

Performance evaluation in a matrix organization: a case study (Part Two)

Steven H. Appelbaum, David Nadeau and Michael Cyr

Steven H. Appelbaum is Professor of Management and Senior Concordia University Research Chair in Organizational Development, John Molson School of Business, Concordia University, Montreal, Quebec, Canada. David Nadeau is Senior Group Leader, CAE-Aerospace, Laval, Quebec, Canada. Michael Cyr is Vice-President, Locweld Inc., Candiac, Quebec, Canada.

Abstract

Purpose – *The purpose of this article is to examine and ultimately suggest the most effective method with which to evaluate employees operating within a matrix organization. Part Two aims to describe a real-time case study and examine performance evaluations in depth as they relate to this case analysis.*

Design/methodology/approach – *This article consists of a comprehensive review of literature demonstrating functional areas within a matrix organization as well as employee evaluation methods within various organizations. It is presented in three sections: defining a matrix organization; demonstrating effective evaluation methods and strategies; and, finally, how the two should work together. Critical incidents are interspersed throughout the article in order to demonstrate how the research compares to the methods employed by a leading aviation engineering firm.*

Findings – *Ineffective evaluation methods within matrix organizations can lead to lower employee morale as well as an ambiguous understanding of employee roles within such an organization. Employee and management buy in and support of an evaluation system and its goals are crucial to the success of the program. The multi-rater system appeared to be most effective.*

Practical implications – *Several tools exist to help employers effectively evaluate their employees in a constructive and effective manner. Among them are clear job description and corporate structure, followed by a review of performance by both functional and project managers.*

Originality/value – *Given the limited research with respect to evaluations within a matrix structure, this paper demonstrates an understanding of a subject that has not been adequately explored.*

Keywords *Performance appraisal, Matrix organizations, Performance management*

Paper type *Literature review*

Critical incidents at CAE

Part Two of this article will describe a real-time case study and examine performance evaluations in depth as they relate to this case analysis. As described previously, CAE is a world leader in providing simulation and modeling technologies and integrated training solutions for the civil aviation industry and defense forces around the globe. CAE employs both a functional and project matrix (as illustrated in Figure 1 from Part One of this article (*Industrial and Commercial Training*, Vol. 40 No. 5)). For each simulator, a project manager coordinates all of the tasks required in the construction and completion of a simulator. Determining the tasks normally falls under the responsibility of the different functional managers. While the project manager might interact and work closely with the engineers from the different functional department, he/she has limited authority with respect to the engineers. Their authority is normally controlled through the budget assigned to the different departments to the functional managers.

CAE will also utilize a project based matrix, but only in specific cases. This will normally happen on higher complexity projects involving multiple departments. These projects normally last between 1 to 2 years. To ensure faster delivery of the project and proper evolution, development and completion, CAE will use a project matrix. The matrix will

normally be administered by a project manager, and responsibilities and authority over the employees is shared between the functional manager and the project manager. Normally the development, budget and all other issues related to the project evolution is handled by the project manager. The functional manager is then left with the administrative, evaluative and employee development tasks for its employees who are part of the matrix organization.

For a company such as CAE, a matrix organization helps bring their product to market faster than the alternative, however it can also result in issues between the project requirements and the product evolution. This can be pictured by the project manager's method of implementing requirements that may best be suited for his/her project and budget, when the functional manager might have taken a different approach when looking at his/her overall products. This can create conflict when the development is finally returned to the responsibility of the functional managers. Another issue is the fact that the project is a temporary assignment to the project personnel; this can result in a high amount of uncertainty with the employees who can not envision their future once the project is completed. This is also compounded by the fact that CAE normally reinvents itself and its organizational structure every few years, resulting in additional complications for employees in understanding who will ultimately be responsible for their new task assignment upon project completion in addition to evaluating their work and career progression. This is the dilemma and paradox in need of solutions.

Performance evaluations and appraisals

It goes beyond saying of what the value of a performance appraisal system is. It is system whereby employee's effort over the course of a period of time are recognized and reviewed. A successful performance measurement system (PMS) is a set of performance measures (i.e. a metric used to quantify the efficiency and effectiveness of action) that provides a company with useful information that helps to manage, control, plan and perform the activities undertaken in the company (Tangen, 2005). Some researchers suggest that it is important to link one's job description with the performance appraisal. Buford *et al.* (1988) suggest that this is a five step process:

1. conduct a job analysis;
2. write a job description;
3. transfer task area and flag statement to appropriate instrument;
4. establish appraisal policies and procedures; and
5. train the raters.

