	1.594
23	32.00	2.72	4.00	6.72	0.21095	1.418
24	28.00	2.38	4.00	6.38	0.19715	1.258
25	24.00	2.04	4.00	6.04	0.18425	1.113
26	20.00	1.70	4.00	5.70	0.17220	0.982
27	16.00	1.36	4.00	5.36	0.16093	0.863
28	12.00	1.02	4.00	5.02	0.15040	0.755
29	8.00	0.68	4.00	4.68	0.14056	0.658
30	4.00	0.34	4.00	4.34	0.13137	0.570

¹Principal remaining at beginning of year.

²Interest at 1.75% for years 1-20 and at 8.5% for years 21-30.

³Total inflow = Interest payment + principal repaid.

ELGOMHORIA PAPER AND WOOD CORPORATION

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ELGOMHORIA PAPER AND WOOD CORPORATION
Pro-Forma Statements and Cash Budgeting

As 1976 began, Ahmed El Ghazaly, treasurer of the Elgomhoria Paper and Wood Corporation (EP&W), was somewhat apprehensive. (Detailed information is contained in Appendix A of this case. This information is material to the solution of this case.) He and the firm's president, Mr. El Hadary, had renegotiated the company's short-term line of credit with their bank, the previous year, based on sales estimates available at the time. The firm's economists and sales personnel had developed a new, higher forecast of sales, based on economic and industry trends:

Month	Net sales (thousands)
1/76	12,105
2/76	17,293
3/76	19,022
4/76	17,293
5/76	15,563
6/76	15,563
7/76	15,563
8/76	15,563
9/76	12,105
10/76	12,105
11/76	12,105
12/76	8,646

El Ghazaly was concerned that three of the covenants in the line-of-credit agreement might be violated if the firm's sales actually reached these levels:

(1) that the firm be out of debt on the credit line for 90 consecutive days during the calendar year; (2) that the maximum borrowings on the line be L.E. 15 million (no other short-term borrowings were allowed); and (3) that the firm's current ratio not fall below 1.7 at the end of each quarter.

El Ghazaly knew that several facts regarding the firm's cash flow, costs, and expectations were pertinent to resolving his apprehensions:

1. Interest on the line of credit for the month was payable during the following month.
2. El Ghazaly expected that the interest rate would be 9 1/2 percent for the first half of 1976, and rise to 10 percent thereafter.

3. Gross margin on sales was expected to be 10 percent throughout the year.
4. El Ghazaly felt that the firm should continue to honor raw-materials suppliers' terms of sale of net 30 days.
5. Receivables also turned in 30 days.
6. Selling and administrative expenses were expected to be L.E. 12,684,000 for the year (approximately the 1975 level). These expenses were expected to occur evenly throughout the year, and were payable in the month in which they were incurred.
7. Taxes were to be 50 percent of quarterly net income, payable the month following the quarter's end. If the firm took a net loss during any quarter, 50 percent of this amount was to be immediately refundable. Net income, for tax and reporting purposes, was computed on an accrual basis. The fourth quarter of 1975 was break-even, so no tax accrual was shown on the end-of-year balance sheet.
8. Preferred dividends were to be L.E. 43,000 per quarter, payable at the end of the quarter. No common stock dividends were to be paid in 1976 to preserve capital.
9. El Ghazaly considered that L.E. 1 million was the minimum level of cash necessary to operate the firm, and intended to reduce cash balances to this level during January of 1976.
10. Depreciation was on a straight-line basis, both for reporting and tax purposes, and was to be L.E. 460,000 per month in 1976. This entry had been included in selling and administrative expenses on the income statements in past years.
11. Wages were 25 percent of cost of goods sold, and must have been paid in the month, incurred; raw-materials purchases, on a net 30 day basis, comprised the balance of cost of goods sold.
12. Interest on long term debt was to be L.E. 3,836,000 for 1976, payable in December, but accrued over the year. Principal payment was also due in December.
13. No capital spending was expected in 1976.

14. With the exception of any changes specified above, no differences in balance sheet items were expected between year-end 1975 and year-end 1976. The items that were to be constant over the period included inventories (turnover was expected to increase), pre-paid expenses, other current assets, other assets, other accruals, preferred stock, and common stock.

QUESTIONS

1. Generate a monthly cash forecast for EP&W for 1976 (to get tax payments, you will also have to generate pro forma income statements). Use the net sales figures shown in the forecast. Assume all transactions occur on the first day of the month.
2. Will EP&W have to violate either the 90-day, out-of-debt constraint or the maximum-borrowing constraint in order to gain the higher sales level? If the 90-day, out-of-debt constraint is violated, how much short-term, credit-line debt must be converted to long-term debt to avoid this problem.
3. Generate pro forma balance sheets for the firm as of the end of each quarter in 1976. Does the firm have to violate the current ratio constraint?
4. If the bank lender for the short-term credit line is not also the long-term lender, and if the firm could renegotiate the short-term credit line with another bank at no increase in interest, would you suggest that it does so?

APPENDIX A
ELGOMHORIA PAPER AND WOOD CORPORATION
Background Information

The EP&W, founded in 1925, was a major producer of paperboard and lumber. For the first twenty years of its existence, the company concentrated its efforts within these lines of business, building a series of production facilities. In 1946, the company began a series of acquisitions, the closings of some operations, and the sale of other operations. This series of maneuvers lasted until the early 1970's. Acquisitions were made for cash or stock. The firms acquired by EP&W during this period were generally within its established lines of business and market area. The operations that had been closed or sold were generally out of the firm's market area or business lines. This series of maneuvers gave EP&W a large market position in its primary, geographical and product areas; however, no diversification was achieved, if any was intended. Neither did these moves provide new production facilities to replace the firm's aging plants, or give the firm access to additional timberland.

EP&W was organized into two divisions based on product line. The container products division, with about 66 percent of total sales, produced the two principal types of paperboard, containerboard and boxboard. Containerboard is a highly versatile and relatively inexpensive material, consisting of a corrugated layer glued between two liners. Boxboard is the material used in the manufacture of folding cartons and food-service containers. Both products are used almost exclusively for packaging applications.

About 70 percent of the output of this division was used by EP&W as feedstock for the firm's two carton and four container plants. These plants produced corrugated shipping containers, packaging for fresh produce, ice cream containers, cereal boxes, detergent containers, and many similar products. All the plants of the container products division were owned outright by the firm.

Sales in the paperboard industry are highly correlated with GNP, and closely follow general economic activity. Paperboard industry production fell, for the second straight year, in 1975. After advancing at an annual rate of 4 percent from 1964 to 1973, output declined 2.2 percent in 1974 and 14.5 percent in 1975. Sales began to recover in late 1975. Experts forecast that 1976 production would increase 16.9 percent. Benefiting from price increases, volume expansion, and operating efficiencies, industry profits were expected to

increase substantially in 1976. However, economic uncertainties might have adverse effects in future years. Additionally, the entire paper-packaging industry was threatened by the intrusion of plastic into the container industry, although this threat had abated somewhat, due to the energy shortage's effect on plastic prices.

