

The Perception Of Fairness - An Important Principle Underpinning The Evaluation Of Performance Of R&D Scientists

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INTRODUCTION

Every institution realizes its vision and achieves progress through both the individual as well as collective inputs of its employees. Accomplishment of the goals by the institution is best reflected in the output of its employees. Thus, the inputs and outputs of individual employees are the key elements of any measure that can be devised for their performance, both individually as well as collectively as representatives of the institution. The performance of any institution is thereby reflected as a sum total of the achievements made by its employees and constituents. There will be instances when all employees and constituents are not at the same thresholds of performance. In summing up all individual performances, the institution strives to arrive at a consensus measure of its success. However, in attempting to exceed the performance and achievement thresholds, the institution must be able to optimize performance of each and every constituent. Thus, the institutions require an efficient and effective system for appraisal of the performance of the individuals, as a distinct measure of the institutional performance. This would require not only that the benchmarks for the desired or expected output be defined, but measures should be taken to exceed the benchmarks. Performance appraisals are essentially an exercise in optimization and, therefore, are corrective and positive regulators to achieve the growth of individuals in consonance with that of the institution. The efficient benchmarking of the performance appraisal thresholds has always proven to be a great challenge, influenced not only by the temporal and spatial limits, but also by issues that are at best, considered at moral levels. Many appraisal systems, some arbitrary, some empirical and some well defined quantitative (numerical), have been developed for measuring performance of the individual employees. The principles in the method of evaluation of any training exercise (Bramely and Newby, 1984) could also be adapted for examining the issue of performance appraisals, especially for three main objectives, with which the performance evaluation is generally carried out:

(i) Feedback Objectives : Linking learning outcomes to objectives and providing a form of quality control or in case of the performance, a form of mid-course correction;

(ii) Control Objectives : Making links from training to institutional activities and to consideration of cost-effectiveness which for a performance appraisal translates into determining reward-punishment values or scores;

(iii) Research Objectives : Determining the relationships among learning, training and transfer of training to the job and in a performance appraisal context, this parameter translates to identifying needs for further development of skills and competencies in the individual who will add value to the mission success for the institution.

The performance appraisal of employees in any institution can be generalized to include any or all of the following additional objectives:

- ✿ To define and document criteria that can be used to allocate institutional rewards.
- ✿ To form a basis for personnel decisions such as salary increases, promotions, awards, rewards and disciplinary actions.
- ✿ To enable diagnosis and development at the level of the whole institution.
- ✿ Facilitation of communication between employee and administration.

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✿ For validation of selection, employment and other human resource policies laid down by the Government or Federal bodies.

Though the performance appraisal process is greatly influenced by several parameters, the different appraisal systems do not give equal importance to all the parameters. The relative importance of the various parameters concerning performance appraisal processes are generalized as in Table 1.

Table 1: Effectiveness Parameters Useful For Employee Appraisal Processes

Parameter	Weightage	Remarks
Achieving set goals	1	Achieving set goals should be the single most important criterion for evaluating performance of individual employees.
Employees' perception about fairness and objectivity of the appraisal processes.	1	The appraisal system / processes that seem to be less than fair and objective or that are overtly subjective will always be associated with high levels of employee - dissatisfaction.
Feedback to employees.	2	An important aspect of appraisal of performance is to identify shortfall (both actual as well as prospective) in performance so as to diagnose the reasons for the same and to allow mid-course correction through a timely feedback mechanism so as to finally achieve the set goals.
Goal setting, Employee training needs	2	No appraisal can be considered if there are no goals set for the employee to achieve them or training needs are identified so that the employee can seriously attempt exceeding the performance benchmarks.
Evaluation of behavior and integrity of employees; Management satisfaction with employee performance; employee satisfaction with the appraisal process	3	The appraisal processes should allow an evaluation of the behavior and integrity, work ethics of the employee and at the same time, be able to convey to the employee the satisfaction or otherwise of the management.
Employee motivation impacts	4	A well thought out and fair appraisal process can also be an important factor for the motivation of the employee to exceed the performance benchmarks, especially if the appraisal processes include a good award-reward system.
Support for institutional objectives, measure of institutional performance; Legal status, defensibility	5	While the appraisal process is applicable to individual employees, collectively, the performance of all the employees reflects on the performance of the institution in achieving its goals. Likewise, the uniform applicability or otherwise of the appraisal processes also decide the legality or otherwise of the management decisions and the processes and their implementation. A well defined appraisal process should result in the least or zero litigation.

