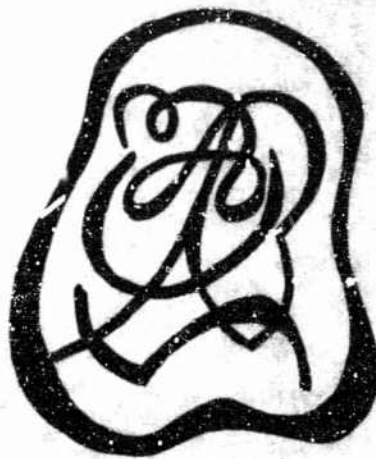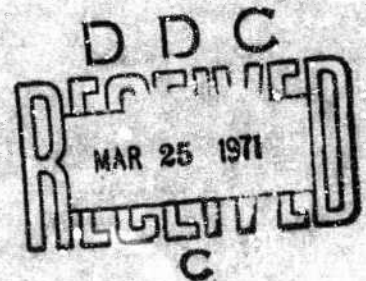# THE CENTER FOR THE STUDY OF ORGANIZATIONAL PERFORMANCE AND HUMAN EFFECTIVENESS

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THE MEASUREMENT OF EMPLOYEE ATTITUDES

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13. ABSTRACT

The assessment of employee attitudes has been considered similar to taking the collective pulse of the organization. Methods and procedures for doing this kind of survey have varied greatly from one study to another. Some of the more important considerations (item format, measuring specific factors, psychometric properties of scales - Reliability, Validity) connection with doing attitude surveys are reviewed. It is argued that both the importance of the topic and the satisfaction with the topic must be measured in order to obtain the most useful survey information. An illustrative procedure is presented along with possible attitude scales.

14 KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Employee Attitudes						
Morale						
Job Satisfaction						
Situationally dependent components						
Attitude measure formats						
Dimensions of satisfaction						
Attitude scales						
Importance of attitude dimensions						
Cathartic effect of attitude surveys						
Credibility of attitude surveys						
Triple audit opinion survey						
Confidentiality of individual response						
Follow-up survey						
Lack of utility of norms						
Sample scales						
Reliability of scales						
Independence of scales						
Validity of opinion surveys						

The Measurement of Employee Attitudes

Rene' V. Dawis and William F. Weitzel

Introduction

Employee morale has been a traditional concern of "personnel".
It has always been assumed that employee morale and productivity go
hand-in-hand, despite the inconclusive evidence in that score (see,
e.g., Brayfield and Crockett, 1955). In many quarters, the morale of
rank-and-file has been taken as a basic indicator of effectiveness in
the discharge of the personnel function. Personnel morale has always
been seen as one characteristic of the effective organization.

The concern for employee morale may have been initially a concern
for increased productivity, for improved organizational performance,
for the achievement of "organizational goals" (which, for economic
organizations, has traditionally been measured in terms of profit).
For the more enlightened practitioners of the personnel function (and in
recent years under the press of radical social change), concern for the
employee's welfare and indeed his feelings, has come to be recognized as
a major organizational concern in its own right. In recent years the
study of employee morale, employee attitudes and job satisfaction has
acquired new impetus, even though it has always been a thriving field of
study since Hoppock's (1935) classic study of job satisfaction and
Thurstone's demonstration that attitudes could be measured (1928). A
useful (if a bit dated) survey of progress in the field is given in
Herzberg, et al., (1957).

Some methodological considerations

Concerning instrumentation

1. Paralleling the dichotomy in the field of "intelligence" measure-ment, two schools of thought have vied for the allegiance of students of employee attitude measurement. As in the field of "intelligence", the general-factor school was first on the scene. Its foremost exponent was (is) Robert Hoppock (1935), whose job satisfaction blank still stands as the epitome of general job satisfaction measures. Brayfield and Rothe (1951), using much more sophisticated psychometric procedures, did not succeed in improving significantly on Hoppock.

Opposed to this school is the specific factor school, which asserts that specific situationally-dependent components account for most of the important content of employee attitudes. This school of thought (without any well-known proponents) tended to be the more appealing to business organizations, which felt more need to focus on the unique rather than on the general. It is fortunate that, unlike the field of "intelligence", this dichotomy between general and specific schools never developed into bitter controversy. Partisans of both sides, being basically pragmatic, recognized that the question was easily resolved by the criterion of use-fulness. Most students of employee attitudes today would accept the place of both in a general scheme to encompass the field. Herzberg, et al., (1957) have identified ten factors of the "specific" variety that most frequently appeared in employee attitude measures, including: pay, working conditions, supervision, co-workers and type of work.

