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INCREASING PRODUCTIVE UTILIZATION OF INDUSTRIAL CAPACITY: DIAGNOSTIC AND TROUBLE-SHOOTING CHECKLISTS FOR OPERATING MANAGERS AND CONSULTANTS¹/

prepared by

Factory Establishment and Management Section Industrial Operations Division

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PREFACE

The checklists presented herein have been developed and used in a field situation. It is hoped they may be directly helpful to operating managers and to consultants.

This issue of the checklists is consilered preliminary. Comments and suggestions regarding the scope, organization, content, use and limitations of this kind of diagnostic tool are welcome and will be considered in preparing future publications. Please address correspondence to:

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A. INTRODUCTION

From time to time there is a need for analyzing one or more operational aspects of an enterprise. The need may arise in connexion with a specific problem - such as production bottlenecks, market development, product design, costing, or technology choice. Or the analysis may be carried out in response to a general symptom, as in the case of lagging finances or insufficient capacity utilization. In still other cases, the analysis may be requested to provide supporting information for a major capacity expansion project or a diversification programme.

All in all, the need for diagnostic attention is sufficiently frequent to justify some attention to preparing or adapting a checklist of basic points to be raised during such an exercise. This preparation may save duplication of effort. In some cases, it may also lead to identifying potentially important points which might otherwise have been overlooked.

The approach presented here is a slightly modified version of that prepared by UNIDO project manager, Mr. A. Higgins, and used by a joint UNIDO/Government industrial consultancy team in the Republic of Sudan.

B. THE CHECKLISTS

Diagnostic checklists can be used directly by an operating executive to examine an organizational unit reporting to him - or, indeed, his own unit. As currently used in the field, the checklists reproduced below are given by the consulting team to executives of the enterprise being assisted, as a means of preparing for initial working sessions. For example, if the consultants are to meet with the production manager, he is handed the corresponding checklist (please see page) several days ahead, with a request that the information be prepared for discussion upon arrival of the team.

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While the information certainly does not always materialize exactly as indicated, the process does help to prepare the way for a constructive dialogue. The executive has an opportunity to prepare himself to answer the basic questions; this may save considerable time as well as avoiding surprises which might be counter-productive in a face-to-face meeting. The checklist may then be used subsequently in much the same way as an interview guide, to draw out information.

Of course the checklists presented here are necessarily somewhat general since they are applied to enterprises manufacturing a range of products from building materials to textiles to vegetable oil and paper products. They may need to be supplemented, or perhaps partially or completely replaced, by more specifically tailored lists of points, when a specialized problem has already been identified. The manager, or principal consultant, would exercise his discretion in that regard. A further matter for decision is which of the checklists to use; this again depends on the scope and nature of the assignment.

The following checklists are reproduced in this Section:

- 1. Top Management
- 2. Marketing and Distribution
- 3. Manufacturing
- 4. Purchasing
- 5. Personnel
- 6. Finance and Accounting

Others could be added, dealing in more depth with such important sub_ cts as product design, maintenance, research and development, energy utilization, conservation of foreign exchange, etc.

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1. TOP MANAGEMENT CHECKLIST

- 1.1 What are the main objectives of the enterprise? Operating targets? Please provide an organization chart showing main positions and incumbents? names.
- 1.2 Job descriptions of main positions.
- 1.3 Is there a reporting system from sections or departments to management? Please provide specimens of reports you receive.
- 1.4 What is the deadline date for giving you these reports?
- 1.5 Do you receive periodic analytical balance sheets and income statements from your accounting department? We request specimens of these.
- 1.6 Are your accounting reports up to date?
- 1.7 Please give us a specimen of all accounting report formats used in your enterprise.
- 1.8 If accounting is behind how long has it been so and what is the time lag?
- 1.9 Does the information you get from your divisional managers give you a clear picture of the situation, enabling you to take sound and effective decisions?
- 1.10 How do you communicate with your divisional managers?
- 1.11 Do you review their work? Inspect their departments? Follow-up and assens compliance with procedures?
- 1.12 Have your managers easy access to you?
- 1.13 What would you say is the level of morale of your organization?
- 1.14 What do you consider the weakest segment of your organization?
- 1.15 Do you have an idea of which expenses can be reduced?
- 1.16 Are you happy with your organizational set-up? If not, why? Do you have a plan to correct it?
- 1.17 Does the enterprise have any serious problems? If so, what are they?
- 1.18 Are there plans for major new investments, diversification, expansion, etc.?
- 1.19 What are the long range possibilities for the enterprise?