^a The weightage scale is from 1 to 5, where 1 indicates highly important criterion, and 5 indicates relatively least important parameter.

In the Table 1, employee motivation and support for institutional objectives are accorded a low-priority weightage. The reason is that these factors in our opinion contribute more towards a re-examination of the employer-employee relationship, rather than to impact on the employee performance. All things considered, while these factors do have a role in defining the limits of the employee performance, at a scientific R&D institution level, we consider these factors to be less significant. Primarily, we consider that the scientific R&D as a profession is usually selected by a person due to inherent motivation for R&D work and so in general terms, the motivation per se will not be a major factor for a scientist to under-perform. In contrast, a perception of biased or unfair performance appraisal of the scientists will surely affect their work, not only at their individual levels, but also collectively as team members, including at the whole Institute level.

Undoubtedly, the different parameters as well as their relative importance will change with the institution and for any scientific R&D institute, this is a very significant change. This suggests that different institutions having several cadres of personnel end with an appraisal system that accords its set values of important parameters equally to all cadres of the personnel. Similarly, for a given cadre of employees carrying out similar tasks or having a similar set of

goals to achieve, there should not be any variability in the importance of the parameters used, if the process has to be perceived with a high value for fairness and uniformity. The perception of fairness of the appraisal system is perhaps the single-most important factor defining wide applicability or otherwise of the appraisal system. This has been tested through recent studies. Procedural justice, though considered a uni-dimensional construct; in the performance appraisal context, it can be conceptualized as being two-dimensional, involving system procedural justice and rater procedural justice. Here, perceived validity of performance criteria, knowledge of performance criteria, and organizational level of employees can be related to system procedural justice, whereas perceived performance feedback and fair hearing can be related to rater procedural justice (**Cropanzano et al. 2001; Erdogan et al. 2001; Latham and Latham 2001; Cook and Crossman 2004; Latham et al. 2005**). In most of these studies, it became apparent that the perceived fairness or otherwise of the appraisal process was the most important determinant of the applicability of the appraisal system.

A common approach to assessing performance is to use a numerical or scalar rating system, whereby responsible officers and managers are asked to score an individual against a number of objectives/attributes. The most popular methods that are being used as a performance appraisal process include **(a)** Appraisal by objectives, **(b)** 360 degree appraisal, **(c)** Behavioral Observation Scales and Behaviorally Anchored Rating Scales and **(d)** Personality, and Trait based systems. Most problems with performance appraisals start with the use of arbitrary quantitative metrics for performance that the employers use to award limited / selected employees alone leading to the perception that the system is flawed due to lack of transparency or due to a bias on the part of the superiors (employers, reporting and reviewing officers). While no system is perfect for assessment of large numbers of employees according to a uniform set of parameters, a 360 degree system would be the closest to a perfect system, but it does call for a major paradigm shift amongst the institutions and employers to implement such a system.

THE NATURE OF THE R&D INSTITUTION AND THE MANNER IN WHICH IT INFLUENCES THE PERFORMANCE APPRAISAL SYSTEMS

In addition to the perception of fairness, the very nature of the R&D Institution also greatly influences the selection of the appraisal system. In general, the R&D institutes can be classed as Service Providers or Research Contractors or Knowledge Seekers (**Wilt 2000**). A given Institute may have any one or more of the above three attributes that may inevitably overlap too. These attributes influence the nature of the R&D staff in the Institute as well as its vision and mission statements. The evaluation of the institutions, as well as their personnel must, therefore, maintain the perspective about their classification and attributes because the goals of each kind of Institute are different, their input resources are different and so are the resultant or expected deliverables from these institutes that differ across the three basic types. These differences have always posed challenges in defining evaluation parameters for the R&D institutions as well as in assessment and evaluation of the performance of their employees, unlike the process and product development or market driven companies. A car manufacturing company can be considered as an example of the latter (process and product development company). Obviously, the deliverables for this company are well defined in terms of the car model, its accessories, delivery time-frame and post delivery processes. Thus, the employees of this company will all be expected to work towards achieving the stated deliverables within the stated time- and budget-constraints and failure to do so can be easily measured in terms of non-delivery of the projected / promised deliverables. On the other hand, if we consider the above company as merely a car-designing company and not a car manufacturing company, their deliverables will have a different scale and perspective for both fiscal as well as temporal constraints.

