# A 360-degree Managers Performance Appraisal System in an Iranian Industrial Company

**Aboulghassem Nouri , PhD**[*]
Department of Psychology , Faculty of Education and Psychology, University of Isfahan

**Hamid Reza Oreisy, PhD**
Department of Psychology , Faculty of Education and Psychology, University of Isfahan

**Hossein Molavi, PhD**
Department of Psychology , Faculty of Education and Psychology, University of Isfahan

**Hassan Labbaf, PhD**
Department of Management University of Isfahan

**Hamid Gorgani**
MA in Psychology

**Sima Janatyan**
MA in Psychology

**Ali Mossavian**
MA in management
Expert in Gas company

The purpose of this study was to design and analyze a comprehensive 360 degree manager performance appraisal system in a large company in Isfahan, Iran. Therefore, 54 employees were selected as following: 9 managers, 9 superiors, 9 colleagues, and 27 subordinates. The research questionnaire was the Iranian Managerial Position Questionnaire (IMPQ), prepared by a group of specialists with 82 items in a 5-point Likert scale and with 9 sub-scales. The 9 managers completed the questionnaire with regard to themselves and the other subjects completed it with regard to those managers. The results showed that :(1) the mean total scores of self-appraisal of managers was significantly higher than either their supervisors' or subordinates' appraisals of them (both were significant at P< .05 level), and (2) managers' appraisals of their own performances were significantly higher than the appraisals of other sources of them (P<.05). The limitations as well as some suggestions for further studies are also mentioned.

*Keywords***:** 360-degree appraisal system, Managers, Superiors, Supervisors, Subordinates.

[*] Email: a.nour@edu.ui.ac.ir

Personnel, in general, and managers in particular, are the most important and valuable resources of any organization worldwide. Organizational human resources should be selected, trained and evaluated on the bases of scientific principles. This article is concerned with managers performance appraisal (PA). According to Jewell (1996), PA is a "defined data collection and analysis procedure through which information about job behaviors is obtained" (P. 406). PA is used by organizations "to evaluate the degree to which its members are doing their work satisfactorily" (P. 363). In fact, PA is a control system with both feedback and feedforward aspects. As a feedback mechanism, it provides information to individual employees as well as to those involved in employees recruiting, screening, selecting, and training. As a feedforward mechanism, PA provides information for making decisions about rewarding employees as well as indicating individual employee development needs, strengths, weaknesses and opportunities (Jewell, 1996).

*The appraisal of work performance is an important organizational activity which industrial and organizational psychologists attempt to improve it (Jewell, 1996).*

*PA may be found universally in large organizations; also, it has been subject to much research by psychologists. However, it remains a problematic area, which is considered as being not as successful as it should be (Fletcher & Perry, 2001; P. 127).*

*The most frequently cited purpose of appraisal is considered to do a kind of assessment of the appraisee. But, assessment is not in itself one of appraisal's fundamental objectives. Its basic aims are: (1) to make reward decisions, particularly to treat personnel in a fair manner, (2) to improve performance, (3) to motivate staff (4) to identity potential–good and poor performers-and to enable the organization to focus on succession planning, (5) to promote manager–subordinate dialogue, and (6) formal assessment of unsatisfactory performances. However, although each one in itself is*

*reasonable, the various aims of appraisal are very difficult to reconcile with each other in real life (Fletcher, 2004, P.4).*

*Traditionally, managers have been responsible for assessing job performance of their employees. However, providing multiple perspectives on job performance can be helpful (Furnham & Stringfield, 1994), and such a perspective is becoming standard practice (Rowson, 1998). Ratings by peers, self, and subordinates can be a useful complement to supervisor ratings (Maurer, Mitchell, & Barbeile, 2002). Discrepancies between employees own ratings of performance (self appraisal) and ratings by others (i.e. , peers , supervisors, and subordinates) can show those areas in which other people see employees differently than they see themselves (Spector, 2006, P. 98).*

So far various appraisal methods have been developed to asses managers and employees job performance. Upward appraisal is a method by which a manager or supervisor is evaluated by subordinates. This method is considered as favorable because personnel can participate in evaluation process and feel personal worth and power in the organization. Peers appraisal has been also useful as it is easy to apply; it also helps to raise the level of awareness even in the appraisers. Self-appraisal is a useful and effective way of developing a clear knowledge about self, weaknesses and strengths of oneself.