Most "specific factor" measures correlate positively, and sometimes highly, with "general factor" scales. The latter scales, however, contain

sufficient unique information to warrant their retention. Such specific-general scale correlations do not exceed .80, and generally average .50; hence the "specific" measures account for, at a maximum, 64%, and at an average, 25%, of the variance of "general" scales. One question on which there is little published material is the variability of these specific-general correlations from organization to organization. To put the question in factor-analytic terms, little is known of the variability in factor structure from one organization to another. Therefore, it would seem reasonable, if only from a research viewpoint, to include both (general and specific) types of scales in measures of employee attitudes.

2. A question that immediately confronts the user of employee attitude measures is the choice of formats. A variety of formats is available for paper-and-pencil (i.e., self-administering) instruments, three of the most popular being the rating, ranking and pair comparison formats. Rating formats, especially of the Likert type, are by far the most frequently used. The main disadvantage of such rating scales is commonly said to be their susceptibility to response bias or response set. Ranking and pair comparison formats may obviate this difficulty, but these formats themselves suffer from the strenuous limits they place on the range of allowable content. Pair comparison formats are especially vulnerable in this regard, while ranking formats have the additional handicap of yielding only ordinal data. A choice among formats inevitably involves "trade-offs" of advantages for disadvantages.

3. Recent studies of rating formats (e.g., Bendig, 1953) have under-scored the importance of the anchor problem. Related to anchoring is the problem of how many rating points to use. At a minimum, the anchoring

problem involves:

      a)   choice of verbal phrases to correspond with each
           rating point.

      b)   choice of location of the "zero" or "neutral" point.

Concerning the former, choices have ranged from single adjectives to
specific behavior discriptions. Concerning the latter, choices are
between two-sided scales (with the "zero" or "neutral" point in the
center, usually) and one-sided scales (with the "zero" or "neutral"
point at one end). Criteria for choice (among the above) are implicit
in the purpose(s) for which the scales are being constructed. These
criteria also apply to the number of points to use in the scales, i.e.,
what "works best". Experience (unpublished) at the Industrial Relations
Center has shown that one-sided scales tend to produce more response
variability than two-sided scales; also, that five-point scales seem to
be optimal from the opposing requirements of respondent acceptability
(which would favor fewer points on the scale) and information maximization
(which would favor more points on the scale).

    4. Most measures of job satisfaction attitudes of the specific
factor variety encompass a standard set of scales (dimensions, factors).
Implicit in the use of a standard set of scales is the assumption that all
of the attitudinal aspects represented are important, or equally important.
Studies (Morse, 1953) have shown that this assumption is not always warranted.
Other studies (Jurgenson, 1947, 1948) have shown the differential importance
of a given attitudinal aspect for different groups. Still other studies
(Porter and Lawler, 1968) have demonstrated the utility of the "importance"
dimension in explaining relationships between satisfaction and performance.
Finally, Peak (1955) has argued for "importance" on theoretical grounds

(see also Vroom's, 1964, notion of "valence"). It would seem that the "importance" of attitudinal aspects is one assumption that cannot be taken for granted.

5. The preceding discussion tends to argue in favor of an "optimal" instrument for the measurement of employee attitudes that can be characterized as: (1) two-part (satisfaction and importance); (2) using a rating (Likert-type) format; (3) with one-sided (with the "zero" or "neutral" point at one end), five-point scales; and (4) multidimensional, with a "general" dimension included.

Concerning procedure

1. Assuming an "optimal" instrument as described above, one risk that is taken is that the dimensions (attitudinal aspects) represented in the instrument are not useful, that is to say, not "important". It is obvious that both organization and employee would not be concerned much with aspects that are seen as "not important". Hence, a problem can develop if the instrumnet:

      a) has many scales representing unimportant attitudinal aspects, and/or

      b) fails to include scales for aspects considered important. Experience can help minimize the risk, such that the instrument constructed incorporates aspects that are usually found important to both organizations and employees. It can be (and has been) argued that such a "standard" instrument allows the development of norms against which organizations can be compared. On the other hand, it can be (and has been) argued that a "standard" instrument contains varying amounts of "irrelevant" material (depending on the situation), to the point at times of drawing unfavorable

reaction from the respondents. Alternative procedures are available, such as tailor-fitting an instrument to an organization but retaining a "standard" core of scales for all organizations.