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2. MARKETING AND DISTRIBUTION CHECKLIST

| 2.1 | Please let us have your sales figures (volume and value) for the |
|---------------|-------------------------------------------------------------------------|
| | past five years |
| 2.2 | Do you have a marketing plan? |
| 2.3 | What marketing research or survey have you made? |
| 2.4 | Please let us have samples of all the statistical information |
| | kept by your department and all forms in use - sales, orders, etc. |
| 2.5 | Do you have written marketing and sales procedures and regulations? |
| 2.6 | What are your current marketing and selling expenses? |
| 2.7 | What is the outstanding debt of clients? |
| 2.8 | What is your pricing policy? |
| 2.9 | Are your cost figures reliable? |
| 2.10 | How do you establish your prices? |
| 2.11 | What has been your gross margin during the past five years? |
| 2.12 | What is your current gross margin? |
| 2.13 | Please let us have organization chart of your department. |
| 2.14 | What distribution channels do you use? |
| 2.15 | Do the sales outlets have quotas? |
| 2.16 | How are sales sones determined? |
| 2.17 | What is the current breakdown of zones? |
| 2.18 | How are salesmen's activities controlled? |
| 2.19 | How are salesmen selected? |
| 2.20 | How are they trained? |
| 2.21 | What is sales volume per salesman? |
| 2.22 | Is there an incentive plan? |
| 2.23 | What is your market share? |
| 2.24 | Who are your principal competitors and what is their share of market? |
| | What are your principal products and product lines? |
| 2.26 | What is the percentage, market share and profitability of each? |
| 2.27 | How are deliveries made to clients? Are there problems with deliveries? |
| 2 .2 8 | Are there many returns? |
| 2 .29 | What are the reasons for returns? |
| 2.30 | What quality checks do you have? |
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- 2.31 How do you keep informed about competitors activities?
- 2.32 Do you advertise? Sales promotions? Merchandising?
- 2.33 Do you have a marketing and sales budget? Is it compared to actual performance?
- 2.34 Are variances explained?
- 2.35 Who prepares the sales estimate?
- 2.36 Please explain the flow of the sales order. What is the cycle time?
- 2.37 Please explain your export procedure.
- 2.38 What percentage are exports of total sales?
- 2.39 Please show exports by type, volume and value for the past five years.

3. MANUFACTURING CHECKLIST

- 3.1 What products do you manufacture?
- 3.2 Please let us have your overall manufacturing organization chart, job descriptions of all supervisors and of all positions in manufacture, also sectional organization charts and manning tables as well as the list of machines, plant layout and flow charts of material and production process.
- 3.3 What is your installed capacity per machine, process, section and total?
- 3.4 What is your utilized capacity?
- 3.5 What raw materials do you use?
- 3.6 How much labour do you have and how is it distributed?
- 3.7 What type of production planning and control do you have?
- 3.8 How, where, when and by whom is it done?
- 3.9 Please explain the production process.
- 3.10 What is the area of your factory and how is it distributed?
- 3.11 Do you have production stoppages? What are the causes and extent?
- 3.12 Are all machines in working order?
- 3.13 What is your maintenance system?
- 3.14 Are machine and spare parts coded?
- 3.15 What is the system for ordering raw materials, auxiliary materials, supplies and spare parts? Do you produce any of your spares?
- 3.16 What is the area of your raw materials' store?
- 3.17 What system is used for storing materials?
- 3.18 How are materials received?
- 3.19 How much lead time is needed for ordering?
- 3.20 What transportation system is used to bring materials to the factory?
- 3.21 Where do you get your materials from?
- 3.22 What is your level of raw materials inventory?
- 3.23 How many days stock do you have? How many times per year does your stock turn over?

