Towards a Measure of Organizational Effectiveness in Algeria

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INTRODUCTION

Most studies of organizational effectiveness and its assessment have been carried out in Europe and the United States in order to study organizations, improve their effectiveness and solve their problems. More research is needed in Arab countries, to assess the impacts of local culture and value system on OE (Mokadem, 1992).

Whether or not one the conclusions about organizations and personal motivation concerning one country can apply to another is a highly questionable issue. There seems to be great doubts about the validity of applying findings concerning one country with its own particular background, culture and religion, to another. It is dangerous to assume that differences between countries do not influence the final findings.

The really crucial question is how do we glean those particular principles which can be transferred from one country to another?

This research was designed to assess the effectiveness of organizations in a developing country, Algeria. A model of organizational effectiveness was proposed and applied as the basis for two questionnaires which were designed and used to collect information about the positive and negative aspects of some Algerian organizations (Ghat, 1987; Ghat and Willey, 1987).
LITERATURE REVIEW:

Organizational Effectiveness (OE) is mainly studied by sociologists, based on case studies. The turning point in setting the measurement of effectiveness as a distinct field of research, has been the criterion study, by Georgopoulos and Tannenbaum in 1957 (Campbell et al 1974). Several books, for example Van de Ven and Ferrey (1980), lawler Nadles and commann (1980). Campbell et al (1974), and papers (Cameron (1978) (1980), Cunningham (1977), Seashore (1962) (1965) have been published about the assessment of organizational effectiveness. no simple measure. Although a few good methodologies for measuring the effectiveness of organizations have been produced (Hitt and Middlewist, 1979) no single measurement has so far been generally accepted and universally used by universtigators.

Every measurement instrument is based on the conceptual framework of each individual and his views of the organization. Several questionnaires have been used to assess one aspect or another of organizational effectiveness, such as job satisfaction, organizational climate, communication or stress. We focus in this review on OE measures which perceive OE as a construct, made up of several criteria, to diagnose sal facets of an organization.

1. The Survey of Organization (SOO)

The SOO is a questionnaire designed at the Institute for Social Research, University of Michigan, in order to assess "...certain critical dimensions of organizational climate, managerial leadership, peer behaviour, group processes and satisfaction" Taylor and Bowers 1972. The SOO was used as an assessment tool for organizational self-evaluation and adaptation. The survey was based on the work of Likert (1961, 1967) and Seashore (1962), and focused on the efficacy of small group operations within a larger organization (Lewin and Minton (1986, p518).

2. The Michigan Organizational Assessment Questionnaire (MOAQ)

This questionnaire was designed to obtain perceptual information from organization members. "The information ranges from the 'objective' reporting of events and conditions as they are directly observed by the employees, to wholly 'subjective' reports of the respondents' own opinions and evaluative judgments." (Cammann et al, 1983: 71).
This questionnaire is made up of six modules.

1. General attitudes.
2. Job facets.
3. Task, job and role characteristics.
4. Work group functioning.
5. Supervision.
6. Pay.

There is no final version of the MOAQ, but it is an instrument in a continual process of change. Cammann et al (1983, p117) pointed out that "...the MOAQ should be considered a 'living' instrument. It is adapted each time it is used to fit the particular circumstances involved and there is no one final form."

3. The Organizational Assessment Instrument (OAI)

The OAI is the result of an effort to design and apply a framework for assessing complex organizations. The aim is to achieve and to maintain a high level of effectiveness. The assessment is carried out at different levels or organizations. The OAI is made up of five sets; each is designed to measure "...various characteristics of the context, structure, and behaviour of the overall organization, work of groups and jobs." (Van de Van and Ferney (1980: 4).

Problems of OE measurement

There is no agreement on the definition or criteria of measuring organizational effectiveness. Different authors use different approaches, definitions and criteria. These factors affect also the choices of a strategy and of a tool for measuring OE. The choice of approach affects the choice of criteria, therefore the tool to be used for its assessment.

Kanter and Brinkerhoff (1981, p321) found that the problem of measuring OE is conceptual and not technical. They argued that "The most interesting questions in this area are... not how to measure effectiveness or productivity, but what to measure."