The firm's other division was the wood products division, with the remaining 34 percent of the company's sales volume. This division produced lumber and plywood from virgin timber. As of 1975, the firm owned six lumber mills and two plywood plants. The output of this division was sold to wholesale outlets.

The financial performance of this division had been adversely affected because the firm owned relatively little timberland. The raw-materials costs of the division were, therefore, dependent on the increasing cost of lumber. As a consequence, the division had decided to shut down two of its mills in an area where timber costs were particularly high, where it had no captive supply, and where sales had been particularly low. At best, the lumber mills in other areas received 30 percent of their raw materials from captive sources.

The wood products division ran EP&W's only recently-constructed production facility. This plant, which started operation in 1975 and which cost L.E. 7.2 million, used wood shavings, sawdust, and other wood wastes to produce building products. Start-up expenses had been higher than expected, resulting in an expense of L.E. 1.9 million in 1975 (see Exhibits 1 and 2 for balance sheets and statements of income and retained earnings).

Since the products made by the wood products division primarily went into construction (and, to a lesser extent, into furniture), sales for this group were primarily dependent on activity in the housing industry. Specifically, sales had been found by company economists to be highly correlated with housing starts.

The year ending December 31, 1975 was not a good one for EP&W. It was distinguished by plant start-up expenses, low demand for output, inventory liquidation by customers, increasing costs, and resistance by customers to price increases. The latter two factors were emphasized by the 1975 income statement. Though the firm's sales dropped by L.E. 17.7 million, cost of goods sold declined by only L.E. 4.2 million. The firm's gross margin on sales declined from 14.6 percent to 7.0 percent. Increased debt had been used by this firm to finance operating losses and for capital expenditures. From 1974 to 1975, the firm's total debt to net worth ratio had increased from 1.55 to 1.81.

The company's long-term debt was composed of four issues; as of December 31, 1975, the current and long-term portions of these were:

1. Bank notes, totalling L.E. 20,352,000, interest at 7 percent; principal due, L.E. 2 million per year, 1977 to 1987, interest and principal payable on the last day of the year. A special payment of L.E. 352,000 against the principal was due on December 31, 1976. This amount is already included in "Current Principal Portion of LTD" in Exhibit 1.
2. Secured 6 percent debt totalling L.E. 5.4 million, principal due L.E. 600,000 per year. 1976 to 1985, interest and principal payable on the 1st day of the year. The principal due 1976 is shown in Exhibit 1 in the "Current Principal Portion of LTD."
3. Subordinated 5 3/4 percent debt totalling L.E. 36,308,000, principal due 1995, interest payable on the last day of the year. Under the covenants of this debt, 5 percent was to have been redeemed every October 15, starting in 1980.
4. A L.E. 952,000 note to an insurance firm, due on March 31, 1982.

The firm had also used leasing extensively, to acquire the use of some assets. These leasing agreements were not capitalized on the balance sheet. Minimum levels of these lease commitments are shown in Exhibit 3. Under the firm's accounting system, these payments are included in selling and administrative expenses.

EXHIBIT 1

ELGOMHORIA PAPER AND WOOD CORPORATION
 Balance Sheets, December 31, 1974 and December 31, 1975
 (rounded thousands of L.E.)

	12/31/74	12/31/75
Cash	L.E. 1,858	L.E. 1,576
Accounts receivable	12,647	12,168
Inventories	32,525	28,494
Prepaid expenses	6,863	7,385
Other current assets	<u>1,126</u>	<u>5,504</u>
Total current assets	55,019	55,127
Other assets	5,722	7,180
Property, plant, land and equipment	135,285	141,255
Less: depreciation	<u>57,336</u>	<u>62,282</u>
Net fixed assets	<u>77,949</u>	<u>78,973</u>
Total assets	138,690	141,280
Current principal portion of L.T.D	1,251	952
Principal due on bank credit line	13,110	11,400
Accounts payable - raw material	11,276	11,286
Accruals (see Note 1)	4,374	5,268
Preferred stock dividends payable	<u>43</u>	<u>43</u>
Total current liabilities	30,054	28,949
Long-term debt	54,209	62,060
Preferred stock	3,440	3,440
Common stock (less treasury stock)	14,851	14,851
Retained earnings	<u>36,136</u>	<u>31,980</u>
Total owners' equity	<u>54,427</u>	<u>50,271</u>
Total liabilities and owners' equity	L.E. 138,690	L.E. 141,280

EXHIBIT 1 (Cont'd)

Notes of December 31, 1975 Balance Sheet

Note 1: Breakdown of accruals as of 12/31/75

Accrued interest on bank credit line, due 1/76	L.E.	90
Accrued interest on long term debt, due 12/76*		0
Accrued taxes payable for previous quarter, due 1/76		0
Other accruals		<u>5.178</u>
Total accruals	L.E.	5,268

*Interest for 1975 has been paid. Interest for 1976 has not yet started to accrue.

EXHIBIT 2

ELGOMHORIA PAPER AND WOOD CORPORATION
Statements of Income and Retained Earnings, for the Years Ending
December 31, 1974 and December 31, 1975
(rounded thousands of L.E.)

	12/31/74	12/31/75
Net sales	L.E. 167,481	L.E. 149,823
Cost of goods sold	<u>143,471</u>	<u>139,311</u>
Gross margin on sales	24,010	10,512
Selling and administrative expenses	12,012	12,683
Interest expense	3,492	3,996
Start-up costs of new plant	<u>--</u>	<u>1,862</u>
Income before extraordinary items	8,506	(8,029)
Other income	4,513	1,309
Other expenses	<u>5,264*</u>	<u>0</u>
Income before taxes	7,755	(6,720)
Taxes	<u>3,609</u>	<u>(3,299)**</u>
Income after taxes	4,146	(3,421)
Retained earnings, beginning of year	33,788	36,136
Common and preferred stock - dividends	<u>1,798</u>	<u>735</u>
Retained earnings, end of year	L.E. 36,136	L.E. 31,980

*Loss from terminated operations.

**An increase in income due to tax loss carry-forward.

ELGOMHORIA PAPER AND WOOD CORPORATION

Minimum Non capitalized Lease Commitment Expenditures
1976-1980

Year	Expenditure (thousands)
1976	L.E. 1,208
1977	1,123
1978	684
1979	462
1980	314

THE GENERAL COMPANY FOR TRUCKS

by

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THE GENERAL COMPANY FOR TRUCKS

The General Company for Trucks (GCT) is a manufacturer of truck parts. The management of GCT is considering an addition to its product line. Namely, the manufacture of wheels for trucks and passenger cars, through a subsidiary (TCW Co.) to be established for this purpose.

