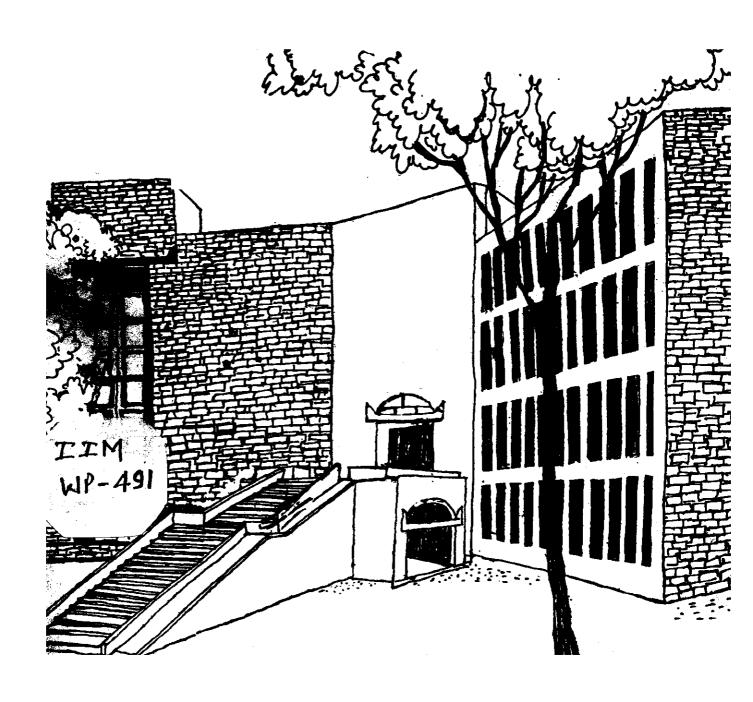# Working Paper

IIM
WP-491

ORGANIZATIONAL GOALS AS DETERMINANTS
OF LOWER MANAGEMENT JOB SATISFACTION

By

Pradip N. Khandwalla

W P No. 491

January 1984

INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD-380015
INDIA

ORGANIZATIONAL GOALS AS DETERMINANTS
OF LOWER MANAGEMENT JOB SATISFACTION

Pradip N. Khandwalla*
Professor
Indian Institute of Management, Ahmedabad

ORGANIZATIONAL GOALS AS DETERMINANTS OF

LOWER MANAGEMENT JOB SATISFACTION

Abstract

Questionnaire based data from 47 Indian corporations indicated interesting causal linkages between the goals of top management and the level of job satisfaction of the relatively lower level of management vis-a-vis various job factors. Three hypotheses were assessed, namely, that each goal differentially affects the various facets of lower management job satisfaction, that goals differ in their patterns of effects on lower management job satisfaction, and that goals differ on the extent of impact on lower management job satisfaction. The data broadly supported the hypotheses. Implications of the findings for organization theory and management practice are discussed. Hypotheses emerging from the study are stated.

ORGANIZATIONAL GOALS AS DETERMINANTS OF LOWER MANAGEMENT JOB SATISFACTION

INTRODUCTION

This paper presents a pioneering exploration of the causal linkages between organizational goals and job satisfaction at lower management levels. The findings are based on a sample of nearly 50 Indian corporations. The unit of analysis is the organization, not the individual manager. The major hypothesis tested is that operational organizational goals will vary in their impact on various facets of lower management job satisfaction. An attempt has been made to identify causal linkages between organizational goals and lower level job satisfaction. For this purpose, data are presented on the relationships between prior period operational top management goals and current period satisfaction level of various dimensions of lower management's job satisfaction.

Job Satisfaction: A Contingency Approach

Following the rise of the human relations movement in industry in the thirties and forties, job satisfaction became a major focus of research in the developed countries (Carroll, 1973; Baker, 1974; Locke, 1976; Thurman, 1977; Weaver, 1977). Locke, for instance, reported over three thousand studies by 1972. The concern, however, was with productivity rather than with satisfaction (Herzberg etal, 1957; Locke, 1976). The expectation of human relations researchers was that satisfied workers would also be productive workers (Carroll, 1973). In other words, under

the norm of reciprocity, satisfied workers would reward the organization with greater commitment to work, which would translate into higher productivity and efficiency. While the causal link from job satisfaction to productivity never came to be firmly established (Katzell, 1957; Vroom, 1964; Porter and Lawler, 1968), job satisfaction still retained considerable strategic value for students of organization. Associations were found between job satisfaction and rates of turnover and absenteeism (Brayfield and Crockett, 1955; Herzberg et al, 1957; Hulin 1968; Vroom, 1964; Sinha, 1974; Locke, 1976; Koch and Steers, 1978). Satisfied employees may be less prone to leave the organization or to remain absent. Job satisfaction has also been linked to physical and mental health, longevity, and quality of life (Herzberg et al, 1957; Palmore, 1969; Burke, 1969-70; Sales, 1969; Sales and House, 1971; Gechman and Wiener, 1975; Wnuk - Lipinski, 1977). Also, job satisfaction may be an internal goodwill variable. Satisfied staff may more likely stand by the organization in its dark hours than dissatisfied staff. Finally, satisfied employees may be less inclined to report grievances (Locke, 1976), and join or support hostile unions.

As India and other developing countires industrialise, the same concerns that elevated job satisfaction to preeminence in the developed countries a generation or more back, namely, possible link with higher productivity, low absenteeism and turnover, mental health, and loyalty to the organization, are being experienced also in the developing countries. Hence the great popularity of job satisfaction research in countries like India. A recent survey of organizational behaviour work in

India during the 1970-1979 decade indicates that studies of job satisfaction, motivation, job enrichment, job involvement, etc., account for over over 25 per cent of all organization behaviour studies (Ganesh, 1981). As developing countries set up larger and more complex enterprises and institutions, human relations issues, including job satisfaction, are likely to gain in prominence because of management inexperience in handling large bureaucracies, complex technologies, and diverse work forces.

Although earlier studies tended to focus on worker job satisfaction, two relatively later trends seem to be towards providing contingency explanations for job satisfaction (Vroom, 1964; Dewar and Werbel, 1979), and on studying the satisfaction of managers and white collar staff (Blauner, 1960). Contingency studies of job satisfaction seek to explain observed job satisfaction in terms of a host of organizational factors such as the nature of the task (e.g. Lawler and Hall, 1970), the structure of the organization (e.g. Meltzer and Salter, 1962; Porter and Lawler, 1965; Carpenter, 1971; Cummings and B ger, 1976; Pierce, 1979); its reward structure (Shrivastava and Dave, 1978); the size of the organization (e.g. Talacchi, 1960; Beer, 1964); the hierarchical level of the staff (Porter, 1962, 1963a; Porter and Lawler, 1965; Cummings and El Salmi, 1970; Szilagyi, 1977); the technology of the organization (e.g. Trist and Bamforth, 1951; Walker and Guest, 1952; Lodahl, 1964; Inkson and Simpson, 1975; Rousseau, 1978); organizational climate and culture (e.g. Friendlander and Margulies, 1969; Slocum and Topichak, 1972; Simonetti and Weitz, 1972; Pestonjee and Singh, 1982); and the nature of the organizational role or occupation (e.g. Dunnette, Campbell, and Hakel, 1967; Armstrong, 1971; Srivastava, 1974).

The basic premise is that employee job satisfaction is not merely a function of the style of supervision, as believed by human relaters (Likert, 1961; Ghiselli and Wyatt, 1972; Aiken, et al, 1972; Szilagyi et al, 1977; Keller and Szilagyi, 1978, etc.) but also, like most other organizational phenomena, a function of underlying organizational contingencies or durable arrangements like technology, organizational structure and form of role differentiation, task environment of the organization, type of organization, its goals, and so forth (Woodward, 1958; Thompson, 1967; Hall et al, 1967; Pugh et al, 1969; Perrow, 1970; Khandwalla, 1972; Aldrich, 1979).

Managerial Job Satisfaction

Students of organization have also been increasingly noting the importance of the job satisfaction of managers and white collar staff (Schultz, 1964; Porter, 1965; Lahiri and Srivastava, 1967; Ravi Kumar and Harigopal; 1978; Kumar et al, 1981; Pestonjee and Singh 1982). These personnel play significant decision making and resource allocative roles in the organization, and their satisfaction cannot be taken for granted. Indeed, their satisfaction may be crucial for implementing the decisions of higher management (Gruenfeld and Foltman, 1967) and for effective coordination of inter-departmental activities, not to mention competent and conscientious discharge of formally assigned responsibilities (Lawler and Porter, 1967). The farther (in supervision distance) these personnel are from top management, the more crucial may the satisfaction of these personnel be in ensuring that their behaviour is congruent with organizational requirements visualised by top management. Thus, managerial job satisfaction may be a significant organization integration variable (Lawrence and Lorsch, 1967).

Shared status, pressures, and aspirations, as well as work interdependence, may lead to horizontal communication processes among members of an organizational stratum, leading, in turn, to shared beliefs about work-related motives and satisfactions (Salancik and Ffeffer, 1978). It may also lead to what Crozier (1964) has called strata isolation, the tendency of horizontal staff layers in bureaucracies to develop internal cohesion and alienation from the rest of the organization, especially from upper and lower staff layers. The reported job satisfaction of a management stratum (and its determinants) may be of considerable interest both from the standpoint of social information processing models of organization (Salancik and Pfeffer, 1978) and models of bureaucratic dysfunction (Crozier, 1964). Both point to the importance of studying the properties of layers of the organization.