Steers (1976: 51-54) identified eight questions which, according to him, must be resolved if we are to derive more meaningful approaches to the assessment of OE. These issues are:
1. Is there any such thing as OE?
2. How stable are the assessment criteria?
3. Which time perspective is most appropriate in assessment?
4. Are the assessment criteria related positively to each other?
5. How accurate are the assessment criteria?
6. How widely can the criteria be applied?
7. How would such criteria help us to understand organizational dynamics?
8. At which level should effectiveness be assessed?

**Two factors made the measurement of OE a difficult task:**
1. The dynamism and change in organizations, their uniqueness and the high level of interaction with their environments.
2. The disagreement between different authors, and the lack of understanding of organizations.

**MODELS AND CRITERIA OF THE MOE:**

Campbell et al (1977: 5) pointed out that "Strictly speaking it is not possible for anyone concerned with the effectiveness of organizations to avoid using it as a construct or to avoid operating via some kind of theory. Without a theory of some sort, even if it has never been public, it is not possible to say that one organization is more effective than another, or to say that variable X is a measure of OE and variable Y is not, or to plan ways to ‘change’ an organization. Thus, it is incumbent on all those concerned to make their ‘theories of effectiveness’ as explicit as possible."

Nadler and Tushman (1980, p36) also explained that "A model is a theory that indicates which factors (in an organization, for example) are related, that is which factors or combination of factors cause other factors to change. In a sense then, a model is a road map that can be used to make sense of the terrain of organizational behaviour." Campbell et al (1974: 5) explained that "...a model would be to identify the kinds of variables we should be measuring and to specify how these variables, or components, of effectiveness are interrelated or should be interrelated."
Two models were developed for the purpose of this study. The first (Figure 1) outlines the characteristics of effective organizations, whilst the second gives a guideline model for assessing OE (see Figure 2 and 3).

1. The need for models

An effective organization can be defined in terms of its ability to use the available human, technological and managerial resources, and integrate them successfully in the local environmental settings. All these affect the financial performance and overall effectiveness of an organization. The three important factors are as follows:

1. The essential technology, including availability of spare parts and maintenance facilities, for successful industrial performance.

2. A workforce which is satisfied, trained, committed and motivated, and which contributes to low levels of absenteeism and labour turnover and high levels of productivity and day-to-day problem solving.

3. An appropriate model and well-qualified managers oriented to achieving the particular objectives of socialist industrial organizations by using a participative management model.

In combination, these three factors should achieve profits. Part of the profits is shared directly among the workers, including managers. A second part of the profits is reinvested, in machines, skills or management development, to re-inforce the effectiveness mechanism (see Figure 1). A third part of the profits is used to fulfill the organization's commitments to central and local government, in the form of taxes, and to provide various community facilities, as required by the law. So, all of the required machinery, trained and satisfied workers and appropriate management, contribute to increasing productivity, improving product quality, reduce producing costs and making sales easier.

This model of effectiveness may be relevant to organizations in other environments. The objectives and priorities of organizations in different countries are different, and a balance of priorities between all aspects affecting OE is necessary.

In order to measure the effectiveness of an organization, all its peculiarities and determinants must be considered. A theoretical model of any organization has therefore, to incorporate these peculiarities and determinants, otherwise it is incomplete.
2. Assessing OE needs a tool

As stated, by Camman et al (1983: 71), the questionnaire should be adapted to fit different circumstances. If this is true for the use of questionnaires developed and used in the same environment, it is also quite essential when the questionnaires have to be used in completely different environments, such as the United States, Europe and Algeria. The contrast between the Western/developing countries environments and the need for appropriate management models has been outlined by Schippers and Fajardo, 1983:22), who said that "One cannot escape the fact that (too) much of management science is Western-oriented, at least
in origin, while the practitioners in developing countries operate under a completely different set of factors, traditions and customs." The differences between such environments are enormous and for this reason, past questionnaires cannot be adapted for assessing the Algerian model. A new measuring tool must be designed.

The following aspects influenced my design of the new measuring tool:

1. The peculiarities of the socio-technical environment of Algerian organizations.

2. The Algerian model of management which needs appropriate questions for its assessment.

3. The low educational level of the majority of the population who would have to fill in the questionnaires.

4. The non-familiarity of most workers with the use of the questionnaires.

We are interested in assessing Algerian organizations, with their own peculiarities and features. Their objectives, determinants and constraints are more or less different from the Western model. Three environmental features have to be taken into consideration:

1. Algeria is a developing country, not a developed one.

2. The Algerian management system, is different from the capitalist one.

3. The traditions, religion and attitudes making up the Algerian culture are quite different from those of North America and Europe.

