

**Action To Be Taken With A Non-Performing Employee**  
**Decision Model Implementation**

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November 2001

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## **Abstract**

Saint Gobain Crystals and Detectors is a 23-person manufacturing company that is owned by a large international holding company. There are performance issues in some of the employees holding staff positions. An EC2000 decision model has been created to evaluate the appropriate action to be taken regarding the Materials Manager, who has been identified as a poor performer. The model indicates that training is currently the best alternative to pursue. The details of the decision were presented to the Business Unit Manager for his approval.

## **Introduction**

Saint-Gobain Crystals and Detectors in Houston, Texas is a wholly owned subsidiary of Saint-Gobain Ceramics and Plastics. Prior to November 1999, the company was privately owned and had no formal human resources function. In the private company, the owners made employee retention decisions on a purely emotive basis and no hard policy existed. Performance issues were dealt with or ignored depending on whom they affected. Gareth Jones, one of the authors of the paper was recruited by Saint-Gobain and became Operations Manager of the company in April 2001. He reports to the Business Unit Manager who is one of the previous owners of the company. Observations as a new employee of the Corporation, made it clear that although there is extensive Corporate Human Resources support, the “private owner” culture still exists in this location and a decision model should be implemented to assure fair and equitable treatment when dealing with performance issues. The decision for action should have the optimal beneficial impact for the organization and comply with corporate personnel policy. This model is being created as a response to a situation that currently exists, and the resulting decision will be presented to the Business Unit Manager for comment.

The employee in question is the Materials Manager; the previous owners of the company hired him as a result of the acquisition. His main responsibilities are inventory control and purchasing. There have been inventory issues raised from the corporate offices located in Newbury, OH. Inventory has been greatly fluctuating from month to month, and is tending to increase. In addition, purchasing is not running smoothly and there have been issues with running out of key manufacturing materials and increased costs. Despite repeated unsatisfactory performance evaluations, management mentoring and intervention; the Materials Manager is unable to properly carry out his primary job functions without significant supervision.

The outcome is considered to be important, in part, due to the size of the company. With only 23 employees, terminating the Materials Manager may place too high a burden on other individuals within the organization. The decision needs to balance the requirements of the organization against the need to take some action with a non-performing employee. All of the alternatives presented in the model had been individually discussed within the company, but not judged together in a common context until the model was created.

## Section 1

### **Goal**

The goal of the model is to select the most appropriate action that is to be taken with a non-performing employee. Although not explicitly stated in the goal, the overall objective is to provide the greatest benefit to the organization.

To establish the goal, the problem must be fully understood and defined. There was evidence from inside and outside the company that the Materials Manager function was not being properly carried out. While defining the scope it was asked if this is a real problem that needed to be addressed or a minor inconvenience. It quickly became apparent that this was a serious problem impacting the internal operations of the company and was also having a detrimental effect on the company's financial performance. Evidence was gathered and analysis performed to determine the root cause of the problem, which was the performance of the Materials Manager.

### **Alternatives**

As many ideas as possible were generated via brainstorming and then assessed as to the pros and cons of each alternative. This assessment narrowed down the list of viable alternatives. The following seven alternatives were found to be the possible best actions to take with a non-performing employee.

#### **Termination**

This alternative is the harshest, but the most direct way of solving the problem of a non-performing employee. The downsides may include but are not limited to, potential legal issues, severance pay, raise in unemployment compensation rates, cost and time of training the replacement, the disruption to normal workflow, and effect of lag time on finding a replacement.

#### **Position elimination**

This option is considered when a project or organization is overstaffed in a particular area. There are fewer legal issues than with firing, however the direct financial burden may be much greater. If a position is eliminated, it can be disruptive to the organization.

#### **Disciplinary action**

There are disciplinary measures that can be considered short of firing. Examples include suspension without pay, or loss of title and perks. There are potential downsides, including sabotage from the employee if they resent the action and are in a position to do harm to the company's interests.

### **Mentoring**

If it is felt that an employee will respond to counseling, this option allows an organization to make a member productive without risking the negatives associated with disciplinary action. In addition, if there has been previous investment, or the individual has valuable knowledge or experience, this alternative retains these positives.

### **Training**

If an employee has been put in a new position, or the current position has been modified, and the individual has not had an opportunity to develop the necessary skills, training may be the most efficient method of solving the problem.

### **Position redefinition**

Depending on the circumstances, if non-performance is related to a position being too exacting or just overwhelming for any one individual, redefining the job may be appropriate.

### **Take no action**

One option that should be considered is that of not taking any action. When the analysis revealed that there was a problem, the urge has been to take an action to correct the problem. However, part of the decision process must be to compare the possible outcomes of the decision with the present circumstances. It is possible that an action addresses one specific facet of the problem, but other changes caused by the action have an overall detrimental effect on the organization as a whole. The decision model has been designed to minimize the possibility of this happening.

## **Objectives**

The objectives were decided by building on the analysis of the goal and generating ideas as to what was needed to achieve with this decision. This was an iterative process that took several passes to define objectives and sub-objectives. Initially there were redundant and overlapping objectives that were re-organized to the final form in the model. Sub-objectives were used to increase the specificity of the hierarchy. The objectives and sub-objectives are described below:

### **Increase operational efficiency**

One of the major concerns about having an unproductive employee is the effect on the efficiency of the operation. Although there are other direct considerations (fiscal, effect on morale etc.) the operational efficiency is recognized by most people as the main aspect of making a change to an organization. If a team member is unproductive, but does not affect the primary purpose of the operation, the lack of performance has no direct short-term impact.