2. A question which perennially gives rise to concern among social scientists is the question of the effect of social surveys on their respondents. This question is particularly acute for attitude surveys. With respect to employee attitude surveys, it is not known what, if any, expectations are generated among the respondents. It is often assumed that such surveys are useful for their presumed cathartic effects, but scant evidence is available on this point.

Many employee attitude surveys have been criticized in the past for "stirring things up" and then failing to "follow through". It, of course, is not the surveyor's responsibility to act on the survey findings; this is the surveyed organization's responsibility. But by being party to the act, by being the actual causal agent, the employee attitude survey is assigned much of the blame. There is reason to believe that the administration of an employee attitude survey does raise or change expectations among survey respondents. To continue proceeding as in the past, i.e., with the "one-shot" survey, would be to contribute to the erosion of credibility in employee attitude surveys.

3. These considerations argue for modification of the usual procedural format of employee attitude surveys. At a minimum, two additional phases would seem to be useful adjuncts to the main survey phase:

a) An exploratory phase, probably best undertaken by personal interview, in which the full range of attitudinal aspects and their importance is explored, and

b) A follow-up phase, for which a sample of the surveyed
population would suffice, undertaken after the surveyed
organization has had sufficient time to act on the survey
findings (e.g., six months, one year), for the explicit
purpose of ascertaining attitudinal change.

The exploratory phase has the additional benefit of involving at least
some employees in the design of the survey. This cannot but tend to increase
the acceptability of the survey to the employees.

The follow-up phase can also have some beneficial side-effects. The
knowledge that a follow-up survey will be taken may well be the needed spur
to the organization to act on the main survey's findings. An ideal arrange-
ment would be to have, rather than a "one-shot" follow-up, a periodic (e.g.,
annual) sample follow-up interspersed with total population surveys. The
latter could be scheduled before or after major organizational events, such
as reorganizations, contract negotiations, etc., when detailed "baseline
readings" are desired.

The Triple Audit Project's Opinion Survey

The Triple Audit Project is a program of research and service concerning
the personnel function. The "Triple Audit" refers to a dynamic multiple
assessment process involving, among other features, the assessment of employee
attitudes as one of three types of organizational behavior indicators. (The
other two are organizational practices and success criteria. For the origin
of "triple audit", see Yoder, et al., 1951.) The assessment of employee
attitudes proceeds in three phases. Phase One is an exploratory interview
survey of a small representative sample of employees. These interviews are
designed to explore the range of attitudinal aspects of importance to the
employees.

Findings from Phase One are utilized in developing a questionnaire (the Opinion Survey), which is "tailor-fitted" to the participating organization (i.e., it reflects the concerns of the organization and its employees).

Phase Two is the main survey, employing the "tailor-fitted" Opinion Survey questionnaire. The questionnaire is administered to all rank-and-file, supervisory, and managerial employees. It may be administered on-site or by mail. It may be administered to selected groups (e.g., selected divisions of the company, selected occupational groups, etc.). Survey findings are reported in detail to management and in summary form to employees. All findings are reported in summarized form, i.e., as averages for groups of no fewer than ten individuals, to preserve confidentiality of individual response.

Phase Three, the follow-up survey, is conducted after a period of time (six months, one year, or eighteen months after the main survey). Usually, the follow-up survey is administered to a representative sample of about 25% of the employees. The same questionnaire as in Phase Two is used, allowing for a comparison of attitudes registered at the two administrations. Presumably, changes in attitude from Phase Two to Phase Three can be attributed to the intervening events. Thus, the effectiveness of any new management-initiated action occurring in the interval can be assessed in terms of its impact on employee attitudes. Such assessment, it should be noted, rests on the assumption that attitude change would not occur if no new action were initiated by management, i.e., if conditions were allowed to remain as before. Since no control or comparison group is utilized, the surveyed group has to serve as its own control. This lack of a separate control group should be considered in evaluating inferences about

attitude change observed to occur between Phase Two and Phase Three.