The first difference is one of degree, the other two are of type. Even as the Algerian economy develops, these factors will leave their mark on Algerian organizations and their management. This is because, as pointed out by Negandhi (1975) and Cool and Lengnick-Hall (1985), organizations are open systems which are affected by the social and cultural factors of the people working in them. Whether they are consciously designed or whether they just happen, effective organizations must take these factors into consideration in order to have an activity in harmony with workers' requirements and their commitment to organizational goals. In Algeria, for example, if a model of organization in agriculture or industry is seen as not compatible with their religion, people do their best to make it fail.

Organizations are also affected by the legal and economic environment and the infrastructure in which they exist, such as the employment policy,
whether workers can be sacked or not, the availability of raw materials and spare parts of machinery, and the efficiency of levels of communications.

So, in general, designs of effective organizations have to recognise these as realistic determinants.

**FIG. 2 DIAGRAM OF AN OPEN SYSTEM MODEL OF ORGANIZATION**

![Diagram of an open system model of organization]

As shown in Figure 2, for the purpose of this study, we can regard organizations as having two parts which contribute to their effectiveness. These are perceptual considerations which we can measure exemplified by workers' satisfaction, and the objective considerations exemplified by the level of production. This helps us to define some criteria for organizational effectiveness.

3. Organizational effectiveness criteria

As shown in Figure 2, organizations are affected by their environments and they also affect it, although the environmental factors are difficult to control and to measure. So, organizations can be divided into two interrelated parts for study purposes. The first part is workers' satisfaction as it is affected by the different factors within the unit and measured with a POEQ. The second part is the unit performance, production and productivity, as measured by an OOEQ (Figure 3).
FIG. 3 A MODEL OF CORRELATION BETWEEN OE CRITERIA

<table>
<thead>
<tr>
<th>PERCEPTUAL INDICATORS</th>
<th>OBJECTIVE INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIO-CULTURAL ASPECTS</td>
<td>TECHNOLOGICAL &amp; ECONOMIC ASPECTS</td>
</tr>
<tr>
<td>PHYSICAL ENVIRONMENT COMFORT &amp; SAFETY PRECAUTIONS</td>
<td>ACCIDENTS</td>
</tr>
<tr>
<td>MANAGERIAL ASPECTS</td>
<td>ABSENTEEISM &amp; LABOUR TURNOVER</td>
</tr>
<tr>
<td>SATISFACTION WITH QUANTITY &amp; QUALITY OF THE PRODUCT</td>
<td>PRODUCTION, STOCKS &amp; SALES DIFFICULTIES</td>
</tr>
<tr>
<td>SATISFACTION WITH PAY &amp; BONUSES</td>
<td>SALES REVENUES PROFIT OR LOSS</td>
</tr>
<tr>
<td>WORKERS SATISFACTION WITH GENERAL PERFORMANCE OF THE UNIT</td>
<td>MANAGERIAL ASSESSMENT OF GENERAL PERFORMANCE OF THE UNIT</td>
</tr>
<tr>
<td>WORKERS SATISFACTION &amp; MANAGERIAL EFFECTIVENESS</td>
<td>PRODUCTION LEVEL &amp; GENERAL PERFORMANCE</td>
</tr>
</tbody>
</table>

It is obviously of interest and probably of importance to examine the relationship between the perceptual and the objective indicators shown in Figure 3. Correlation tests between some of these factors were carried out and discussed.

METHODOLOGY AND DEVELOPMENT PROCESS OF THE MOE:

This required the successive stages of observation, structural analysis, literature survey, selection of criteria, design of measures and the consultation of managers, workers' representatives and workers themselves. The pilot study thus, involved a feed-back loop. These stages are shown in Figure 4.
Until the questionnaire had achieved a high validity level (as explained later), it was not used for the main study.

**FIG. 4 THE DEVELOPMENT PROCESS OF THE O.E. MEASURES**
1. Observations

Observing the organizations and people at work, as well as discussing facts with managers and workers, are helpful tools in the understanding of organizational goals and problems. The main factors to be observed, and of interest, are those which help us in selecting the criteria for organizational effectiveness.