Scientific R&D institutions usually face such situations continuously and hence need a good, reasonably fool-proof and perceivably fair system of measuring performance parameters. Such systems are lacking or are not easily developed or adapted to different institutions as can be judged from the multiplicity of performance appraisal systems in vogue, and the fact that the level of satisfaction with the system in any institution is less than universal. There are manifold reasons for this situation. Primarily, it is the assessment time-scale that is incompatible with professional performance time-scale. Another important reason is the mixture of employee performance areas as well as their base credentials that influence how the employees perform in these areas. Many authors have attempted to identify factors responsible for scientific research effectiveness in different institutes. These factors include, but are not limited to, institutional structure, administrative controls, leadership, personal goal setting, inter-person relationships, proper

recruitment and selection processes, performance and appraisal processes, efficacy of communications between managers and workers, extent of bureaucratic interference, planning and resources (**Argyris 1968; Bland and Ruffin 1992; Mouly and Sankaran 1998; Chawla and Singh 1998; Ryan and Hurley 2007**).

Performance measurement in R&D is particularly difficult because the effort levels may not be observable for all employees, projects involve anything from a solitary scientist to teams of several scientists, project success is uncertain or is impacted by uncontrollable factors, and success can be assessed only after long time delays while the performance assessment time-frame is usually annual (**Loch and Tapper 2002**).

The R&D institutions are a mix of different groups or divisions or units, each with distinct research programs and mandates directed to distinct end-users or goals. This mix accounts for a lack of a common assessment platform (**Hsu et al., 2004**). This is a real core issue and to overcome this challenge requires vision and an exemplary honesty in the performance appraisal system. Surely, therefore, the performance appraisal systems and understanding of the issues as well principles underpinning them merit a deeper study. An excellent example of a carefully studied set of performance evaluation parameters is that made by **Kim and Oh (2002)**. They have made a systematic analysis of performance measurement systems as applicable to R&D scientists in Korea. Their study methodically addressed the questions of who should evaluate the performance and with what criteria and resulted in an assessment schema that was perceived to be fair by the majority. Further, they argue that R&D scientists will have better productivity, and therefore, performance, only if they perceive their assessment or evaluation to be “fair” and this perception makes the system to be successful and efficient.

PERFORMANCE APPRAISALS IN A R&D INSTITUTE IN INDIA

Performance appraisals in the various Indian R&D Institutes should not be any exception to the basic principles underlying the appraisal process. However, there is an enormous variation in the performance appraisal systems when one considers the several different umbrella organizations of government and federal institutions such as the Council for Scientific and Industrial Research (CSIR), Defense Research and Development Organization (DRDO), Department of Atomic Energy (DAE), Department of Space (DOS), Department of Environment (DOEn), Department of Biotechnology (DBT), Department of Science and Technology (DST), Indian Council for Agricultural Research (ICAR), Indian Council for Forestry Research (ICFRE) and Indian Council of Medical Research (ICMR) to name a few major ones. The appraisal proforma currently in use in these organizations and their constituent institutions is a mixture of the appraisal system that includes numerical or scalar rating of attributes, and of a personality and trait based system. While the appraisal system, in principle, tries to be closest in effectiveness to a 360 degrees evaluation, yet, in reality, the system still seems to have many lacunae. The biggest negative of the system could be that appraisal proforma attempts to generalize several incompatible performance domains and areas since the various institutes represent diverse specialties such as biomedical sciences, plant sciences, drugs-related research, chemistry, engineering sciences, physical, mathematical and microbiological sciences to name a few. The systematic evaluation of the system of performance appraisals in these institutions is beyond the scope of this article. However, here, the researchers attempt to understand the essential principles that are or those should underpin the performance appraisals.

The scientists at any R&D institute in the country can be essentially considered as being involved in the following types of work and responsibilities:

