

Is Past Performance a Good Predictor of Future Potential?

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Is Past Performance a Good Predictor of Future Potential?

A study of competency assessment through assessment centres and 360 degree tools

T. V. Rao¹ and Mohit Juneja

Abstract

Both assessment centres and 360 degree feedback have become very popular new era HR tools. With human resources gaining strategic importance combined with raising costs of talented managers and their scarce availability, organizations are left with no alternatives than identifying and grooming talent from within. This has led to the increased use of assessment centres and 360 degree tools for developing leadership competencies. Some times 360 degree feedback is used as tool for career development and succession planning. Sometimes assessment centres are used as predictors of fast track managers. However research on the predictive ability of ACs or 360 degree feedback is scant. This study is based on data gathered from three organizations that have conducted assessment centres as well as 360 degree feedback. In all three organizations ACs and 360 degree feedback were used as development tools. In all these organizations competency mapping was done and common competencies were identified using behaviour indicators. Competencies were assessed by external assessors and by their seniors, juniors, and colleagues on the same competency model. Results showed no definite patterns and lead to the conclusion that past performance as assessed by 360 degree feedback predictor of future potential as assessed by the assessment centres. The findings seem to be valid irrespective of the nature of competencies assessed and across various categories of employees. Given the lack of correlation, caution is necessary while using the data for promotion and succession planning exercises.

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Is Past Performance a Good Predictor of Future Potential?

A study of competency assessment through assessment centres and 360 degree tools

An assessment centre is a comprehensive, standardized procedure in which multiple assessment techniques such as situational exercises and job simulation (business games, discussions, reports, and presentations) are used to evaluate employees for a variety of manpower decisions.

“An assessment centre consists of a standardized evaluation of behaviour based on multiple inputs. Several trained observers and techniques are used. Judgements about behaviour are made by these specially trained observers. At the end of the assessment the assessors get together to share their data which is scientifically recorded on a set of evaluation forms. They come to a consensus on the assessments of each candidate. Most frequently the approach has been applied to individuals being considered for selection, promotion, placement, or special training and development in management (Ganesh, 2004).

History of Assessment Centres

Assessment centres methodology is known to have been used or recommended at least 1500 years ago in India as mentioned in Kautilya's Arthashastra. Different methods of assessing a candidate for ministerial positions have been spelt out in the Arthashastra including: observation, performance appraisal, assessment by those who knew him, interviewing, and other forms of testing.

Early application of assessment centres can be traced to the German military assessment programme developed for selection of officers for the German Army. Both multiple assessment techniques and multiple assessors to evaluate complex behaviour with special focus on leadership were used. Assessment was based on subjective opinions and very little rating was done.

The British War Office Selection Boards (WOSB) were set up in 1942 for identifying potential officers for the British army. Boards used a mixture of military officers, psychiatrists, and psychologists to assess the candidate's performance. Tests included group discussions, short lectures, leaderless group tasks - all of which are still used in assessment centre methodology. The methods were later adopted by the United States after it entered the war, and the Office of Strategic Studies (OSS) drew upon British, German, and American tests to define nine dimensions it regarded as critical for the selection of agents and operatives. In 1945, the WOSB model was adopted for recruitment to permanent posts in the British Civil services.

In 1956, American Telephone and Telegraph Company (AT&T) initiated its management progress study (MPS) under Douglas Bray. This was the first industrial application of the assessment centre methodology. Both individual characteristics of young managers as well as organizational settings in which they worked were studied and evaluation at the assessment centre was used to predict whether the participant would make it to the middle management in the next ten years or less. The sample included both recent college

graduates and non-management personnel who had risen to the managerial positions relatively early in their career. The dimensions assessed included managerial functions like organizing, planning, decision making, general ability such as intellectual ability, personal impression, sensitivity, and values and attitudes, both work related and social.

Assessment tools like interviews covering background, personal objectives, social values, interests, etc., in - basket exercises, business games, leaderless group discussion, and various projective and chapter and pencil tests were used. Assessors included industrial/clinical psychologists, Bell staff, and university faculty or consultants. Later, line managers were also trained (but supervisors of assesses were not used as assessors). Feedback was not given to participants, their supervisors, or other managers to minimize the effect of assessment on the individual's progress in the company. Criterion data were gathered in 1965 regarding the level of management attained and salary progress over approximately eight years since the assessment and have been summarized below: for college grads predictive validity coefficient = 0.46 in early years and 0.33 in the 16th year. For non-college graduates: predictive validity coefficient = 0.46 in early years above 0.40 in the 16th year. Later AT&T started using the assessment centre methodology for personnel decisions such as potential appraisal, promotions, etc.

The success of the earlier work of AT&T was followed by Standard Oil which was the second to start assessment centres. This was followed by IBM, Sears Roebuck, General Electric, and Caterpillar tractors. By 1981 more than 2500 organizations applied the methodology to select potential managers (Ganesh, 2004).

How are Assessment Centres Different Now?

Early assessment centres were used essentially for selection purposes since the traditional methods were thought to be inadequate. The assessment centre method since then has been subjected to scrutiny and research much more than any other personnel practice. Because of the high quality research and high reported validity, the methodology finds widespread use in a number of organizations. Besides selection, it is used for early identification of management talent, promotion, and diagnosis of developmental needs.

Early Identification of Management Talent

With manpower costs increasing and retention becoming a critical issue, it becomes essential for organizations to identify star performers in the beginning of their career. Early identification (see Box 1) has two important benefits. Firstly, it provides an organization with more time for development before putting the person in a high level position. Secondly, it provides the individual with reasonably accurate feedback early in his/her career concerning its suitability and also his or her chance of achieving career goals in the organization.