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- 3.24 How do you handle materials in the factory?
- 3.25 What utilities do you have? Boilers, etc.
- 3.26 What personnel procedures do you have?
- 3.27 What is your factory supervisory system?
- 3.28 What type of quality control do you have?
- 3.29 Do you have quality complaints?
- 3.30 Do you have many returns?
- 3.31 How do you handle deliveries?
- 3.32 How does your delivery and transporation section work?
- 3.33 Do you have transportation problems? What are they?
- 3.34 What is the area of your finished goods store? What system do you use to control it?
- 3.35 What fire fighting equipment and arrangements do you have?
- 3.36 What plant security system is there?
- 3.37 Are all your fixed assets coded and are there proper registers?
- 3.38 How do you ensure the cleanliness and orderliness of your factory? Do you have frequent housekeeping and maintenance inspections?
- 3.39 Do you have many accidents?
- 3.40 What safe-guards and precautions are there?
- 3.41 Do you have much absenteeism? If yes, why?
- 3.42 Do you have much labour turnover?
- 3.43 Do you have a training programme? How does it work?
- 3.44 How do you communicate with your staff?
- 3.45 What is your factory cost?
- 3.46 What is the level of morale in your factory? What facilities are there for employees?
- 3.47 In your opinion, which are the enterprise's main problems?

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4. PURCHASING CHECKLIST

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- 4.1 Please explain the whole purchasing process.
- 4.2 Administration of the department.
- 4.3 Line of authority.
- 4.4 Responsibilities, duties and authority.
 - 4.5 Procurement methods (supply contracts, spot purchases, etc.)
 - 4.6 What is the volume of purchases?
 - 4.7 What are the most important items purchased? in terms of total value? in terms of quality or availability?
 - 4.8 Who are the principal suppliers?
 - 4.9 How are price offers evaluated?
 - 4.'O What sources of information on prices and suppliers do you use?
 - 4.11 How are order quantities determined?
 - 4.12 What terms of payment are usual?
 - 4.13 What is the system for ordering spare parts?
 - 4.14 Suppliers' lead times.
 - 4.18 Transportation to factory.
 - 4.19 Problem areas

5. PERSONNEL CHECKLIST

| 5.1 | Organization of the department and chart. |
|------|-----------------------------------------------------------------|
| 5.2 | Job descriptions of staff. |
| 5.3 | Recruitment methods? |
| 5.4 | Selection methods? |
| 5.5 | Job evaluation? |
| 5.6 | Merit rating? |
| 5.7 | Promotion system? |
| 5.8 | List of personnel by specialization, showing number per type, |
| | name, timetable, section and rate of pay. Total personnel. |
| 5.9 | Total normal hours worked during last three months. Is there a |
| | seasonal pattern? |
| 5.10 | Total overtime worked during same period? |
| 5.11 | Payroll for same period. |
| 5.12 | Is there much absenteeism? |
| 5.13 | Show percentages by type of absence. |
| 5.14 | What is the percentage of labour turnover? |
| 5.15 | System of disciplining? |
| 5.16 | How many shifts does the factory work? |
| 5.17 | What fringe benefits and facilities do the personnel have? |
| 5.18 | Is there an accident prevention programme? |
| 5.19 | Is there much illness? How treated? |
| 5.20 | Is there a cafeteria? How is it run? |
| 5.21 | What are medical arrangements? |
| 5.22 | Is there accident insurance? |
| 5.23 | What would you say is the level of morale of the personnel? |
| 5.24 | What do you believe to be the main problems and difficulties of |
| | the organization? |
| 5.25 | What are personnel relations, communications and welfare like? |
| 5.26 | What is the standari of discipline? |
| | |