Organization Goals

Scholars have begun to note the impact of top management actions on the job satisfaction of those lower in the hierarchy (Ruch, 1978-79; Field and Ridenhour, 1975; Futrell, 1976). Goals of top management may be especially interesting in their intended and unintended effects on lower managerial job satisfaction. The lower level manager, too distant from the top to identify with the goals of top management, but hankering to be a top level executive some day, is a crucial element in the managerial hierarchy (Applebaum, 1977; Couch, 1979). He carries the burden of implementing policies he has not shaped nor fully identifies with or even understands. But he must conscientiously execute them if he wants to rise in the organization. His strong need for upward mobility is

more often than not frustrated because of the pyramidal shape of the organizational hierarchy (increasingly limited promotion opportunities as one goes up in the organization), and he often is the first to bear the brunt of the alienation of workers and first line supervisors. Thus, the job satisfaction of lower managers is especially vulnerable to top management goals and personnel policies.

Organizational goals are internal forces that impel the organization to strive in certain ways. For example, an organization with a profit goal is one that is trying to increase profits through increasing sales or reducing costs or diverstifying or modernising its plant or increasing effeciency through an incentive system, etc. Although formal or stated goals have some value as action legitimising charters (Khandwalla, 1977: ch. 10), operational goals may instead have major behavioural consequences for the organization (March and Simon, 1958; Simon, 1964; Cyert and March, 1963; Perrow, 1970). Operational goals may or may not coincide with formal goals. Very few of the long list of goals stated in memoranda of associations are ever pursued, and operational goals such as market dominance or customer goodwill are seldom listed in these memoranda.

It has been argued that only individuals have goals, not collectivities (Simon, 1960; Cyert and March, 1963). However, organizational goals may be emergent consensus phenomena arising out of the interactions and power plays of important decision makers in the organization (Cyert and March, 1963; Thompson and McEwen, 1958; Child, 1972) and the organization's interactions with its operating environment (Thompson and McEwen, 1958; Child and Kieser, 1981). In the formation of organizational goals,

the goals of the top management (the chief executive and his immediate subordinates) tend to play a decisive role owing to the hierarchical nature of most formal organizations (Saunders and Tuggle, 1979-80). Operationally, therefore, it may, as a first approximation, be appropriate to treat the goals of top management as the operational goals of organizations, especially of hierarchically operated organizations (Khandwalla, 1977: ch.10).

Organizational goals may have a pervasive influence on organizational life through the operation of goal-means hierarchies (Simon, 1964). Goals tend to trigger search for a series of means for achieving them—decisions and resource allocative actions that may alter the content of jobs, role relationships, working conditions, the definition of "good" performance, sanctions and rewards, operating policies and procedures, and so forth, that may be important determinants of the job satisfaction of subordinate level managers and employees.

Organizations may pursue a variety of goals (Perrow, 1970; Christensen et al, 1976; Saunders and Tuggle, 1979-80). For instance, organizations may not only pursue such indicators of performance as profitability, growth,and efficiency, but also such system goals as institutionalising a more professionalised or participative mode of decision making; output and output characteristic goals such as producing goods or services of high quality; legitimisation goals such as serving urgent social needs and otherwise securing a desirable public image, etc. These different goals may not necessarily be pursued with equal urgency (Cyert and March, 1963; Dent, 1959; England and Lee, 1971; Khandwalla, 1977: ch.10). Different goals may trigger different organizational consequences because of differing end-means hierarchies, and this may have differing impacts on various aspects of managerial job satisfaction.

HYPOTHESES

A goal is likely to be pursued by complex end-means hierarchies. For example, the pursuit of growth may trigger a wide variety of actions such as diversification, expansion, product innovation, more aggressive marketing and selling, etc. These variegated actions may imply that the lower managers' satisfaction with some aspects of their jobs may increase; with others it may decline; and with still others, it may remain unchanged. Hence:

1.   An organizational goal will tend to have varying impacts on the different aspects of lower management job satisfaction. It will tend to raise satisfaction vis-a-vis some dimensions and lower it vis-a-vis some other dimensions of lower management job satisfaction.

Goals pursued by top management are likely to differ significantly in their end-means hierarchies. For instance, the goal of greater profitability may require very different actions as compared to the goal of a better public image. The former, for instance, may imply the organization concentrating on only highly profitable ventures; the latter may imply sacrifice of profitability, by taking up socially significant ventures that may be of marginal profitability. Thus, the patterns of the impacts of different goals on constituents of lower management job satisfaction will tend to differ.

Hence:

2.   Organizational goals will tend to differ in their patterns of effects on lower management job satisfaction.

Goals of top management may differ on how much of an effect they
have on managerial job satisfaction. Some goals, such as a faster rate
of organizational growth or a more professionalised management of the
organization may affect lower management job satisfaction more potently
by opening up promotion opportunities, making jobs more challenging, or
improving the organization's decision support systems. Others, such as
serving national priorities or building customer loyalty to the organi-
zation may have more indirect, and therefore less potent, effects on
most lower level managers.

Hence:

3.   Top management goals will tend to differ on the extent of their
       impact on lower management job satisfaction.

To summarise, the three hypotheses argue that an operational orga-
nizational goal (that is, a goal of top management) will tend to affect
the different facets of lower management job satisfaction unequally; that
organizational goals will differ in their patterns of impact on lower
management job satisfaction; and that they will also differ in the
magnitude of their impact on lower management job satisfaction.

METHOD

Two questionnaires were used to gather the data reported in this
paper.[1] One was labelled Top Management B Questionnaire (Top B for short)
and was used to gather a wide range of strategic management data such as
the operating goals of top management, the operating business environment
of the enterprise, constraints faced by the organization, etc. The second
questionnaire was labelled Junior and Middle Management Questionnaire(J-M
for short), and was used to gather information on priorities and job

satisfaction of lower level managers, motivational climate (Pareek, 1979) in their departments, etc. The Top B was sought to be completed by top level executives (chief executive and those reporting to him or her), who had been with the organization for at least 3 years and were well acquainted with the information sought in the questionnaire. The J-M questionnaire was sought to be completed by persons below the departmental head level, and who had at least 2 years supervisory or managerial responsibilities in the company (senior managers were expressly requested not to complete the questionnaire). Both Top B and J-M questionnaires were to be completed anonymously. The study was part of an effort to investigate Indian management practices (Khandwalla, 1980).

For data gathering, those companies whose chief executives had agreed to participate in the study were requested to nominate a senior person who would get the questionnaires completed. Depending upon the size of the enterprise, two to four Top B questionnaires and or more ten J-M questionnaires were sought from each enterprise. On an average about two Top B questionnaires and ten J-M questionnaires were received. For each enterprise, top management goal scores were computed by averaging scores of all the Top B respondents. Similarly, since the unit of analysis was the organization, not the manager, all the J-M questionnaires from an organization were averaged to secure the job satisfaction score at middle and lower management level (lower management for short). The questionnaires were completed and returned in postage paid, self addressed envelopes attached to each questionnaire. It is estimated that about a third to a half of the executives eligible for completing the

two questionnaires completed them. Companies from which less than
five J-M questionnaires were received were deleted from data analysis.

Measurement of Goals

A modern organization, with so many stakeholders, would have to
pursue a variety of goals representing their interests (Khandwalla,
1977: ch.10). A good deal of research also suggests that organizations,
including business enterprises, pursue multiple goals (Cyert and March,
1963; Dent, 1959; England and Lee, 1971). For enterprises, besides the
usual goal of profitability, sales growth and increase in market share are
important (Baumol, 1967; Starbuck, 1965; Porter, 1980). Preceding ques-
tionnaire data gathering, a year's interviews with Indian entrepreneurs,
managers, consultants, trade and industry association representatives,
etc. (Khandwalla, 1980) indicated additional operational goals of mana-
gements, such as arresting decline, stabilising performance, developing
their organization through professionalisation, and building a good
internal and external image. In the context of the primacy of the state
in India, its regulatory apparatus in the industrial sector, and the
general developmental milieu, better relations with the government and
assisting development by entering into high priority industry areas were
also frequently mentioned goals.

Data on twelve top management goals are presented in this paper.
For convenience, these are divided into several groups: financial per-
formance goals (higher profitability and stabilisation of financial per-
formance); growth goals (increase in growth rate of sales, increase in
market share); external relations goals (a better public image, greater

customer loyalty, and better relations with government); organizational development goals (greater professionalisation of management, higher employee morale, higher operating efficiency, and greater supervisory and managerial skills); and social responsibility goals (meeting national priorities to a greater extent). The foregoing is a wider goal set than that normally studied by Western scholars (Dent, 1959; England and Lee, 1971) and it seeks to capture most of the impulses and aspirations driving managements in a developing, turbulent, and state regulation as well as private enterprise oriented political economy.

An organizational goal tends to generate new action when it is salient (March and Simon 1958; Cyert and March, 1963). A goal is operational or salient when it is evoked by a discrepancy between aspirations and achievement. It is when profits are below expectations that management is likely to take action, which through end-means hierarchies may affect the job satisfaction of lower level managers. Thus, to capture salience or operationality of a goal, the respondents were asked to rate the importance to the top management of securing a <u>substantial increase</u> over past achievement vis-a-vis the goal.[2]

Since top management goals, policies, etc., are likely to be important causative influences on organizational behaviour lower down in the organization (Simon, 1960), information on the operating goals of top management three years prior to the date of administration of the questionnaire was sought. On grounds of antecedence, causal inference would be surer if past top management goals correlated with current lower management job satisfaction. The top management operating goals were measured on 5 point scales.[3] In this study, the relationships between <u>past</u> goals and <u>current</u> lower management job satisfaction are presented.