Description of the survey instrument

It is evident from the preceding brief description of the Triple Audit that much hinges on the survey instrument, the Opinion Survey. This instrument consists of two sections, a Satisfaction section and an Importance section. In a typical "tailor-fitted" questionnaire, each section consists of 25 four-item scales, or a total of 100 items, measuring 25 attitudinal aspects or dimensions. The same set of attitudinal dimensions are presented in each section, so that a reading of "importance" and of "satisfaction" is obtained for each attitude dimension. In addition to the two major sections, the instrument includes a personal data sheet and an open-end, free-response section consisting of three questions:

a) What do you like about working for this Company?

b) What changes or suggestions would you recommend to make this a better place to work and a better Company?

c) Do you have any additional comments you would like to make about your job, your supervisor, or the Company?

The following items illustrate a typical scale in the Opinion Survey, one measuring the Responsibility dimension. The response set is given for both satisfaction and importance.

Satisfaction Scale

On my present job, this is how I feel about... for each statement circle a number

20.	The chance to be responsible for planning my work.	1	2	3	4	5
52.	The chance to make decisions on my own.	1	2	3	4	5
84.	The freedom to use my own judgement.	1	2	3	4	5
116.	The amount of responsibility in my job.	1	2	3	4	5

Importance Scale

<u>On my ideal job, how important is it that...</u> for each statement circle a number

20.	I could be responsible for planning my own work.	1	2	3	4	5
52.	I could make decisions on my own.	1	2	3	4	5
84.	I could be free to use my judgments.	1	2	3	4	5
116.	I could have a very responsible job.	1	2	3	4	5

The rating anchors for satisfaction are:

    1 = not satisfied (this aspect of my job is much poorer than I would like it to be).
    2 = only slightly satisfied (this aspect of my job is not quite what I would like it to be).
    3 = satisfied (this aspect of my job is what I would like it to be).
    4 = very satisfied (this aspect of my job is even better than I expected it to be).
    5 = extremely satisfied (this aspect of my job is much better than I hoped it could be).

For importance, the rating anchors are:

    1 = not important (can easily do without).
    2 = only slightly important (if need be, can do without).
    3 = important (hard to do without).
    4 = very important (very hard to do without).
    5 = extremely important (impossible to do without).

    Following is a list of scales currently available and a representative satisfaction item for each scale.

    1. Ability Utilization--The chance to do something that makes use of my abilities.

    2. Achievement--The feeling of accomplishment I get from the job.

    3. Activity--Being able to keep busy all the time.

    4. Advancement--The chances for advancement on this job.

    5. Authority--The chance to tell other people what to do.

    6. Benefits--The way the benefits compare with those of other firms.

7. Career Development--The way my job leads to rapid progress in my career.

8. Closure--The chance to complete a task I start.

9. Communication--Communication between the different work groups and shifts.

10. Company Image--The company's reputation in the community.

11. Company Policies and Practices--The way company policies are put into practice.

12. Company Prestige--The chance to work for a very well-known company.

13. Compensation I (Amount)--My pay and the amount of work I do.

14. Compensation II (Comparison)--How well my pay compares with that of my friends.

15. Compensation III (Practices)--How rapidly pay raises are given.

16. Cooperation--The spirit of cooperation between people in different kinds of jobs.

17. Co-Workers I (Friendliness)--The way my co-workers get along with each other.

18. Co-Workers II (Performance)--How efficient my co-workers are.

19. Creativity--The chance to try my own methods of doing the job.

20. Discipline--The way all employees are given equal treatment.

21. Discrimination--Absence of racial discrimination in hiring and promoting.

22. Division Aims and Plans--How clearly division aims and plans are stated.

23. Division Image--The reputation of my division in the company.

24. Feedback--Being told how I am doing.

25. Hours--The convenience of working hours.

26. Independence I--The chance to work alone on the job.

27. Independence II--The chance to do my work without much supervision.

28. Individual Identity--Not feeling lost as an individual in a huge corporation.

29. Management I--The competence of upper management.

30. Management II--How well management provides guidance for work operation.

31. Moral Values--Being able to do work that does not go against my conscience.

32. Non-Conformity--Being allowed to dress the way I want.

33. Organization Control--The freedom I am given in the ways and means of doing my job.

34. Orientation--The quality of the company orientation program.

35. Performance Evaluation--The way my performance (what I do) is more important than my seniority (how long I have worked here).