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6. FINANCE AND ACCOUNTING CHECKLIST

| 6.1 | Please make available the balance sheets and income statements | |
|-----------------------|--------------------------------------------------------------------|--|
| | for the past five years. | |
| 6.2 | Also itemised manufacturing, marketing and sales, financial and | |
| | administrative expenses for the past five years and an analysis of | |
| | fixed and variable expenses. | |
| 6.3 | What is your break-even level of sales? | |
| 6.4 | Please let us have the organization chart of your department. | |
| 6.5 | What are your authorized bank discounts? | |
| 6.6 | Do you have bank loans or overdrafts? How much and where? | |
| 6.7 | How much are your current assets? | |
| 6.8 | How are your current liabilities? | |
| 6.9 | How much is your current working capital? | |
| 6.10 | What is your liquidity ratio? | |
| 6.11 | How much is your long term debt? | |
| 6.12 | How is your enterprise's equity structured? | |
| 6.13 | How much are your raw materials inventories? | |
| 6.14 | How much are your finished goods inventories? | |
| 6.15 | What is the ratio of inventories to sales? | |
| 6.16 | What is the ratio of sales to fixed assets? to equity? to working | |
| | capital? | |
| 6.17 | What are your sales terms? | |
| 6.18 | What percentage sales are cash - 30 days, 60 days, etc? | |
| 6.19 | What is your collection period? | |
| 6.20 | Do you age your receivables? | |
| 6.21 | How much are your outstanding overdue receivables? | |
| 6 . 2 2 | How many days are they overdue? | |
| 6.23 | Do you prepare a weekly daily and monthly programmed cash flow? | |
| 6.24 | Is it compared to actual? | |
| 6.25 | Do you give the general manager a daily cash flow? | |
| 6.26 | Do you work to a budget? How and by whom is it prepared? | |
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6.27 Is it compared to actual performance? How and how often? What is done to correct variances?

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- 6.28 Who does invoicing to customers? How, when and where?
- 6.29 When are invoices sent to customers?
- 6.30 Are there any long or short-term investments? How much? In what?
- 6.31 What expenses and costs do you feel should and can possibly be reduced?
- 6.32 What problems face the enterprise?
- 6.33 How would you solve them?
- 6.34 What is the state of morale of your people?
- 6.35 Who does collections?
- 6.36 What costing system do you use? How is the data collected?

C. SOURCES OF ADDITIONAL INFORMATION

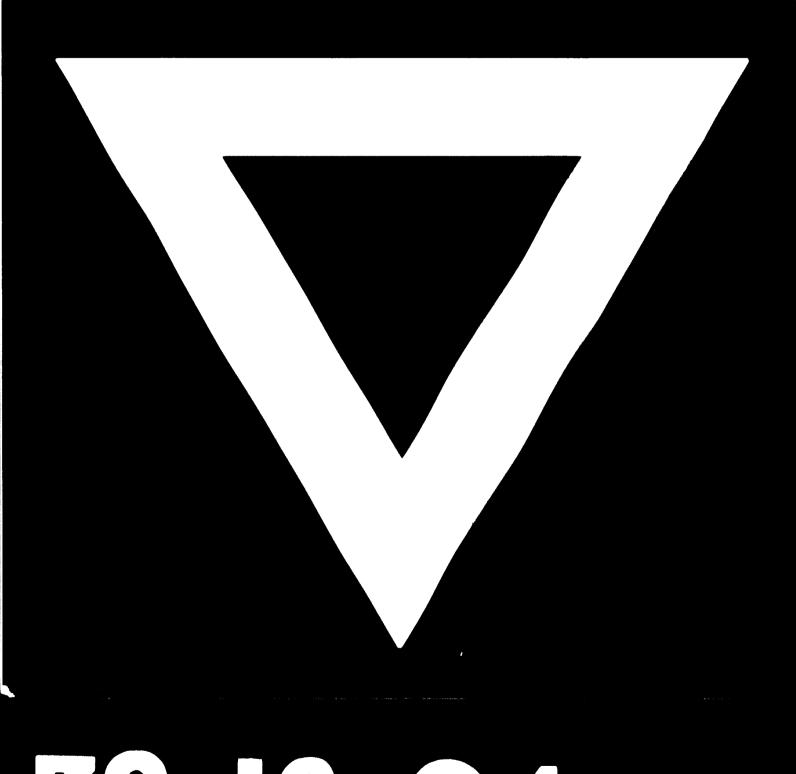
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