Measurement of Lower Management Job Satisfaction

For estimating lower management job satisfaction, two sets of
scales in the J-M questionnaire were utilised. One set of four point
scales measured the importance the manager gave to various job related
factors, were he to consider taking a now job.[4] This way, an attempt
was made to get at the weightage he assigned to each job satisfaction
factor relatively uncontaminated by his past experience in his present
job (Blauner, 1960).[5] The second set of 5-point scales sought to measure
his present need fulfilment vis-a-vis each job factor (Morse, 1953;
Katzell, 1964; Porter, 1963b). To arrive at the job satisfaction score
of each manager for each job factor, the current need fulfilment vis-a-vis
the factor was multiplied by the weightage given to the factor (Sarvaswar
Rao, 1974). Since this procedure leads to highly skewed distributions,[6]
the positive square root of the product was taken as the measure of factor-
related job satisfaction. As disclosed earlier, all responses from an
organization were averaged to secure the lower management level job satis-
faction score for the organization for each factor. The theoretical
range of scores was from 1.0 to 4.5.

The choice of job factors was guided not only by previous con-
ceptualisations of human needs, especially in work situations (Maslow,
1954; Herzberg, 1968; Porter, 1963 a ; Alderfer, 1972) but also by feed-
back from some middle managers during interviews. Two factors of parti-
cular importance in India appeared to be social prestige of the organi-
zation, and altruism, the opportunity to serve society. Both these items,
tapping the ascriptive character of Indian society and also its tradition

of detached service reinforced by Gandhi, were included in the final set of job factors. In all, fourteen factors were assembled, grouped broadly under the following categories:

1.   Growth and achievement, consisting of sense of challenge and worthwhile accomplishment, opportunity for personal growth and development, opportunity for taking initiative, and appreciation of superiors for good work.

2.   Power, status, and autonomy, consisting of decision making authority, opportunity for promotion, job freedom, opportunity to influence the decisions of superiors, and social prestige of the job.

3.   Interpersonal relations, consisting of considerate boss and congenial colleagues.

4.   Altruism, consisting of opportunity to serve society.

5.   "Existence" factors, consisting of job security and pay and perks.

SAMPLE

The sample was 47 Indian enterprises that were studied as part of a much larger effort to understand better Indian indigenous modes of management (Khandwalla, 1980). While most of the enterprises were private sector companies, a sizeable number of public sector enterprises were also included. Their size distribution, industry affiliation, and other pertinent data are given in Table 1.

Although "past" operational top management goals data were available for 72 organizations, and lower management job satisfaction data were available for 62 organizations, data for both sets of variables were available for only 47 enterprises.

The average size of the companies in 1980 was over Rs.400 millions ($50m.) in annual sales, but the spread was very large. About 20% had sales of Rs.50 million or less while about the same number had sales of over Rs.1000 millions. The industry affiliation was also quite diverse, with sizeable numbers of consumer goods, producer goods, machinery, and engineering units. About 85% of the companies were in the private sector, while 15% were public enterprises or in the joint sector. A number of large business houses were represented in the sample. The sample was, therefore, quite diverse in terms of size, product, and ownership pattern, so that the findings of the study may be fairly representative of the corporate sector in India.

(Table 1 about here)

DATA AND ANALYSIS

Means, Standard Deviations, and Interr rrelations

Table 2 presents the means and standard deviations of top management goals as well as of lower management items of job satisfaction. The goal scores ranged from a low of 3.15 (increased meeting of national priorities) to 4.25 (higher profitability), the theoretical range being 1.0 to 5.0.[7] Higher growth rate was also pretty important at 4.03 while several of the organization development goals (a more professionalised management, higher employee morale, greater supervisory and managerial skills) were relatively less important. It would seem that profits and growth are the primary/salient goals of Indian corporate managements while social responsibility and organization development may, in general, be somewhat secondary. The primacy of the traditional entrepreneurial goals of profitability and growth augure well for rapid economic growth; the much lower salience of national priorities does not augur well for the kind of development espoused by the government. The relatively low salience of organizational development may partly be attributable to complacency about organizational effectiveness induced by sellers market conditions in many Indian industries.

(Table 2 about here)

As against the theoretical range of 1.0 to 4.5, the job satisfaction items exhibit a range from 2.8 (opportunity to serve society) to 3.5 (sense of challenge and worthwhile accomplishment). Although the range seems small, the small standard deviations, ranging around .4, imply statistically significant differences between the means of such relatively high satisfaction items as sense of challenge, initiative opportunity, job security, congenial boss, and growth opportunity and such relatively low satisfaction items as opportunity to serve society, opportunity to influence superiors, and opportunity for promotion. On the whole it would appear that lower level corporate management is less satisfied vis-a-vis its power and status needs and its altruistic needs than other needs, especially its growth and achievement needs. The implication may be that at lower management levels jobs are exciting but unglamorous. This relatively low social and organizational visibility of lower management jobs may be a source of alienation from the organization.

The product moment intercorrelations of top goals (Table 3) indicate several features. Firstly, the predominance of positive intercorrelations suggests a strong contagion effect among these goals — the tendency for management aspirations in different areas to go up or down together. It would seem that an optimistic or ambitious management may strive harder on a broad range of fronts, while a pessimistic or passive management may set low sights on a broad front. Although set effects can also artifactually produce this picture, the range of correlations, from -.16 to +.70 rules out explanation only in terms of set effects. The

picture that emerges is not of relatively loosely coupled operational
goals attended to sequentially by decision makers (March and Simon,
1958; Cyert and March, 1963), but rather, of interconnected goals, with
the salience of one goal triggering the salience of numerous other goals.
This may possibly be because of perceived end-means relationships among
these goals (e.g. the salience of profitability making management think
of stepping up the growth rate to realise higher profits, and this in
turn leading to the salience of organizational development to cope with
higher growth, etc.). Secondly, goals seem to differ in their centrality —
some goals may be more richly connected than others. For instance, in-
creased meeting of national priorities (goal 12) is significantly corre-
lated with only five other goals; on the other hand, more professiona-
lised management (goal 8) and higher operating efficiency (goal 10) are
both significantly correlated with all other eleven goals. Thirdly, most
classes of goal seem to be highly interconnected internally. For instance,
the two growth goals are correlated .4 (versu averaging a correlation of
.3 with the other ten goals), the three external relations goals have
an average internal intercorrelation of .5 (versus an average of .3 with
the rest), and the four organization development goals have an average
internal intercorrelation of .6 (versus .3 with the other goals). On the
other hand, the two financial performance goals are correlated only .3
(versus .3 with the rest).

(Table 3 about here)

The product moment intercorrelations of job satisfaction items (Table 4) also indicate a fairly strong contagion factor, varying centrality, and generally higher connectivity within a class of items than across classes. Only 3 out of 91 correlations reported in Table 4 were negative, and as many as 58 were statistically significant. The correlations, however, do show a large range, from −.05 to .74, ruling out set effects as the sole or even predominant cause of observed interrelationships. The average internal intercorrelation for the four growth and achievement items was nearly .6 (versus about .3 with the rest of the 10 items); that of power items was about .3 (about the same with the remaining 9 items); of interpersonal items was .6 (versus less than .3 with the rest); and of "existence" items was about .5 (versus a shade over .2 with the rest). The most highly interconnected items appeared to be three growth items, namely, opportunity for personal development, opportunity for initiative, and superiors' appreciation for good work, and also an interpersonal item, congenial colleagues. Social prestige of the job was also interconnected surprisingly well. The relatively isolated items appeared to be congenial boss; the two "existence" factors, job security and remuneration; opportunity to serve society; and opportunity for promotion. It would appear that the so-called intrinsic motivators (Herzberg, 1968), such as job challenge, opportunity for growth and initiative, and recognition for good work, may be particularly important elements of the contagion factor vis-a-vis contentment with the job, while the so-called extrinsic factors − boss, security, pay, etc., may be much less so. In other words, managements that are able to

"turn on" the staff (Khandwalla, 1981), may be able to realise large
unanticipated gains in terms of employee satisfaction vis-a-vis even
extrinsic factors, while managements that concentrate mainly on extri-
nsic factors of job satisfaction possibly fail to tap the contagion
effect. From the perspective of lower management job satisfaction being
an important integration variable (Lawrence and Lorsch, 1967), the em-
phasis by management on intrinsic motivators may be of considerable im-
portance.

(Table 4 about here)

Correlations of Past Goals with Current Lower Management Job Satisfaction

Table 5 presents the product moment correlations of past top goals
with lower management current job satisfaction. Some patterns are imme-
diately obvious:

1. Each goal seems to vary considerably in its correlations with job
satisfaction items. For instance, profitability's correlations range
from -.11 to .38; of market share from -.11 to .47; of customer loyalty
from -.16 to .57; of professionalisation from -.25 to .42, and so forth.
The range of correlations for the twelve goals averaged 50 correlation
points, ranging from relative lows of 35 and 37 correlation points for
better public image and better relations with government respectively,
to relative highs of 73 and 67 correlation points respectively for grea-
ter customer loyalty and greater management professionalisation.

2.   Several goals seem to vary considerably in their patterns of impact on lower management job satisfaction. For instance, all the correlations of higher sales growth and better public image are positive; all but four of the correlations of increased meeting of national priorities are negative.

3.   There apparently are differing impacts of goals on lower management job satisfaction. The summated correlation points of each goal with the 14 items of job satisfaction, ignoring signs, ranged from lows of 172, 182, and 185 for national priorities, efficiency, and performance stabilisation, to 434 for customer loyalty and 368 for sales growth.

4.   Each item of job satisfaction seems to be affected differentially by the top goals. For instance, for sense of challenge and worthwhile accomplishment, the correlations with the 12 top goals range from -.19 to .31; for decision making authority, from .12 to .49; for nurturant boss, from -.19 to .21, and so forth. The variation averaged 45 correlation points across the 14 job satisfaction items, ranging from relative lows of 34, 34, and 35 correlation points for social service opportunity, job autonomy, and opportunity to influence superior respectively, to highs of 62 and 58 correlation points for opportunity for personal growth and promotion opportunity respectively.

