

## Indian Bank Employees' Perceptions of Jobs : Implications for Job Designers

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*The study was undertaken to see whether the Job Diagnostic Survey is culture-bound or can be used as an instrument to tap the theorised core job dimensions in the Indian settings. Its focus is on assessing how white-collar bank employees in India perceive their jobs. The results reveal that the employees perceive their jobs along a single dimension of job complexity*

In the U S, there is a growing literature on the employee perceptions of their jobs. The researchers consider such perceptions to be multi-dimensional. These studies have endeavoured to relate the nature of the jobs performed, especially by the lower level employees, to the quality of working life,<sup>1</sup> job satisfaction,<sup>2</sup> job involvement,<sup>3</sup> and job performance.<sup>4</sup> In addition, a number of job dimensions have been combined with a view to deriving a measure of motivating potential.<sup>5</sup> What is more, job dimensions have been taken in additive and interactive combination with individual characteristics so as to predict work outcomes.<sup>6</sup> All these

studies have assumed that the employees perceive their jobs multi-dimensionally. For instance, skill variety, task significance, task identity, autonomy, and feedback from the job, theoretically conceptualised as separate dimensions, are presumed to be considered as multi-dimensional by the employees.

The most popular instrument employed to test the theoretical models and to further instrument refinement has been the Job Diagnostic Survey (JDS) developed by Hackman and Oldham.<sup>7</sup> The JDS delineates the five core job dimensions as

1. Walton R E. Improving the quality of work life. *Harvard Business Review* 1974 (May-June).
2. Brief A P, Aldag R J. Employee reactions to job characteristics : A constructive replication. *Journal of Applied Psychology* 1975, 60, 182-6.
3. Lawler E E, Hackman J R, Kaufman S. Effects of job redesign : A field experiment. *Journal of Applied Social Psychology* 1973, 3, 49-62.
4. Sims H P, Szilagyi A D, Keller R I. The measurement of job characteristics. *Academy of Management Journal* 1976, 19, 195-212.
5. Hackman J R, Oldham G R. Motivating through the design of work : Text of a theory. *Organisational Behaviour and Human Performance* 1976, 16, 250-79.
6. *Ibid.*
7. Hackman J R, Oldham G R. Development of the job diagnostic survey. *Journal of Applied Psychology* 1975, 60, 159-70.

(1) Skill variety—the degree to which the job uses a number of different skills and talents; (2) Task identity—a “whole” and identifiable piece of work as opposed to several small fragmented tasks; (3) Task significance—the impact of the job on other people; (4) Autonomy—substantial freedom, independence and discretion of the employees in scheduling and performing the job; and (5) Feedback from the job itself—obtaining clear and direct information about the effectiveness of job performance, even while one is engaged in performing the job. Each of these core dimensions is measured by three items.

organisational settings. This research was conducted in two phases: During summer 1975, questionnaire which included the 15 job items, representing the five core job dimensions of the JDS, were administered to an unbiased sample of 255 white-collar workers (clerks and supervisors) in three large banks at Bombay. Factor analysis of the data did not result in the expected *a priori* five dimensions. The varimax rotated factor matrix and the unrotated eigenvalues are presented in Table 1. The data clearly show that the bank respondents did not see their jobs on the dimensions postulated by Hackman and Oldham.<sup>8</sup>

Table 1: Varimax rotated factor matrix of the five factor solution of 1975 data

Item		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Skill variety	1	.19	-.07	.08	.83	.09
Skill variety	2	.24	.06	.18	.49	.20
Skill variety	3	-.004	.12	.06	-.47	.02
Task identity	1	.35	-.22	.13	.39	.09
Task identity	2	-.05	.98	-.02	-.09	.03
Task identity	3	.15	-.18	.30	.001	.13
Task significance	1	.15	.03	.02	.54	.29
Task significance	2	.04	.002	.17	.14	.94
Task significance	3	-.09	.06	-.07	-.57	-.05
Autonomy	1	.96	.05	.06	.16	.04
Autonomy	2	-.32	.07	-.01	-.38	.02
Autonomy	3	.28	-.17	.21	.16	-.005
Feedback-job	1	.08	.02	.30	.40	.60
Feedback-job	2	.01	.06	.95	.11	.09
Feedback-job	3	-.03	-.02	-.11	-.19	.07
Unrotated Eigen values		3.91	1.54	1.35	1.12	1.04

The present study was conducted to see whether the JDS is culture-bound or can be used as a valid instrument to tap the theorised core job dimensions in the Indian

### Mixed Results

There could be at least two reasons for this. One, the JDS was developed, using a sample of administrators, professionals,

technicians, skilled craftsmen and office and clerical employees from the U S city, country and State governments. The technology used in these institutions could be quite different from the mediating technology used in the banking industry. Two, there could be innate cultural differences in the perceptions of job dimensions. Perhaps Americans use a multi-dimensional cognitive and perceptual framework, whereas Indians do not. However, this second statement can be refuted on the basis of the results of several studies published in the U S, during 1976-77. For instance, Dunham,<sup>9</sup> Sims, Szilagyi and Keller,<sup>10</sup> and Dunham, Aldag and Brief<sup>11</sup> found that their studies using JDS with varied samples and technologies showed mixed results—the perceived job dimensions varying from one to five. In other words, the JDS results were sample-specific. These results led to the follow-up phase of this study in late 1976. The question to be examined this time was what, and how many dimensions of the job did the bank employees in India actually see? That is, rather than look for conformation of the *a priori* dimensions, the study took on an exploratory perspective.