By clearly linking one's appraisal to the job description, a potentially dangerous pitfall is avoided: misaligned expectations with respect to performance. If one is being judged on a set of criteria of which he/she is not aware, a positive outcome would seem unlikely, as the employee's objectives and those of his employer are not the same leading to conflict, ineffectiveness and high probability failures for both parties. Once a need for an appraisal system is established, there are several methods from which to choose. Some of the most commonly used methods that need to be mentioned would be (Schweiger and Sumners, 1994):

- open-ended, unstructured essay appraisals;
- graphic or numeric rating scales;

“By clearly linking one's appraisal to the job description, a potentially dangerous pitfall is avoided: misaligned expectations with respect to performance.”

- ranking methods;
- management by objectives; and
- behaviorally anchored rating scales.

According to Cascio (1991) there are basically two types of rating systems, absolute and relative (Roch *et al.*, 2007; Cascio, 1991). The main difference between the two is the standard of comparison employed when rating an employee. Relative formats would consist, for example, of ranking people from best to worst. Other examples of a relative evaluation format would be paired comparison (essentially placing employees in groups of two, and selecting the better of the two) and forced distribution (placing employees into categories based on performance, limiting the number of employees allowed into each category). An absolute rating system would compare employees in a benchmarked type setting. Employees are essentially rated in relation to an absolute set of terms. Examples would be “behaviorally anchored rating scales (BARS), graphic rating scales (GRS), the weighted checklist (WC) and BOS” (Roch *et al.*, 2007).

One of the pitfalls that must be avoided is holding an employee to a set of preconceived notions, evaluating him/her based on an impression rather than their performance. Thorndike (1920) established a name for this tendency in 1920: “The Halo Effect”. He characterized this inclination as “a tendency by the rater to think of the person in general as rather good or rather inferior and to color the judgment of the separate qualities by this general feeling” (Jacobs and Kozlowski, 1985; Thorndike, 1920). Essentially, the reviewer needs to ensure that whatever general impression he/she has of an individual does not cloud his/her judgment on the actual performance as it relates to his responsibilities as an employee. As was described earlier, an inadequate performance evaluation can lead to failure on many levels with respect to the expected performance of the individual. It is for this reason that evaluations must be consequential and fair. This tendency can be minimized in employing a multiple rater system of evaluations (Edwards and Sproull, 1988).

Both relative and absolute evaluation systems can employ a multiple rater system. A multi-rater feedback would be system whereby an employee is evaluated by not only his superiors, but as well by his peers in order to gain a better understanding and overall view of how his performance is interpreted by the organization as a whole rather than through the eyes of one individual. Clearly, the goal of the employee evaluation is to help maximize the potential of the employee. In order to do so, we need to ensure that the evaluations are fair. The advantage of employing a multi-rater system is that it allows the employee to receive feedback from several sources in establishing an overall view of his/her performance. This will allow us to avoid the pitfalls associated with a single reviewer, who may be biased (Edwards and Sproull, 1988).

While a multi-rater system can be valuable and very effective, it must be employed correctly. Empirical research does not go far enough in describing the “how to do” but applied processes are valuable in describing “what to do”. Susan Gebelein, senior vice president of profiles and development products at Personnel Decisions International, Minneapolis – a global human resources consulting firm – breaks down the process of implementing a successful multiple rater system into four phases. These have been proven effective but have not been tested further illuminating the gap that this article is attempting to close:

1. Phase 1 – The groundwork:

- clarify the company’s strategies and goals;
- define the scope of the multi-rater process;
- plan the process;
- order;
- instrument design; and
- frequency.

2. Phase 2 – The Competency Model:

- this phase defines the skill set necessary for the employees to carry out the company's objectives and goals.

3. Phase 3: Implementation plans:

- educating key players; and
- determining your feedback strategy.

4. Phase 4: Full implementation:

- hold kick off meetings;
- roll out the process;
- focus on development; and
- evaluate the multi-rate process (Gebelein, 1996).

Another useful tool that can be employed in support of a multiple rating system would be the concept self appraisal performance evaluation. This could prove useful in determining an employees self assessment as it compares to the assessment of his peers and managers. According to the research conducted by Farh *et al.* (1988), some advantages of a self appraisal exercise could be:

- A better understanding between raters and ratees with respect to the job itself, and the expectations with which it is associated.
- An increased participation in the entire process by the employee who is being evaluated. It would present an opportunity to demonstrate his/her opinions with respect to the rating system and evaluation criteria.
- A tendency towards less halo error.
- Given the fact that the employee and those who are rating him/her occupy different roles, an appreciation can be established for the scope of the work as it would appear to all parties, creating a larger pool of data from which to assess.