36. Promotion I (Bases)--The way promotion is based on performance.

37. Promotion II (Practices)--The way promotions are made from within.

38. Recruitment--The way the company actively recruits mew workers.

39. Recognition--The praise I get for doing a good job.

40. Responsibility--The freedom to use my own judgement.

41. Security--The way my job provides for steady employment.

42. Social Service--The chance to do things for people.

43. Social Status--The chance to be "somebody" in the community.

44. Staffing (Recruiting, selection, placement)--The way the company assigns people to jobs for which they are best suited.

45. Structure--Having a clear idea of everything I am required to do.

46. Supervision I (Human Relations)--The way my boss handles his people.

47. Supervision II (Technical)--The competence of my supervisor in making decisions.

48. Training Needs--The opportunities for training in this company.

49. Training Programs--The way participation in training programs
   leads to promotion.

50. Variety--The chance to do different things from time to time.

51. Work Accomplishment--The amount of paper work I must do.

52. Work Appearances--Having to look busy when there isn't enough
   work to do.

53. Work Assignment--My knowledge of what my supervisor expects of me.

54. Work Challenge--Being able to do work that is challenging.

55. Work Involvement--My interest in my work, the longer I have
   held the job.

56. Work Relevance--Being able to see how my work fits into the
   total operation of the company.

57. Working Conditions I--The working conditions (heating, lighting,
   ventilation, etc.) on this job.

58. Working Conditions II--The parking facilities.

Psychometric properties of the Opinion Survey

1. Reliability--Table 1 lists the Hoyt reliability coefficients computed

for 58 scales used in surveys with three different companies. Coefficients

are missing for those scales not used in a given company. Two points are

worth noting about Table 1. (1) The reliability coefficients are generally

high, averaging in the .80's, considering the scales consist of only four

items. (2) Where the reliability coefficients are low (below .70), hetero-

geneity of item content is unavoidable. For example, the Working Conditions

scale includes items about specific working conditions (lighting and ventilation,

parking, cafeteria facilities, etc.). Response to such items is therefore

specific and tends not to generalize across the scale, hence the lower reli-

ability coefficients. With the exception of these scales with highly specific

content, it might be said that reliable four-item scales measuring job

attitudes can be written. Thus, a "tailor-fitted" attitudes survey instrument

can be constructed and used in a Phase Two survey without the necessity of prior determination of scale reliability.

2. <u>Scale independence</u>--Table 2 shows the frequency distribution of scale intercorrelations for two companies. The same set of 25 scales was used for both companies. Median correlation coefficient was .30 for one company and .49 for the other. Three-fourths of the intercorrelations were lower than .41 for the first company and .58 for the second company. These relatively low scale intercorrelations indicate that there is little duplication of coverage, or conversely, that a wide range of attitude content is tapped by the scales.

3. <u>Factor analysis</u>--Tables 3 and 4 show some results from the factor analysis of the data for the same two companies. The method of principal components with varimax rotation was used, with squared multiple correlations in the principal diagonal (Harman, 1967). Table 3 shows the similar factors found for the two companies. Table 4 shows a factorial difference between the companies. What was a single factor for the second company appeared as two factors for the first company. (The two factors were seen as <u>Independent</u> by the employees of the first company, but as <u>highly correlated</u> by the employees of the second company. This difference is anticipated in the higher correlations observed for the second company in Table 2. This difference suggests that a uniform set of latent factors may underlie measured employee attitudes, but that these factors may be organized differently for different organizations.

4. <u>Validity</u>--The <u>Opinion Survey</u> is intended to measure <u>reported</u> attitudes. As in all self-report instruments, validity (or meaning) is to be provided in the last analysis by the correlations of the scales with a variety of

variables in a construct validation scheme (Cronbach and Meehl, 1955).
Some evidences of validity are provided by the low scale intercorrelations
and the factor analytic findings. At a minimum, content validity may
be said to be present. Group differences also indicate some validity for
the instrument. The crucial tests are yet to come, when Phase Three data
are finally collected.