Two units of production were visited. The "Societe Nationale de Siderurgie" (SNS) at Oran, and the "Enterprise de Ceramique Vaisselle de l'Ouest" (ECVO) at Maghnia. Workers were asked about factors of concern to them in their organizations, and the analysis of their answers gave the results shown in Figure 5.

**FIG. 5 THE MAIN FACTORS ENCOUNTERED BY WORKERS IN TWO ALGERIAN ORGANIZATIONS**

From the preliminary investigation, the main factors encountered by Algerian workers, could be divided into the following categories:

- Incentives such as pay and bonuses
- Organizational deficiencies such as poor management and uncertain promotion prospects
- Job-related problems such as the age of the machinery and the physical conditions of work
- Safety factors such as hazards and protective clothing
- Environment-related factors such as personal transport to and from work and personnel accommodation provided by the enterprise.

All these factors were taken in consideration when deciding the organizational effectiveness criteria.

2. The structural analysis stage

The structure and functions of the organizations were analysed in order to determine the factors and features which could be used as criteria. Most organizational structures were fairly traditional, as shown in Figure 6.

![Diagram](image)

**FIG 6 TYPICAL STRUCTURE AND INTERNAL DYNAMICS OF ORGANIZATIONS**

Concerning the details of internal structure and operations of organizations, the following factors were thought of as being important, and were therefore included as elements in the criteria.

1. Internal factors:
- Workers' satisfaction
- Intra-group relations
- Intergroup relationships
- Management-workers relationships
- Workers-supervisor relationships
- Supervisor-management relationships
- Levels of production
- The management processes
- Marketing
- Profits

2. Environmental factors:
   - Satisfaction of customer
   - Satisfaction of social needs
   - Participation in the resolution of social problems.

   Each of these factors was considered separately and in detail, in order to arrive at selected criteria by which to evaluate the organizations' effectiveness.

3 Selection of criteria stage

   One of the most important tasks in the process of developing a measurement is the selection of appropriate criteria. The four components of this activity are, as shown on Figure 4:

   - Observation
   - Structural analysis
   - Literature survey
   - Analysis of objectives.

   All four components were carried out so as to develop appropriate criteria.

   Each factor of the criteria was examined to ascertain whether it could be evaluated by a questionnaire and also whether it was sub-divided sufficiently enough to provide the required depth of investigation.

4 Design of measurement stage

   In general, once the strategy and methods of research have been
chosen and the criteria selected, the measurement instrument could be designed, either as a questionnaire, interviews or studying documents. In our case, two questionnaires were designed, the POEQ to be filled in by workers, and the OOEQ to be filled in by managers after consulting various figures and documents.

5 Feed-back loop

The last stage before the main study was a feed-back loop, which was made up of the analysis and assessment of results of pilot studies, and improvements in the questionnaires. The magnitude of the needed changes determined whether it was safe to proceed with the main study. The feed-back loop can be repeated until a satisfactory level of accuracy and validity is reached.

CHARACTERISTICS AND STRUCTURE OF THE MOE:

The Measure of the Organizational Effectiveness (MOE), is designed for Algerian industrial organizations in order to diagnose their strengths and weaknesses and to classify them on a continuum from high to low effectiveness.

1 Characteristics of the (MOE)

The following factors peculiar to Algeria were incorporated when designing the MOE:

- Scaled questions: A five-point scale was used as a quantitative tool of measurement.

- Perceptual method: Questions about satisfaction towards different working aspects were used in order to be able to compare different organizations producing different goods or services.

- Simple language: Because of the high rate of illiteracy among Algerian shopfloor workers, simple words and sentences had to be used which were easy to understand and to answer.

- Coloured scale-plates: In order to facilitate understanding, a plate was used with five different colours corresponding to five scales of measurement. This helped illiterate workers to answer by allowing them to choose a colour appropriate to their answer from the scale of colours corresponding to the range of possible answers.
Colours were explained at the beginning, following local culture and stereotypes. Red means danger and therefore is the worst, green signifies fertility and high yields and therefore is the best, white is medium, neither good nor bad. While the orange is less than average and the blue is better than average.

2 Structure of the MOE

The Measurement of Organizational Effectiveness (MOE) is made up of many items and is divided into the two questionnaires, the Perceptual Organizational Effectiveness Questionnaire (POEQ), and The Objective Organizational Effectiveness Questionnaire (OOEQ). The items in the two questionnaires are shown in Table 1.