Latham and Wexley (1981) argue that ideally, a performance appraisal would combine the opinions from several sources in order to gain a realistic and accurate picture of an employee's performance, unhindered by biases and personal opinions. This method is consistent with the multiple rating systems. The research conducted by Farh *et al.* (1988) generally finds a congruency between self evaluations and the evaluations made by Chairpersons of faculty members in a University setting. Of note, however, is that the chairpersons were provided with the self evaluations prior to generating their own appraisals. This may have skewed the results somewhat. It is in this light of combining the "best" of these two systems that the matrix organization can be further examined for this article. The case under study at CAE will examine this issue more closely for analysis and explore the behaviors expected within a matrix employing appraisal tools.

Conclusion

In reviewing the critical incidents at CAE as they relate to our research, we can see that several parallels exist. However, there are several areas of concern, such as the commitment of the managers with respect to the priority they place on performance evaluations and their usefulness in developing human capital within the company. CAE managers needed to be reminded of the role that employee evaluations play, and the weight that their attitude will carry towards the success of any chosen employee evaluation strategy. Additionally, they were urged to consider standardizing functional and project management roles in evaluations. As well, given the success in a limited number of test cases, it would appear that a multi-rater system such as a 360 degree evaluation has shown signs of success at CAE, confirming the research.

“ . . . that ideally, a performance appraisal would combine the opinions from several sources in order to gain a realistic and accurate picture of an employee’s performance . . . ”

A multi-rater system can provide a matrix organization with reliable and consistent metrics with which to measure its employees, provided it is fair and objective. It will allow the organization, and specifically the managers, to understand employees’ strengths and weaknesses as they are perceived by several sources. This can help provide valuable insight with respect to employee task assignment particularly in the complex matrix structure. In this type of environment, the employee will understand clearly their areas for improvement, as well as their value within the organization as it is perceived by not only their superiors, but by their colleagues as well. The responsibility for the resulting evaluation and its consequences (positive or negative) can therefore be placed squarely on the shoulders of the employee in question, as the excuses that may exist in the case of a single evaluator (halo effect, lack of knowledge, etc.) may no longer be valid.

References

- Buford, J.A., Burkhalter, B.B. and Jacobs, G.T. (1988), “Link job descriptions to performance appraisals”, *Personnel Journal*, Vol. 67 No. 6, p. 132.
- Cascio, W.F. (1991), *Applied Psychology in Personnel Management*, 4th ed., Prentice-Hall, Englewood Cliffs, NJ.
- Edwards, M.R. and Sproull, J.R. (1988), “Performance appraisal for matrix management”, *Journal of the Society of Research Administrators*, Vol. 20 No. 1, p. 153.
- Farh, J.-L., Werbel, J.D. and Bedeain, A.G. (1988), “An empirical investigation of self-appraisal based performance evaluation”, *Personnel Psychology*, Vol. 41, pp. 141-56.
- Gebelein, S.H. (1996), “Employee development: multi-rater feedback goes strategic”, *HR Focus*, Vol. 73 No. 1, p. 1.
- Jacobs, R. and Kozlowski, S.W. (1985), “A closer look at halo error in performance ratings”, *Academy of Management Journal*, Vol. 28 No. 1, p. 201.
- Latham, G.P. and Wexley, K.N. (1981), *Developing And Training Human Resources In Organizations*, Scott, Foresman, Glenview, IL.
- Roch, S.G., Sternburgh, A.M. and Caputo, P.M. (2007), “Absolute vs. relative performance rating formats: implications for fairness and organizational justice”, *International Journal of Selection and Assessment*, Vol. 15 No. 3, p. 303.
- Schweiger, I. and Sumners, G. (1994), “Optimizing the value of performance appraisals”, *Managerial Auditing Journal*, Vol. 9 No. 8, pp. 3-7.
- Tangen, S. (2005), “Analyzing the requirements of performance measurement systems”, *Measuring Business Excellence*, Vol. 9 No. 4, pp. 46-54.
- Thorndike, E.L. (1920), “A constant error in psychological ratings”, *Journal of Applied Psychology*, Vol. 4, pp. 25-9.

Corresponding author

Steven H. Appelbaum can be contacted at: shappel@jmsb.concordia.ca

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com
Or visit our web site for further details: www.emeraldinsight.com/reprints