5.   Items of job satisfaction seem to differ in the pattern of influence of goals on them. For instance, correlations of opportunity for taking initiative with the twelve goals are all positive; all but two correlations of nurturant boss with the twelve goals are negative.

Indeed, all but 5 of the 48 correlations of the four growth and achieve-
ment items of satisfaction are positive, all but 6 of the 60 correlations
of the five power items are positive, and all but 2 items of the 24 corre-
lations of the two "existence" items are positive. In contrast, all but
8 of the 24 correlations of the two interpersonal items are negative,
and all but four of the 12 correlations of social service opportunity
are negative. Thus, by and large, lower management satisfaction con-
cerning growth and achievement opportunities, power, status, autonomy,
job security, and pay, etc., may be positively influenced by corporate
management ambitiousness, while satisfaction with interpersonal relations
and opportunity for altruism may be negatively influened by it.

6.   The impact on job satisfaction items of top goals seems to vary
considerably. The summited correlation points (ignoring signs) ranged
from lows of 102, 124, and 132 respectively for social service opportu-
nity, congenial colleagues, and nurturant boss to highs of 406, 365, 338,
and 336 respectively for decision making authority, promotion opportunity,
opportunity for taking initiative, and opportunity for personal growth
and development. Thus, top management goals may affect the growth and
power need satisfactions of lower management far more strongly than
their altruistic and affiliative needs.

(Table 5 about here)

TESTS OF HYPOTHESES

The three hypotheses advanced earlier were that each top goal
will have a varying impact on different aspects of lower management
job satisfaction, that there will be inter-goal differences in their
patterns of impact on lower management job satisfaction, and that the
top goals will vary on their overall impact on lower management job
satisfaction. Results of the attempt to test the null hypotheses of
each goal's unvarying impact, of goals having identical patterns of
impact, and of goals having the same degree of impact, are presented
below.

Hypothesis 1: Goal's Varying Impact on Job Satisfaction Items

For assessing the first hypothesis, it would be useful to have
a measure of dispersion of the effect of a past top goal on the various
aspects of current lower management job satisfaction. A convenient
measure may be the standard deviation of the goal's correlations with
the fourteen job satisfaction items. The larger the standard deviation,
the greater the variation in the goal's impact on different dimensions
of job satisfaction. Table 6, column presents these standard deviations
for all the twelve goals. Since the null hypothesis was zero standard
deviation (no difference in impact), whether or not each standard devia-
tion was statistically different from zero was estimated based on the
estimated variance of the twelve standard deviations. All the standard
deviations reported in Table 6 were found to be statistically different
from zero.

Another way to test the first hypothesis is to identify statistically significant differences in correlations of each top goal with the job satisfaction items. Even one such difference between any two correlations per goal would constitute support for the hypothesis. For instance, higher profitability correlated .01 with sense of challenge and .36 with personal growth (see Table 5). Since the difference (.36 — .01) is statistically significant at $p \leq .05$, there would be support for the hypothesis vis-a-vis the profitability goal. Since, however, per goal there are 14C2 or 91 paired comparisons of correlations with job satisfaction items, statistically significant difference in a pair of correlations may occur by sheer chance. As a decision rule, therefore, the hypothesis was deemed to be supported for a goal if there were more than 5 pairs in which the correlations of job satisfaction items with the top goal were statistically significantly different ($p \leq .05$). Table 6 shows the number of statistically different correlation pairs for each goal. For all the goals except better public image (goal 5), the number of such correlations was much in excess of 5, and in the case of seven goals, over 15. Thus, the null hypothesis of uniform impact of each top goal on various facets of lower management job satisfaction may be rejected. It is noteworthy that all four organizational development goals had a relatively strong differential impact, suggesting that professionalisation, training, etc., may have many unintended consequences for the job satisfaction of lower level management. For instance, while they may increase satisfaction with growth needs, they may arouse expectations in superiors of better performance by subordinates, and of

greater support from superiors in subordinates. If these are not ful-
filled, they may give rise to interpersonal dissatisfactions. Greater
customer loyalty, market share, and profitability were the other three
goals with relatively strong differential impacts. The salience of
these three goals probably subjects the organization to wide ranging
stresses and strains, due to emphasis on marketing orientation, expan-
sion, aggressive competition, cost control, etc., so that here again,
while they may open up growth opportunities at lower levels, they may
also create interpersonal tensions.

(Table 6 about here)

Hypothesis Number 2 : Distinctive Impacts of Goals on Job Satisfaction Items

For assessing the second hypothesis of inter-goal differences in
patterns of impact on job satisfaction items, significant differences in
correlations between those of a goal with each job satisfaction item and
those of other goals with the corresponding job satisfaction item were
counted. Since this required 11 x 14 = 154 paired comparisons of corre-
lations (per goal) of which say 5% would be significantly different by
chance alone, a goal was said to have a distinctive pattern if at least
8 statistically significant differences were found. As an example of the
procedure, consider the correlations of profitability with the 14 job
satisfaction items. The first correlation of .01, reported in Table 5,
is between profitability and satisfaction from a challenging job. This
correlation of .01 was compared successively with the correlations of

other goals with satisfaction from job challenge, and the number of statistically significant (p $\leq$ .05) differences counted (there was only one such difference, with that of correlation of customer loyalty and job challenge). Next, the correlation of profitability with personal growth satisfaction was compared with the remaining eleven correlations under the personal growth column in Table 5, and the number of statistically significant differences identified, and so on for each correlation of profitability and job satisfaction items shown in Table 5. The number of statistically significantly different correlations across the 14 satisfaction items were aggregated, and this was the "score" for profitability. The higher this score the more distinctive the impact of profitability on different aspects of lower management job satisfaction. This procedure was followed for each goal. Table 7 shows the distinctiveness score of each goal.

(Table 7 about here)

As Table 7 shows, all but one goal have a distinctive impact on lower management job satisfaction. The most distinctive impact is that of national priorities, followed at considerable distance by customer loyalty and sales growth. Public image does not appear to have a distinctive impact, while employee morale, operating efficiency, and managerial skills - three of the four organization development goals - appear to have only marginally distinctive impact. The second null hypothesis, too, may be rejected.

Although the null hypothesis may be rejected, how strong is the support for the alternate hypothesis? An attempt was made to assess the support for the hypothesis by transposing the matrix of correlations in Table 5 and subjecting it to principal components analysis. By this process, goals rather than job satisfaction items would load on the emergent factors. If each goal had a perfectly unique impact on job satisfaction items, there would be 12 factors, one corresponding to each goal. At the other extreme, if the goals had identical patterns of impacts, a single factor would emerge. Thus, the larger the number of factors the greater the support for the hypothesis of unique impact of each goal.

The principle components analysis of the transposed matrix of correlations in Table 5 yielded 2 factors (with eigen values of 1 and over). The first factor accounted for 72% of the variance, while the second factor accounted for only 9% of the variance. The findings suggest quite a substantial similarity in the effect of corporate goals on lower management job satisfaction, so that while the null hypothesis of identical impact of goals may be rejected, the support for the alternate hypothesis of distinctive impact has only very modest support. Orthogonal rotation "clarified" the two factors. The goals of higher sales growth, public image, professional management, efficiency, employee skills, and national priorities loaded more heavily on the first factor (compared to the second factor) indicating that these goals may have a rather similar impact on various facets of lower management job satisfaction. The goals of better profitability, performance stabilisation, market share, customer loyalty, governmental relations, and employee morale had higher

28

loadings on the second factor, indicating not only that those may
have a similar impact on various dimensions of lower management job
satisfaction, but that their pattern of impact may differ from that
of the first group of goals.

Hypothesis 3 : Differential Impacts of Goals on Lower Management Satisfaction

In order to assess the impact of goals on job satisfaction, step-
wise regressions were run on each job satisfaction item. Table 8 reports
the variance explained by each goal. It also shows the range of variance
explained for each job satisfaction item, and the total variance in each
item explained by the 12 goals (last 2 rows). Three past top goals were
the largest predictors of current lower management job satisfaction:
greater customer loyalty, higher sales growth rate, and greater meeting
of national priorities. Customer loyalty was the largest predictor for
9 out of 14 job satisfaction items. Sales growth and national priori-
ties were the number one predictors for only 1 satisfaction item each,
but they were the number 2 predictors for four others. Professionalisa-
tion of management was the number one predictor for two items. It is
remarkable that customer loyalty was the major predictor for most of the
growth and power items but not for interpersonal or altruism items. Na-
tional priorities had a smaller but more even impact across the satis-
faction items. Employee morale, market share, and governmental relations
appeared to have the smallest impacts.

As far as the hypothesis is concerned, there appears fair support
for differential impacts of goals on satisfaction items. The range of

variance explained by the goals varied considerably for most job satis-
faction items. Only for the two interpersonal items and altruism was
it below 10%. The satisfaction items with the largest range of impacts
were promotion, authority, recognition for good work, growth, initiative
opportunity, and job freedom. In other words, the areas of growth and
power had relatively extreme impacts of goals, ranging from many goals
with minimum impact to a few with very sizeable impact.

(Table 8 about here)

SUMMARY AND DISCUSSION

The paper, based on data from 47 Indian corporations, reports an exploratory study of the way top management goals affect lower management job satisfaction. The unit of analysis is the organization, not the individual respondent. The study presents relationships between prior period top management goals and later period lower management job satisfaction. In this study, because of the antecedence of the presumed causal variables (top management goals), causal inferences may be made more confidently than in studies in which the "cause" and "effect" variables are measured for the same time period, creating difficulties in attributing causality. The study is one of a few where relationships are sought between variables at two distinct levels of management. Besides, the variables were measured through different questionnaires, thus minimising the spurious covariation that often creeps in when all the variables being related are measured by the same respondent.