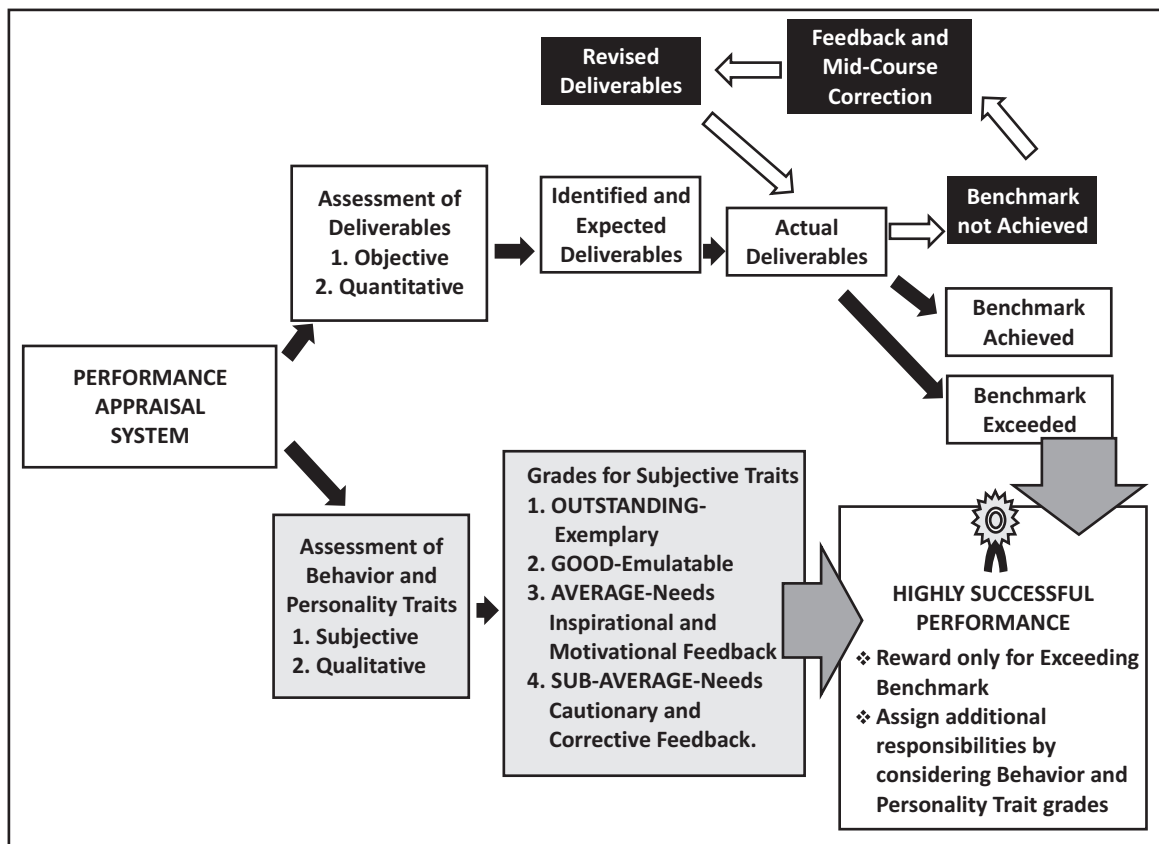
1. Experimental analysis of fundamental problems in science and technology.
2. Application-oriented fundamental studies.
3. Actual application of R&D for product or process or technology development.
4. Informatics associated with R&D.
5. Scientific or technological R&D and administration-linked support tasks, both mandated as well as statutory.
6. Supplementary tasks, tasks of/ for personal competences, voluntary activities, academic and societal services.

Of all the above tasks, those at Ser. # 1 through 5 are either mandated or are statutory through the group / division / department structures of the Institute or its umbrella organization. These are also the tasks for which a scientist can surely stipulate in advance, the expected or committed outcome and deliverables. On the other hand, tasks at Ser.# 6 are mostly voluntary or individual-specific tasks, which do not, or should not impact on mandated and statutory

committed tasks at Ser.# 1 through 5 above. An appraisal system for a scientist can, therefore, be considered as including two parts, (i) About deliverables and commitments and (ii) About personality and behavior attributes (Figure 1).

Figure 1: The appraisal with two basic components is depicted schematically. The thick-lined open arrows indicate directionality of the feedback loop while the filled black and grey arrows indicate a successful path of the appraisals. The two large grey arrows indicate a reward for successful or benchmark exceeding performance that is also possible in such a system.

Figure 1 : Schematic Diagram (With Two Components) Depicting The Appraisal System For A Scientist



When a scientist performs with fullest enthusiasm, honesty and integrity, the mandated and statutory work assignments, it is these tasks and their deliverables and their attainment thereof that need to be considered for deciding success or failure of the scientist's performance. Logically, therefore, for the first part of the appraisal process, as much as 90% of the scores should be assigned to attainment of promised deliverables - these could be mandated or statutory or voluntarily committed. Any failures in attaining the deliverables should reflect in the reduction of scores as appropriate, while success in all deliverables should reflect in maximum scores. The voluntary and personal accomplishments, attainments, as well as additional deliverables not impacting mandated and statutory tasks should contribute to a value of not more than 10% of maximum possible scores. These scores may be scaled up or down in any arbitrary or empirical or mutually agreed-upon method, but at all times, these will not exceed 10% of the total or final score value. Put together, these reflect 100% of attainable scores in any performance evaluation of work or task or missions in a given tenure or period of time as the case may be.

