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This paper describes the importance for managers of setting goals and objectives with employees, tying those goals and objectives to the organization's strategic goals and objectives. It suggests that combining the Behaviorally Anchored Rating Scale with objective measures of performance can allow a manager to help his or her employees improve their performance. This paper describes using this approach to evaluate the performance of project managers.

Headings:

Employee Evaluation -- Measures

Employee Evaluation -- Performance Measures

Performance Measures

Performance Measures -- Project Managers

Project Managers -- Performance Measures

DEVELOPING A MODEL FOR OBJECTIVELY EVALUATING THE PERFORMANCE OF PROJECT MANAGERS

by

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TABLE OF CONTENTS

Introduction

This paper will define a model for objectively reviewing the performance of project managers. Through the use of this model, managers of project managers should be able to more effectively develop the skills of project managers by identifying areas of low performance and establishing a plan to improve a project manager's performance in that area. During the course of defining the performance review model, the question -- Why is it important to be able to evaluate performance objectively? -- will be answered and the terms -- performance, goals, objectives, and success -- will be defined.

Management is "charged with making resources productive" (Drucker, 1954, p. 4). Project managers and all other employees are resources that are managed so that their output can reach appropriate levels that allow the business to succeed. Fitz-enz (1995, p. 29) reported that Peter Drucker once said, "You can't manage what you don’t measure." Taking this as axiomatic, managers must establish objective (and measurable) criteria for evaluating project managers' performance. This will allow managers to target areas of performance that need to be improved.

For the purposes of defining a performance evaluation model, performance is defined as the level to which project managers achieve their stated goals and objectives. A goal is a desired outcome. Objectives are subsets of goals. For example, a project manager may have a goal stated as "complete a project two (2) weeks ahead of schedule." Objectives associated with that goal might include: "reduce review time to 3 days and reduce production time by 2 days." Objectives are milestones that can be measured by the employee to determine whether the goal is attainable.

Before developing a performance evaluation model it is helpful to review how organizations go about determining performance levels. What factors does management use to determine the expected performance levels? Next, the reasons and methods for establishing employee objectives and goals will be examined. This examination will answer the question of why goals and objectives are important and how they are used in building a performance evaluation model.

Once the importance of goals and objectives is established, three performance evaluation methods will be reviewed. The review will include a discussion of the advantages and disadvantages of each method. At the end of the review, two methods for evaluating performance will be selected for inclusion in the model for evaluating project manager performance.

The last task, prior to creating a performance evaluation model, is to examine the primary roles of the project manager and to determine what the project manager's primary job responsibilities are. In building the performance evaluation model, a list of goals and objectives is developed along with a list of the measurement tools that will be used to determine performance levels.

The paper will conclude with a review of the major points. In the appendix there is a sample performance evaluation form that may be useful to managers who work with project managers.

Literature Review

In this section, four topics are reviewed. These are:

- how a performance model is developed
- the importance of setting goals with employees and why it is necessary to set objective goals
- three methods of evaluating performance
- the job of the project manager

Building a Performance Model

In his book, High Output Management, Andrew Grove, the former head of Intel, the computer chip manufacturer, says that "determining the performance of professional employees in a strictly objective manner is very difficult because there is obviously no cut-and-dried way to measure and characterize a professional employees work completely" (1983, p. 184). Despite this statement, managers in today's business environment, particularly in technology fields, are finding it imperative to show that all employees are measurably contributing to the success and attainment of each of the organization's business objectives (Fitz-enz, 1995, p. 11). Why?

It can be argued that an employee who is not contributing to the success of an organization's business objectives is a detriment to the organization. If an organization is not benefiting from an employee's presence, then the organization must move the employee into a position where he or she can contribute toward the organization's goals. The other alternative for the organization is to terminate the employee and find someone who can assist the organization in achieving its goals and objectives.

Fitz-enz (1995, p. 13) points out that for an organization to be successful, its employees must:

1. be able to do their jobs;
2. excel in the appropriate functions of their jobs; and
3. be able to measure their performance and use these measures to gain any necessary resources and to work effectively with their customers [be they internal or external to the organization]

To be successful, the organization must first decide on its primary goals and strategic objectives. Once this is done, managers in individual departments must communicate the organization's goals and objectives (or as Peter Senge calls it, the organization's vision) to the employees' tasks (Senge, 1990, pp. 207 -211). Managers must also share the organization's vision with their employees and show the employee's how his or her performance supports the success (or failure) of the organization in achieving its goals and objectives.