Based on Sims *et al's*<sup>12</sup> suggestion that further studies should enlarge the scope of job characteristics by including job challenge, dealing with others, etc, the pool of 15 items used in 1975 was further widened to include 11 additional items designed to bring out task challenge, abilities and skills used in the job, learning new skills (all from the Michigan Organisational Assessment

Package, 1975) and "dealings with others" (from the JDS). This revised list of 26 job items, given in Table 2, was included as part of an extended survey in late 1976 with a random sample of 1,135 white-collar workers in 12 banks in three metropolitan cities in India.

Since the focus was not on establishing the actual dimensions perceived by the bank employees in the revised set of 26 items, rigorous "statistical" criteria were applied for factor analysing the data. The following procedures were followed: (1) Data were ipsatised to get rid of any response biases that may be present; (2) Bartlett's Test (1950) was used to make sure that a factor analysis was warranted for this set of data; (3) Rao's (1955) Canonical analysis was employed with numerous rotations, and (4) emphasis was placed on factors passing Cattell's (1956) Scree Test.

The eigenvalues and percentages of variance accounted for by each unrotated factor are presented in Table 3.

It is clear from the eigenvalue pattern that the Scree (change in the slope) occurs after the first factor. The first factor accounts for a large proportion of the variance. The eigenvalues for the second through the 26th factor are relatively similar indicating only error factors. There is thus only one factor present in the data. As a matter of academic interest, in order to compare the results with those of other researchers in the area in the U.S. several multi-factor structures were also examined,

9. Dunham R B. The measurement and dimensionality of job characteristics. *Journal of Applied Psychology* 1976, 61, 404-90.
10. Sims H P, Szilagyi A D, Keller R T. The measurement of job characteristics. *Op. cit.*
11. Dunham R B, Aldag R J, Brief A P. Dimensionality task design as measured by the job diagnostic survey. *Academy of Management Journal* 1977, 20, 209-23.
12. Sims H P, Szilagyi A D, Keller R T. *Op. cit.*

Table 2 : The 26 job items used in the 1976 survey

S. No.	Item
1.	I have the opportunity to do challenging things at work
2.	My job requires me to keep learning new things
3.	It is not often that doing my job well is a real challenge to my ability or ingenuity
4.	I use a wide range of ability in my job
5.	To do my job well, I have to work closely with other people
6.	In my job I have to solve tough problems quite frequently
7.	My job can be done adequately by a person working along without talking or checking with others
8.	There is no opportunity to develop my own special abilities on my job
9.	I feel I should personally take the credit or blame for the results of my work on this job
10.	I often feel frustrated I cannot use my full capabilities in the performance of my job
11.	My job is a place where I can continually learn something
12.	The job requires me to use a number of complex or high level skills
13.	The job is quite simple and repetitive
14.	The job provides me the chance to completely finish the pieces of work I begin
15.	The job is arranged so that I do not have the chance to do an entire piece of work from beginning to end
16.	The job is one where a lot of other people can be affected by how well the work gets done
17.	The job is not very significant or important in the broader scheme of things
18.	To what extent does your job involve doing a "whole and identifiable piece of work"? That is, is the job a complete piece of work or only a small part of the overall piece of work which is finished by others?
19.	The job gives me considerable opportunity for independence and freedom in how I do the work
20.	The job denies me any chance to my personal initiative or judgment in carrying out the work
21.	To what extent does your job require you to work closely with other people (either "clients" or people in related jobs in your own organisation)?
22.	How much autonomy is there in your job? That is, to what extent does your job permit you to decide on your own how to go about doing your work?
23.	How much variety is there in your job, i. e., to what extent does your job require you to do many different things at work, using a variety of your skills and talents?
24.	In general, how significant or important is your job? That is, are the results of your work likely to significantly affect the lives or well-being of other people?
25.	The job itself provides very few clues about whether or not I am performing well
26.	To what extent does doing the job itself provide you with information about your work performance? That is, does the actual work itself provide clues about how well you are doing—aside from any "feedback" coworkers or supervisors may provide?

Table 3: Unrotated Eigenvalue patterns and percentage of variance for 1976 data

Factor	Eigenvalue	Percent of Variance	Cumulative Percentage
1.	5.72549	22.0	22.0
2.	1.75269	6.7	28.8
3.	1.64424	6.3	35.1
4.	1.33623	5.1	40.2
5.	1.12310	4.3	44.5
6.	1.08990	4.2	48.7
7.	1.02399	3.9	52.7
8.	0.94030	3.6	56.3
9.	0.89647	3.4	59.7
10.	0.86975	3.3	63.1
11.	0.78496	3.0	66.1
12.	0.77674	3.0	69.1
13.	0.75789	2.9	72.0
14.	0.70986	2.7	74.7
15.	0.70437	2.7	77.4
16.	0.66829	2.6	80.0
17.	0.65285	2.5	82.5
18.	0.58745	2.3	84.8
19.	0.57316	2.2	87.0
20.	0.55814	2.1	89.1
21.	0.53959	2.1	91.2
22.	0.52946	2.0	93.3
23.	0.49660	1.9	95.2
24.	0.46672	1.8	97.0
25.	0.43510	1.7	98.6
26.	0.35647	1.4	100.0

Though 2 to 8 factor solutions were examined, none of the factor patterns appeared theoretically interpretable.