This type of capital investment is in line with Egypt's development plan, which means that support is provided by the Ministry of Planning. Thus, TCW Co. will receive the necessary authority to build the new facilities, to issue shares to the public, and to transfer abroad any foreign exchange needed for debt service.

A market study by a consulting firm showed that the entire production of wheels by TCW Co. can be absorbed by the local market. Competition was mainly from foreign producers. The management of GCT plan to price passenger car wheels at L.E. 3.6 per unit and truck wheels at L.E. 14 per unit. Comparable imports are presently priced at L.E. 4 and L.E. 15 respectively. In the event of a reduction in prices of imported wheels, the Egyptian authorities will impose an import duty on foreign wheels in order to protect the local industry.

TCW Co.'s capital will amount to L.E. 4,500,000, 68 percent will be in equity and 32 percent in debt. The sources of capital have been determined as follows:

The GCT -- Patent	L.E. 300,000	
The GCT -- Equipment	420,000	
The GCT -- Cash	1,000,000	
Public Subscription	<u>1,360,000</u>	
Total Equity		L.E. 3,080,000
Foreign Exchange Loan at 8%	L.E. 920,000	
Local Loan at 6%	<u>500,000</u>	
Total Debt		L.E. 1,420,000
Total Capital		<u>L.E. 4,500,000</u>

The equity will be represented by 30,800 ordinary (common) shares to be offered at L.E. 100 per share. The foreign exchange loan is to finance equipment purchases abroad, and is to be repaid in 10 equal installments starting in 1981. The local currency loan is to be repaid in 5 equal installments also starting in 1981.

The shareholders are promised, subject to profits and the availability of cash, annual dividends of L.E. 10 per share in 1982-84. The dividends are to be increased to L.E. 15 per share beginning with 1985.

In the projection of results from operations (Exhibit 1) and balance sheet (Exhibit 2), management has made the following assumptions:

1. Production costs will increase by 10 percent annually.
2. Wages and salaries will increase by 5 percent annually.
3. Overhead expenses will increase by L.E. 100,000 annually because of the relationship between certain overhead items and wages and salaries.
4. Selling expenses are estimated at 2 percent of sales.
5. Raw material equals to 50 days production requirements.
6. The average collection period is 50 days.
7. Income tax rate is 50 percent.
8. Cash in excess of L.E. 100,000 will be invested at 5 percent annual rate.

In evaluating the new product, the management of GCT would like to use required rates of return of 10 and 15 percent, and a 20 year life for the project. In addition, the management would like to consider the impact of: (1) a possible 4 percent increase in the price of raw material (i.e., steel); (2) a possible 20 percent devaluation of the Egyptian pound vis a vis the foreign currency borrowed, and (3) a decision by the Egyptian authorities to freeze the prices of wheels; on profitability and the ability of the new venture to meet its debt obligations and the promised dividends.

EXHIBIT 1

PRO-FORMA BALANCE SHEET AS OF DEC. 31
(thousands of pounds)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
ASSETS											
Establishment Cost.	500	400	300	200	100						
Land	100	100	100	100	100	100	100	100	100	100	100
Buildings	1600	1520	1440	1360	1280	1200	1120	1040	960	880	800
Equipment	1940	1704	1468	1232	996	760	1364	1128	892	656	420
Stocks	334	523	762	1005	1239	1240	1236	1238	1240	1242	1245
Credit to cus.		562	843	1124	1405	1405	1405	1405	1405	1405	1405
Liquid assets	<u>26</u>	<u>46</u>	<u>357</u>	<u>543</u>	<u>1002</u>	<u>1672</u>	<u>1405</u>	<u>1944</u>	<u>2469</u>	<u>2980</u>	<u>3474</u>
TOTAL	4500	4855	5270	5564	6122	6377	6630	6855	7066	7263	7444
LIABILITIES											
Capital	3080	3080	3080	3080	3080	3080	3080	3080	3080	3080	3080
Carried forward	-	-	166	265	562	1135	1435	1781	2107	2427	2741
Long-term Liab.	857	788	714	634	548	454	353	244	127	--	--
Medium-term Liab.	411	317	217	112	--	--	--	--	--	--	--
CURRENT LIABILITIES											
Banks	152	163	174	186	198	93	101	109	117	127	--
Suppliers	--	341	512	682	853	853	853	853	853	853	853
Profit after tax	<u>---</u>	<u>166</u>	<u>407</u>	<u>605</u>	<u>881</u>	<u>762</u>	<u>808</u>	<u>788</u>	<u>782</u>	<u>776</u>	<u>770</u>
TOTAL	4500	4855	5270	5564	6122	6377	6630	6855	7066	7263	7444

W

EXHIBIT 2

TRADING ACCOUNT PROJECTIONS
(thousands of pounds)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
<u>RCES</u>										
cks at end of financial year										
aw material	334	501	669	836	836	836	836	836	836	836
inished product	108	149	192	230	231	229	230	231	232	234
emi-finished product	81	112	144	173	173	171	172	173	174	175
ancial earnings	--	--	--	7	30	56	45	69	95	121
as	3372	5058	6744	8430	8430	8430	8430	8430	8430	8430
AL	3895	5820	7749	9676	9700	9722	9713	9739	9767	9796
<u>3</u>										
cks at beginning financial year										
aw material	334	334	501	669	836	836	836	836	836	836
inished product	0	108	149	192	230	231	229	230	231	232
emi-finished product	0	81	112	144	173	173	171	172	173	174
rating costs										
aw material	2006	3009	4012	5015	5015	5015	5015	5015	5015	5015
thers items	703	965	1267	1409	1449	1491	1534	1579	1625	1633
rest	104	93	82	70	58	44	36	28	20	10
reciation	416	416	416	416	416	316	316	316	316	316
ling Profit	332	814	1210	1761	1523	1616	1576	1563	1551	1540
fit after tax	166	407	605	881	762	808	788	782	776	770

MISR MARGARINE COMPANY

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MISR MARGARINE COMPANY

In December 1976, Mohsen El Zayat, an Egyptian entrepreneur, and some of his friends were contemplating the establishment of Misr Margarine Company (MMC). The company would be established under Law No. 43 of 1974.

The plant capacity would be 5000 tons of margarine annually. After careful investigation of the market, Mr. El Zayat was convinced that MMC's production would be absorbed by the local market. The plant was going to take two years (1977-1978) to complete, and production could begin in 1979.