In the course of the appraisal process, if it is concluded that there is a shortfall in performance, the concerned employee should be given an opportunity to account for the shortfall in performance due to circumstances beyond the control or to atone for the shortfall through a feedback system that will allow either a revision of the deliverables that are targeted, or that may even lead to a revision of the objectives and mandates for the work (Figure 1). With an

efficient feedback system, this kind of mid-course correction will go a long way towards attaining and exceeding the performance thresholds not only for the individual scientists, but for the entire institution itself.

The second part of the appraisal is about personal values and perception of these values by the evaluator. Here factors like integrity, work-ethics, perceived enthusiasm or otherwise for the tasks assigned, peer-peer relationship, contribution to team synergies and so on are the factors that can be considered by the evaluators (Reporting and Reviewing Officers) in assigning grades in the following scale:

✿ **Outstanding** - therefore, exemplary.

✿ **Good** - so, emulatable

✿ **Average** - inspirational or motivational feedback required for assessed candidates to reach higher benchmarks than merely the average

✿ **Sub-average** - cautionary or constructive feedback required for corrective actions on part of the assessed candidates.

Since these are personality and behavior grades, they can impact on the overall suitability of the candidate for further responsibilities and challenges. However, these should not be used as any metric of professional performance - that is quantifiable in terms of actual deliverables. Hence, only grades are recommended for these tasks and attributes since no scalable metric can ever be applied to these attributes in an unbiased, transparent and objective manner for the simple and single most important reason that the attributes by themselves are subjective and call for a perception on the part of the evaluator. An informal survey amongst the different R&D institutes through across-the-table conversations and correspondence reveals that an important source of dissatisfaction with performance appraisals is in the evaluation of personality and trait attributes that has seemingly been either inefficiently utilized or outrightly exploited by the managers and responsible officers, so that the resultant appraisal is no longer perceived to be transparent and honest about its conclusions on an employee's performance.

It must be emphasized that in a structured (several pay grades associated with several age and qualification bars) employment scenario, where several personnel are involved with several deliverables independent of each other, success cannot be about a podium finish, but is more about delivering the promised deliverables. Thus, performance appraisal for such an Institute should not be about deciding which of several scientists in a given pay grade are better than the rest, but about deciding whether or not they are successful in their deliverables. Performance appraisal is about evaluating non-delivery of the deliverables, and about a feedback that enables mid-course corrections in work, strategies and even the deliverables that have already been promised. The single most important factor or principle guiding the appraisals should be that a podium-finish metric is applicable only for competitions, where all things being equal, the best alone can win - this happens in sports and athletics, but can never be considered for assessing scientific R&D work. Here also, a preliminary survey indicates that the major factor for disillusionment with the virtues of the appraisal process amongst the scientists has been the use of arbitrary metrics to quantify the performance output that many institutions have been employing. The arbitrariness of the metrics leads to a perception of being discriminated against amongst the scientists and as has already been stated, such factors are the foremost determinants of the dissatisfaction of the scientists with their institutions, and the appraisal processes therein.

Linkage between the performance appraisal of individuals in an institution and the excellence or otherwise of the institution are at best, a tenuous correlation. No matter what the institution is about, it is always the “deliverables” and only the “*deliverables*” that account for success / failure (see also Table I). Completing a task with a team that includes one enthusiast and nine laggards or passengers on one hand and with two teams of five each on the other is one and the same in so far as a deliverable is concerned (completion of the task). The difference in the two sets is more about synergy or lack of the same and about leadership or lack of the same. In terms of appraisal, in the first case, we have a clear example of leadership and an above-average competence in one person to clearly shoulder the nine passenger's burdens and yet complete the task. However, all appraisals in any Institute are never so clearly defined and demonstrable examples of high personal competences and accomplishments. Majority are of the second category where teamwork is the important factor or equality or overlapping competences determine the final outcome. Which among the five members, each of the two teams in the second example is better than others? Is this what the appraisal is for? Granting that these examples also clearly indicate the teams and team members who can be suitably rewarded for benchmark exceeding performance, rewarding one team or employee does not by any corollary mean punishing others. Even in the case of a podium finish race, those who do not finish on the podium are not necessarily punished for

their performance shortfall. Misuse or outright abuse of the performance appraisal system as well as the several factors that detract from the perception of its fairness have actually resulted in the several negatives of the performance appraisal systems in the R&D organizations and institutes.