The most parsimonious and empirically sound factor structure that came from the data is the one-factor solution. This is in conformity with Dunham's<sup>13</sup> findings. The matrix of factor loadings is presented

in Table 4. An interesting and noteworthy point is that the factor loadings on the first factor remained relatively stable across different methods of rotation and when various sub-groups within the total sample were factor analysed separately.

Thus, multi-dimensionality has not been established for this sample. The item num-

13. Dunham R B. The measurement and dimensionality of job characteristics. *Op. cit.*

bers with factor loadings over 40 on the one-factor solution are: 1, 2, 4, 6, 8, 11, 12, 13, 17, 19, 21, 22, 23, 24, and 25. While the first eight items and item 23 represent the challenge, skill, and learning aspects of the job—denoting job complexity—the other six items

listed represent the significance, identity, autonomy, and feedback aspects. The five theorised dimensions are not perceived by the bank employees as five separate dimensions but are collapsed along one dimension heavily weighted towards job complexity, as indicated by the factor loadings.

Table 4: One factor solution with the 1976 items

Item	Factor 1
1.	-0.64047
2.	-0.64198
3.	0.04946
4.	-0.52222
5.	-0.29355
6.	-0.54879
7.	0.14020
8.	0.54311
9.	-0.02563
10.	0.32626
11.	-0.61281
12.	-0.62657
13.	0.55680
14.	-0.01037
15.	0.15181
16.	-0.20227
17.	0.40331
18.	-0.35658
19.	0.40827
20.	0.34564
21.	0.44951
22.	0.44699
23.	0.62118
24.	0.48900
25.	0.44422
26.	0.37691

## Conclusion

This study focused on assessing how white-collar bank employees in India perceived their jobs. The results indicate that a single factor solution is the most applicable for this sample, as for most other US samples. The employees seem to perceive their jobs along a single dimension of job complexity. That is, the most salient feature that is perceived in a job is how complex (as opposed to routine) it is. This uni-dimensional perception of job complexity can be taken as a valid finding for at least the bank employees in this study; not only was a substantial proportion of the variance explained by the first factor across numerous rotations, but the item loadings on the first factor were relatively stable across repeated rotations and across sub-samples. In the US, Dunham<sup>14</sup> initially proposed a uni-dimensional model in the interests of parsimony. He suggested that perhaps the job is characterised along a single dimension of job complexity. He postulated, however, that despite evidence to the contrary provided by Sims et al.<sup>15</sup> other dimensionalities may show for different samples. But in this sample, uni-dimensionality is evident even though the study was conducted in a different cultural setting where the technology and nature of jobs allowed for substantially different employee perceptions. These bank jobs could be seen as simple and routine or as complex, analytical tasks calling for interpretation of rules and regulations. Interface with others could range from close

NB: The items correspond to those listed in Table 2.

14. Dunham R B. *Ibid.*

15. Sims H P. *et al.* *Op cit.*

inter-personal contact to sitting alone in a cage and counting money. Yet, even for this sample, there was only one dimension perceived by the employees.

The findings of these studies pose the question as to why the employees perceive their jobs along one dimension, contrary to the multi-dimensions theorised by job design researchers. One could speculate that the perceptions of job characteristics, like the perceptions of organisational climate, would seem to be an integration and consolidation of the totality of job-related experiences. Through time, one's cognitive structure may absorb the stimuli coming from the job and integrate them into a "gestalt." That is, the job gets perceived as a "total" rather than as a distinct and differentiated set of facets. In other words, the stimuli coming from the job appear to be absorbed and assimilated in the perceptual schema of the employee into an integrated whole. Key aspects of the impinging stimuli like complexity or skill variety seem to form a dominant overriding theme in the perceptual schema. Other related aspects like identity, significance, autonomy, etc, perhaps get integrated with it to form a "gestalt."

The question that remains unanswered, however, is whether this un-dimensional perception is characteristic of only the Indian bank employees or whether this could be considered a general phenomenon occurring in all Indian organisations. To answer this, similar studies in non-banking industries and with different categories of employees—skilled and unskilled workers, professionals and para-professionals, technicians, etc. should be undertaken to see if the results in this study are replicated. If they are, then one could argue for the uni-dimensional perceptions of the job more confidently.

If further studies with other samples as suggested come up with similar results, this may have extensive implications for job designers, managers and consultants. Since job complexity has been shown to be highly correlated to employees' job involvement, job satisfaction and sense of competence in several studies, managers may have to pay more attention to the challenge, skills and learning aspects of the job, than to factors like autonomy, significance and the like, wherever possible. □