The project would cost L.E. 2,000,000, which were distributed as follows:

	<u>1977</u>	<u>1978</u>	<u>1979</u>
Land	L.E. 70,000	L.E. 0	L.E. 70,000
Building	500,000	400,000	900,000
Equipment	500,000	500,000	1,000,000
Vehicles	2,000	8,000	10,000
Furniture	1,000	9,000	10,000
Establishment Expenses	<u>5,000</u>	<u>5,000</u>	<u>10,000</u>
TOTAL	L.E. 1,078,000	L.E. 922,000	L.E. 2,000,000

In addition, working capital requirements were estimated by Mr. El Zayat at L.E. 26,000 as a minimum operating cash balance, L.E. 104,000 for receivables and L.E. 60,000 for inventory. Accounts payable (trade) would amount to L.E. 70,000 on the average.

Mr. El Zayat estimated the selling price per ton of margarine at L.E. 250. In addition, he estimated annual operating costs as follows:

Raw Material	L.E. 800,000
Packing Material	60,000
Wages and Salaries	110,000
Depreciation	147,000
Water & Electricity	2,000
Fuel	4,000
Regular Maintenance	2,000

As a Law 43 project, MMC will be exempted from taxes on commercial and industrial profits for the first five years of operation (1979-83). Thereafter a tax rate of 20 percent will be applicable to the company.

To finance the project, Mr. El Zayat and his friends will buy 1,500,000 ordinary (common) shares of the new company at one pound per share. Eighty percent of this equity will be paid at the beginning of 1977, and the remaining 20 percent will be paid at the beginning of 1978. The balance of the project's capital will be in the form of debt. An application for a L.E. 500,000 loan was made to the Bank of Cairo (Banque du Caire). The loan is to be secured in 1978, and is to be repaid in five equal annual installments starting in 1979. Moreover, interest of L.E. 90,000 is to be paid at the rate of L.E. 18,000 per year.

In evaluating capital investment of this nature, Mr. El Zayat typically used a 10 percent required rate of return, and an economic life of 10 years. He estimated a sale price of L.E. 200,000 for the depreciated project at the end of its economic life.

QUESTIONS

1. Based on Mr. El Zayat's required rate of return, is the project acceptable?
2. If you were the banker, would you approve the L.E. 500,000 loan to MMC?

CREATING A MANAGEMENT INFORMATION SYSTEM

by
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INTRODUCTION AND BACKGROUND

The Arab Contractors Company has experienced excellent growth in the past 8 years in total annual revenues and number of employees (approximately 500 million dollars turnover and 40,000 employees). As the largest contracting company in Egypt, the Arab Contractors has contributed significantly to the development of the Egyptian economy in the past and expects to play a key role in the future.

More and more, the Company is undertaking larger and more complex projects which require better management than that used in the past, particularly in view of increased external competition due to the Open Door Policy. Traditional methods of controlling major projects are no longer adequate to meet the ever increasing pressures from resources shortages, escalating costs, interest rates, and changes of social and political climates.

In recognition of this problem, the Company has begun to develop a management information system (MIS) to better support the management function. The responsibility for creating the MIS has been assigned to the Management Development Department as one of its major activities. In general, this department is in charge of promoting and supporting all development projects by improving existing technical, financial, and administrative systems and providing for future needs.

STATEMENT OF THE PROBLEM

- 1) The Company has enjoyed outstanding past achievement and excellent human relations, while relying upon traditional control procedures.
- 2) The existing financial and project control systems are heavily dependent upon manual procedures and are inadequate for the Company's needs.
- 3) The Company has a need for long-range planning, expanded training in modern systems development techniques, and modern systems and procedures.

MANAGEMENT DEVELOPMENT DEPARTMENT

The objectives of the Management Development Department are to improve the Company's management capability through development of construction methods, establishment of an aid to construction site management, analysis of the organizational structure, financial analysis, and establishment of a management information system and creation of an information center. Investigations and studies undertaken by a department indicated that development of an MIS and information center would significantly contribute to increased management proficiency. Further study of the MIS area identified immediate needs for the following:

- 1) A system for integrating the estimating-planning-control-feedback cycle
- 2) An integrated costing system
- 3) Performance data for estimation purposes
- 4) A capability to furnish different departments with the latest developments in their specific activities
- 5) A library with information concerning international standards, codes of practice and specifications

ACTION PLAN

As a result of the Management Development Department analysis, a decision was made to undertake a series of projects to plan, design, and implement a modern management information system to improve the accuracy and timeliness of necessary information to effectively monitor and control project as well as manage the company as a whole. Subsystems in the MIS will include those listed below:

- 1) Financial, budgeting, accounting, and overhead control
- 2) Project cost and performance control
- 3) Project scheduling control
- 4) Material purchasing and inventory control
- 5) Payroll and labor distribution
- 6) Equipment accounting and maintenance
- 7) Tendering and estimating
- 8) Productivity analysis

The department considers that all the listed systems areas are important to the company in the long-term. However, in the short-term, the action plan will first address higher priority projects. The financial, budgeting, accounting, and overhead control area represents the backbone of the Company's MIS. Closely associated with this system are project cost, performance and scheduling control. There is an important distinction between project control management information and financial accounting management information. The financial component accounts for costs on a historical basis at all levels in the Company (company, division, branch, and project). The project control component utilizes both historical information accumulated in the financial component and other types of project information to forecast the impact on

on cost, schedule, and technical quality baselines. In recognition of these priorities and differences the first phase in planning, design, and implementation of the MIS consists of three major tasks:

Systems Design Skills Development. The objectives of this task is to train a selected team in modern systems design techniques and methodology in order to prepare them for future systems projects.

Construction Project Management Systems Skills Development. The objective here is to familiarize a selected group of project managers with modern project control techniques and methodologies in order to prepare them to operate and effectively utilize project control systems.

Financial, Budgeting, Accounting and Overhead Control Systems Design.
The objectives of this task are to:

- a) Review existing systems and procedures
- b) Gather and review existing reports
- c) Identify the main information requirements and reporting needs
- d) Define key features of the system including system schematics, information flow, processing requirements, and other resources requirements
- e) Design and obtain management approval of reports
- f) Outline the budgeting approach and relate coding and control requirements
- g) Develop an implementation plan.

QUESTIONS

1. What are the implications of developing a management information system for the Company in general?
2. What problems with the development and implementation of the new MIS can be expected? How can these anticipated difficulties be overcome?
3. What effect will the new MIS have on the individual manager?

THE UPPER EGYPT JEWELRY COMPANY

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U.S.A.

THE UPPER EGYPT JEWELRY COMPANY

In September, 1979, Hamdi Agiezi took over as President of the Upper Egypt Jewelry Company, a privately owned jewelry manufacturer located in Cairo, Egypt. At that time, Hamdi's father who originally began the business stepped down from active involvement in the day-to-day operations after 45 years with the firm. From an early age Hamdi was groomed to enter the jewelry business. After earning his diploma in business administration, Hamdi joined the firm as a production supervisor. Later he moved into the sales area and then became Vice President for Sales and Operations. At the time of his retirement Hamdi's father thought that his son was well prepared to assume overall management responsibility for the Company.