When working with employees to determine their goals and objectives, managers must seek to satisfy four "needs" in order to enhance the performance of the employees and, through them, the overall performance of the organization (Robinson & Robinson, 1998). Each of the four needs is described below.

First, the manager and employee must define goals and task assignments that meet the *business needs* of the organization. This means that the employee's goals and assigned tasks must work congruently with the organization's goals. This congruency necessitates that the manager make the employees aware of the overall organizational mission and goals and then that the manager explain to the employees how each of their goals and tasks work to support the organization's goals.

Second, the manager must ensure that the employee understands the *performance needs* of the particular job held by the employee. The *performance needs* include the employee's goals and objectives, the tasks assigned to the employee, and the performance levels required of the employee to meet the *business needs* of the organization.

Third, the manager must work with the employee to be sure that the employee has all the knowledge, training, and skills required to discharge the job successfully. These are defined as the *learning needs* of the organization.

Lastly, the organization must provide the *work environment* needs that support the goals of the organization. The manager must ensure that the employee's work space, the noise levels in the workspace, and the emotional environment are conducive to achieving the necessary levels of performance.

Because this paper is concerned with identifying objective measures of project manager performance, the next task for the manager is to identify the particular functions of project managers within his or her department. Not all "project managers" perform the same functions. Some may manage clinical research projects, others manage technical development projects, and others manage building projects. However, whatever type of project is being managed, the project managers will have some common functions. For this paper, the scope is limited to those common functions that will be described later in this paper. The manager and project manager will need to work together to determine how to measure performance objectively for those functions that are unique to the type of project being managed.

Elliott (1998, p. 66) suggested that there are four steps to building a performance model. These steps are: (1) to determine the major outputs of the job, (2) to collect data on those outputs, (3) to produce a list of best practices for each of the major outputs, and

(4) to collect data on the best practices. This allows managers to determine what processes are most useful in helping the employee accomplish his or her goals.

Setting Goals

It seems obvious that in order to get the best performance from employees, it is important to work with the employees to set goals for their work. Yet, Fournies (1988, p. 13) tells us that "the most common reason managers give as to why people at work don't do what they are supposed to is, 'they don't know what they are supposed to do.'"

When a new employee joins a department or when a new manager is placed in charge of a department, the manager and the employee(s) need to meet to discuss their expectations. The manager will want to know the employee(s) history and what role the employee wants or expects to fill within the organization. The employee will need to know the manager's expectations and how he or she will be evaluated. To accomplish this, the manager and the employee will need to establish the primary tasks and goals that the manager expects the employee to accomplish. Why is this important?

In The One Minute Manager, Ken Blanchard explains that one of the three keys to effective management is "one minute goal setting." This is a process in which a manager and an employee follow six steps to enhance the employee's performance (Blanchard, 1981, P. 34). The six steps are to:

1. gain agreement between the manager and employee about each goal;
2. for the manager to show the employee what good behavior/results look like;
3. to write down or document each goal in 250 words or less;
4. to review each goal regularly;
5. for the employee to check his or her performance each day; and

6. to compare his or her performance against the stated goal.

In step one, agreement between the manager and the employee is required so that the employee doesn't walk away from the discussion with both the manager and the employee thinking he or she understands the goal and then discovering later that the employee did not achieve the "agreed upon" goal. Steps two and three help to ensure that the manager and employee have a shared understanding of the stated goal. Steps four to six allow the employee to self-monitor toward achieving the goal.

By incorporating the word "behavior" in step two, Blanchard seems to be suggesting that the manager will show the employee how to obtain accomplish the goal. Stephen R. Covey takes a slightly different tack in <u>The Seven Habits of Highly Effective People</u>.

Instead of talking about goals, he describes "stewardship delegation" (Covey, 1989, pp. 173 - 174). Stewardship delegation focuses on results instead of the methods used to derive the results. When using this form of delegation, the manager and the employee must come to a shared understanding and agreement in five areas for each primary task that the employee performs. These areas include:

- Desired Results
- Guidelines
- Resources
- Accountability
- Consequences

Desired Results correspond to the outcome of the employee's task. It incorporates steps one and two from Blanchard. In this instance, the manager would go over what the desired results look like and what will be accomplished. Failure to agree early on the desired result may end in neither the manager's nor the employee's expectations being met. When the desired results are not clearly stated and understood by both parties, the employee may think he or she is generating the expected results when, upon review, the manager finds that the employee is not performing the task to the expected level.