Box 1
AT & T Early Identification (EIA) Programme

After one year of employment with the company, individuals have the option of nominating themselves for participation in the one day EI supervisory programme. If they do well, they are put into a special programme to prepare them to be supervisors. The programme consists of a series of developmental assignments aimed at providing a wide exposure to company operations deemed important to first level supervisors. It is anticipated that an individual in the fast track system will be ready for supervisory assignment in 3-4 years rather than the usual 8-10 years.

However, success in the EIA programme does not ensure advancement to supervisory positions. The employee must succeed at each and every stage of the development cycle. Success in assessment centre provides a specialized, more organized learning experience.

Failure to show management potential in EIA does not mean that the person has lost his only chance of advancing into management. When the individual becomes eligible for the regular selection assessment centre, he can participate without prejudice. It just takes a little longer to get to the selection assessment centre.

Promotion

Promotion is essentially a decision to select from within the organization those most likely to succeed in higher level jobs. Any method used by the organization to take promotion decisions such as performance appraisal data, interviews, etc. should be supplemented with data from the assessment centre. Since, the assessment centre method is used to study the likely performance and behaviour of a person in a role not previously performed by him/her, it can be used to supplement promotion decisions. Using additional inputs not only results in a more appropriate decision, it also helps eliminate individual biases and imparts more transparency and fairness to the promotion exercise. High validity has been reported in use of assessment centre data for promotions to first level supervisory and middle management levels.

Diagnosis of Developmental Needs

The assessment centre methodology can be used to measure the abilities of individuals against certain critical criteria and identify their training and developmental needs. Such assessment centres are more diagnostic than evaluative and can be termed as development centres.

In the case of use of assessment centre methodology for early identification, promotion, and selection, a final 'yes-no' decision is critical. But in diagnostic assessment centres or development centres, final overall decision is insignificant. Each dimension must be measured with a high degree of reliability and validity because decisions are being made on each dimension. Therefore, the dimensions to be studied should be made as specific as possible.

Although assessment centres and development centres are similar in terms of the principles of assessment used, it is important to differentiate the two. Box 2 shows the

differences (Kerr and Davenport, 1989, also see Lee and Beard, 1994, for a discussion on development centres);

Box 2		
Similarities and Differences in Assessment and Development Centres		
	Development centre	Assessment centre
Purpose	To identify development and training of employees in current and future roles	Selecting the right candidate (for selection and promotion)
Outcomes	Individual feedback in the development centre is fed to the participants, feedback is discussed and interpreted and a mutually agreed action plan is devised to improve performance. The outcome of a development centre is a personal development plan which includes targeted training, coaching, mentoring, project based learning, job change, job enlargement, self development, etc.	Information about performance and ability is used to make a decision on selection or rejection. While the final decision is communicated to the candidate, individual's performance and ability is not discussed.
Process	Encourages a climate of experimentation where assessors are drawn into the learning process. The emphasis is on learning. The list of competencies assessed is much longer than that in the assessment Centre	Analytical tools of assessment are used in which assessors remain detached and neutral so that they do not influence the performance of those they assess.

Source: Kerr and Davenport, 1989.

Assessment Centres in Asia

The first assessment centre in Asia was for selecting project leaders for the entrepreneurship development programme in Gujarat (Rao, 1975). Subsequently, efforts were made to introduce it in Larsen and Toubro (Pareek and Rao, 1975). L and T did a lot of work on job profiling but never got to the stage of developing an assessment centre for potential appraisal. Crompton Greaves attempted to use an assessment centre approach for selecting their general managers from within. This was again a one-time effort (Varghese, 1985). Subsequently an attempt was made in Ballarpur Industries (T) by Anil Dixit with the help of the Behavioural Science Centre. However, this did not stabilize owing to resistance from line managers and change of leadership in HR.

It is only in the 1990s that interest in assessment centres was renewed. This was a natural response to the need to ensure competent people manning strategic positions.

A large number of Asian companies have established assessment centres and many others are exploring. The companies that are trying out include : RPG Group, Escorts, TISCO, Aditya Birla Group, Eicher, Cadburys, Castrol (India), Glaxo, Grindwell Norton, ONGC, Mahindra and Mahindra, SAIL, Siemens, Wipro, Wockhardt, and J and J.

Different organizations initiated assessment centres for recruitment, selection, placement, promotion, career development, performance appraisal, and succession planning and development purposes such as identification of training needs, identification high potential managers, create a pool of managerial talent and multifunctional managers that would be available across the business group, employee recognition and fast growth. Philips, Dr. Reddy's Laboratories, and Global Trust Bank are organizations that have been using assessment centres. Some of these organizations are, in the process of developing Indian managerial talent and measure it periodically. Ganesh (2004) lists a number of Indian organizations having well defined assessment centres.

Generally the competencies that are to be measured are determined by each organization by using methods such as job analysis, managerial aptitude profile surveys, identifying competencies in star performers, etc. A variety of assessment techniques are used in Asian organizations like in-baskets, business simulations, questionnaires, group discussions, role plays, interviews, case study, individual presentations, etc. While the need is felt by all organizations to test reliability and validity of the tools used, many of them are not testing them. Both internal and external assessors are used for evaluation. Assessor training is done either through in-house training programmes or with the aid of external institutions like Academy of HRD (Hyderabad), SHL (UK), etc. Some Asian organizations have also sought assistance from organizations abroad that are using assessment centres such as GE, and Motorola. Certain criteria are laid down such as minimum years of experience with the organization, proven track record, educational qualifications, etc. to be eligible to go through assessment centres. Post - assessment participants are provided with feedback, counselling, and other developmental inputs in the case of development centres.