Experience with the Opinion Survey

The first experiences with "tailor-fitted" Opinion Surveys have been
highly encouraging. The "tailor-fitted" feature of the survey is extremely
attractive to the sponsoring organization. The Phase One interviews are
apparently perceived by employees as significant participation on their part
in the design of the survey instrument. The (Phase Two) survey itself
requires no more than one hour of each participating employee's time, most
respondents to a 25-scale, 200-item questionnaire being able to complete
it in 30-45 minutes. Other flexibilities of procedure (e.g., on-site vs.
mail administration) have proven not only appealing to the participating
organizations but efficient as well.

Utility of the Opinion Survey

For the practitioner

The usefulness of the Opinion Survey to the consumer is best apprehended
by referring to the sample report formats reproduced in Figures 1 and 2.
Figure 1 provides between-group comparisons on each scale, while Figure 2
yields between-scale comparisons for each group. Groupings for the report
are specified by the consumer (provided only that N is 10 or larger'. The re-
port furnishes three items of information: (1) the percentage satisfied; (2)
the percentage saying the work aspect is important; and (3) the percentage who
consider the aspect important and at the same time are not satisfied. The

last index, which is not directly derivable from the other two, is the basic indicator for diagnosing potential trouble spots in the organization.

In addition, content analysis of the Phase One interviews and the "open-end" responses provide convergent validation of the findings derived from the instrument proper, in the manner indicated by Campbell and Fiske (1959).

For research

A variety of research applications can be listed for the Opinion Survey. Heading the list is a major departure from previous employee attitude surveys: the study of organizations. If a common core of scales is used across organizations, it becomes possible to study organizational differences in the structure of members' attitudes. Such structure could be derived by factor analysis or by regressing specific factor scales on the general factor scale. Organizational differences in attitude structure may then be related to organizational characteristics such as size, age, hierarchical structure, communication patterns and leadership climate.

The traditional study of group differences (e.g., by occupation, sex, age, education and tenure) remains a fruitful line of research, since a number of new scales will be generated with each new administration. There will be replication of previous group-difference studies, but in this field more rather than less replication is needed. In addition, sub-grouping analysis or moderator-variable analysis was not characteristic of previous studies and should be done on current data. Such analyses might yield new insights.

Finally, the study of treatment or intervention effects, even without control groups, will definitely break new ground and may yet come up with the richest yield of all.

Table 1

Hoyt reliability coefficients for satisfaction scales

	Scale	A	Company B	C
1.	Ability Utilization	.91	.94	.88
2.	Achievement	.84	.88	
3.	Activity			
4.	Advancement		.95	.91
5.	Authority			.76
6.	Benefits	.75	.83	.67
7.	Career Development	.86		
8.	Closure	.88		
9.	Communication	.66	.72	.69
10.	Company Image			
11.	Company Policies and Practices	.76	.89	.87
12.	Company Prestige	.86		.84
13.	Compensation I (Amount)	.93	.96	.91
14.	Compensation II (Comparison)	.90	.90	
15.	Compensation III (Practices)			.85
16.	Cooperation	.73		.76
17.	Co-Workers I (Friendliness)			.84
18.	Co-Workers II (Performance)	.78	.85	.84
19.	Creativity	.90		
20.	Discipline			.77
21.	Discrimination	.72	.76	.77
22.	Division Aims and Plans	.90	.88	

Table 1 (cont.)

	Scale	A	Company B	C
46.	Supervision I (Human Relations)	.88	.92	.87
47.	Supervision II (Technical)	.84.	.94	.90
48.	Training Needs	.82		.85
49.	Training Programs	.78		
50.	Variety			
51.	Work Accomplishment	.38		
52.	Work Appearances	.77		
53.	Work Assignment	.75		.78
54.	Work Challenge	.93	.89	
55.	Work Involvement			
56.	Work Relevance	.90		
57.	Working Conditions I			.84
58.	Working Conditions II	.48	.52	

Table 2

Frequency distribution of Opinion Survey scale intercorrelations for two companies