Covey's "guidelines" are the boundaries within which the employee must operate when performing the assigned task. They may include limitations on approaches that the employee can take while performing the task. In my experience, failure for the manager to clearly state the guidelines (or for the employee to make assumptions about the guidelines) can result in the employee stepping outside the appropriate boundaries and causing unnecessary distress to the employee, the manager, and the organization.

The "resources" are what the employee can use to accomplish the desired result. The resources may include time, people, or equipment. If the employee and the manager have not agreed on the tools that may be used in completing the task, the manager may find that the results will have to be reworked because it was prepared using the wrong resources. For example, imagine that an employee was asked to prepare a report for use in a presentation. The report was to be delivered to the manager before the scheduled presentation so that it could be copied and distributed to the audience. If the employee prepares a hand-written report when the manager expected the report in an electronic format, the employee has obviously not used the appropriate resources for the task.

"Accountability" is determined when the manager and the employee agree on how the task is to be evaluated. The manager and the employee will agree on the standard(s) to which the result will be compared to determine acceptability. This agreement will include the measurements to be used to determine that the task was performed in an acceptable manner and that the results match the manager's expectations.

Lastly, the manager and the employee should mutually understand the "consequences" of failure to attain the desired results. The consequences could be as little as the employee having to work overtime to complete the task. At the other end of the spectrum, failure to complete a critical task and attain the "desired results" could result in a reprimand for the employee.

Both Ken Blanchard and Stephen Covey take the approach of clearly and carefully describing the goals or desired results. This allows employees to self-evaluate their performance regularly.

Blanchard seems to recommend that managers meet with employees regularly (his "one minute manager" meets with his staff once a week) to make sure the employees are still on track (Blanchard, 1981, p. 17). Covey doesn't set any specific amount of time between evaluations; he does state that the method by which an employee's accountability will be measured should be agreed to between the manager and the employee.

A second difference between Blanchard and Covey is that whereas Blanchard advocates telling the employee everything about getting the goal accomplished, Covey suggests leaving some details of planning and execution to the employee. Covey's reasoning is that managers should avoid "methods delegation" which is when the manager tells the employee exactly how to do the job. This approach can lead to the employee developing a "gopher mentality” where the employee simply waits to be told what to do and then does it but takes no personal initiative to accomplish the task. Covey says, "trust is the highest form of human motivation" (Covey, 1989, p. 178).

When determining how accountability will be handled, i.e., how the employee's performance will be evaluated, McKirchy warns managers to "be careful of rating subjective qualities: attitude, cooperation, enthusiasm, or initiative" (McKirchy, 1998, p. 26). Her reasoning is that managers may have difficulty defending their specific rating of the employee without using measurable attributes of an employee's performance.

The manager's determination of an employee's primary tasks or goals may be simplified by the "job description" provided by the organizations Human Resources or Personnel department. Unfortunately, such job descriptions tend to be generic and based on the type of work that the job title suggests. This may not be specific enough for the manager to use in defining the specific job responsibilities, goals, and primary tasks of the particular job within the manager's department. In this case, it may be necessary for the manager to work with the employee to expand on the job description. Again, the importance lies in the need for both the manager and the employee to have a clear understanding of the goals and tasks the employee is to perform.

Methods of Performance Appraisal

There are many methods that may be used to evaluate an employee's performance. Three of the methods most often used will be examined, objectives-based systems, rating systems, and ranking systems. Of these three methods, one should avoid using ranking systems (Bacal, 1999, pp. 102 - 104).

When a ranking system is used, each employee's performance is compared to every other employee's performance and the "best" in various categories is determined. This system typically leads to one of two behavioral responses. Either the employee works harder to be "best," or the employee works against the other employees to insure that they are not doing their best work. While the first response is helpful to the organization and to the employee, the second is detrimental to both the organization and its employees.

Having said this, there may be times when it may be necessary to compare employee performances that have nothing to do with the individual employee's performance review. One such occasion is when selecting an employee for promotion. It may be necessary to determine who is "best" among the candidates so that the "right" person can be promoted into the new position. In this case, it is important to consider the criteria for determining who is best for a particular job.