There are certain issues with respect to assessment centres that persist in Asian organizations:

- Complexity of Implementation
- Clear behavioural description of competencies
- Availability of assessors
- Assessor training
- Inter-rater reliability
- Appropriateness of selection tools
- Validity of exercises
- Organizational commitment in terms of time and resources
- Involvement of line managers
- Feedback to participants
- Data security

Assessment Centres: Current Status

Every organization needs competent managers for the following reasons:

1. To become more competitive as organization are increasingly required to compete with multinationals and locals with better organizational designs, technology, more competent people, and rationalized organizational structures;

2. To prepare more and more of middle and senior level managers for senior and top level positions that could give strategic advantage to these organizations;
3. Large number of vacant positions in top and senior levels owing to retirements and resignations;
4. Pressure on organization to do business more effectively and efficiently through fewer but competent people and rationalized structures;
5. Increased pressure on organizations to perform and bench mark with international standards in terms of per employee productivity and contribution.

Under these conditions there is no substitute for having competent managers to handle strategic roles and contribute continuously, Organization cannot escape the reality and the need to have competent managers for survival of organizations. Seniority has to get replaced by competence and merit.

Having an assessment centre does not necessarily mean having completely objective decisions. Assessment centres certainly help in making employee promotions and placement decisions more scientific. Their contributions are more in creating a competence culture rather than mere best-fit decisions. Continuous competence building is a better aim rather than short-term objective promotion decisions.

Given the complexities in sensitivities in using assessment centres, the term assessment and development centre has become common in India.

Validity and Reliability Studies

Thornton and Byham (1982) reviewed 29 studies of the validity of assessment centres. They found more support for the assessment centre method than for other selection methodologies (quoted in Ganesh, 2004, p 155).

In 1985, Thornton and his associates processed at Colorado University 220 validity coefficients from 50 studies using a statistical approach called meta analysis. They estimated the method's validity at .37 (Gaugler, Rosenthal, Thornton, and Bentson, 1985, quoted in Ganesh, 2004, p. 155).

- A meta-analysis of 50 assessment centre studies, containing 107 validity coefficients, demonstrated that assessment centres showed strong predictive validity. (Gaugler, Rosenthal, Thornton, and Bentson, 1987). In their study, validity coefficients showed the strength of the relationship between assessment centre scores and other methods for assessing performance. These relationships were consistent across assessment centres for a variety of different purposes (e.g. promotion, selection, etc.). Although results from individual studies varied, this comprehensive study definitively supports the value of assessment centres.

The coefficients of correlation were 0.36 with ratings of general performance, 0.53 with ratings of general potential; 0.33 with ratings on dimension; 0.35 with performance in training; and 0.36 with career advancement.

DDI designed an assessment centre for an appliance-manufacturing organization to develop existing leaders and prepare them to advance to higher organizational levels. The centre provided participants with feedback and linked their strengths and weaknesses to a long-term mentoring process. Six to twelve months after the assessment, the managers provided ratings of their current job performance along the same dimensions (or competencies) measured in the assessment. The results showed that assessment centre ratings correlated significantly, though low with these job performance ratings: (customer focus .37**, visionary leadership .33**, empowerment .30*; managing the job .38*; N = 49, *p < .05, **p < .01

In validating assessment centres leading agencies like DDI have even used peer ratings as a measure of performance. Peer ratings can be considered as a small part of 360 degree feedback currently in use. For example, the management assessment programme at Northern Telecom was designed to determine candidates' readiness for promotion to management and to diagnose their developmental needs. DDI worked with Northern Telecom to identify relevant job dimensions and a variety of assessment techniques and provided participants with detailed reports about their performance on the dimensions. To validate the assessment centre scores, performance criteria data were collected from participants' peers. DDI obtained a correlation coefficient of 0.24 * on customer service orientation, 0.22 on influence; 0.30* on innovation, and 0.34* on job fit with a multiple R of 0.38, for a sample of N = 61.

- Working independently Thornton, Wayne Cascio of the University of Colorado arrived at the same figure (0.37) in studying the validity of the first level assessment centres in an operating company of Bell Systems. "Using information provided by more than 700 line managers, Cascio combined data on the validity and the cost of the assessment centre with the dollar-valued job performance of first level managers. With this data, he produced an estimate of the organization's net gain in dollars resulting from the use of assessment centre information in the promotion process. Over a four year period, the gain to the company in terms of the improved job performance of new managers was estimated at \$13.4 million, or approximately \$2,700 each year for each of the 1,100 people promoted in first-level management jobs. (quoted in Ganesh, 2004, p 155).

There is considerable research showing that assessment centres are unbiased in their predictions of future performance. These studies considered the candidate's age, race, gender and found the predictions by the assessment centre methodology equally valid for all candidates. Federal courts have viewed assessment centres as valid and fair. Indeed, they often have mandated assessment centres to overcome selection problems stemming from the use of paper-pencil and other selection instruments (Ganesh, 2004).

What is 360 Degree Feedback?

"The (360 degree) feedback process involves collecting perceptions about a person's behavior and the impact of that behavior from the person's boss or bosses, direct reports, colleagues, fellow members of project teams, internal and external customers, and suppliers. Other names for 360 degree feedback are multi-rater feedback, multi-source feedback, full-circle appraisal, and group performance review" (Lepsinger, 1997, p. 6).

In recent years 360 degree appraisal has become very popular. It was felt for long years that one person's assessment of another cannot be free of biases. In addition, with focus on customers (both internal and external) and emphasis on softer dimensions of performance (leadership, innovation, team work, initiative, emotional intelligence, entrepreneurship, etc.) it has become necessary to get multiple assessments for a more objective assessment. 360 degree appraisal is multi-rater appraisal and feedback system. Almost every Fortune 500 company is using this in some form or the other. In this system, the candidate is assessed periodically (once in a year and some times even half yearly) by a number of assessors including his boss, immediate subordinates, colleagues, internal customers, and external customers. Assessment is made on a questionnaire specially designed to measure behaviours considered as critical for performance. The appraisal is done anonymously by others and the assessment is collected by an external agent (consultant) or specially designated internal agent (for example the HRD Department). The assessment is consolidated; feedback profiles are prepared and given to the participant after a workshop or directly by his boss or the HRD department in a performance review discussion session. Owing to the innumerable variations possible in the 360 degree feedback and appraisal, and its potency as a competency identification and development tool, it is important to understand the process and its dynamics.