Correlation		Company A	Company B
.95 - .99		0	0
.90 - .94		1	1
.85 - .89		0	0
.80 - .84		4	4
.75 - .79		1	0
.70 - .74		0	15
.65 - .69		4	16
.60 - .64		4	26
.55 - .59		7	47
.50 - .54		14	35
.45 - .49		21	37
.40 - .44		29	23
.35 - .39		24	28
.30 - .34		49	25
.25 - .29		34	18
.20 - .24		43	14
.15 - .19		27	5
.10 - .14		24	6
.05 - .09		'1	0
.00 - .04		3	0
	Q_3	.41	.58
	Q_2	.30	.49
	Q_1	.20	.32

Table 3

Comparison of Satisfaction Factor Structures

For Two Companies

Variables		Factor loadings	
		Co. A	Co. B
I. Intrinsic factor			
1.	Ability Utilization	89	84
13.	Work Challenge	8°	83
2.	Achievement	85	77
8.	Responsibility	68	65
14.	Feedback	52	(43)
7.	Recognition	51	(45)
3.	Advancement	(33)	(49)
	Trace	28%	23%
II. Compensation factor			
5.	Compensation I	88	86
18.	Compensation II	84	84
19.	Pay	67	76
20.	Benefits	(29)	64
3.	Advancement	(27)	51
22.	Promotion II	(44)	50
	Trace	18%	23%

Table 4

Comparison of Satisfaction Factor Structures

For Two Companies

	Company A			Company B	
	Supervision factor			**Management-Supervision-Extrinsic factor**	
		Factor Loadings			Factor Loadings
10.	Supv. Hum. Rel.	82	16.	Management	79
11.	Supv.-Tech.	81	23.	Staffing	78
7.	Recognition	66	11.	Supv.-Tech.	77
15.	Communications	61	10.	Supv. Hum. Rel.	77
21.	Work Assignment	56	15.	Communications	76
14.	Feedback	52	17.	Div. Aims & Plans	64
16.	Management	50	6.	Co-Workers	64
	Trace	25%	4.	Co. Policies, Practices	64
	Management-Extrinsic factor		21.	Work Assignment	58
			25.	Indiv. Identity	58
		Factor Loadings	7.	Recognition	56
4.	Co. Policies, Practices	75	24.	Discrimination	56
			22.	Promotion II	54
17.	Div. Aims & Plans	57	14.	Feedback	51
23.	Staffing	53	9.	Security	(47)
9.	Security	(49)		Trace	39%
	Trace	20%			

Figure 1

Sample report format
(Scale by group)

SCALE 7 RESPONSIBILITY	SAT OR S IMP OR I	SATISFIED IMPORTANT		GREATER THAN 2 GREATER THAN 2				IMP AND	TOTAL
SCALE	0 10 20 30 40 50 60 70 80 90 100			SAT	IMP		NOT SAT		N
				P N	P N		P N		
NATURE OF JOB									
FLOOR SALES.	S			45 22	72 31		42* 18		43
MERCHANDISE OFFICE . .	S	I		61 20	82 27		30 10		33
ACCOUNTING (except EDP). .	S	S I		62 32	77 40		23 12		52
EDP	S	I		40 36	85 57		55** 37		67
ADVERTISING		S I		69 76	74 82		21 23		111
STOCK ROOM		I S		91 40	68 30		7 3		44

LEVEL OF SIGNIFICANCE * - .05 ** - .01 *** - .001   N - NUMBER OF RESPONSES P - PERCENT OF TOTAL N

Figure 2

Sample report format
(Group by Scale)

Company Name - Location

Sorting variable - Division 11
category
  value · 3.000
  name (Accounting)

Legend

SAT or S	SATISFIED Greater than 2
IMP or I	IMPORTANT Greater than 2

SCALE	0 10 20 30 40 50 60 70 80 90 100	SAT or S / IMP or I	SAT P	SAT N	IMP P	IMP N	IMP AND NOT SAT P	IMP AND NOT SAT N	TOTAL N
ABILITY UTILIZATION		S / I	80	80	97	97	20	20	100
COMPANY PRESTIGE		S / I	46	45	66	63	35	33	96
COMMUNICATIONS		S / I	54	54	95	95	44	44	100
WORK ASSIGNMENT		I / S	80	78	61	60	14	14	98

N - NUMBER OF RESPONSES   P - PERCENT OF TOTAL N

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