In my own experience I've found that the criteria used to rank employees for promotion is not necessarily the one that will find the "right" person for a job. Many years ago, I worked for a organization that selected retail store managers based on the total amount of sales made during the previous three months and the number of "big" ticket items sold. Invariably the person selected would have worked in one of the larger stores or one whose location allowed many people to shop in the store (one example of such a location is a large indoor mall). The selected person would then move to a smaller store, often in a poorer location, such as a strip mall. Typically his or her sales dropped and he or she would spend a great deal of time "managing" the new location. Unfortunately, the individual often did so without any management training; the expectation of the district office was simply that he or she would continue to move the product as he or she had in their previous location..

In this example, the attribute determined to be most important by the district office, i.e., the ability to sell the organization's product, did not serve as an accurate indication of whether the employee would be a successful store manager. This particular organization also failed to provide for the employee's learning needs, as the employee typically had no management training.

Because of the serious side effects of ranking systems, i.e., employees working against each other instead of for the organization, it will not be used as part of the model for evaluating project manager performance.

The objectives-based system uses quantifiable outcomes to determine the employee's performance -- how many sales calls were made each day, number of sales created, amount of total sales, number of customer complaints, etc. Using an objectives-based system "measures a person's performance according to a set of standards or targets negotiated individually with each person" (Bacal, 1999, p. 105). This method can work well with the methods espoused by Blanchard and Covey. Remember that in their methods, the manager works with the employee to come to a shared expectation of the employee's performance.

Fitz-enz (1995, pp. 36 - 37) proposes the use of a "value chain" in creating a measurement process for an objectives-based performance evaluation system. The value chain consists of four activities. First, the manager reviews the processes used by the employee to accomplish his or her tasks. Then the manager observes and measures the outcomes of each process. The final activity is for the manager to measure the impact of each outcome.

An advantage of using Fitz-enz's value chain is that it allows both the manager and the employee to evaluate the employee's performance as well as the processes the employee uses to attain each outcome. By measuring the process outcomes and relating those outcomes to the business needs of the organization, the employee and manager can work to improve the outcomes and determine the impact of any changes made to the processes and their effect on the employee's performance. Without objective measures, it is difficult for a manager or employee to be specific about how changes to the processes may affect the employee's performance. The objective measures allow both the manager and the employee to recognize specific improvements in performance.

Rating systems are used to plot employee performance on a scale. The manager examines each of the employee's tasks or goals and rates the employee's performance according to the manager's estimate of where the employee's performance falls on the scale. In its simplest form, a rating scale might list each employee's goals and tasks. The manager would then be asked to give the employee's performance a score of between 1 and 5 or 1 and 7.

Using such a scale is purely subjective since there are no standards to differentiate on score from another. Because of the fact that the scoring system is subjective, performance that for one manager would rate an 8, might only rate a 6 for another manager.

The Behaviorally Anchored Rating Scale or BARS is a rating system that reduces subjectivity in rating each task or goal. One method of creating a BARS chart is to list the performance factors being measured down the left side of the chart. The performance degrees are listed across the top of the chart. Then a statement is made within each "cell" linking the performance factor to the performance degree. For example, when rating an employee's ability at the task of work scheduling, the BARS cold be established with nine degrees of performance. One might state the highest degree (9) as "develops a comprehensive schedule, documents it, obtains required approvals, and distributes it to all concerned." A low middle degree (4) could be stated as "has a sound plan but neglects to keep track of target dates or to report schedule slippages or other problems as they occur." These examples can be found in Dr. Evelyn Daniel's lecture notes at http://ils.unc.edu/inls131sp99/PerfAppraisal.html.

An example of a BARS chart, its source is not known, was found on Dr. Charles A. Rickman's web site (http://www.busn.ucok.edu/rickman/fmbars.htm) on 7 April 1999. This example is humorous but provides a sample of the way a BARS chart may be written to reduce subjectivity in rating an employee's performance. The scale is shown below:

Performance Factors	**Performance Degrees**				
	Far Exceeds Job Requirements	Exceeds Job Requirements	Meets Job Requirements	Needs Some Improvement	Does Not Meet Minimum Job Requirements
Quality	Leaps tall buildings in a single bound	Needs a running start to leap tall buildings	Can leap over short buildings only	Crashes into buildings when jumping them	Does not even recognize buildings
Timeliness	Is faster than a speeding bullet	Is as fast as a speeding bullet	Not quite as fast as a speeding bullet	Almost as fast as a slow bullet	Wounds self when attempting to shoot
Initiative	Is stronger than a locomotive	Is stronger than a bull elephant	Is stronger than a bull	Shoots the bull	Smells like a bull
Adaptability	Walks on water consistently	Walks on water in emergencies	Washes with water	Drinks water	Passes water when excited
Communications	Talks with God	Talks with angels	Talks with self	Argues with self	Loses arguments with self

While the BARS is better than a completely subjective approach, it could be improved by eliminating as much ambiguity as possible. For example, in the statement, "leaps tall buildings in a single bound," what is "tall"? For some managers, it could be a four-story building. For others, no building other than a skyscraper is considered "tall."