Performance appraisal, based on 360-degree feedback, is resulted from multi-source multirater (MSMR) approach; it has been used for assessing job performance of managers (Fletcher & Perry, 2001). The 360-degree appraisal system provides multiple perspectives on a person's job performance from peers, subordinates, managers, and self. This kind of appraisal system has been introduced since early 1990's and is becoming popular, particularly in the developed organizations.

Effectiveness of 360-degree appraisal system is shown. According to Smither, London, Vassilopoulos, Reilly, Millsap, & Slavering (1995), those managers who had a low or moderate assessment from their subordinates have shown considerable improvement in their own

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performances six months later. Borman, White, Pulakes, and Oppler (1991) have shown a particular aspect of self–appraisal: It is higher than other types of appraisals. The reason is a degree of self-serving bias: People tend to overestimate their own performances. However, self–appraisal is the best predictor variable in correlational studies. After self–appraisal, managers' appraisal of their personnel is higher than the other types of assessment; the reason is partly because managers intend to satisfy their personnel by a better evaluation (Cascio, 1991).

The present study was planned to assess and compare the overall and the four types of assessment: Self-appraisal as compared with appraisals of supervisors, subordinates, and peers.

The objectives of the research were as follow:

To assess and compare managers performance via the four types of assessment (self-appraisal, superior appraisal, subordinate appraisal, and peers appraisal).

## Method

### Design

The research type was descriptive (evaluative). Considering the research design, an appropriate research instrument was developed and applied.

### Participants and Procedure:

Out of a population of 752 employees including those in managerial positions in a large company, two purposeful samples were selected: (a) the first sample, for the pilot stage, were 4 managers who completed the research questionnaire and were interviewed to assure the content validity of the questionnaire, and (b) the second sample in the main stage of the research, consisted of a total of 54 managers and employees including 9 target managers, 9 of their superiors, 9 of their colleagues, and 27 of their subordinates. The research design is presented in Table 1. The target persons were 9 managers who were appraised by themselves as well as their superiors, their colleagues, and their subordinates.

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**Table 1**
**Distribution of the Research Participants**

| | Sub-scales | | | | |
| --- | --- | --- | --- | --- | --- |
| | Self-appraisal | Superior's appraisal | Colleagues appraisal | Subordinates appraisal | pupulation |
| No. of managers studied | 9 | 9 | 9 | 27 | 54 |

Because of the confidentiality, 9 mangers as well as one of their colleagues and three corresponding subordinates were selected by human resources department randomly. The above mentioned department was in charge of distributing and collecting the research instruments.

**Measure**

The main instrument was a researcher made questionnaire; namely, the Iranian Managerial Position Questionnaire (IMPQ). Based on the literature review as well as the managers' job specifications which were derived from a previous study on managers position analysis on the same population (Nouri et al., 2003), the questionnaire items were primarily developed.

The first 6 subscales were primarily developed by considering was used Professional and Managerial Position Questionnaire (PMPQ), which in the previous study; namely planning, judgment, communication, information processing, technical skills, and interpersonal relationships. Then, on the basis of the literature review 3 further subscales were developed. They included: Leadership, control, and decision-making.

Then, the IMPQ items were frequently reviewed and edited by a team of specialists in the field. Thereafter, the questionnaire was administered to 4 managers from the same population in the pilot stage, followed by an in-

depth interview with those managers to prepare the final two versions of the research questionnaire,  one for "others" and the other for "self ". Therefore, the content validity of the instrument and its nine sub–scales were assured. Furthermore, the reliability coefficients–alphas- were obtained for the nine subscales. The results of item analysis for each subscale show high correlations of all items of each subscale with its total score which indicate high internal consistency of each one of the nine subscales (Table 2).

The questionnaire is consisted of 82 items in a 5-point Likert scale as follows:

Seldom =1, Sometimes =2 , half the times=3 , most of the times=4 , and always=5 . The questionnaire is comprised of nine subscales. The subscales were concerned with planning, decision-making, judgment, communication, information processing, technical skills, interpersonal relations, leadership, and controlling/monitoring. The nine subscales and a sample item of each can be seen in Table 3.

**Statistical Methods:** Three statistical methods were used in the research: correlation between each item of the instrument and the corresponding subscales; Cronbach alpha, and multivariate analysis of variance (MANOVA).