Table 1: Items included in two questionnaires which comprised the Measure of Organizational Effectiveness.

<table>
<thead>
<tr>
<th>MOE</th>
<th>POEQ</th>
<th>OOEQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfaction with pay.</td>
<td>Absenteeism.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with bonus.</td>
<td>Labour turnover.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with physical environment.</td>
<td>Accident rate.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with safety precautions.</td>
<td>Disciplinary offences.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with comfort at work.</td>
<td>Selling difficulties.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with work in general.</td>
<td>Stock levels.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with relationships with colleagues.</td>
<td>Profit or loss.</td>
</tr>
<tr>
<td></td>
<td>Frequency of problems with colleagues.</td>
<td>Sales revenues.</td>
</tr>
<tr>
<td></td>
<td>Frequency of problems with supervisor.</td>
<td>Expenses.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with working with supervisor.</td>
<td>Production capacity.</td>
</tr>
<tr>
<td></td>
<td>Frequency of problems with heads of departments.</td>
<td>Planned output.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with heads of departments.</td>
<td>Achieved output.</td>
</tr>
<tr>
<td></td>
<td>Frequency of problems with unit manager.</td>
<td>Production interruption</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with ability of the unit manager.</td>
<td>Scrap and waste.</td>
</tr>
<tr>
<td></td>
<td>Promotion based on ability and merit.</td>
<td>Management/TUs relationships.</td>
</tr>
<tr>
<td></td>
<td>Promotion based on personal relationships.</td>
<td>Decision-making.</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with promotion system.</td>
<td>General performance of the unit.</td>
</tr>
<tr>
<td></td>
<td>Level of information about production problems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Level of information about decisions and rules.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with level of exchange of information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with workers' representatives.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with welfare facilities.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with production level of the unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with product quality of the unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with performance of the unit.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pride in working for the unit.</td>
<td></td>
</tr>
</tbody>
</table>
- The Perceptual Organizational Effectiveness Questionnaire (POEQ): This questionnaire comprises workers' satisfaction towards different factors at work, quantified according to their perceived level of satisfaction.

- Objective Organizational Effectiveness Questionnaire (OEOQ): This questionnaire is made up of questions which need objective information, usually written in internal documents, and known by different department managers. There are, despite my label, a few perceptual questions in the OEOQ, but they are related to topics to which only managers can provide the answers. So, this questionnaire had to be filled in by managers. Only one example of such questionnaire is filled in for each production unit.

3 Measurement or judgement of OE

The MOE relies heavily on the response of workers and managers, and their perception of their organizations. At this point, we have to examine the feasibility of relying on such answers in our measure. I feel it is important to explain first, the difference between related concepts such as attitudes, opinions, judgments and perceptions.

- Attitudes, is usually used to refer to a learnt predisposition to evaluate an object in a consistent or characteristic way (Duncan (1979: 9).

- Opinion, is a belief or judgement held by a person. Opinions have neither the proved property of knowledge nor the unverifiable property of faith (Duncan (1979, p135).

- Judgement, however in a narrower and probably more usual sense, is the act of relating something else (Drewer (1952).

- While Perception is the process of becoming aware of something which affects a sense organ (Drewer (1952).

From these definitions, we find that attitudes evaluate objects in a consistent way, regardless of the facts, while opinions have no proven property of knowledge. Judgement is the process of relating one thing to another and, finally, perception is the understanding and reporting of objective facts.

From these, I concluded that neither attitudes nor opinions are relevant to our perceptual questions. The items of the POEQ are more related to the judgement of factors concerned. The objective facts are perceived and
judgements are then made which have been evaluated using the scales in the questionnaire.

In the field of assessment of organizational effectiveness, no comprehensive measure can be developed without taking into consideration the judgement of workers who are the main constituents of any organization. Camman et al (1983: 71), pointed out that "As participant-observers, the members are uniquely qualified to describe the work, work environment, and organizational activities in their respective areas of the organization. As active members, they are uniquely qualified to report their own personal beliefs, opinions, expectations, and affective responses that may, in aggregation, reveal attributes of the organization." While Lewin and Milton (1986, p528) stressed the importance of combined means of measuring organizations. They pointed out that "Whatever the criterion or the unit of analysis, effectiveness is determined in relative terms and often requires some subjective means of combining multiple measures or a judgement to use a single aggregate measure."