The same argument applies to evaluating an employee in the communications category. Terms such as "never," "sometimes," and "always" have different meanings depending on the person. For one manager, "sometimes" may mean the employee does the task between 25% and 40% of the time; to another manager, "sometimes" means the task is done between 50% and 75% of the time. And, the number of times the employee accomplishes the task is rarely tracked to a level that allows the manager to make an evaluation based on any measurement other than a "feeling" of how often the employee accomplishes the task.

The need of managers and employees to be able to defend their evaluation of the employee's performance points out the need to gather data on performance measures and to document that performance. Robert Bacal defines data gathering as "the process of getting information relevant to improvement, whether individual or organizational" and documentation as "the process of recording the data gathered so that it's available for use, so it isn't lost" (Bacal, 1999, p. 31). Bacal suggests that the primary reason for gathering data about employee performance and documenting that performance is to provide information that will allow the manager and the employee to work together in improve the employee's performance. A secondary reason for documenting performance is in the event that an employee and manager disagree on an appraisal. The documentation then protects both the organization and the employee from misunderstandings.

The Performance Appraisal

Each year managers in many organizations conduct an annual performance review of their employees. This review is typically conducted at the end of the organization's fiscal year or near the anniversary date of the employee's start of his or her current position. It is often conducted because it is a requirement of the Human Resources or Personnel department and is used to determine the amount of increase in the employee's salary. Unfortunately, this is often the only reason the performance review is conducted.

In his book, Performance Management, Robert Bacal tells us that "performance management is a challenge. Managers don't particularly look forward to the process, employees often dread it" (Bacal, 1999, p. 11). He goes on to give reasons why both managers and employees tend to avoid the process as long as possible. The reasons cited for managers include lack of time, avoiding conflict, and a lack of specific knowledge of the employees work habits. From the employees' viewpoint, they may have had a bad experience with a past performance appraisal, they don't want to have their work criticized, they don't know what to expect from the appraisal, and they don't see the point of the appraisal (Bacal, pp. 13 - 17).

During a performance appraisal, Karen McKirchy recommends that managers and employees focus on three areas (McKirchy, 1998, p. 9). The first is the employee's performance, not the personalities involved in the employee's work areas. The second area is to limit the issues involved in the employee's review. The issues addressed should be relevant to the employee's work situation, able to be reviewed objectively, and should exclude any subjective emotions or feelings. The last area is to agree on ways the employee can begin to improve his or her performance and, equally important, what the manager can do to help the employee.

To conduct an effective performance review, managers must prepare for that review. Preparation should include gathering data about the employee's performance during the period to be reviewed. It is better if the manager gathers data throughout the review period instead of relying on memory. Managers may also gather data by talking with people who have interacted with the employee during the period under review. The data should be documented so that the manager and the employee can reference it during the performance review. It should be noted that it is often in an employee's interest to keep his or her own records of events occurring throughout the year. This allows the employee to provide specific information to his or her manager about his or her performance during the course of the year.

The Project Manager

Before defining the job of a project manager, it will be useful to define a project. For the purposes of this paper, a project is "a one-time job that has defined starting and ending dates, a clearly specified objective or scope of work to be performed, a pre-defined budget, and usually a temporary organization that is dismantled once the project is complete" (Lewis, 1995, p. 14). Thus any finite job within an organization can become a project, whether it be purchasing a piece of capital equipment or preparing a report for a client. The jobs that are not included under this definition of a project are those that involve ongoing activities, such as manufacturing or sales.

Lewis defines project management as "the planning, scheduling, and controlling of activities to meet project objectives" (1999, p. 61). Kerzner provides a slightly different definition of project management. He states that "project management is the planning, organizing, directing, and controlling of company resources for a relatively short-term objective that has been established to completed specific goals and objectives" (1998, p. 4). Kerzner goes on to note that staffing is not a part of the project management function, to him, staffing is a line management function.