Objectives of 360 Degree Feedback or Multi-rater Assessment and Feedback Systems (MAFS)

It is possible to aim at the following through 360 degree feedback or MAFS:

- Providing insights into strong and weak areas of the candidate in terms of the effective performance of roles, activities, styles, traits, qualities, competencies (knowledge, attitudes and skills), impact on others and the like
- Identification of developmental needs and preparing development plans more objectively in relation to current or future roles and performance improvements for an individual or a group of individuals
- Generating data to serve as a more objective basis for rewards and other personnel decisions
- Reinforcing other change management efforts and organization effectiveness directed interventions. These may include: TQM efforts, customer focused or internal customer satisfaction enhancing interventions, flat structures, quality enhancing and cost reducing interventions, decision process changes etc.
- Basis for performance linked pay or performance rewards
- Aligning individual and group goals with organizational vision, values, and goals
- Culture building
- Leadership Development
- Potential appraisal and development.
- Career planning and development.
- Succession planning and development.
- Team building

- Planning internal customer satisfaction improvement measures
- Role clarity and increased accountability.

Advantages

The 360 degree appraisal system has certain advantages. Normally MAFS should be viewed as supplement to regular KPA or KRA based appraisal systems rather than as their replacements.

Additional advantages offered by MAFS are as follows:

- It is more objective than a one person assessment of traits and qualities
- It adds objectivity and supplements the traditional appraisal system
- It provides normally more acceptable feedback to the employee
- It can serve the purposes served by traditional appraisal systems like identifying developmental needs, reward management, performance development, etc.
- It helps focus on internal customer satisfaction
- It has the potential of pointing out supervisory biases in the traditional appraisal system.
- It is a good tool for enhancing customer service and quality of inputs and service to internal customers.
- It provides scope for the employee to get multiple inputs to improve his role, performance, styles and ideas and enhances the acceptability of the employee.
- It is more participative and enhances the quality of HR decisions.
- It is suitable for new organizational cultures being promoted by most world-class organizations (participative culture, learning culture, quality culture, competency based performance culture, team work, empowering culture, leadership culture, etc.)

Effectiveness of 360 Degree Feedback

Two months after a series of 360 degree feedback sessions (Rao and Rao, 2003) conducted a survey. Impact of the workshop on people, changes observed as a result of the workshop, actions adopted towards change, further support required if any, and so on. The study covered 32 managers. Who were assessed through personal interviews and discussions on a-one-to-one basis? The findings are as follows:

1. Two months after the workshop, participants were still carrying the report and workbook for reference and reinforcement purposes
2. Of the 32 managers interviewed, 24 of them had shared the data and report including the action plans with respective bosses, peers, and subordinates in an effort to solicit their support towards change
3. The CEO of a multinational company, after going through the workshop, emailed the results of his profile and feedback to all employees. He also made known his present focus area (based on scores in report) and action plans for the future, inviting support as well as suggestions.

4. A good number of the managers had initiated the practice of maintaining diaries to record their action plans and activities done during the day or week towards the plans.
5. Only two managers felt that the workshop did not result in any change in their actions or behaviour. Incidentally, both had quit the organization.
6. Seven managers actually took the report home and shared the findings/data with their family members asking for their contribution to change. Not surprisingly, all seven quoted a high level of change as observed by self, family and work related individuals.

Negative repercussions also were reported to have occurred. Only one had negative repercussion in spite of efforts to change style. Open-ended feedback laid emphasis on his following up actions. His subordinates felt that they would function better if he reduced 'breathing down their necks' after assigning tasks to them. After the workshop, he made efforts to reduce his follow up activities. Unfortunately, his subordinates started taking advantage of this and it resulted in them becoming more irregular in their work.

Some Observations on 360 Degree Feedback and its Effectiveness

"360 degree feedback won't fix a system that doesn't work" (Lepsinger, 1998, p.5).

"Professionally developed assessment tools identify skills sets or competencies required for success in a specific role. If the culture fails to reinforce the objectives of the assessment tools (such as planning or staff development), the exercise of receiving 360 degree feedback will be academic, at best--and frustrating and demoralizing, at worst" (Haworth, p.5).

"360 needs to be instituted as a tool to help, not a weapon. In those instances where it is eventually used in performance appraisal (a practice I have reservations about) it is first used as a developmental tool for several years, if the practice is to be effective" (Judy Cox, Performance Management Listserve, March 19, 1999). It is essential that feedback be seen as only one component of the appraisal, not the entire basis for evaluation. "Feedback is most effective in performance appraisal when it is used for goal-setting" (Lepsinger, 1998, p. 4)

"Another factor in 360 readinesses is whether those who will be rated see the process as constructive, not attacking--that is, is the organization using the 360 process to help people improve (or, in some cases, choose to play a different role in the organization) or is it using the process to justify removing people or otherwise making punitive actions?" (Judy Cox, Performance Management Listserve, March 19, 1999).

360 Degree Feedback Does Not Equal Perfect or Objective Feedback

360 degree feedback is more *objective* than feedback from one's superior alone, as in the traditional annual performance review, but claims regarding objectivity are not strictly accurate. "If the objective behind this is to ensure objectivity and accuracy of assessments, you should realize that these systems do not provide that benefit. They increase the amount of feedback, but the feedback is still subjective." (Brock Vodden, Performance Management Listserve, February 26, 1999). At the same time, though, we realize that having a number of people agree in their opinions is more powerful than one person's

opinion alone. When people share the same opinion, we conclude that we are probably that much closer to the truth—while, at the same time, acknowledging that truth is, at least in part, dependent upon perspective.