For quite some time Hamdi has been interested in expanding the firm's operations and increasing sales volume. After analyzing a number of possible courses of action, Hamdi has come to the conclusion that exporting some of their products--cartouches and other pendants based on ancient designs--offers the highest potential. He believes that newscoverage over the past decade plus the tour of King Tutankhamen's artifacts abroad developed a new world awareness of Egypt and, quite possibly, an increased demand for Egyptian products. Hamdi believes that his Company should take advantage of this situation and immediately enter foreign markets, especially western Europe and the United States.

Although he is optimistic about the export possibility, Hamdi knows that some risk will be involved. He is particularly concerned that the overseas market will not meet his expectations or that unforeseen economic or political events could adversely effect his plans. The move into the export markets will require a substantial increase in production capacity by investment in additional facilities and equipment, expansion of the work force, and increased materials inventory. Failure of the project would set the Company back for years.

During the planning phase of the project, Hamdi identified a number of factors that could significantly influence its success. These factors include the basic market response, amount of competition, materials prices--especially gold and silver prices--and the political climate in the middle east and elsewhere in the world. To simplify his analysis he grouped the conditions that the firm could possibly face, into three major categories:

very favorable, favorable, and unfavorable. Further, after considerable calculation, Hamdi estimated that if the firm decided to expand into the export markets and very favorable conditions arose, then a L.E. 300,000 net return over a five year period would result. If only favorable conditions prevailed, the the return would be reduced to L.E. 100,000. If the unfortunate should occur and conditions turned unfavorable, then the firm would suffer a direct net loss of L.E. 500,000 plus incur other intangible costs. Since he had collected a great deal of information on the export jewelry market and worked on the project over a long period of time, Hamdi believed he was in as good a position as anyone to assess the Company's chances of success. Subjectively, he felt that there was a chance of 0.3 of very favorable conditions occurring, 0.5 of favorable conditions and 0.2 of unfavorable conditions.

QUESTIONS:

1. Considering just the information presented in the case, should the Company go ahead with the project? Why?
2. What do you think about Hamdi's analysis? It is complete? Is there other information that would be helpful?
3. How would you suggest that Hamdi proceed to make a decision?

EXHIBIT III

NAMES AND COMPANIES (OR ORGANIZATIONS) OF
THE MMFP PARTICIPANTS

FIRST SEMINAR PARTICIPANTS
MIDDLE MANAGEMENT FOLLOW-UP PROGRAM--EGYPT

September 12-14, 1980

GROUP A *
Construction
and
Petroleum & Petrochemicals

<u>Participant's Name</u>	<u>Participant's Company</u>
1. Assaad Nafeh Abdel-Fattah	Sabbour Associates
2. Ibrahim Emam Afifi	Misr Raymond Foundation
3. Ahmed Amr	The Egyptian General Petroleum Company
4. Fathy Aziz Bastawros	Nasr Petroleum Company
5. Atef El-Barbari	Egyptian General Petroleum Company
6. Mohamed S. El-Ghamrawy	Arab Contractors (Osman A. Osman)
7. Ahmed El-Ghazaly	El Gomhoria General Contracting Company
8. Hani El-Heini	Egyptian General Petroleum Company
9. Samir El-Howfi	Misr Petroleum Company
10. Ahmed Elsaid	Egyptian General Petroleum Company
11. Hashem Elsherif	ENPPI Engineering Company
12. Gebaly M. Gabr	Alexandria Petroleum Company
13. Fouad Hammam	Financial Industrial Company
14. Ibrahim Hussein Aly Hassanin	Industrial Engineering for Construction & Development ICON
15. Abdella Lotfi	Banque Misr
16. Moustafa S. Mohamed	ENPPI Engineering Company
17. Tawfic Nawar	Sabbour Associates
18. Magdi Shaaban	ENPPI Engineering Company
19. Ayman M. Soliman	Sabbour Associates
20. Dessouki Tawakol	Petroleum Pipelines Company
21. Sameh Tawfic	Comser International
22. Sami Tolba	Misr Concrete Development Company
23. Ayman Youssef	National Investment Bank

FIRST SEMINAR PARTICIPANTS
MIDDLE MANAGEMENT FOLLOW-UP PROGRAM--EGYPT

September 12-14, 1980
(continued)

GROUP B *
Tourism
and
Textiles

<u>Participant's Name</u>	<u>Participant's Company</u>
1. Adel Abouzeid	Bank of Alexandria
2. Hamdi Agiezi	Ministry of Tourism
3. Soad Ahmed El Atfi	Ministry of Tourism
4. Adel Erian Attalla	Arab International Consultant (ARICON)
5. Ahmed Said Dahroug	EGOTH
6. Nadia G. Demian	Nasr Spinning, Weaving & Knitting Company (SHOURBAGUI)
7. Madiha Ahmed Eid	Misr-Iran Textile Company
8. Samir El-Desouki	Misr Spinning & Weaving Company
9. Kamal El-Guindi	El Nasr Spinning Weaving & Knitting Company (SHOURBAGUI)
10. Ibrahim El-Harty	Misr Spinning & Weaving Company
11. Seif El Islam El-Helow	Misr Spinning & Weaving Company
12. Khaled El-Nozahi	El Nasr Spinning, Weaving & Knitting Company (SHOURBAGUI)
13. Sheshtawi Elsamanoudi	Misr Spinning & Weaving Company
14. Madiha M. Gaber	The Nile Bank
15. Raouf R. Gadalla	Ministry of Tourism
16. Abd El Hakim Haggag	Misr-Iran Textile Company
17. Bahaa Abdel Hamid	EGOTH
18. Muhammad Ahmad Hanafy	Ministry of Tourism
19. Abdel Raham Kassem	Misr Helwan Spinning & Weaving Company
20. Kout El Kolub Mazen	EGOTH
21. Ahmed Sadek	Misr/Helwan Spinning & Weaving Company
22. Mahamoud El Nokrashy Soliman	Misr-Iran Textile Company
23. Ehab I. Sultan	Sultan Commercial Agency
24. Houssein Abbas Youssef	Misr International Bank

FIRST SEMINAR PARTICIPANTS
MIDDLE MANAGEMENT FOLLOW-UP PROGRAM--EGYPT

September 12-14, 1980
(continued)