**Table 2**

**Correlations between Pairs of All Items of Each of the Nine Subscales with the Total Scores Plus Reliability Coefficients Alpha.**

| Subscales | No. of items | Items | | | | | | | | | | | | | Alpha |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
| Planning | 10 | .69 | .73 | .84 | .59 | .84 | .81 | .75 | .78 | .75 | .77 | - | - | - | .94 |
| Decision making | 8 | .73 | .66 | .64 | .63 | .63 | .74 | .69 | .64 | - | - | - | - | - | .89 |
| Judgment | 8 | .71 | .75 | .49 | .49 | .68 | .69 | .80 | .46 | - | - | - | - | - | .87 |
| Communication | 9 | .61 | .79 | .73 | .69 | .73 | .81 | .77 | .65 | .37 | - | - | - | - | .89 |
| Information Processing | 9 | .63 | .80 | .80 | .62 | .75 | .81 | .79 | .81 | .80 | - | - | - | - | .93 |
| Technical Skills | 7 | .67 | .34 | .81 | .79 | .89 | .81 | .71 | - | - | - | - | - | - | .90 |
| Interpersonal relations | 10 | .85 | .81 | .62 | .84 | .87 | .87 | .79 | .85 | .52 | .85 | - | - | - | .95 |
| Leadership | 13 | .76 | .83 | .87 | .84 | .31 | .79 | .69 | .81 | .85 | .81 | .88 | .80 | .73 | .88 |
| Controlling | 8 | .66 | .85 | .72 | .84 | .57 | .54 | .59 | .64 | - | - | - | - | - | .85 |

**Table 3**

**The Nine Subscales of the Research Questionnaire and a Sample Item of Each.**

| Subscales | No of items | Sample Items |
|---|---|---|
| Planning | 10 | Determining the goals of his work unit clearly. |
| Decision-making | 8 | Follow–ups the implementation of the decisions continuously. |
| Judgment | 8 | When judging, shows independence while considering the opinions of others. |
| Communication | 9 | Communicates with other mangers in the organization easily |
| Information-Processing | 9 | Uses innovative methods to solve the problems. |
| Technical Skills | 7 | If necessary, uses computer technology. |
| Interpersonal-relations | 10 | Listens to the talk /speech of others carefully |
| Leadership | 13 | Has the ability of decision making in crises |
| Controlling/ Monitoring | 8 | Shows adequate attention to personnel behavior in the work environment. |

## Results

The means and Standard deviations of the total and subscales of self, superior, colleagues and subordinates appraisals of the managers are presented in Table 4.

The results showed that the mean of the self–appraisal of managers was significantly higher than that of their superiors' appraisals of them ($P<.05$). Also, the mean total self-appraisals of managers were significantly higher than that of their subordinates appraisals of them ($P< .05$).

**Table 4**
**The Means and Standard deviations of the Subscale of Self, Superior, Colleagues and Subordinates Appraisals.**

|  | Self | | superior | | Colleagues | | Subordinates | |
|---|---|---|---|---|---|---|---|---|
|  | mean | SD* | mean | SD* | mean | SD* | mean | SD* |
| Planning | 4.46 | .33 | 4.24 | .18 | 4.06 | .20 | 3.74 | .31 |
| Decision making | 4.45 | .29 | 4.41 | .25 | 4.10 | .11 | 3.99 | .22 |
| Judgment | 4.38 | .35 | 4.18 | .38 | 4.06 | .28 | 3.80 | .16 |
| Communication | 4.24 | .64 | 3.08 | .74 | 3.73 | .41 | 3.65 | .67 |
| Information-Processing | 4.17 | .24 | 3.96 | .26 | 3.89 | .16 | 3.84 | .28 |
| Technical skills | 4.32 | .43 | 3.9 | .34 | 3.78 | .35 | 3.64 | .31 |
| Interpersonal-relations | 4.61 | .29 | 4.07 | .28 | 4.13 | .25 | 3.84 | .37 |
| Leadership | 4.85 | .83 | 4.07 | .25 | 4.07 | .17 | 3.48 | .28 |
| Control | 4.54 | .29 | 4.29 | .14 | 4.18 | .27 | 3.94 | .35 |

* SD: Standard deviation

Therefore, the first main hypothesis was confirmed. It can also be seen from Table 4 that the means of the self-appraisals are significantly higher than that the means of subordinates appraisals for all the subscales except for interpersonal relations, information processing, and technical skills (P<0.05). In addition, self-appraisals are significantly higher than the means of superior appraisals in technical skills, interpersonal relations, and leadership (P<.05).