Study Objectives

While a lot is written about 360 degree feedback and ADCs there is very little empirical work in India on the effectiveness of both tools and the extent to which they have predictive ability. 360 degree feedback deals with past performance and ADCs with future potential. Theoretically they are supposed to give different data. For example with a risk adverse boss the risk taking capability of a junior may be clouded and his 360 Degree Feedback may not indicate his real capability as he was never allowed to delegate or take risks. However in ADC he may show his full potential. Also the 360 degree feedback is limited by the context in which the person is operating. In ADC the expert assessors are supposed to create simulated situations where the real competencies of the candidate get tested. It also assumed that biases are controlled through the use of a variety of tests and exercises as well as assessors. Hence some of the organizations have started using ADCs for promotions and development of potential for future jobs and 360 degree feedback for development of leadership potential on the current job.

We hypothesize that both 360 degree feedback and ADCs measure the same thing and should be correlated irrespective of contexts.

Methodology

The data for this study came from three organizations that were interested in conducting assessment and development centres. All three organizations wanted the ADCs as development tools. They felt the need to assess their senior and middle level managers for developing their future potential as leaders and managers to handle higher level and more complex jobs. At the suggestion of one of the authors the organizations also decided to supplement the ADC data with 360 degree feedback data. It was made clear to the organizations as well as the candidates from the beginning that 360 feedback tested the impact they made on others in recent past. In other words the 360 assessments were based on past performance as observed by their role set members. ADC measured the extent to which they would demonstrate or exhibit competencies to perform senior level jobs. Some of them already performing senior level jobs were told that the assessments would help them identify developmental needs. The respective organizations had conducted their competency mapping exercises and a list of competencies needed for the effective performance of the roles for which the candidates are being assessed.

The organizations were of designing, manufacturing, assembling, and marketing various electronic components for engines, automobiles, and other industries. The validity and reliability of ADCs had been questioned on various grounds, mainly on the relationship between assessment exercises and dimensions, attributes, or qualities assessed. ADC exercises were designed on the basis of competency mapping and vetting exercise by the consultants. The role incumbents were interviewed and the competency list was validated by the role holders and their seniors. Out of the competencies identified, a competency framework or model was prepared for ADC.

The tools used for ADCs were the following:

1. Leaderless Group Discussion (LGD)
2. Business or Vision Presentation
3. In-Baskets
4. Business/Management Game
5. BBII® (Biographic Behavior Incident Interview)
6. Case Analysis
7. Psychometric Tests

Assessment was done over a period of one or two days followed by individual feedback by the assessors. In an assessment centre one assessor assessed two participants. Moreover the exercises were so designed that each of the participant was assessed by each assessor. During the actual exercises only the behaviour was recorded and no final interpretations were arrived at. Once all the exercises were over, each of the assessors was required to classify the behaviour observed into dimensions accounting to the predefined list of competencies. Taking the participant's performance in all the exercises and interview reports, the participant was then rated on the competency using five point scale. Once the rating was given the assessors discussed the ratings among themselves. Ratings in each of the dimensions were discussed until a consensus was reached. Normally average of ratings from each assessor was not taken because more insights could be obtained from discussing discrepancies.

The 360degree feedback questionnaire was also based on interviews with and a sample from senior and middle level managers. Assessment from their role set was combined and presented to the individuals. Feedback was kept totally anonymous and individual was its sole owner.

Table1: Sample, Methods Used and Competencies Assessed

Variable	Organization 1 (HCO)	Organization 2 (ITO)	Organization 3 (Two groups)
No of Candidates	35	10	13+14
No. Of Assessors in ADC	6	5	6+6
No. of Assessors for 360 DF	370	97	113+108
Competencies Assessed	<ol style="list-style-type: none"> 1. Analytical 2. Execution 3. Communication 4. Customer Oriented 5. IPS and Team 6. Strategic Thinking 7. Initiative 	<ol style="list-style-type: none"> 1. Initiative 2. Result Orient 3. Analytical 4. Initiative 5. Communication 6. Team Work 7. Customer Focus 8. OD 9. Execution 10. Buss. Acumen 	<ol style="list-style-type: none"> 1. Customer Focused 2. Strategic Thinking 3. Acts with Integrity 4. Establish Plan 5. Manages Execution 6. Networking and Relationship Management 7. Talent Management 8. Communication 9. Financial Management 10. Initiative, and Innovativeness and Change Management
Tools used in ADC	<ol style="list-style-type: none"> 1.LGD 2.Business Game 3.Business/Vision Presentation 4.BBII 5.In-basket 	<ol style="list-style-type: none"> 1.LGD 2.Business Game 3.Business/Vision Presentation 4.BBII 5.In-basket 	<ol style="list-style-type: none"> 1. LGD 2. Business Presentation 3. BBII 4. Case Analysis 5. In-basket

To check the relationship the scores of each individual in ADC and 360 degree feedback were compared using the correlation analysis. For each competency, correlation coefficient was measured using scores of the individuals for all exercises.