GROUP C*
Engineering Industries
and
Others

<u>Participant's Name</u>	<u>Participant's Company</u>
1. Bassem Botros Abadir	International Development Programs
2. Magdi Fouad Abdou	El Nasr Automotive Mfg.
3. Mohamed Ashraf Bedair	Data Processing Services
4. Moustafa Cherif	Data Processing Services
5. Sherif Demerdash	STEELCO
6. Samir Ekladius	Real Estate & Rural Projects Investment Bank
7. Sherif El-Guindi	The Egyptian Hotels & Rest. Supply Co.
8. Khalil El-Kassas	General Company for Batteries
9. Salah El-Hadary	El Nasr Automotive Manufacturing Company
10. Mustapha El-Shimi	HCH Supply Company
11. Mohamed Rafee S. El-Sierafy	Delta Steel Mills
12. Roushdy Riad Henein	Al Eman Company for Refrigeration and Food Production
13. Moustafa M. Hussein	Spring & Transport Needs Manufac- turing Company
14. Hassan Mansour	Band of Cairo
15. Seif Eldin Mansour	El Nasr Automotive Manufacturing Company
16. Adel A. Makky	El Nasr Company for T.V. and Electronics
17. Hamdi Meshref	Nasr Fertilizer and Chemical Industries
18. Ahmed Fouad Ramadan	El Nasr Company for T.V. & Electronics
19. Mohsen Taha	Bank Misr
20. Gaber Abdel Wahab	El Nasr Company for T.V. and Electronics
21. Ahmed Yehia	Data Processing Services

*Managers from the banking sector were spread over the three groups.

EXHIBIT IV
NAMES AND POSITIONS OF
SUPERVISORS INTERVIEWED

NAMES AND POSITIONS OF SUPERVISORS
INTERVIEWED & THEIR COMPANIES

Banking Sector

<u>Company</u>	<u>Supervisor Interviewed</u>	<u>Supervisor's Position</u>
1. Bank Misr	Mr. Mostafa Darwish	Manager
	Mr. Farouk O. Mohamed	Chief Manager
2. Bank of Cairo	Mr. Abdel Wahab Elebiary	General Manager
3. Bank of Alexandria	Mr. Reda Iskander Gadallah	Manager of Foreign Department
4. Egyptian Real Estate Bank	Eng. Raouf Chalaby	Director General
5. Misr/Iran Development Bank	Mr. Mahmoud Sadek	Manager--Banking Department
6. The Nile Bank	Mr. Ishak J. Tawadros	Deputy, General Manager

Engineering Industries

1. El Nasr Automotive Manufacturing Co.	Adnan Wasfy Sheeahan Saleh Abd El Fattah	Sales & Service Director Planning & Supplies Sector Manager
2. El Nasr Company for Television	Hassan Abd-El-Hamid Eng. Badran Mohd Badran	General Director for Sales & Marketing Vice President
3. Engineering Steel Works (STEELCO)	Badr Mahir	Director-Helwan Factory
4. Spring & Transport Needs Manufacturing Company	Latif El Gamal	Chairman
5. The General Company for Batteries	M. A. El-Yassaki N. A. Mikaiel	Chairman Financial & Commercial Director

EXHIBIT V
SUPERVISORS' INTERVIEW QUESTIONNAIRE
and
PARTICIPANTS' QUESTIONNAIRE

Interviewer _____

Date _____

Location _____

Time _____

CONFIDENTIAL

SUPERVISOR INTERVIEW QUESTIONNAIRE

Participant's Name _____

Job Title _____

Supervisor's Name _____

Job Title _____

Company Name _____

Address _____

PART I: BIOGRAPHICAL DATA ON SUPERVISOR

1. Brief career history: (time with present company, previous jobs with company, work experience outside company, etc.)

2. Length of association with participant (years). _____

3. Current work relationship with participant _____

4. Number of immediate subordinates. _____

5. Age (years) _____

6. Education

Interviewer

Ascertain if supervisor holds a college degree. If so, in what, from where, when?

PART II: BIOGRAPHICAL DATA ON THE COMPANY

1. Product line(s) _____
2. Market area(s) _____
3. Size? # employees _____ annual sales (L.E.) _____
4. Management and organization structure.

Interviewer:

This question requires your help.
Obtain company brochure, annual report, organization charts, -etc.
Try to determine the level of technological sophistication of the firm.

PART III: EVALUATION OF PARTICIPANT

_____ is one of your subordinates. Rate him/her on each of the questions that follow. Answer frankly and honestly. This is not a test and the information will not be shared by anyone other than the researchers. This information is confidential.

1. Compared to other persons under your supervision _____'s:

	<u>top 10%</u>	<u>top 25%</u>	<u>top 50%</u>	<u>lower 50%</u>
a) Quality of work is	_____	_____	_____	_____
b) Quantity of work is	_____	_____	_____	_____
c) Concern for people is	_____	_____	_____	_____
d) Concern for production is	_____	_____	_____	_____
e) Job satisfaction is	_____	_____	_____	_____
f) Career satisfaction is	_____	_____	_____	_____
g) Technical competency is	_____	_____	_____	_____
h) Managerial competency is	_____	_____	_____	_____
i) Potential for promotion is	_____	_____	_____	_____

Interviewer

Summarize the supervisor's apparent overall rating of the subordinate.

Very High High Average Low Very Low

2. What impact do you feel participation in the management training program has had on _____'s

a) <u>Quality of work</u>	increased	decreased	no change
Why? (give specific examples)			

Interviewer

Make sure you probe for specifics on each of these questions. Remember, we want to ascertain the effects of the training program in this section.

f) Technical competency increased decreased no change
Why? (give specific examples)

g) Managerial competency increased decreased no change
Why? (give specific examples)

h) Potential for promotion increased decreased no change
Why? (give specific examples)

3. Overall, do you think _____'s strengths and potential for promotion are,

- _____ a) greater in technical matters?
- _____ b) greater in managerial matters?
- _____ c) about the same in technical and managerial matters?

Please explain.

Interviewer

Probe to find out if the participant is truly viewed as someone with managerial skills.

4. Use the following response scale for questions a-c. (Circle the response.)

1 Above Average 2 Average 3 Below Average 4 Not evaluated or applicable

a) How do you feel others in the company view _____'s abilities as a manager?

1 2 3 4 1) Other peers?

1 2 3 4 2) His/her subordinates?

1 2 3 4 3) His/her supervisors (excluding yourself)?

1 2 3 4 4) Yourself?

b) 1 2 3 4 How does the job satisfaction of his/her subordinates compare with others in the Company?

c) 1 2 3 4 How does the work performance of his/her subordinates compare with others in the Company?

PART IV: GENERAL QUESTIONS

Interviewer

Probe for actual situations and very specific examples for each question. Skip questions for which no such answer is forthcoming.

1. What is your personal assessment of _____'s career future in your Company?

3. Describe a situation which illustrates _____'s need for improved managerial skills.

4. What changes have you seen in _____ as a person as a result of participating in the training program? (Indicate if these changes are for the better or for the worse.)