The effect of twelve prior period operational top management goals on fourteen items of current lower management job satisfaction was studied. The twelve goals were, for convenience, classified into financial performance, growth, external relations, and organizational development goals. The importance of these goals to corporate top management was rated by one or more top level respondents. Multiple responses were averaged to secure the scores for the enterprise. Since a corporate goal is likely to be salient when

there is a substantial gap between management aspirations and
current achievement, operationally the various goals were mea-
sured by having the respondents rate the importance of signi-
ficantly higher performance on each goal. The fourteen lower
manager's job satisfaction items were classified into those
relating to his growth and achievement needs, power, status,
and autonomy needs, interpersonal relations needs, altruistic
needs, and "existance" needs. Data were secured from middle
and lower level managers, and job satisfaction data from all
the respondents from an enterprise were averaged to secure
the enterprise's scores for lower management satisfactions
on the 14 items. Job satisfaction for each item was weighted
by the importance assigned by the respondents to the pertinent
job factor.

The enterpreneurial goals of higher profitability and
sales growth appeared to be more important to Indian corporate
managements than the developmental goals of increased meeting
of national priorities or greater management professionalism
or efficiency. Lower managements reported greater satisfaction
with personal growth and achievement needs than power needs
and altruistic needs, suggesting that lower management cor-
porate jobs in India may be perceived to be exciting but of
relatively modest status, and also of only modest social re-
levance.

Both goals and job satisfaction items seemed to be
subject to a strong contagion factor. Some top management

goals, particularly greater professionalisation of management and higher operating efficiency, may trigger a contagion of higher aspirations vis-a-vis other goals of corporate management. This may be much less possible for other goals, such as increased meeting of national priorities. The data indicated complex linkages between goals. Similarly, some items of job satisfaction, particularly the personal growth and achievement items, may trigger a contagion of job satisfaction vis-a-vis other job factors more strongly than others, such as the opportunity to serve society, the opportunity for promotion, and the two "existence" items. Thus, those top managements that concentrate on increasing the satisfaction of lower managers with respect to opportunities for personal growth and worthwhile achievement, may reap a bonus of higher satisfaction of lower staff vis-a-vis many other job factors.

Given that organizational goals differ on the instrumental action needed to achieve them, and that instrumental action initiated by top management affects tasks, working relationships, rewards, and communication processes at lower management levels, three hypotheses were proposed. The first postulated that each goal will tend to affect lower management job satisfaction factors differentially. The second postulated that organizational goals tend to differ from one another in the way they affect lower management job satisfaction. The third argued that organizational goals tend to differ on the

magnitude of their impact on lower management job satisfact-
ion. The null hypotheses of these three were assessed, and
rejected on the basis of the various correlational, regression,
and factor analytic tests performed on the data. A cautious
interpretation of support for the three hypotheses seemed
warranted.

The major serendipitous finding of the study was that
top management goals tend to affect growth, power, and "exist-
ence" related job satisfactions of lower management positively
but interpersonal and altruistic need satisfactions negatively.
Among goals, the ones with the largest (and mostly positive)
impact on lower management job satisfaction appeared to be
greater customer loyalty (suggestive of the salience of market-
ing orientation in management) and higher rate of sales growth,
suggestive of the salience of entrepreneurial orientation. In
India, as in the U.S. (Peters and Waterman, 1982) an aggressive,
customer service oriented management may generate high levels
of staff loyalty. The reasons may be that such a management
tends to favour innovation to meet the special needs of custo-
mers, emphasises building lasting internal human relationships
for greater organizational integration in meeting external
pressures, and sets high standards of performance that provide
a sense of challenge to the staff. Salience of organization
development goals, especially professionalisation, seemed to
have a highly varied effect, affecting some aspects of job

satisfaction, particularly those related to growth and power factors, positively, and several others, particularly those related to interpersonal relations and altruism, negatively. It may be that the pursuit of organizational development goals may enrich lower management jobs, but may also raise unrealistic interpersonal expectations on the part of both superiors and subordinates. An interesting prediction suggested by this study is that commitment to the practice of OD may, contrary to the expectations of OD practitioners, lead to greater interpersonal conflict at lower levels of management. Salience of national priorities generally had a negative impact on lower management job satisfaction possibly because in Indian conditions this goal often implies lower level managers having to work at thankless tasks in facilities deficient environments.

The findings of this study may have implications for both management practice and organization theory. Since job satisfaction may be an index of how integrated an individual or a group is with the organization, and since this integration has implications for organizational health, effectiveness, etc., the finding that management goals can have sizeable influence on lower management job satisfaction is itself of significance. Even more significant is the finding that goals can differentially affect job satisfaction. Greater awareness of the links between organizational goals and facets of lower level job satisfaction should make for more appropriate

selection of top management goals and/or better selection of means for achieving goals. For instance, a stronger marketing and growth orientation may be preferred not only in its own right, but also because of the bonus it may yield in terms of higher job satisfaction at lower management levels. Salience of national priorities seems to affect lower management job satisfaction negatively. That does not necessarily mean that this goal needs to be abandoned. More innovative means by which this goal can be achieved may need to be developed so as to minimise its dysfunctionality for lower management job satisfaction. Particularly significant for management practice may be the bonus job satisfaction to be reaped by activating and satisfying the growth and worthwhile achievement needs of lower managers. Challenging corporate targets, stress on an exalted or unique mission for the organization, concretisation of personal targets by some form of management by objectives, strong efforts to communicate corporate goals to the managerial rank-and-file, performance review meetings of managers, formation of task forces of lower managers for specific urgent tasks, and so forth (Khandwalla, 1981) may be the practical steps top management could take to increase the personal growth related job satisfaction of lower managers.

The findings of the study may be especially relevant for those organizations with difficult social and developmental missions but limited capacity to motivate managers by pecuniary

means. Many public sector organizations in both the develop-
ing and the developed countries, as well as many institutions
and voluntary agencies, may be in this situation. For them,
motivation of lower level managers by choosing and pursuing
an appropriately diverse and challenging goal set may be an
alternative worth exploring. Several case studies in India
(Khandwalla, 1982) concerning state owned enterprises indi-
cate the potential of this tool of motivation and job satis-
faction.

As far as organization theory is concerned, the study
supports the contingency view that organizational phenomena
(including job satisfaction) are importantly shaped by con-
textual variables like the organization's size, technology,
business strategy, operating business environment (Child and
Kieser, 1981) - and top management goals. Thus, the job satis-
faction of a manager is not just a matter of his personality
or that of his boss or his position in the hierarchy, etc.
System variables like salient organizational goals may affect
it as much as these local variables.

The study also extends the literature on unintended
consequences of management actions. Sociologists have stu-
died several bureaucratic dysfunctions of management actions,
such as unintended alienation and interpersonal tension ste-
mming from management's desire for control through close su-
pervision (Selznick, 1943), poor coordination between depart-
ments following functional specialisation for greater efficiency

(Merton, 1957), minimum acceptable behaviour following the imposition of rules to standardise performance (Gouldner, 1954), and alienation and feelings of incompetence in the rank-and-file due to excessive structuring of activities as part of "proper" organizational design (Argyris, 1956). The present study indicates some positive unintended consequences of top management aspirations, alerting researchers to both positive and negative unintended consequences of management initiatives.

The study has implications for the social information processing view of job attitudes (Salancik and Pfeffer, 1978). Salancick and Pfeffer have argued that job attitudes are strongly fashioned by communication processes within a group about what its various members are experiencing. In other words, job satisfaction may be more a consensus phenomenon than a matter of independently arrived at state of affect or cognition about satisfaction. To the extent that job satisfaction scores for a level of management tap this consensus, then the study uncovers some forces shaping this consensus. In other words, the salient goals of management-through the actions and signals initiated by these goals - may be a significant determinant of those forces that lead to a socially arrived at consensus within a group about job related attitudes.

To the extent that lower management job satisfaction is an indicator of organizational integration (Lawrence and Lorsch, 1967), the study indicates that top management dynamism

(as reflected in striving for improvement on many fronts) may be a powerful determinant of organizational integration, and convesely, that management "satisficing" (i.e. aspirations close to the status quo) may be a major cause of lowering organizational integration. This may explain why large, internally differentiated public bureaucracies or monopoloid enterprises that often need to "satisfice" vis-a-vis goals as a price for coalitional maintenance (Cyert and March, 1963), seem to get caught into a vicious cycle. The cycle is of "satisficing" to keep various elements of the ruling coalition pacified, lowered job satisfaction and organizational integration through absence of challenging operational organizational goals, poorer organizational performance and lower organizational slack, greater intra-organizational conflict for resources, and further "satisficing". Ultimately, these organizations may end up as highly fragmented, politicalised, "sick" organizations (Khandwalla, 1981).

Finally, the following hypotheses suggested by the data and the preceding discussion are offered as a spur to further research:

1.   Operational organizational goals tend to evoke one another, but they tend to vary in their capacity to evoke other organizational goals. In particular, relatively concrete operational goals like the growth and development of the organization, higher financial performance, or stronger linkages with customers and other external

stakeholders, may have greater evoking capacity than relatively abstract goals like serving society more effectively.

2. Aspects of job satisfaction tend to trigger one another, but they tend to vary in their capacity to evoke satisfaction vis-a-vis other aspects. In particular, satisfaction vis-a-vis the so-called intrinsic job factors such as personal growth and development or power and status, may have greater evocative capacity than satisfaction with the so-called extrinsic job factors like pay, job security, or interpersonal relationships.

3. The greater the salience of multiple organizational goals to top management, the greater will tend to be the job satisfaction of lower management levels vis-a-vis growth, power, and security factors, but the lower will tend to be their satisfaction vis-a-vis interpersonal relationships at work.