In the present appraisal systems, just a simple modification of inserting one important clause - candidates filling the form must list in explicit terms their deliverables for the year under report as well as for the succeeding year's plan, may be required. After this, the candidate must complete the form to highlight or prove the success or otherwise of his / her promised deliverables. The reporting officer ascertains the veracity of the deliverables being actually delivered and provides further his/her perception of the candidates' personality traits, including honest and integrity parameters. For the evaluation of deliverables, the only assessment should be whether or not the promised deliverables have been actually delivered within the stipulated time-frames. In the eventuality of non-delivery, if there are adequate grounds for genuine factor(s) responsible for non-deliverance, these may be considered in the assessment. Such an assessment calls for an informed and unbiased judgment on the part of the reporting and reviewing officers, and may also be interactive, if so required.

A common approach towards carrying out performance appraisals, however, uses arbitrary metrics derived from R&D output measures, such as publications and patents. In attempting to quantify the output and its evaluation, therefore, undue importance is given to impact factors of the publications for the assessment of scientific performance or to the country of filing and granting of patents (thus, an International patent is more valued than a National patent). Such a practice of using arbitrary metrics and parameters is totally wrong. The reason is that all impact factor ratings are derived and are variable over time and subject specialization or that a National patent can be of greater relevance to the country and yet, the scientist or technologist under pressure for scoring best marks opts for the International patent, ignoring the National relevance and impact for their R&D. These metrics and parameters can never be generalized to any uniform scale in a non-arbitrary way. Finally, and perhaps the most important factor against such metrics and parameters is that these are not equally applicable to all R&D disciplines and cadres. Since the Institutions are a mix of several specialties and personnel cadres, enforced implementation of such arbitrary and unreliable metrics and parameters becomes the single most important cause for the personnel to perceive their appraisal system to be “*non-transparent or biased*” or to perceive themselves being victimized by their superiors.

Let us consider examples of R&D functions and assessment categories possible thereof.

1. Scientists performing fundamental R&D work through externally funded as well as institutional projects: Here primary deliverables have to be the project deliverables - results of experiments, analytical data, publications, patents, student's thesis and in a few specific cases, tangible products or processes. Generally speaking though, the commonest output types include publications because the R&D work is generally of a fundamental nature.
2. Scientists performing application oriented or actual applied R&D work, through externally funded as well as institutional projects and exploratory in-house projects. Here, the deliverables can be one of many possibilities - publications, products, processes, and student's thesis to name a few most prominent forms of the output.
3. Scientists performing Informatics and related works around scientific R&D disciplines. Examples of such work includes bioinformatics and related disciplines, scientific information service, development of indexing and abstracting products, web designing for information dissemination, database and curation works, archiving, retrieval and storage of information. The deliverables include publications, research papers, software packages, programs, and dissemination materials like CD, web-pages, brochures and pamphlets, news letters, monographs and so on.
4. A scientist performing R&D support functions such as planning and monitoring of R&D projects, national and international scientific collaborations, business development and technology transfer-related activities, management of the IPR portfolio of the institution and so on. The deliverables here include MOUs, document framing and drafting, agenda preparation, proforma and format designing, policy and position papers and other related tasks.