Overall, to what extent do you feel he/she benefited from the program?	Very Much	Somewhat	Very Little	Not at all
--	-----------	----------	-------------	------------

5. What impact have these changes had on _____'s department and/or the Company as a whole? (Indicate if these changes are for the better or for the worse.)

Overall, have the <u>benefits to the company/department</u> been worth his/her involvement in the program?	Very Much	Somewhat	Very Little	Not at all
--	--------------	----------	----------------	---------------

6. What do you feel is needed to help improve the overall quality of management in your firm?

7. What aspects of the Egyptian culture make it most difficult to utilize American management techniques and practices?

8. What American management techniques and practices do you think,

a) will not work in the Egyptian industry? Why?

b) definitely can work in the Egyptian industry? Why?

9. How can a group such as SIU-C faculty best assist in this process?

10. What other thoughts can you share with us on management training for Egyptian industry?

Date _____

Place _____

CONFIDENTIAL

PARTICIPANT QUESTIONNAIRE
Section One

Participant's Name _____

Job Title _____

Training Group 1 2 3

Company Name _____

Address _____

Supervisor's Name _____

Job Title _____

Part I: Biographical Data on Participant

1. How long have you been with your present employer? (years) _____

2. How long have you been in your present job? (years) _____

3. Title of your department _____

4. Number of employees in your department? _____

5. Number of immediate subordinates? _____

6. Product/Service responsibility of department? _____

7. Data on your company:

a) major product line(s): _____

b) market area(s): _____

c) approximate number of employees: _____

Part II: Supervisory Practices

A) The following is a list of practices followed by different supervisors. Some of these will seem desirable to you and some undesirable. Please answer each item according to how you would feel about putting such a practice into effect in *your* department. There are no right or wrong answers. This is not a test.

Draw a circle around the answer which best expresses your opinion. Use the following response scale.

D desirable ? uncertain U undesirable

- 1. Asking your workers for suggestions before setting up an important project..... D ? U
- 2. Recommending your best workers for promotion to even better jobs in other departments..... D ? U
- 3. Explaining the duties and responsibilities of your job to the workers under you..... D ? U
- 4. Teaching some responsible worker how to handle your job..... D ? U
- 5. Talking over ways of cutting costs with your workers..... D ? U
- 6. Explaining in detail all new rules and changes in policy to the workers concerned..... D ? U
- 7. Telling poor workers when their work isn't measuring up to what it should be..... D ? U

B) The following is a list of the methods used by different companies in handling their relations with employees. Some of these methods will seem desirable to you and some undesirable. Please answer each item according to *your opinion* of its value in producing good employer-employee relations.

D desirable ? uncertain U undesirable

- 8. Assuming responsibility for the health of employees..... D ? U
- 9. Promoting employee recreation projects, such as athletic teams, hobby clubs, and social groups..... D ? U
- 10. Basing all promotions on how long the individual has worked for the company..... D ? U
- 11. Fining employees for violation of rules..... D ? U
- 12. Asking workers to comment about the way the company treats them. D ? U
- 13. Holding supervisors responsible for the quality of the products produced in their departments..... D ? U
- 14. Requiring supervisors to keep expense accounts and production records for their departments..... D ? U
- 15. Giving workers who turn in valuable suggestions a part of the money saved by putting their ideas into effect..... D ? U

c) The following are opinions held by various supervisors in positions similar to your own. You will probably agree with some of the statements and disagree with others. Please indicate how you feel about each item by marking the statement as follows:

A agree ? uncertain DA disagree

- | | | | | |
|-----|---|---|---|----|
| 16. | What workers think is unimportant so long as they do their jobs well..... | A | ? | DA |
| 17. | The only guarantee of good work is high pay..... | A | ? | DA |
| 18. | The nature of supervisors' jobs makes it necessary for them to be unpopular with their workers..... | A | ? | DA |
| 19. | Praising workers for good work only leads to demands for more pay..... | A | ? | DA |
| 20. | Sympathizing with workers' difficulties encourages unfounded protests against working conditions..... | A | ? | DA |
| 21. | What workers do during their "off hours" should be of no concern to their employer..... | A | ? | DA |
| 22. | The only important requirement of a good supervisor is a complete understanding of the jobs to be supervised..... | A | ? | DA |
| 23. | Ability to handle workers is inborn, not learned..... | A | ? | DA |
| 24. | No honest worker will go on strike against a company which provides its workers with a decent wage..... | A | ? | DA |
| 25. | Supervisors are usually criticized more than they deserve. | A | ? | DA |
| 26. | The average supervisor can do nothing to reduce absenteeism..... | A | ? | DA |
| 27. | The goals of management and labor are directly opposed and must always be in conflict with each other..... | A | ? | DA |

Part III. Work Group

The following items describe aspects of leadership behavior. Respond to each item according to the way you are most likely to act as the leader of a work group. This is not a test. There are no right or wrong answers. Circle whether you would be likely to behave in the described way:

always = (A), frequently = (F), occasionally = (O), seldom = (S), never = (N)

As the leader of a work group...:.....

- 1. I would most likely act as the spokesman of the group. A F O S N
- 2. I would allow members complete freedom in their work. A F O S N
- 3. I would encourage the use of uniform procedures. A F O S N
- 4. I would permit the members to use their own judgment in solving problems. A F O S N
- 5. I would pressure members for greater effort. A F O S N
- 6. I would let the members do their work the way they think best. A F O S N
- 7. I would keep the work moving at a rapid pace. A F O S N
- 8. I would turn the members loose on a job, and let them go to it. A F O S N
- 9. I would settle conflicts when they occur in the group. A F O S N
- 10. I would be reluctant to allow the members any freedom of action. A F O S N
- 11. I would decide what shall be done and how it shall be done. A F O S N
- 12. I would push for increased production. A F O S N
- 13. I would assign group members to particular tasks. A F O S N
- 14. I would be willing to make changes. A F O S N
- 15. I would schedule the work to be done. A F O S N
- 16. I would refuse to explain my actions. A F O S N
- 17. I would persuade others that my ideas are to their advantage. A F O S N
- 18. I would permit the group to set its own pace. A F O S N

Part IV. Career Interests

The following questions relate to the career interest patterns among business persons. Your thoughtful response and complete answers to each item are appreciated in helping us better understand businessmen.

The section contains 33 questions concerning your opinion about career matters. There are no right or wrong answers. These questions should be answered from 1 to 5 depending upon whether you: (1) strongly agree, (2) agree, (3) neutral or can't decide, (4) disagree or (5) strongly disagree with the statement. Circle your preferred answer in the space provided to the right of each answer.

This is not a test. There are no right or wrong answers.