4. The greater the salience of growth and customer goodwill goals to top management, the higher will tend to be job satisfaction at lower management levels.

5. The greater the salience of the organization development goal to top management, the higher will tend to be lower management satisfaction vis-a-vis personal growth and power related job factors, but the lower will tend to be satisfaction vis-a-vis interpersonal relationships at work.

6. The greater the salience of multiple organizational goals to top management, the greater will tend to be formal and informal interactions at lower management levels resulting in the formation of consensus attitudes towards work, the organization, and the management.

7. Given a large, horizontally and vertically differentiated organization, characterized by a marked power and status hierarchy, much functional specialisation, and distinctive departmental cultures, the higher the salience of multiple organizational goals to top management, the greater will tend to be the integration of lower management levels with the organization.

Notes

1. The study was commissioned by Indian Institute of Management Ahmedabad. Besides the author, Professor Udai Pareek and Mr. Prafull Anubhai were members of the research team set up to investigate Indian indigenous management practices.

2. The attempt was to assess the salience of a goal to top management at a particular point, not to assess the intrinsic importance of the goal to top management. A goal, such as survival, may be intrinsically very important, but not salient if there is no threat to the organization. On the other hand, a goal may not be intrinsically very important, such as a good public image, but it may be quite salient if unfavourable publicity about the organization has recently appeared in the media.

3. For measuring each goal, the following scale was used:

   1 = The top management is opposed to this goal

   2 = The top management does not actively pursue this goal

   3 = The top management gives only moderate importance to it

   4 = The top management gives great (but not greatest) importance to this goal

   5 = The top management gives the greatest importance to this goal.

4. During pre-testing, excessive tendency to rate 3 on five point scales for some of the importance of factor items was noticed. Hence, in the final version of the J-M questionnaire, four point scales were used to measure the importance of various job factors. In the scales, 1 = Factor not important in choosing another job; 2 = Moderately important 3 = Quite important; 4 = Factor extremely important in choosing another job.

5. Each need satisfaction scale was anchored at the two extremes, and in several need satisfaction items the directionality was reversed. Two typical scales are given below:

Decision making authority   Need not met at all   1 2 3 4 5   Need fully met

Opportunities for taking initiative   Very adequate   1 2 3 4 5   Too few

The negative scales were appropriately reversed for measuring job satisfaction.

6. For given increases in need importance and need satisfaction, the increase in the latter's product is much greater at higher values of need importance and need satisfaction. E.g. the difference in job satisfaction of two respondents, one who rates need importance and need satisfaction both at 3 and another who rates both at 4 is $(4 \times 4) - (3 \times 3) = 7$. On the other hand, had the former

rated both at 1 and the latter at 2, the difference would have been (2 x 2) - (1 x 1) or only 3. By taking the square roots of the products, this anomaly disappears.

7.   The effective theoretical range of goal salience was, however, from a shade above 2.0 to 5.0 - see Note 3 above.

REFERENCES

Aiken, Wilbur J., Stanley J. Smits, and Donald J. Lollar
1972   "Leadership behavior and job satisfaction in state
            rehabilitation agencies". Personnel Psychology
            25 : 65 - 73

Alderfer, C.P.
1972   Existence, relatedness, growth : human needs in
            organizational settings. New York : Free Press.

Aldrich, Howard E.
1979   Organizations and environments. Englewood Cliffs,
            N.J. : Prentice - Hall

Applebaum, Steven H.
1977   "The middle manager : an examination of aspirations
            and pessimism". Business and Society 18/1 : 5 - 12

Argyris, Chris
1956   Personality and organization. New York : Harper

Armstrong, Thomas B
1971   "Job content and context factors related to satis-
            faction for different occupational levels". Jour-
            nal of Applied Psychology 55 : 57 - 65

Baker, Cherry
1974   "Job enrichment and job satisfaction - selected
            overseas studies. Part 2 : British studies".
            Personnel Practice Bulletin 30/1 : 38 - 46

Baumol, William J.
1967   Business behavior, value and growth (revised edi-
            tion). New York : Harcourt Brace.

Beer, Michael
1964   "Organizational size and job satisfaction". Academy
            of Management Journal, 7 : 34 - 44

Blauner, Robert
1960   "Work satisfaction and industrial trends in modern
            society". Berkeley, Calif. : Institute of Industrial
            Relations, University of California, reprint no.151.

Brayfield, A.T. and W.H. Crockett
1955   "Employee attitudes and employee performance".
            Psychological Bulletin 52 : 396 - 424.

Burke, R.J.
1969-70   "Occupational and life strains, satisfaction and
           mental health,"   Journal of Business Administra-
           tion 1 : 35 - 41

Carpenter, Harreli H.
1971   "Formal organizational structural factors and
           perceived job satisfaction of classroom teachers".
           Administrative Science Quarterly 16 : 460 - 465

Carroll, Bonnie
1973   "Job satisfaction : a review of the literature".
           New York : New York State School of Industrial
           and Labour Relations, key issue series no.3.

Child, John
1972   "Organizational structure, environment, and per-
           formance : the role of strategic choice". Socio-
           logy 6 : 2 - 22

Child, John and Alfred Kieser
1981   "Development of organizations over time". In
           Paul C. Nystrom and William H. Starbuck (eds.).
           Handbook of organizational design. New York :
           Oxford University Press.

Christensen, Roland, Norman Berg, and Malcolm Salter
1976   Policy formulation and administration. Homewood,
           Ill. : Irwin

Couch, Peter D.
1979   "Learning to be a middle manager". Business Hori-
           zons 22/1 : 33 - 41

Crozier, Michel
1964   The bureaucratic phenomenon. Chicago : University
           of Chicago Press.

Cummings, L.L. and Chris J. Berger
1976   "Organization structure : how does it influence atti-
           tudes and performance?" Organizational Dynamics
           5/2 : 34 - 49

Cummings, L.L. and A.M. El Salmi
1970   "The impact of role diversity, job level, and orga-
           nizational size on managerial satisfaction". Ad-
           ministrative Science Quarterly 15 : 1 - 10

Cyert, Richard M. and James G. March
1963   A behavioral theory of the firm. Englewood Cliffs,
           N.J. : Practice - Hall

Dent, J.K.
1959   "Organizational correlates of the goals of business managements". Personnel Psychology 12 : 365 - 393

Dewar, Robert and James Werbel
1979   "Universalistic and contingency predictions of employee satisfaction and conflict". Administrative Science Quarterly, 24 : 426 - 448

Dunnette, Marvin D., John P. Campbell, and Milton D. Hakel
1967   "Factors contributing to job satisfaction and job dissatisfaction in six occupational groups". Organization Behavior and Human Performance 2 : 143 - 174

England, George and Raymond Lee
1971   "Organizational goals and expected behavior among American, Japanese, and Korean managers". Academy of Management Journal 14/4 : 425 - 438

Field, Hubert S. and Calvin B. Ridenhour
1975   "Presentation of positive and negative policy changes : what effects on members' satisfaction with their organizations". Personnel Psychology 28/4 : 525 - 532

Friedlander, F. and N. Margulies
1969   "Multiple impacts of organizational climate and individual value systems upon job satisfaction". Personnel Psychology 22 : 171 - 183

Futrell, Charles M.
1976   "Management control process related to performance and satisfaction of bank officers". Baylor Business Studies No.109 : 39 - 43

Galbraith, John Kenneth
1970   The affluent society (2nd edition). Bombay : Lalvani

Ganesh, S.R.
1981   "Research in organization behavior in India 1970-1979 : a critique". W.P. No.372. Ahmedabad : Indian Institute of Management Ahmedabad

Gechman, A.S. and Y. Wiener
1975   "Job involvement and satisfaction related to mental health and personal time devoted to work". Journal of Applied Psychology 60 : 521 - 523

Ghiselli, Edwin E. and Thomas A. Wyatt
1972   "Need satisfaction, managerial success, and attitudes toward leadership". Personnel Psychology 25 : 413 - 420

Gouldner, Alvin
1954   Patterns of industrial bureaucracy. Glencoe, Ill. : Free Press

Gruenfeld, Leo W. and Felician F. Foltman
1967   "Relationship among supervisors' integration, satisfaction and
            acceptance of technological change". Journal of Applied Psy-
            chology 51 : 74 - 77

Hall, Richard H., J. Eugene Haas, and Norman Johnson
            "An examination of the Blau - Scott and Etzioni typologies".
            Administrative Science Quarterly 12 : 118 - 139

Herzberg, F.
1968   "One more time : how do you motivate employees". Harvard Busi-
            ness Review, 46 (Jan. - Feb.) : 53 - 62

Herzberg, F., B. Mausner, R.O. Peterson, and D.F. Capwell
1957   Job attitudes : review of research and opinion. Pittsburgh :
            Psychological Service of Pittsburgh.