What is a successful project? Based on the definition of a project provided by Lewis, a successful project is one which is completed by the stated ending date, in which all the objectives are met, and which is completed within the allotted budget. Kerzner adds two additional attributes to the successful project. It utilizes the assigned resources effectively and the customer accepts it (Kerzner, 1998, p. 3). These last two items can give project managers the most problems in having a successful project. Terms such as "effectively" are difficult to define to the satisfaction of all members of the organization. On gauge of a project's success is whether the customer is satisfied with the outcome. If not, the customer is probably not going to bring more projects to the organization.

The issue here is perception. A project may meet all of the objectives set for it; it may be completed on time and within the allotted budget; and it may still fail in the eyes of the client. Why?

Lewis summarizes findings from a 1974 study of 650 projects where the researchers sought to determine the factors affecting the success of the projects. They found that 77% of a project's perceived success was based on "Coordination and relations". The breakdown of factors present in this category appears below:

- Unity between project manager and functional [line] managers
- Project team spirit, sense of mission, goal commitment, and capability
- Unity between project manager and public officials, client contact, and his superior
- Project manager's human and administrative skills
- Realistic progress reports
- Supportive informal relations of team members
- Authority of project manager
- Adequacy of change procedures
- Job security of project team
- Project team participation in decision-making and major problem solving

- Parent enthusiasm
- Availability of backup strategies

(Lewis, 1998, p. 45)

Just as these factors enhance perceived project success, there is a list of factors that characterize perceived project failure.

- Insufficient use of progress/status reports
- Use of superficial status reports
- Inadequate project manager administrative, human, and technical skills
- Insufficient project manager influence and authority
- Poor coordination with client
- Lack of rapport with client and parent organization
- Client disinterest in budget criteria
- Lack of project team participation in decision-making and problem solving
- Excessive structuring within the project team
- Job insecurity within the project team
- Lack of team spirit and sense of mission within the project team
- Parent organization stable, non-dynamic, lacking strategic change
- Poor coordination with parent organization
- New "type" of project
- Project more complex than parent has handled previously
- Initial underfunding
- Inability to freeze design early
- Inability to close out the effort
- Unrealistic project schedules
- Inadequate change procedures

(Lewis, 1998, p. 45)

To have a project be perceived as successful, the project manager needs to concentrate on those factors that lead to perceived project success and to avoid or minimize those factors leading to perceived project failure.

These definitions, of a project, of project management, and of perceived project success, provide the information needed to develop a model to use when evaluating a project manager's performance. At this point, it is useful to point out that the performance of a project manager is often linked to the performance of the project team and the success of the project as perceived by the project manager's manager (which is often linked to the customer's perception of project success).

This distinction is important in that a manager must be careful to distinguish between the project manager and the project. In some cases, failure to make this distinction can change the emphasis of the review from the project manager's performance to the success or failure of the project(s) he or she managed during the course of the year. Remember, not all projects are successful, even when a project manager does everything possible, i.e., his or her performance is outstanding in all categories to ensure the success of the project, but it may still fail.

The Performance Review Model

In this section, the information reviewed in the previous section will be used to build a performance review model. Based on those findings, the steps for creating a performance review model include:

1. Determine the business needs of the organization
2. Determine the employee's goals and tasks
3. Determine the processes the employee will use to attain the desired results
4. Review and develop objective measures for the outputs from each process

This paper will step through the process outlined above discussing the actions a manager will take at each step.

Determine the business needs of the organization

The first step in creating a performance review model is to answer the question, what are the business needs of the organization, as they relate to the particular employee?

Since this paper is not focused on any one particular industry or organization, the business needs will be generic and will be desirable for many organizations.

The business needs of the organization are to gain market share and to survive. These are typical statements of business needs for an organization. For the purposes of our model, there are two problems with the needs as stated above: they are not specific and they are not stated in a measurable fashion. How does an observer determine if the organization has successfully met these needs? A better statement of the business needs might be to increase profit margins to 15% for the current quarter and to have no more than 5% of the customers voice complaints about the product or service provided by the company..

The revised needs statements are now quantifiable and (probably) attainable. It would be unrealistic for most organizations to state that its goal is to increase profit margins to 30% and to have no customer complaints.