Results:

Organization 1: The 360 degree feedback and ADCs scores of the participants showed very low coefficients of correlation across all the competencies on which the participants were assessed. Table 2 shows the correlation between ADC and 360 degree feedback, 360 degree feedback and each of the exercises, ADC and each ADC exercise. The table shows that very low correlation between 360DF and ADC scores. The following observations may be made from Table 2:

1. All the coefficients of correlation between 360 degree feedback and ADC measures are positive for each of the seven competencies. They ranged from 0.11 (on interpersonal skills and team work) to 0.29 (strategic thinking).
2. 360 measures are moderately related with ADC measures only on customer orientation and none of the others are even to the level of 0.4.
3. Measures obtained from BEI, in-basket, presentations, and LGD seem to be predictive of the overall scores on ADC as the relationships are moderately high to high.
4. Strategic thinking and communication skills seem to be the two variables on which the competencies are more predictable across various tools compared to other competencies.
5. Overall the results of this organization show that past performance as measured by 360 degree feedback is weak predictor of the future potential in this organization.

2 (IT organization): Analysis of the data from the IT organization showed an overall correlation between 360 and ADC measures at $r = -0.221$ which is quite low and negative. Analyses in Table 3 showed the correlation between 360 and ADC measures to be very low and even negative. For competencies like analytical skills, initiative, and customer focus, correlation between 360 degree feedback score and LGD score is high correlation but in negative direction, i.e. if 360 degree feedback is high LGD score is low and vice versa. Also most of the correlation coefficients for 360 degree feedback and other ADC scores are low and negative.

The table indicates the following:

1. Most of the correlation coefficients are negative and a few of them are high. Considering any r above 0.5 to be high, 28 coefficients are negative and 5 are high.
2. Like organization 1, the coefficients of r between the overall ADC scores and the measures of LGD, business game, presentations, and BEI are high indicating a high degree of internal consistency between the measures using various tools generated by ADC.
3. No single dimension of competence emerged as more predictable than the other as almost all of them showed similar trends in correlations.

The results are surprising. The only hypothesis is that in this organization overt behaviour as shown by 360 degree feedback is not a good predictor of the covert potential or behaviour as assessed by external experts. Which one to rely is a difficult question to answer.

3 (heavy equipment organization): For this company ADCs were conducted for two groups. The competencies on which both groups were assessed were common. The exercises for both groups were same except that for the second group case analysis was additional. The overall correlations for 360 average and ADC average of all the individuals of the two groups are: group 1 $r = 0.495$ and group 2 $r = -0.070$. Thus the correlation for the same set of tools and competencies show two different pictures, which raises questions about the predictive ability of 360 degree feedback and ADC.

Similar trends may be observed from Tables 4 and 5.

1. The coefficients of correlations between 360 degree feedback and ADC measures are low and varied.

2. The measures of competencies generated from various tools of ADC seem to be more related than the measures of ADC and 360 degree feedback.
3. There is no consistency with which any of the variables or competencies can be predicted.

The three cases point out that there is little correlation between job performance as assessed by 360 degree feedback and ADC scores. 360 degree feedback is a reflection of an individual's performance on the job and the ADC score is the assessment by external consultants. It is normally assumed in 360 degree feedback that seniors and subordinates of an individual can tell better about an individual's performance and its impact. Therefore we generally recommend that one should consider a combination of feedbacks like 360 degree feedback, psychometric tests etc. instead of relying fully on ADC score.

Table 2: Coefficients of correlation between competency assessments generated by various ADC tools in Organization 1

HCO R = 0.2134	Analytical	Execution	Communication	Customer Oriented	IPS and Team	Strategic Thinking	Initiative
360 and ADC	0.21	0.12	0.20	0.09	0.12	0.30	0.19
360 and LGD	0.07		0.21		0.06	0.05	0.12
360 and Presentation	0.02		0.15	-0.18		0.24	0.07
360 and BEI	0.03		0.26	0.45**	0.01	0.29	0.16
360 and In-Basket	0.23	0.07	-0.10	0.03	0.05	0.17	
ADC and LGD	0.83**		0.77**		0.64**	0.79**	0.82**
ADC and Presentation	0.90**		0.82**	0.74**		0.79**	0.88**
ADC and BEI	0.47**	0.52**	0.55**	0.55**	0.42**	0.79**	0.70**
ADC and In-basket	0.71**	0.77**	0.72**	0.61**	0.63**	0.55**	
LGD and In-basket	0.35*		0.41*		0.06	0.64**	
LGD and presentation	0.53**		0.51**			0.6198*	0.68**
LGD and BEI	-0.06		0.25		-0.06	0.40*	0.20
Presentation and BEI	0.57**		0.43**	0.02		0.49**	0.33*
Presentation and In- basket	0.08		0.39*	0.10		0.06	
BEI and In-basket	-0.16	-0.03	-0.10	0.14	-0.05	0.42*	

N = 35, *p < .05, **p < .01

Table 3: Coefficients of correlation between competency assessment generated by various ADC tools in Organization 2.

ITO R = -0.221	Initiative	Result Orient	Analytical	Initiative	Communication	Team Work	Customer Focus	OD	Execution	Buss. Acumen
360 and ADC Score	-0.22	0.02	-0.45	-0.38	-0.25	-0.33	-0.27	-0.01	0.33	0.19
360 and LGD			-0.67*	-0.59	-0.38	-0.33	-0.54			
360 and Presentation				-0.41	-0.71*					0.00
360 and In-Basket			-0.04		0.01	-0.67*	-0.45	-0.12	0.04	0.22
360 DF and Buss. Game	-0.35	-0.14				-0.23			0.23	
360 and BEI	-0.32	-0.08	-0.34	-0.00	-0.05	-0.10	0.14	-0.29	0.16	-0.24
ADC and LGD			0.90**	0.76*	0.84**	0.77*	0.80**			
ADC and Presentation				0.84**	0.51					0.65*
ADC and In-basket			0.41		0.56	0.70*	0.50	0.78*	0.74*	0.70*
ADC and Buss. Game	0.61*	0.93**				0.72*			0.93**	
ADC and BEI	0.67*	0.93**	0.56	0.63*	0.64*	0.58	0.51	0.76*	0.73*	0.61
LGD and Presentation				0.52	0.53					
LGD and In-basket			0.44		0.38	0.57	0.44			
LGD and Buss. Game						0.25				
LGD and BEI			0.36	0.30	0.30	0.25	0.15			
Presentation and In basket										0.36
Presentation and Buss. Game										
Presentation and BEI				0.33	0.22					-0.01
In basket and Buss. Game						0.60			0.78**	
In basket and BEI			-0.46		0.02	0.04	-0.40	0.26	0.18	0.07
Buss. Game and BEI	-0.09	0.74*				0.24			0.52	

N = 10, *p < .05, **p < .01

Table 4: Correlation coefficients between competency assessments generated by various ADC tools in Organization 3, Group1.