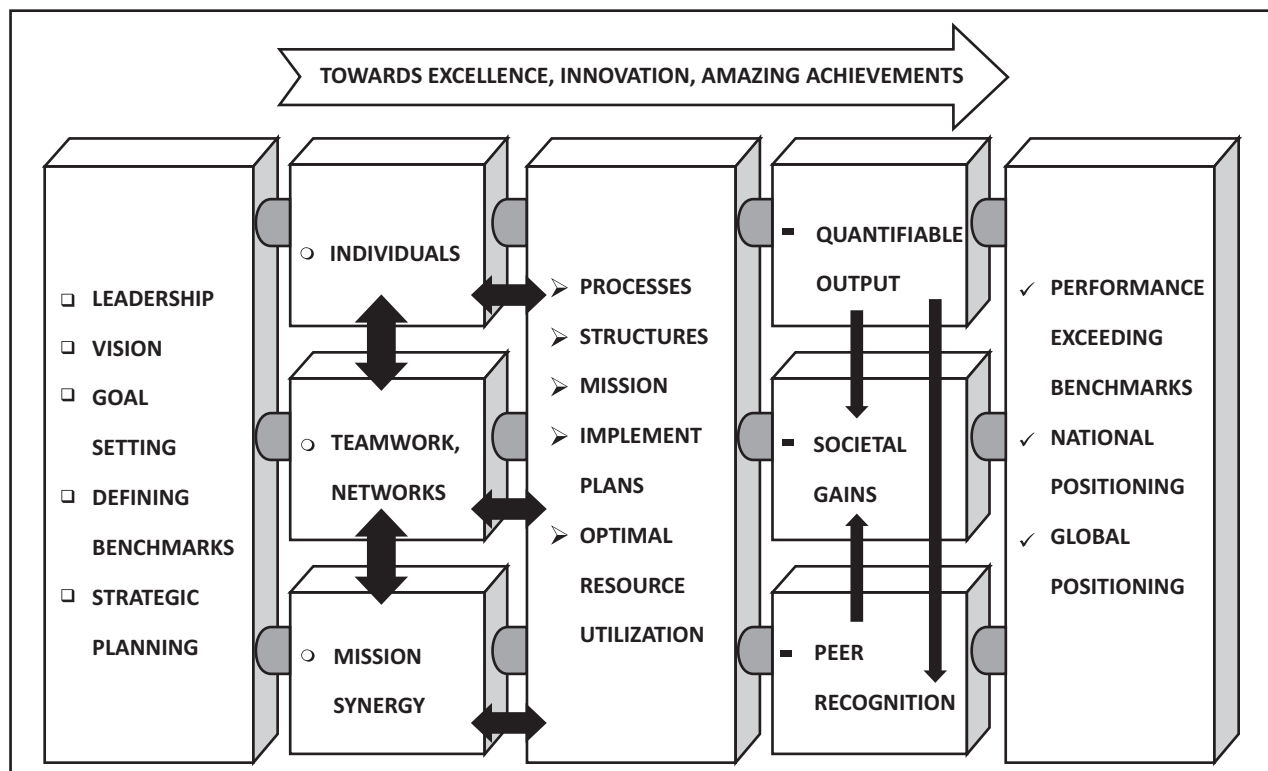
A scientist of first category for instances promises to have 3 research papers to be published in a given project and actually does so; while a scientist of the second category promises to deliver a specific process - for say drug transformation and actually succeeds in this task; the scientist associated with the third category is entrusted with the development of say an abstracting and indexing service and actually develops an online portal for the same; and a scientist in the fourth category promises to develop academic interaction MOUs with 2 leading national Universities for an award of recognition of the scientists as research supervisors and actually develops these MOUs - by our scenario and surely by all norms of logic and fairness, all four scientists should be deemed to be equally successful in

their stated deliverables and must, therefore, be appraised to have performed as per the benchmarks. An arbitrary way of demarcating the performance amongst these four scientists may lead to the conclusion of say, the second category scientist to have a higher performance rating than the other three scientists because of the importance of the drug transformation for an industrial process. Surely, this would be wrong because the other three scientists have also fulfilled objectives and delivered as per their mandates. It is such ways and means of arbitrarily derived performance metrics and parameters that have actually resulted in considerable disillusionment with the performance appraisal systems.

No matter what be the nature of professional performance area of the scientist, there are well defined deliverables that can be assessed on the level of individual scientists, and it is these deliverables that must represent the bulk of the scores for the performance appraisal (90%). Each of the above categories of scientists is still free to be involved in additional as well as voluntary tasks such as society or committee or professional body affiliation, to be involved in voluntary service to the Institute or the Society or even the Nation. Put together, such tasks will account for a maximum of 10% of the scores that can be attained because by virtue of the fact that the professional performance is in a scientific R&D Institute and not in a social science or a management or a policy-making Institute, where these tasks become more dominant than mere R&D work. In order that a suitable representation is given to all such tasks, appropriate metrics can be considered and evolved to provide marks / grades that can be used for assessment.

The assessment of the scientists in any institute should not be under the premise that perforce, there has to be a restriction in the numbers of scientists who can progress to the next higher grade. Why should any arbitrary restriction be placed for this? Why is it that a given institute should not have all of its scientists rated or ranked as excellent? In case there have to be any restrictions in the numbers of scientists who can progress to the next higher grade, then such a restriction should be implemented only after all eligible scientists are subjected to a common, non-arbitrary examination or evaluation such as an actual problem solving or numerical or academic examination. It would be extremely unprofessional to have scientists progressing to higher grades merely on the strength of the evaluation by some reporting and reviewing officers and not by others within the same institute or even within the same R&D or

Figure 2: The interlinking and complexity of several parameters, components and structures associated with a performance appraisal system and their relationship to a benchmark-exceeding and amazing performance of the institution are depicted. The arrows indicate directionality of the interactions.



professional area of expertise and competence or professional peers, and through brief interactive sessions with “experts” or a “committee”.