**Table 5**
**The Results of the Multivariate Analysis of Variance.**

| Effect | | Value | F | Hypothesis df | Error df | Sig. | Partial Eta Squared | Observed Power |
|---|---|---|---|---|---|---|---|---|
| Factor1 | Hotelling's Trace | 2.56 | 67.65* | 3.0 | 79.00 | .000 | .72 | 1.0 |

* P<.0001

**Table 6**
**Pairwise Comparisons of the Means of the 4 appraisals.**

| (I) factor1 appraisal | | (J) factor1 | | Mean Difference (I-J) |
|---|---|---|---|---|
| self | 4.46 | Superior | 4.10 | .00 |
| Self | 4.46 | Colleague | 4.03 | .00 |
| Self | 4.46 | Subordinates | 3.75 | .00 |
| superior | 4.1 | Colleague | 4.03 | .02 |
| Superior | 4.1 | Subordinates | 3.75 | .00 |
| Colleague | 4.03 | Subordinates | 3.75 | .00 |
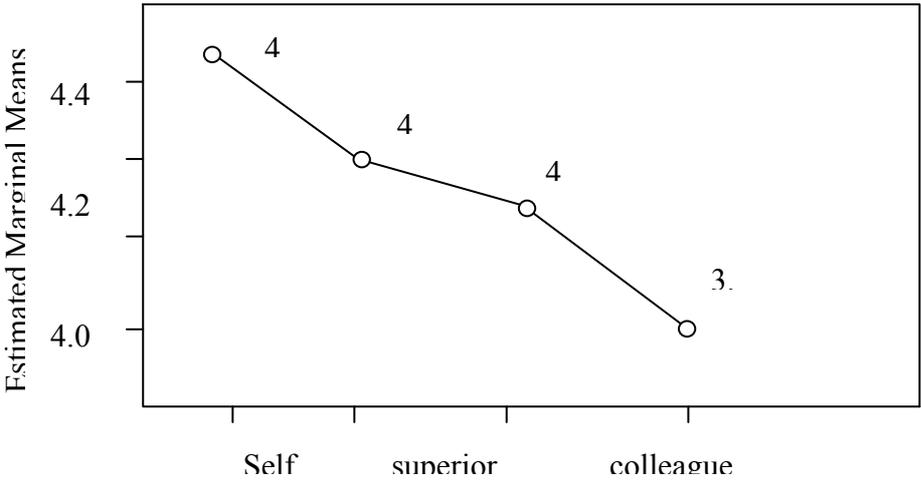


**Figure 1. Differences between the 4 Means.**

**Discussion**

   Assessment of employees job performance is important. Traditionally, managers assumed sole responsibility for appraising the performance of their employees. Gradually, limitations of such practices became apparent. Therefore, alternative assessments by peer, subordinates, and the

employees themselves have been tried, too. Recently, multi-level multi-source appraisal system, or 360–degree feedback, which considers a combination of all four sources of superiors, peers, subordinates, and the self is being introduced (Fletcheer, 2004; Maurer, Mitchel, & Barbeite, 2002). The application of 360–degree appraisal system on a sample of managers and employees in a large company, has been the concern in this study. Although there is a considerable practitioner literature offering [references] advice to develop and run 360–degree feedback systems, little empirical research is tested these systems especially in Iran. Current study provided such empirical data, with a small sample.

Consistent with the literature, the two main research hypotheses were confirmed. First, it was shown that the mean total scores of self-appraisal of the managers in this study was significantly higher than either their superiors' or subordinates' appraisals of them (both were significance at $P<.05$). These findings are consistent with Borman et al. (1991) as they also have shown that self- appraisal is higher than other types of appraisals. According to the principle of self–serving bias, people tend to overestimate their own performances. Consistency of research results between two samples from different cultures show the extent to which the predominantly US-based performance appraisal research in the PA process generalizes to Iran culture.

It is necessary to acknowledge that cultural differences are not dichotomies but continues (Hermans and Kempen, 1998). Thus, the 360-degree feedback is not the specific cultural dimension that results in differences in the PA process across two cultures.

Second, it was also found that managers' appraisal of their own performances was significantly higher than the appraisals of other sources of them, both individually and in groups. However, to overcome some of the limitations of this study, future research should include more persons in the managerial positions as well as more employees in different occupations and organizations. This research, as a pilot study, was conducted in one of the forty companies of the holding company.

Therefore, the research instrument and the method may be replicated in the other 39 companies to obstain validity generalization and big sample size.

For future studies, replications of the current research with same employees unfold the impact of giving feedback to employees. If ratings from colleagues become more favorable on successive applications of 360-degree feedback, this indicates performance improvement. The findings of this research may be applied for curriculum development for each manager independently to improve his/ her performance, based on competency-based learning (CBL).

The findings may be used for effective succession planning (ESP) programs, specially for those who have the potential of improving to the highest levels of managerial positions in the company. The discrepancies of various ratings for each manager.

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