HEO- Gp1 R= 0.495	Customer Focused	Strategic Thinking	Acts with Integrity	Establish Plan	Manages Execution	Networking and Relation Mgmt	Talent Manage- ment	Communi- cation	Financial Manage- ment	Initiative, Innovativeness and Change Mngmnt.
360 and ADC Score	0.64*	0.20	0.16	0.08	0.23	0.55*	0.55*	0.27	0.09	0.36
360 and LGD	-0.14	-0.20		-0.36	0.26		0.57*	-0.24	-0.04	-0.01
360 and In-Basket	0.14	0.26	-0.13	0.42	0.26	0.52	0.03	-0.04		0.30
360 and Presentation	0.80**	0.13	0.23	-0.4128	0.01		0.12	0.07	0.07	0.50
360 and BEI	0.24	0.24	0.19	0.53	-0.14	0.30	0.38	0.71**	0.05	0.17
ADC and LGD	0.08	0.71**		0.48	0.80**		0.62*	0.52	0.51	0.76**
ADC and In-basket	0.54	0.41	0.53	0.60*	0.34	0.85**	0.38	0.62*		0.60*
ADC and Presentation	0.63*	0.83*	0.46	0.56*	0.66*		0.79**	0.51	0.50	0.77**
ADC and BEI	0.36	0.62*	0.37	0.42	0.64*	0.70**	0.24	0.51	0.51	0.68*
LGD and In-basket	-0.40	0.29		-0.04	-0.12		-0.08	0.27		0.10
LGD and Presentation	-0.10	0.51		0.13	0.68*		0.18	0.39	0.47	0.52
LGD and BEI	0.17	0.11		-0.20	0.42		0.12	-0.31	0.10	0.59*
In-Basket and Presentation	0.01	-0.05	-0.27	0.00	-0.37		0.41	-0.22		0.24
In-basket and BEI	-0.25	-0.26	-0.27	0.12	0.08	0.20	-0.37	0.19		0.22
Presentation and BEI	0.14	0.71**	0.00	0.18	0.39		-0.20	0.06	-0.15	0.31

N = 13, *p < .05, **p < .01

Table 5: Correlation coefficients between competency assessment generated by various ADC tools in Organization 3, Group2.

HEO Gp2 R=-0.071	Customer Focused	Strategic Thinking	Acts with Integrity	Establish Plan	Manages Execution	Networking and Relation Mgmt	Talent Mgmt	Communica tion	Initiative, Innovative and Change Mgmt	Financial Mgmt.
360 and ADC Score	-0.00	-0.37	-0.22	0.08	0.22	0.28	-0.04	0.39	0.13	0.42
360 and LGD	-0.25	-0.38		-0.33	0.16		0.20	0.11	-0.19	0.26
360 and In-Basket	0.44	-0.21	-0.26	0.02	0.06	0.07	-0.34	0.10	-0.07	
360 and Case Analysis	0.48	0.05		0.20	0.20		-0.12	0.36	0.01	0.04
360 and Presentation	-0.05	0.10	0.23	0.30	0.01		0.16	0.17	0.16	0.05
360 and BEI	0.45	-0.40	-0.14	0.09	0.28	0.33	0.22	0.58*	0.36	0.43
ADC and LGD	0.39	0.09		0.33	0.26		0.06	0.63*	0.08	0.69**
ADC and In-basket	-0.09	0.73**	0.54*	0.61*	0.68**	0.76**	0.47	0.62*	0.70**	
ADC and Case Analysis	0.50	0.62*		0.83**	0.66*		0.74**	0.67**	0.71**	0.64*
ADC and Presentation	0.57*	0.46	0.33	0.56*	0.53		0.55*	0.72**	0.60*	0.67**
ADC and BEI	0.00	0.38	0.62*	0.71**	0.67**	0.54*	0.67**	0.86**	0.80**	0.51
LGD and In-basket	-0.38	-0.20		-0.19	-0.37		-0.49	0.05	-0.24	
LGD and Case Analysis	0.27	0.20		0.27	0.62		0.30	0.57*	0.11	0.12
LGD and Presentation	-0.18	-0.28		-0.06	-0.15		-0.15	0.18	-0.50	0.12
LGD and BEI	-0.29	-0.14		-0.02	-0.26		-0.20	0.62	0.09	0.43
In-Basket and Case	-0.30	0.10		0.34	0.22		0.18	0.02	0.24	
In-Basket and Present	-0.13	0.75**	-0.37	0.13	0.28		-0.08	0.52	0.63*	
In-basket and BEI	-0.09	-0.03	-0.22	0.38	0.37	-0.14	0.06	0.46	0.44	
Case and Presentation	0.17	-0.05		0.42	0.08		0.31	0.29	0.29	0.76**
Case Analysis and BEI	-0.58*	0.17		0.43	0.20		0.19	0.49	0.40	-0.26
Presentation and BEI	-0.01	-0.33	0.33	0.42	0.35		0.53	0.51	0.30	-0.14

N = 14, *p < .05, **p < .01

Discussion

The data present very intriguing trends. The overall conclusion is that past performance as measured by 360 degree feedback is not a good predictor of future potential as measured by assessment centres using different methods and outside experts. There are many possibilities and most of them possibilities relate to the methodology, cultural context, and other variables.