The performance appraisal should not only assess the performance of the scientist, but more importantly, should deliver to the scientist, a feedback about his/her performance, especially when the performance is not able to reach the set benchmarks. Even more important than the feedback per se, is the timing of the feedback which should be such as to allow a mid-course correction to the candidate. This will require an additional amendment of the appraisal proforma. Finally, the appraisal process must also identify performance aspects of the candidates' work that merits either a reward or a punishment. This is possible only after the appraisal proforma is modified suitably to incorporate a provision to this effect. It is only then that the appraisal process would be considered to have succeeded in its objectives.

Assessing employees on subjective factors such as the behavior traits and attributes should be avoided at all times. The reasons for this are two-fold. **Firstly**, the trait based systems are by definition, based on personality traits, making it difficult for a manager to provide feedback that can cause positive change in employee performance. Secondly, because they are vague and are more easily influenced by institution politics, this makes them to be less reliable as a source of information on an employee's true performance. The vagueness of these traits also allows managers to arbitrarily evaluate them, thereby leaving sufficient grounds for discrimination claims because biased decisions without backing of specific behavioral information are taken.

The task of designing and developing a performance appraisal system that is widely applicable, transparent and fair and that at the same time achieves the primary objectives of the appraisal processes is a hugely challenging ask. It is well nigh impossible to satisfy all cadres at all times, primarily because the process is too complex and has too many variables. How many or all of the components of an appraisal structure impact on overall progress of the institution towards benchmark-exceeding and amazing outputs is schematically depicted in Figure 2.

The institutions as well as all the employees therein must address a primary question first: Why are the performance appraisals being carried out? Without answering this fundamental query, it is just not possible to define and develop a good performance appraisal structure and all related processes that are included in it. Ultimately, success of any venture undertaken on behalf of several individuals by a handful or select group of individuals or institutions will be influenced, not merely only by the merits of the systems evolved or by the expertise, seniority or achievements of those evolving the system, but also prominently by the perception of its fairness, un-partisan and transparency values on the part of the majority of those several individuals who are subjected to the assessment. Thus, the researchers can summarize the essential principles that should underpin the performance appraisal systems for wide-spread, if not global acceptance of the system for staff performance appraisal. The complete performance appraisal system and principles underpinning them is schematically depicted in Figure 1. As has been discussed so far, the most important components of the system that the researchers propose include the following parameters:

1. A single basic appraisal system assessing the promised / mandated deliverables or their non-delivery.

Table 2: Key Principles Underpinning A Successful, Unbiased And Transparent Performance Appraisal System

S. No.	Principle	Impact or significance
1.	Delivery of the stated / mandated / promised deliverables determines success.	Very high
2.	Genuine and unavoidable factors that delay or prevent deliverables being delivered can be explained or considered favorably.	High
3.	Within a cadre of employees working for similar deliverables, only unaccounted non-delivery or out of schedule delivery is worthy of punishment or ranking as a failure.	Average
4.	In the eventuality that a comparison for the best performance amongst a cadre of employees with similar functions has to be made, the employees should be subjected to additional podium-finish evaluation tests.	High
5.	Enhancement or diminishing of responsibilities for an employee should be based more on the behavioral criteria and not on any arbitrary performance metrics.	High
6.	Timely and positive regulator feedback, as well as a system for the delivery of the same.	Very high

2. A timely and positive regulatory feedback system that allows for mid-course correction of not only the objectives and mandates, but also of the deliverables as appropriate.
 3. A non-dependence of the appraisal process on subjective elements such that these elements are used only to evaluate / assess enhancement or diminishing of responsibilities and for developing reward-punishment systems.
 4. An appraisal system that should essentially start with the premise that all prospective candidates for the appraisal process are to be assessed not for any podium finish, but for their mandated / promised deliverables.
 5. In the eventuality that a podium-finish type of appraisal is required or justified, it will be carried out against a specially structured process with a common start and stop points, equally applicable for all the assessment candidates.
- The salient features of the appraisal system parameters are listed in Table 2, along with the relative impact values for each parameter.

The usefulness of these principles and the belief that a given appraisal system is unbiased or unambiguous can also be further enhanced if the appraisal parameters are considered in fully blind peer review processes. Though the peer review process will add to the cost and time required for completion of the performance appraisals, yet in the long term, this can be the most important factor deciding overall personnel satisfaction levels and mitigating potential attrition and skill- or brain-drain that are usually high in organizations or institutes where performance appraisals are not perceived to be transparent and unbiased, truly allowing “*equal opportunity*” to each and every employee to exceed the performance benchmarks.

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