To reiterate, the business needs of the organization are:

- to increase profit margin to 15%
- to have no more than 5% of customers voice complaints

Determine the employee's goals and tasks

The next step is to determine the performance needs for the job. The job in this case is that of project manager. The needs of the job are related to the business needs of the organization. The project manager will seek to keep costs down and will concentrate efforts on keeping the customer informed of the project status so that complaints are reduced.

Based on the description of project management and the breakdown of factors affecting the perceived success of projects, the primary functions of the project manager are defined as:

- planning and scheduling resources for the project,
- coordinating the effort, and
- communicating the project status

Each of these primary functions and the tasks associated with each one is described in greater detail in the following paragraphs.

Determine the processes used to attain the desired results

Planning and Scheduling

The project manager will work with other the people who will actually complete the tasks associated with the project to gather the following information:

1. Create a list of all the tasks that must be completed to complete the project.
2. Determine any dependencies between tasks. Are there tasks that must be completed before other tasks can begin?
3. Determine what resources are necessary to complete each of the tasks.

The project team's ability to define the tasks and resources necessary to accomplish the tasks accurately will help to determine the success of the project.

Depending on the frequency of the performance reviews, the manager may review several projects or may be limited to reviewing tasks within an extended project. If the planning goals are not met, the manager may have to review the project documentation with the project manager to determine what actions may be required to improve the project manager's ability to plan the project.

Once the initial planning stage is complete, the project manager will need to work with the project team and line managers to make sure that when a resource is needed (be it a person, piece of equipment, or simply space to house the project), that that resource is available. This step may force the project manager and project team to revisit the planning stage when scheduling conflicts occur.

An example of a scheduling conflict could involve a person who is assigned to complete two tasks in the project plan. According to the project plan, these two tasks can start on the same day. Suppose each task is expected to take eight (8) hours. Obviously, one person working an eight (8) hour day can not complete both tasks. The project manager and project team have two choices to resolve the conflict. Either the task can be assigned to another person or one of the two tasks can be "shifted" to the next day. Either action results in a change in the project plan; however, the first option, assigning another person, does not affect the project timeline, while the second option may delay the project completion date by a day.

Coordinating

One method the project manager uses to coordinate the work of the project team through regular status meetings. Depending on the scope of the project, status meetings schedules will change. For projects with very short timelines (a week or two) the project team may meet daily. Projects with a medium length timeline (up to three months) may have status meeting scheduled weekly. Projects with longer timelines may hold less frequent status meetings, perhaps only once each month.

During the status meetings, the project manager will review the project plan with each member of the project team to determine how the project is progressing. The project manager will note any discrepancies between the project plan and the work completed to date and determine, with the assistance of the project team, what actions if any are required to correct any deviations in the plan.

Communicating

The project manager is the focal point of communication between the project team, the organization's management, and the customer. It is the project manager's responsibility to keep all three of these groups informed of the project's status. The project manager will produce regular status reports that provide the three groups with information about the current state of the project.

Review the outputs from each process

Planning and Scheduling

The primary output of the planning and scheduling function of the project manager is the project plan. The project plan lists all the tasks to be performed, the amount of time associated with each task, the dependencies between tasks (which tasks must be completed before other tasks can start), and the resources assigned to each task. The project plan allows the project manager to determine the expected dates that tasks will be started and will be completed.

The project plan allows the project manager to track the progress of the project, comparing budgeted work against completed work at regularly intervals and thus to be aware of deviations in the planned execution of the project.

Coordinating

The primary output of the coordinating function of the project manager is the minutes from each status meeting. The minutes should include a list of project team members attending the meeting, notice of project team members absent from the meeting, a discussion of all issues presented during the meeting, and a list of all the action items to be accomplished before the next meeting.

The meeting minutes allow the project manager to review the progress of the project and works in conjunction with the project plan to provide an accurate picture of the status of a project.

Communicating

The primary output of the communication function of the project manager is the project status report. This report provides information to the project team, the organization's management, and the client about the status of the project. The report may include a list changes in resources assigned to the project, project milestones met since the last project status report, and project milestones scheduled for completion before the next project status report. In addition, the report will include any milestones missed and the planned course of action to put the project back on schedule.

Review and develop objective measures for the outputs from each process

Planning and Scheduling

To evaluate the project manager's ability to plan the project objectively, the manager may wish to examine two variables that can be calculated by examining the project plan. The first variable is the time variance. Time variance is the difference between the amount of time estimated for each task and the actual amount of time taken to complete each task. To calculate time variance, use the following formula:

time variance = actual time / estimated time

When time variance it less than 1.00, the project is ahead of schedule. When time variance is greater than 1.00, the project is behind schedule.