Possibility 1

Internal assessors are biased and 360 degree feedback data are impressionistic. People who manage their impressions well hide their true potential or lack of it and people who are competent may not be able to manage their impressions well. As a result 360 degree feedback data are not reliable and objective. In fact several 360 experts maintain that 360 degree feedback is essentially a subjective phenomenon (TVRLS, 2004; Rao and Rao, 2005). The more objective assessments are from ADCs where the candidate's performance is assessed by external experts and on a variety of methods. The support to this possibility is provided through the internally consistent and high coefficients of correlations on ADC measures obtained from different methods. If this is the correct, then 360 data should not be used for promotion purposes but merely for impression management and leadership development through impression management.

Possibility 2

360 degree feedback data are more reliable and go beyond impression management. They are real and objective as they are data generated from observing the individual across a long period of time and by many internal assessors who understand the business context. ADC are based on a series of classroom exercises and games devoid of actual reality. They are at best simulated settings and, though they use external assessors, a mere observation for two days by a group of external observers in contexts created by them cannot replace the behaviour data generated on the job by the candidate across several months. Hence low correlations between them are expected. ADC data therefore are indicators in certain setting and should be used with high degree of precaution.

Possibility 3

The third possibility is that low or high coefficients of correlation are more because of the methodology used and hence cannot be treated as devoid of errors in measurement. Hence both are to be rejected. More serious validation studies are required to validate both measures. Until then they should be used only as development tools and candidates as well as organizations should approach them with caution. After all, classical studies of ADCs indicated the predictive validity of assessment centres to be low.

Possibility 4

360 degree feedback assessment is a measure of the past performance though on the same competencies. It is limited by the context. ADC data are futuristic and predictors of future performance on tasks that are heavily weighed by the competencies being assessed. Hence it is not correct to expect a high degree relationship between the past performance measures and future potential measures. If they correlate well there is no need for ADCs

to assess future potential. Since they are not correlated well and internal consistency shown by various methods used in ADCs is high for succession planning and promotions 360 degree feedback but bank should depend on ADCs.

In a recent review of literature on this topic, Dhanju and McLean observe:

“Arguments in favor of assessment centres include that they work because they do a good job of measuring and integrating information regarding an individual’s traits or qualities (Byham, 1980). Assessment centres have been found to have satisfactory predictive validity (Gaugler et al., 1987) and excellent utility (Cascio and Silbey, 1979) for use in selection of managers, supervisors, executives, and school administrators. Assessment centres have also been found to be more successful than aptitude tests in predicting performance (Rea, Rea, and Moomaw, 1990). Available studies demonstrate the usefulness of assessment centres for predicting managerial success regardless of educational level (Huck, 1973), prior assessment centre experience (Struth et al., 1980), race (Huck and Bray, 1976; Moses, 1973), or gender (Moses, 1973; Moses and Boehm, 1975). Applicants view assessment centres as more face valid, more acceptable, and fairer than paper-and-pencil tests (Schmidt, Greenthal, Hunter, Berner, and Seaton, 1977) (Dhanju and McLean, 2006, p. 5).

However Dhanju and McLean (2006) also present evidence on the negative effects of assessment centres. They observe:

“One concern is that feedback from assessors influences many participants’ self ratings (Halman and Fletcher, 2000). Those who perform better in assessment centres often have more positive attitudes towards it than others. Those who did not perform well may feel that their careers had been given the kiss of death and leave the corporation. Bray et al. (1974) demonstrated that individuals receiving less favorable evaluations after an assessment centre reported less career salience and less upward mobility motivation than people receiving favorable evaluations. Being perceived to have performed poorly may affect not only whether a person gains access to specific opportunities, but also his or her attitudes, mental health, and willingness to engage in subsequent developmental activities (Iles, 1992; Robertson et.al., 1991; Smith, 1997). From a career planning standpoint, promotions are one of the most widely used and readily accessible indicators of career success (Huck, 1973; Thorndike, 1963). Low scores on assessment centres may diminish the morale of employees, affect their productivity outcomes, and lead to higher attrition rates of skilled employees (Thorndike, 1963). Subsequently, organizations may stand to lose skilled employees.” (p. 5)

The observations and conclusions drawn by Dhanju and McLean (2006) have relevance here. They conclude from their survey that, from an HRD perspective, assessment centres may provide a means of identifying individual strengths and weaknesses, but their overall usefulness depends considerably on the context in which they are administered. In a competitive world with global perspectives it is imperative that organizations understand the importance of managing individualized career aspirations of high potential employees and provide them with enhanced opportunities. An assessment centre may be an effective

strategy for managing the internal attributes of an organization that rely heavily on the capabilities of people to provide a competitive edge. For HRD practitioners, it is important to identify the developmental needs of the organization and track high potential employees who display commitment and promise. Tracking the high potential employees requires a high degree of commitment from the top management in terms of resources and other support. While the assessment centre approach may be one way to do this, HRD professionals, as in all of their work, must be aware of a systems perspective and not rely solely on one tool to accomplish this objective (source? p.8).

Most organizations tend to choose the fourth possibility mentioned earlier. More research on the predictive ability of ADCs is required.

Vloeberghs and Berghman (2003) state that the value of ADCs is in using them as an integrative model for development purposes than merely limiting them as selection and promotion tools. ADCs should not be considered as stand alone events. A good integration of ADCs with 360 degree feedback is a must. 360 degree feedback may be a good supplement to ADCs and combined they may give enough insights into competencies that need to be developed. More attention should be paid to follow up procedures and strategies of using the inputs generated from ADCs.

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