	Strongly Agree (1)	Agree (2)	Undecided (3)	Disagree (4)	Strongly Disagree (5)
1. It's better to stick by what you have than to be trying new things you don't really know about.....	1	2	3	4	5
2. I dislike to change my plans in the midst of an undertaking.....	1	2	3	4	5
3. The biggest advantage man possesses over lower animals is his ability to regulate himself and live by definite and unchanging rules of conduct.....	1	2	3	4	5
4. I would like the kind of work which involves a large number of different activities.....	1	2	3	4	5
5. I like to experiment and to try new things.....	1	2	3	4	5
6. I like to do new and different things.....	1	2	3	4	5
7. I like to have my life so arranged that it runs smoothly and without much change in my plans.....	1	2	3	4	5
8. What we are used to is always preferable to what is unfamiliar.....	1	2	3	4	5
9. Seniority should be the major consideration for promotion of mangers.....	1	2	3	4	5
10. One of the major aims of education should be to give a few simple rules of behavior to apply in every situation.....	1	2	3	4	5
11. I like to be independent of others in deciding what I want to do....	1	2	3	4	5
12. I like to do things in my own way and without regard to what others may think.....	1	2	3	4	5
13. In my work I like to use initiative and resourcefulness.....	1	2	3	4	5
14. I don't like things to be uncertain and unpredictable.....	1	2	3	4	5

	Strongly Agree (1)	Agree (2)	Undecided (3)	Disagree (4)	Strongly Disagree (5)
15. I like to say what I think about things, even in the presence of my superiors.....	1	2	3	4	5
16. I like to be in the position of not having to follow instructions...	1	2	3	4	5
17. When planning something, I like to get suggestions from subordinates whose opinions I respect.....	1	2	3	4	5
18. The best way to get along in the job is to mind your own business and just do what you're told.....	1	2	3	4	5
19. I figure my supervisor knows better what's good for my department or else he wouldn't be a supervisor.....	1	2	3	4	5
20. The only way to make sure that things get done right is to set up a definite and fixed schedule and never depart from it.....	1	2	3	4	5
21. I don't like to undertake any project unless I have a pretty good idea as to how it will turn out.....	1	2	3	4	5
22. I like a great deal of variety in my work.....	1	2	3	4	5
23. I would like a position which requires frequent changes from one kind of task to another.....	1	2	3	4	5
24. In my work, I would like to have definite procedures and written instructions to follow.....	1	2	3	4	5
25. I dislike having to learn new ways of doing things.....	1	2	3	4	5
26. A person who seldom changes his mind can usually be depended upon to have sound and reliable judgment on matters of importance.....	1	2	3	4	5
27. I find that a well ordered mode of life with regular hours is upsetting to my temperament.....	1	2	3	4	5
28. I like to try new and different jobs--rather than to continue doing the same old things.....	1	2	3	4	5
29. I prefer not to do things according to a routine.....	1	2	3	4	5
30. I like to conform to custom and to avoid doing things that people I respect might consider unconventional.....	1	2	3	4	5
31. A good job is one where what-is-to-be-done and how-it-is-to-be-done are always clear.....	1	2	3	4	5
32. I like to avoid situations where I am expected to do things in a conventional way.....	1	2	3	4	5
34. I like to follow instructions to do what is expected of me.....	1	2	3	4	5

Part V. Life Events

The following questions are designed to find out the way in which certain important events affect different people. Each item consists of a pair of alternatives lettered a or b. Select the one statement of each pair which you more strongly believe to be the case, and then circle it. Be sure to select the one you actually believe to be more true rather than the one you think you should choose or the one you would like to be true.

Answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. There are no right or wrong answers. This is not a test.

In some instances you may find that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you are concerned.

example: a. Cairo is very hot in summer.

b. Alexandria is a great place to vacation.

1. a. Children get into trouble because their parents punish them too much.
b. The trouble with most children nowadays is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.
4. a. In the long run people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5. a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6. a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.
8. a. Heridity plays the major role in determining one's personality.
b. It is one's experiences in life which determine what they are in life.
9. a. I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.
12. a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.
13. a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. a. There are certain people who are just no good.
b. There is some good in everybody.
15. a. In my case, getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.
16. a. Who gets to be the boss often depends on who was luck enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
b. By taking an active part in political and social affairs the people can control world events.
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as "luck."

19. a. One should always be willing to admit mistakes.
b. It is usually best to cover up one's mistakes.
20. a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.
21. a. In the long run, the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of ability, ignorance, laziness or all three.
22. a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.
23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.
24. a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.
25. a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.
26. a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.
27. a. There is too much emphasis on athletics in high school.
b. Team sports are an excellent way to build character.
28. a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.
29. a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run, the people are responsible for bad government on a national as well as on a local level.
30. a. Marriage is largely a gamble.
b. The number of divorces indicates that more and more people are not trying to make their marriages work.
31. a. I have little influence over the way other people behave.
b. If one knows how to deal with people they are really quite easily led.

Part VI. You and Your Job

1. As a result of participating in the management training program, has your

a. Quality of work

improved decreased remained the same

(Give specific examples)

b. Quantity of work

improved decreased remained the same

(Give specific examples)

c. Concern for people

improved decreased remained the same

(Give specific examples)

d. Concern for production

improved decreased remained the same

(Give specific examples)

e. Job satisfaction improved decreased remained the same
(Give specific examples)

f. Technical competency improved decreased remained the same
(Give specific examples)

g. Managerial competency improved decreased remained the same
(Give specific examples)

h. Potential for promotion improved decreased remained the same
(Give specific examples)

- i. Career satisfaction improved decreased remained the same
(Give specific examples)

2. a. What portion of your time do you devote in your job to:

1) Technical matters? _____ %

2) Managerial matters? _____ %

TOTAL = _____ 100%

b. What portion of your time did you devote to these matters before the training program?

1) Technical matters? _____ %

2) Managerial matters? _____ %

TOTAL = _____ 100%

3. Overall, do you think your strengths and potential for promotion are,

a. greater in technical matters. yes no

b. greater in managerial matters. yes no

c. about the same in technical and managerial matters. yes no

4. How have these personal benefits helped your department and your company?
Be specific and give actual examples.

Overall, do you feel it has been worth it to your company/department for you to attend the training program?	Very definitely	Somewhat	Very Little	Not at all
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5. Describe what any major frustrations or problems you have experienced at work as a result of participating in the training program. Be specific.

6. What skills/knowledge would you like to gain from future management training in order to be more successful as a manager? Be specific.

7. What is your assessment of your future career prospects with this company?

8. What do you feel is needed to help improve the overall quality of management in your firm?

9. What aspects of the Egyptian culture make it most difficult to utilize American management techniques and practices?

10. What American management techniques and practices do you think,

a) will not work in the Egyptian industry? Why?

b) definitely can work in the Egyptian industry? Why?

THANK YOU FOR YOUR HELP