The perceptual questions are designed to establish the facts as reported by people actively involved in the organizations assessed, and not just independent, subjective opinions. The fact that patterns and profiles of organizations are represented by the scaled answers to the POEQ, showed the discriminating power of using perceptual items in the MOE.

VALIDITY AND RELIABILITY OF THE MOE:

The value of using any questionnaire is measured by how valid and reliable it is.

1 Validity of the MOE

Validity can be expressed as the extent to which a questionnaire measures what it is designed to measure. It is concerned with the degree of incisiveness and discrimination a questionnaire has.

Validity can be conceptualized in several ways. We look at the content and construct validities of the MOE.
- Content validity: "It is the degree to which the measure appears to be measuring what it is supposed to measure." (Bouhama (1984)). Items of the MOE came up from observations, discussions with workers and managers, as well as from literature survey, in order to have all the criteria needed for the assessment of effectiveness included in the MOE. That is why it should have a high content validity.

- Construct validity: "Construct validity involves relating a measuring instrument to an overall theoretical framework in order to determine whether the instrument is tied to the concepts and theoretical assumptions that are employed" (Bouhama (1984)). Objective and perceived criteria to cover the OE construct are used in this questionnaire. That fits with the theoretical concept of OE which is considered as a complicated construct, as stated by Georgopulos and Tannenbaum (1957), Campbelli et al (1974), Katz and Kahn (1966).

2 Reliability of the MOE

A questionnaire is reliable if it produces a result which can be repeated by using the questionnaire a second time, when conditions in its use have not altered. Reliability is concerned with the degree of repeatability it exhibits.

Most questions from the COEQ are figures to be taken from documents. That is why it does not need to have its reliability tested. Whereas, the POEQ, with its perceived satisfaction, and judgement items, needed to have its reliability tested. A test-retest method was used for this purpose. This method was chosen because of the difficulty of remembering the long list of diversified questions and because of the difficulty of remembering scaled answers.

Thirty POEQs were filled in at the sewing plant "Ain Temouchent". The same group of people were asked to again fill in questionnaires after an average interval of time of two months. The correlation between the two sets of scores was computed and a Pearson correlation coefficient, r, of reliability was estimated (See Table 2).
Table 2: The test-retest Pearson correlation of 30 POEQs.

<table>
<thead>
<tr>
<th>Question Number*</th>
<th>Mean 1st test</th>
<th>Std.Dev. 1st test</th>
<th>Mean 2nd test</th>
<th>Std.Dev. 2nd test</th>
<th>Pearson Correl</th>
<th>Significance</th>
<th>Coef. of set.</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>1.923</td>
<td>1.382</td>
<td>1.923</td>
<td>1.256</td>
<td>0.813</td>
<td>0.000</td>
<td>0.660969</td>
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<tr>
<td>6</td>
<td>2.385</td>
<td>1.121</td>
<td>2.462</td>
<td>0.877</td>
<td>0.652</td>
<td>0.008</td>
<td>0.425104</td>
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<tr>
<td>10</td>
<td>4.077</td>
<td>1.605</td>
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<td>14</td>
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<td>17</td>
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<td>4.154</td>
<td>1.463</td>
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<td>0.421201</td>
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<td>26</td>
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<td>1.494</td>
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<td>1.261</td>
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<td>0.001</td>
<td>0.597529</td>
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<td>27</td>
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<td>1.000</td>
<td>0.000</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>4.462</td>
<td>0.776</td>
<td>4.154</td>
<td>1.214</td>
<td>0.803</td>
<td>0.000</td>
<td>0.644809</td>
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<td>33</td>
<td>1.500</td>
<td>0.798</td>
<td>1.833</td>
<td>0.937</td>
<td>0.729</td>
<td>0.004</td>
<td>0.531441</td>
</tr>
<tr>
<td>34</td>
<td>1.154</td>
<td>0.555</td>
<td>1.231</td>
<td>0.832</td>
<td>1.000</td>
<td>0.000</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
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* See appendix A
From Table 2, we can see that the correlation of some answers on the two occasions are highly significant at 0.01% level. These are:

- Degree of satisfaction with pay.
- Degree of satisfaction with physical environment.
- Degree of satisfaction with safety precautions.
- Degree of satisfaction with work in general.
- Degree of satisfaction with relationships with colleagues.
- Degree of satisfaction with heads of departments.
- Frequency of problems encountered with unit manager.
- Degree of satisfaction with unit manager.
- Extent to which promotion is based on ability or merit.
- Extent to which promotion is based on personal relationships.
- Degree of satisfaction with promotion system.
- Degree of satisfaction with workers' representatives.
- Degree of satisfaction with welfare facilities.
- Extent of pride in working for the unit.