Hulin, C.L.
1968   "Effects of change in job satisfaction levels on employee turn-
            over". Journal of Applied Psychology 52 : 122 - 126

Inkson, K. and D. Simpson
1975   "The assembly-line and alienation : a participant observer study
            in the meat freezing industry". New Zealand Psychologist 4 :
            44 - 55

Katzell, R.A.
1957   Industrial psychology. Annual Review of Psychology Vol. 8.
            Palo Alto, Calif : Annual Reviews

1964   "Personal values, job satisfaction and behavior". In H. Brow
            (ed.) Man in world at work. Boston : Houghton Mifflin

Keller, Robert T. and Andrew D. Szilagyi
1978   "A longitudinal study of leader reward behavior, subordinate
            expectancies, and satisfaction". Personnel Psychology 31/1 :
            119 - 129

Khandwalla, Pradip N.
1972   "Environment and its impact on the organization". International
            Studies of Management and Organization 2 : 297 - 313

1977   The design of organizations. New York : Harcourt Brace

1980   "Management in our backyard". Vikalpa 5/3 : 173 - 184

1981   "Strategy for turning around complex sick organizations".
            Vikalpa 6/3 and 4 : 143 - 165

1982   "Some lessons for the management of public enterprises".
            Vikalpa 7/4 : 311 - 326

Koch, J.L. and R.M. Steers
1978   "Job attachment, satisfaction and turnover among public
            sector employees". Journal of Vocational Behavior 12 :
            119 - 128

Kumar, Swatantra, D.P.N. Singh, and S.K. Varma
1981   "Expectations and job satisfaction of officers and
            supervisors in a public sector undertaking".
            Indian Journal of Industrial Relations 16/3 : 431 -
            449

Lahiri, D.K. and S. Srivastava
1967   "Determinants of satisfaction in middle management
            personnel". Journal of Applied Psychology, 51 :
            254 - 265

Lawler E.E. and D.T. Hall
1970   "Relationship of job characteristics to job involve-
            ment, satisfaction, and intrinsic motivation".
            Journal of Applied Psychology 54 : 305 - 312

Lawler, Edward E. 3rd and Lyman W. Porter
1967   "Antecedent attitudes of effective managerial per-
            formance". Organizational Behavior and Human Per-
            formance 2 : 122 - 142

Lawrence, Paul and Jay Lorsch
1967   Organization and its environment. Cambridge, Mass :
            Harvard

Likert, Rensis
1961   New patterns of management. New York : McGraw -
            Hill

Locke, E.A.
1976   "The nature and causes of job satisfaction". In
            M.D. Dunnette (ed.), Handbook of Industrial and
            Organizational Psychology. Chicago : Rand McNally.

Lodahl T.M.
1964   "Patterns of job attitudes in two assembly techno-
            logies". Administrative Science Quarterly 8 : 482 -
            515

March, James and Herbert Simon
1958   Organizations. New York : Wiley

Maslow, A.H.
1954   Motivation and personality. New York : Harper

McClelland, David C.
1975   Power : the inner experience. New York : Irvington

Meltzer, Leo and James Salter
1962   "Organizational structure and the performance and
            job satisfaction of physiologists". American
            Sociological Review 27 : 351 - 362

Merton, Robert K
1957   "Patterns of influence : local and cosmopolitan
            influences". In R.K. Merton (ed.), Social theory
            and social structure. Glencoe Illnois : Free Press.

Morse, N.C.
1953   Satisfaction in the white collar job. Ann Arbor,
            Mich : Institute of Social Research

Palmore, E.
1969   "Predicting longevity : a follow up controlling for
            age". The Gerontologist 9 : 247 - 250

Pareek, Udai
1979   MAO scales. Ahmedabad : Indian Institute of Mana-
            gement (mimeo)

Perrow, Charles
1970   Organizational analysis : a sociological view.
            Belmont, California : Wadsworth

Pestonjee D.M. and Udai Bhan Singh
1982   Job satisfaction as a function of role stress,
            locus of control, participation and organizational
            climate in an electric supply company.

            Ahmedabad : Public Systems Group. Indian Institute
            of Management Ahmedabad

Peters, Thomas and Robert H. Waterman
1982   In search of excellence : lessons from America's
            best run companies. New York : Harper

Pierce, J.L.
1979   "Employee affective responses to work unit structure
            and job design : a test of an intervening variable."
            Journal of Management 5 : 193 - 211

Porter, Lyman W.
1962   "Job attitudes in management : I perceived deficien-
            cies in need fulfilment as a function of job level."
            Journal of Applied Psychology 46 : 375 - 384

1963a   "Job attitudes in management : II Perceived importance
            of needs as a function of job level". Journal of
            Applied Psychology 47 : 141 - 148

1963b   "Job attitudes in management : III. Perceived defi-
            ciencies in need fulfilment as a function of line
            versus staff type of job". Journal of Applied
            Psychology 47 : 267 - 275.

1965   "Organizational profile of the dissatisfied mana-
            ger".   Personnel Administration 28 : 6 - 11

Porter, M.E.
1980   Competitive strategy.   Free Press : New York

Porter, Lyman W. and E.E. Lawler
1965   "Properties of organization structure in relation
            to job attitudes and job behavior".   Psychological
            Bulletin 64 : 23 - 51

1968   "What job attitudes tell about motivation".   Harvard
            Business Review 46 : 118 - 126

Pugh, D.S.,   D.J. Hickson, and C.R. Hinings
1969   "The context of organizational structures".   Admini-
            strative Science Quarterly 14 : 91 - 114

Ravi Kumar R. and K. Harigopal
1978   "Managerial job attitudes : Perceived need importance
            in relation to job level".   Indian Journal of Indu-
            strial Relations 13/4 : 541 - 551

Rousseau, Denise M.
1978   "Measures of technology as predictors of employee
            attitude".   Journal of Applied Psychology 63 : 213 -
            218

Ruch, Richard S.
1978-79   "Top management's role in employee job satisfaction".
            Management Horizons 9/2 : 1 - 4

Salancik, Gerald R. and Jeffrey Pfeffer
1978   "A social information processing approach to job
            attitudes and task design".   Administrative Science
            Quarterly, 23 : 224 - 253

Sales, S.M.
1969   "Organizational role as a risk factor in coronary
            disease".   Administrative Science Quarterly 14 :
            325 - 336

Sales S.M. and Robert J. House
1971   "Job satisfaction as a possible risk factor in
            coronary heart disease." Journal of Chronic
            Diseases 23 : 861 - 873

Sarveswara Rao
1974   "A study of weighting components of job satisfa-
            ction with importance ratings of individual emplo-
            yees".   Indian Journal of Industrial Relations
            9/4 : 537 - 546

Saunders, Charles B. and Francis D Tuggle
1979-80   "Corporate goals". Journal of General Management,
           5/2 : 3 - 13

Schultz, J.R.
1964   "Blueprint for executive job satisfaction". Perso-
           nnal 41 : 8 - 18

Selznick, Phillip
1943   "An approach to a theory of bureaucracy". American
           Sociological Review, 8 : 47 - 54

Shrivastava, P.K. and S.N. Dave
1978   "The relationship between role variables and satis-
           faction : is it affected by organizational condi-
           tions?" Indian Journal of Industrial Relations
           14/2 : 295 - 300

Simon, Herbert
1960   Administrative behavior. New York : Macmillan

1964   "On the concept of organizational goal". Administra-
           tive Science Quarterly 9/1 : 1 - 22

Simonetti, S.H. and Joseph Weitz
1972   "Job satisfaction : some cross cultural effects'.
           Personnal Psychology 25 : 107 - 118

Sinha D.
1974   "Job satisfaction and behavior." In S.K. Roy and
           A.S. Menon (eds.), Motivation and organizational
           effectiveness. New Delhi : Shri Ram Center for
           Industrial Relations and Human Resources

Sloccum, John W. and Paul M. Topichak
1972   "Do cultural differences affect job satisfaction?"
           Journal of Applied Psychology 56 : 177 - 178

Srivastava, A.K.
1974   Need satisfaction and job satisfaction - a study of
           industrial employees at Chandigarh. Unpublished
           Ph.D. thesis. Chandigarh : Punjab University

Starbuck, William H.
1965   "Organizational growth and development". In James
           March (ed.), Handbook of organizations. Chicago :
           Rand McNally.

Szilagyi, Andrew D.
1977   "An empirical test of causal inference between role
           perceptions, satisfaction with work, performance
           and organizational level". Personnel Psychology
           30/3 : 375 - 388.

Szilagyi Andrew, Henry P. Sims Jr., and Robert C. Terrill
1977   "The relationship of leadership style to employee
          job satisfaction". Hospital and Health Services
          Administration 22/1 : 27 - 40

Talachhi, S.
1960   "Organization size, individual attitudes, and beha-
          vior : an empirical study". Administrative Science
          Quarterly 5 : 398 - 420

Thompson, James D.
1967   Organizations in action.   New York : McGraw - Hill.

Thompson, J.D. and W.J. McEwen
1958   "Organizational goals and environment : goal setting
          as an interaction process". American Sociological
          Review 23 : 23 - 31

Thurman, J.E.
1977   "Job satisfaction : an international overview".
          International Labour Review 116/3 : 249 - 267

Trist, E.L. and K.W. Bamforth
1951   "Some social and psychological consequences of the
          Longwall method of coal mining". Human Relations
          4 : 3 - 38

Vroom, Victor H.
1964   Work and motivation. New York : Wiley

Walker, Charles and Robert H. Guest
1952   The man on the assembly line. Cambridge, Mass. :
          Harvard

Weaver, Charles
1977   "Relationships among pay, race, sex, occupational
          prestige, supervision, work autonomy, and job satis-
          faction in a national sample". Personnel Psychology
          30/3 : 437 - 445

Wnuk - Lipinski, Edmund
1977   "Job satisfaction and the quality of working life:
          the Polish experience". International Labour
          Review 115/1 : 53 - 64

Woodward, Joan
1958   Management and technology. London : HM's Statio-
          nery Office

Zaleznik, Abraham and Manfred Kets de Vries
1975   Power and the corporate mind. Boston : Houghton
          Mifflin.