The second variable is the cost variance. Cost variance is the difference between the project's planned budget and its actual cost. To calculate cost variance, used the following formula:

cost variance = actual cost / budget

When cost variance it less than 1.00, the project is showing a profit. When cost variance is greater than 1.00, the project is losing money.

Coordinating

Evaluating the project manager's ability to coordinate the effort of the project team may involve examining the amount of time the project manager spends on coordination efforts compared to the total time spent in project management activities. The formula for calculating a ratio of time spent in coordination activities versus other activities is:

coordination ratio = time in coordinating activities / total time on project

The manager and project manager will need to agree on a target ratio. For the purposes of this model, the target ratio is 30%.

Communicating

Evaluating the project manager's ability to communicate effectively with the project team, with the organization's management, and with the client is perhaps the most difficult to evaluate objectively. Two possible options for making an objective evaluation are (1) to examine the amount of time between identifying a situation that needs to be communicated and when it was communicated to the appropriate people and (2) the number and frequency of project status reports.

The Project Manager's Performance Evaluation Form

The performance evaluation form shown below combines the Behaviorally Anchored Rating Scale (BARS) with the objective measures of performance discussed in this section.

Performance Factors	**Performance Degrees**				
	Far Exceeds Job Requirements	Exceeds Job Requirements	Meets Job Requirements	Needs Some Improvement	Does Not Meet Minimum Job Requirements
Planning Cost Variance	cost variance is between 0.95 and 1.00	cost variance is between 0.90 and 0.95 or between 1.00 and 1.05	cost variance is between 0.85 and 0.90 or between 1.05 and 1.10	cost variance is between 0.80 and 0.85 or between 1.10 and 1.25	cost variance is outside the range of 0.85 - 1.25
Planning Time Variance	time variance is between 0.95 and 1.05	time variance is between 0.90 and 0.95 or between 1.05 and 1.10	time variance is between 0.85 and 0.90 or between 1.10 and 1.25	time variance is between 0.75 and 0.85 or between 1.25 and 1.50	time variance is outside the range of 0.75 - 1.50
Coordinating	PM spent less than 15% effort on coordination activities	PM spent between 15% and 25% effort on coordination activities	PM spent between 25% and 35% effort on coordination activities	PM spent between 35% and 50% effort on coordination activities	PM spent more than 50% of effort on coordination activities
Communicating Situational Status (to appropriate people)	PM evaluated impact of situation and communicated within one business day	PM evaluated impact of situation and communicated within two business days	PM evaluated impact of situation and communicated just in time to take corrective action	PM evaluated impact of situation and communicated to inappropriate people	PM failed to evaluate impact of situation or failed to communicate situation

Performance Factors	Performance Degrees				
	Far Exceeds Job Requirements	Exceeds Job Requirements	Meets Job Requirements	Needs Some Improvement	Does Not Meet Minimum Job Requirements
Communicating Project Status	PM distributed project status report weekly and provided additional information that enhanced the reader's understanding of the report	PM distributed project status report weekly and provided additional useful information	PM distributed project status report weekly	PM distributed project status report weekly (90% of the time)	PM distributed project status report weekly (75% of the time)

In the both the cost variance and time variance sections shown in the chart, ranges of performance are defined. The manager and the project manager should agree upon the values to be used in this chart when the project manager begins working on the project. Working together to determine the expectations of the job allows the manager and project manager to have shared goals and an understanding of the desired results.

In Closing

Although some subjectivity remains in the communication section of the performance evaluation review form for project managers, the paper presents several objective measures of project manager performance. It was found to be advantageous to combine the Behaviorally Anchored Ranking System with objective measures of performance. Managers may wish to adopt this method of evaluating project manager performance or use it as an additional tool with their existing performance evaluation methods. Additional research in the area of developing objective measures of employee performance is warranted to improve the ability of managers to show that their employees are successfully contributing to the organization's goals and strategic objectives. The questions that remain unanswered are:

- what level of improvement can a manager expect using the BARS chart combined with objective measures?
- Within how many performance areas will manager's find useful to track quantitative data for an employee's performance?
- At what point does the time and effort required to track performance data begin to offset the gains to the employee's performance?

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