Other items from the POEQ are correlated at the 0.05% level only. These are:

- Degree of satisfaction with bonus.
- Frequency of problems encountered with colleagues.
- Degree of satisfaction with supervisor.
- Degree of satisfaction with product quality.

Low correlation between the two tests was found in the following items:

- Degree of satisfaction with comfort at work.
- Frequency of problems encountered with supervisors.
- Frequency of problems encountered with heads of departments.
- Extent to which you are informed about production problems.
- Extent to which you are informed about decisions and rules.
- Degree of satisfaction with the unit production level.
- Degree of satisfaction with the general performance of the unit.

DISCUSSION:

The concept of OE is the corner-stone in studying organizations. In order to study organizations scientifically and quantitatively, a measure of effectiveness is badly needed. Organizations are affected by the environment in which they perform. That is why organizations in different environments react differently. The effective organization is the one that satisfies the social and political aspirations of people either working in/or dealing with it.

All these show the need for special tools for the measurement of organizations in different environments. The MOE was developed for this purpose and takes into account all the factors influencing the effectiveness of Algerian organizations. The MOE was designed as a result of my interaction with the practices of Algerian organizations, rather than being based entirely on any theoretical concept or specific model. However, the first draft of the MOE, took the theoretical framework of this topic into consideration. The MOE was introduced to workers and managers in the pilot study, where it was enriched and modified according to the comments and suggestions received.

The MOE was designed to fit with the local requirements, by being simple and manageable, without losing the amount of information needed to assess the organizations. There were two parts to the MOE, the POEQ and OOEQ. The fact that these two questionnaires were involved meant that all aspects of the organizations could be assessed, at different levels, using data collected from different sources.

The MOE incorporates questions about different factors which when measured indicate the strength of perceptual factors. The different factors need to be measured in such a way as to be placed on a scale which could be used to compare them with one another.

The statistical correlation between the test and retest showed that most items were highly correlated. The items with low significance of correlation, were the items which are more likely to change over time.

The judgement factor in the perceptual questions can be overcame by larger sizes of samples than in our research and by using objective in
addition to perceptual data.

The drawbacks of the MOE - if any - are general to the use of questionnaires in the social sciences, and in the measurement of OE in particular. This field of research is still in its childhood and needs more research of a practical nature in order to learn from the mistakes incurred.

CONCLUSION:

This research was carried out in order to develop a tool to assess organizational effectiveness, and to help us compare the effectiveness levels of different factors within one unit, and between several different production units.

The approach developed in this research can be used to develop other organizational measures, and can be used as a methodological guide.

The Measure of Organizational Effectiveness questionnaires, like all tools used to assess organizations, is part of an ongoing process needing further adaptation and development.

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Submitted: August 1993
Accepted: October 1995
Towards a Measure of Organizational Effectiveness in Algeria

Boufledja Ghiat
Algeria

Developing tools to assess organizations is a complex task. This paper explains the general need for a model to assess the effectiveness of organizations in developing countries. It also focuses on the identification of Organizational Effectiveness (OE) criteria and the development of tailored questionnaires for the assessment of Algerian production organizations.

A theoretical model of organizations is developed as a starting point to design a Measure of Organizational Effectiveness (MOE). The steps of the development of this measure are outlined.
(3) The negative effect of the technology transferred is not due to the technology itself but to planning inefficiency;

(4) The main contributors to the strengthening of the forward and backward linkages is the group of investment companies which operate at all level of pharmaceuticals manufacturing;

(5) The social impact of the technology transferred to the Egyptian pharmaceutical sector embodies more burdens for the manufacturing companies due to the difference between the actual price of the drug and its social price. As well, the social impact is clear in the changing of the consumption patterns of drug.