TABLE 1

SAMPLE CHARACTERISTICS

N = 47 Indian Companies

Size:

Average annual sales in 1980	Rs.	428 million
Standard deviation	Rs.	553 million
Small to medium sized (upto Rs.50m. sales)		19%
Medium to large (Rs.51m. to Rs.250m.)		36%
Very large (Rs.250 m. to Rs.1000m.)		28%
Huge (over Rs.1000m.)		17%

Industry

Textiles	13%
Other consumer goods (sugar, tea, cycles, etc.)	8%
Chemicals and pharmaceuticals	11%
Producer goods (metals, cement, rubber, etc.)	11%
Machinery	25%
Engineering and construction	13%
Automotive products	11%
Miscellaneous	8%

Sector

Private sector	85%
Public sector	15%

TABLE 2

MEANS AND STANDARD DEVIATIONS OF PAST TOP MANAGEMENT
GOALS AND CURRENT LOWER MANAGEMENT JOB SATISFACTION
ITEMS

Past (i.e.3 years prior)			N = 72		
Top Management Goals	Mean	Std. Dev.	Lower Management	N = 62	
Financial performance			Job Satisfaction	Mean	Std. Dev.
1. Higher profitability	4.25	.76	Items		
2. Performance stabili- sation	3.93	.85	Growth and achievement		
Growth			1. Sense of challenge and worthwhile accomplishment	3.50	.39
3. Higher growth rate in sales	4.03	.79			
4. Growth in market share	3.57	.80	2. Opportunity for personal growth and development	3.31	.43
External relations					
5. Better public image	3.67	.77	3. Opportunity for taking initiative	3.39	.43
6. Greater customer loyalty	3.66	.97			
7. Better relations with government	3.50	.80	4. Superiors' appreciation for good work	3.14	.39
Organization development			Power, status, and autonomy		
8. More professionalised management	3.37	.90			
9. Higher employee morale	3.54	.86	5. Decision making authority	3.25	.37
10. Higher operating effi- ciency	3.75	.76	6. Opportunity for promotion	3.00	.36
11. Greater supervisory and managerial skills	3.53	.77	7. Job freedom	3.20	.43
Social responsibility			8. Opportunity to influence superior's decisions	2.92	.34
12. Increased meeting of national priorities	3.15	.90			
			9. Social prestige of organization	3.12	.36
			Interpersonal relations		
			10. Considerate and helpful boss	3.34	.45
			11. Congenial collea- gues	3.22	.34
			Altruism		
			12. Opportunity to serve society	2.79	.42
			"Existence" factors		
			13. Job security	3.38	.45
			14. Pay, allowances, and other per- quisites	3.10	.45

TABLE 3

INTERCORRELATIONS OF " PAST " TOP MANAGEMENT OPERATIONAL GOALS

N = 72

	2	3	4	5	6	7	8	9	10	11	12
Financial Performance											
1. Higher profitability	29*	24*	27*	24*	41**	07	29*	38**	47**	22	-16
2. Performance stabilisation		22	18	25*	51**	33**	26*	20	43**	31**	08
Growth											
3. Higher sales growth rate			43**	51**	30**	44**	37**	46**	41**	40**	11
4. Growth in market share				25*	44**	43**	37**	21	33**	36**	45**
External relations											
5. Better public image					42**	60**	30**	38**	29*	43**	16
6. Greater customer loyalty						51**	27*	39**	30**	32**	12
7. Better relations with government							36**	40**	31**	54**	35**
Organization development											
8. More professionalised management								53**	60**	62**	25*
9. Higher employee morale									53**	59**	14
10. Higher operating efficiency										70**	25*
11. Greater supervisory and managerial skills											39**

Social responsibility

12. Increased meeting of national priorities

* P ≤ .05 (2 tails)   ** P ≤ .01 (2 tails)

Note: Decimals have been omitted.

TABLE 4

INTERCORRELATIONS OF LOWER MANAGEMENT JOB SATISFACTION ITEMS

N = 62

	Growth			Power					Inter Personal		Alt.	Existence	
	2	3	4	5	6	7	8	9	10	11	12	13	14
Growth and achievement													
1. Sense of challenge and accomplishment	38**	53**	54**	38**	24	36**	24	21	11	25*	37**	14	-01
2. Opportunity for personal development		74**	62**	36**	51**	42**	43**	34**	25*	53**	36**	06	28
3. Opportunity for initiative			62**	36**	49**	28*	44**	33**	27*	36**	33**	07	21
4. Superiors' appreciation for good work				45**	56**	35**	39**	46**	14	32**	47**	08	29*
Power, status, and autonomy													
5. Decision making authority					48**	48**	19	18	20	24	11	29*	33**
6. Opportunity for promotion						31*	23	20	-02	16	13	03	46**
7. Job freedom							27*	10	01	31*	-05	13	11
8. Opportunity to influence superior								38**	09	28*	26*	15	35**
9. Social prestige									43**	29*	42**	35**	37**
Interpersonal relations													
10. Congenial boss										59**	19	40**	16
11. Congenial colleagues											30*	42**	27*
Altruism													
12. Opportunity to serve society												07	22
"Existence"													
13. Job security													46**
14. Pay and perks													

* p ≤ .05 (2 tails) ** p ≤ .01 (2 tails)

Note: Decimals have been omitted.

Current Lower Management Job Satisfaction

Past Top Goals	Growth and achievement				Power, status, autonomy					Inter-personal		Altru-ism	Existence	
	Chall-enge	Perso-nal growth	Initia-tive oppor-tunity	Superio-rs' pra-ise for good work	Autho-rity	Promo-tion oppor-tue	Auto-nomy	Influ-ence on boss	Soci-al pre-stige of job	Nurtu-rant boss	Help-ful coll-ea-gues	Social servi-ce opp-ortuni-ty	Job se-cu-rity	Pay
Financial performance														
1. Higher profitabi-lity	01	36*	22	38**	16	29*	25	00	18	-11	05	-02	15	28
2. Performance sta-bilisation	11	11	12	09	28	16	07	03	20	-12	-15	00	16	25
Growth														
3. Higher sales growth	24	35*	45**	38**	44**	31*	30*	24	10	21	14	05	33*	14
4. Growth in market share	-01	28	35*	34*	38**	47**	25	20	05	-11	14	-07	05	16
External relations														
5. Better public image	12	30*	24	16	36*	20	24	28	26	08	10	09	26	01
6. Greater customer loyalty	31*	44**	44**	46**	49**	57**	41**	35*	23	-16	-07	02	06	33*
7. Better relations with govt.	15	28	26	27	34*	35*	19	26	21	-02	01	-02	18	22
Organizational develop-ment														
8. More professionali-sation	02	25	42**	11	29*	30*	18	27	-16	-06	02	-25	15	10
9. Higher morale	19	36*	40**	32*	37**	40**	24	19	-06	-11	-05	-03	06	23
10. Higher efficiency	-06	19	19	16	34*	24	11	06	07	-14	-09	-15	01	01
11. Greater managerial skills	09	24	28	13	49**	35*	14	08	-04	-11	-15	-15	05	02
Social responsibility														
12. Increased meeting of national prio-rities	-19	-18	01	-06	12	-01	09	04	-03	-19	-27	-22	-16	-15

TABLE 6

TWO MEASURES OF DIFFERENTIAL EFFECT OF GOAL ON JOB SATISFACTION ITEMS

Top Goal	Standard deviation of goal's correlations with satisfaction items	Correlation pairs with statistical difference
Financial performance		
1. Higher profitability	.15	18
2. Performance stabilisation	.12	8
Growth		
3. Higher sales growth rate	.12	10
4. Growth in market share	.17	28
External relations		
5. Better public image	.10	2
6. Greater customer loyalty	.22	35
7. Better relations with government	.12	10
Organization development		
8. More professionalised management	.18	26
9. Higher employee morale	.18	31
10. Higher operating efficiency	.14	16
11. Greater managerial skills	.18	24
Social responsibility		
12. Increased meeting of national priorities	.12	8

TABLE 7

GOAL'S DISTINCTIVE IMPACT ON LOWER MANAGEMENT JOB SATISFACTION

Top Goal	Goal's Distinctiveness Impact Score
Financial performance	
1. Higher profitability	12
2. Performance stabilisation	19
Growth	
3. Higher sales growth rate	24
4. Growth in market share	11
External relations	
5. Better public image	13
6. Greater customer loyalty	35
7. Better relations with government	7
Organization development	
8. More professionalised management	15
9. Higher employee morale	9
10. Higher operating efficiency	8
11. Greater managerial skills	10
Social responsibility	
12. Increased meeting of national priorities	62

Note: Scores below 8 indicate absence of distinctive impact.

Job Satisfaction Items

Past Top Goals	Growth & Achievement				Power and Status					Interpersonal		Altruism	"Existence"	
	1 Chall-enge	2 Gro-wth	3 Initia-tive	4 Good work	5 Autho-rity	6 Promo-tion	7 Free-dom	8 Infl. on sup.	9 Soci-al Pre-stige	10 Nice boss	11 Nice co-lleagues	12 Serve so-ciety	13 Secu-rity	14 Pay,etc.
Financial performance														
1. Profit	6	1	1	1	1	1		2	2	1	1			3
2. Stabilisation	2			2		2	2	3	5		4	1	5	2
Growth														
3. Sales	4	5	11	6	9		5	5	1	4		1	11	1
4. Market share		2			1	4			1	3			1	
External relations														
5. Image				1		1		1	6	1	2	4	2	4
6. Customer loyalty	10	20	19	21	25	32	17	12	1		1		1	11
7. Govt. relations	1	1	1	1							7	1	1	1
Organizational development														
8. Professionalism		1	3				1	2	10	1	1		7	1
9. Morale	1		1			2		1	1	2		1		3
10. Efficiency	3		5						1	7		1	2	2
11. Skills				8	3	1	1	3	1	1	1		1	1
Social responsibility														
12. Nat priorities	6	11	2	3	1	6				5	7	3	3	5
Range of variance explained by 12 goals	10	20	19	21	25	32	17	12	10	7	7	7	11	11
Total variance explained by re-gression	33	41	43	43	40	49	26	29	29	28	24	19	28	33

Note: Percentage signs deleted. Blank cells denote zeros.