Under the “Increase operational efficiency” objective, there were four sub-objectives:

1. Adequate supervision. Either over-management or under-management are undesirable states for operation. Over-management indicates that the employee cannot adequately execute their job function and is taking up too many company resources by requiring that management oversee their function. Under-management can undermine an employee's ability to

adequately do their job. If they are not given enough information or management support, the responsibility of lack of performance lies more on the side of management.

In this specific case, the Materials Manager requires too much supervision, which is occupying management resources that are required elsewhere.

2. Eliminate unnecessary work duplication. If work has to be duplicated due to an employee's inefficiency, or incompetence, there will be extra cost to the operation; there will also be interferences with other people's abilities to execute their own job duties. There have been several cases where the Materials Manager strayed from written specifications and failed to procure the correct materials; another member of staff had to resolve the problem with vendors. There have also been other issues with badly negotiated purchase contracts requiring the intervention of another member of staff, typically the Operations Manager or Business Unit Manager. This duplication of work is wasteful in its' own right as well as depriving resources from other tasks which need to be completed. Under this objective there are two sub-objectives:
  - a. Segregation of duties. Within the organization there are positions that have specific responsibilities. If a person does not function adequately within the position and the work is essential to others, other people will step in to complete the essential work. The cost associated with this is that those people who step in to complete essential work have time taken away from their own primary responsibilities on which they will be judged.
  - b. Uninterrupted workflow. If work by one individual is not completed, this can affect the flow of work to others who have a dependence on the completion of the individual's work.
3. Optimize efficiency of task completion. The efficiency of completing work relates directly to the cost of performing the work. Inefficiencies can contribute to costs either directly or indirectly by causing problems for "down stream" operations. To complete either normal manufacturing work, or special projects within the company, there are a sequence of operations or tasks that occur. Tasks that occur later in the sequence depend on the completion of tasks earlier in the sequence. Inefficiencies or non-completion of tasks have an effect that can ripple through the entire manufacturing team and impact the ability of other team members to complete their tasks on a timely basis.
4. Fair distribution of workload. An objective for an organization should be that the workload is optimally distributed over the available resources. If an employee is not performing adequately other people will do more than their fair share of the work to achieve a given amount of work from the team. By loading more onto other people, some resources will be over-utilized which will stress them causing long term problems and others will be under-utilized which means unnecessary costs are being carried.

### **Improve team morale**

Any significant action taken regarding one member of a group can have an impact on the morale of the group. There can be a time factor on the impact on morale. For example, if an employee caused problems for other members of the team and was terminated; morale may initially suffer due to the shock of the drastic change, but then improve over time because the ability for others to perform their duties improves. There may be a build up of resentment by a group of people if

they see that one of their members is receiving the benefit of belonging to the team without making an equitable contribution to the team. Additionally, morale can suffer if the team perceives that an employee is disciplined unjustly.

Under the “Improve team morale” objective, there were three sub-objectives:

1. Motivate employees. Motivated employees are team players. To keep team morale high, it is essential to provide an environment conducive to cooperative efforts. Any decision that will be made regarding the Materials Manager should not have a negative long-term impact on team morale.
2. Treat employees equally. It is ethical to treat all employees equally. If it is understood that all are being treated equally there is less tension amongst team members. By treating employees in an even-handed manner, there is an implication that their performance should be equitable.
3. Reward employee contribution. Team morale is highest when employee contributions are recognized and rewarded. In the context of this decision, the corollary to reward is being considered. The question that is being asked is non-performance punished in a reasonable manner.

### **Increase personnel development**

If a person is not performing in a function, one asks if that person has been adequately trained and managed for that position. If the answer is no, responsibility lies on the organization rather than the individual for action to enable that person to perform the required job functions. Saint-Gobain actively encourages training both informal and formal.

In this case there are two aspects of the personnel development objective. Could the Materials Manager attain an adequate level of performance if there was a development program laid out for him? Alternatively, if the Materials Manager position were eliminated, would there be more resources available to develop other personnel?

Under the “Increase personnel development” objective, there were three sub-objectives:

1. Train employees. Employee training is a key element of personnel development. Saint-Gobain expressly encourages training programs of many kinds for its' employees. Training is important for a person to develop new skills or to update existing skills. If the Materials Manager is not performing because he does not have the technical skills to accomplish his work tasks, then training may improve his performance.
2. Mentor employees. One aspect of managing people is that one may be called upon to mentor an individual. This is very distinct from training, which is designed to add or improve technical skills. Mentoring is appropriate to help an individual adjust to a new corporate culture or to better fit in an organization. The company is still transitioning from privately owned to corporate ownership.
3. Comply with company policy. Saint-Gobain has a comprehensive HR policies handbook. Any action that is to be taken with an employee must comply with these policies.

### **Optimize personnel cost**

Employees, as with any other asset in an organization, have a certain cost associated with them (salary, benefits, training costs etc.). If an employee does not function well, then there may be inadequate return on the financial cost of that employee.

Under the “Optimize personnel cost” objective, there were two sub-objectives:

1. Minimize unnecessary overhead. Saint-Gobain Crystals and Detectors is a manufacturing organization that accounts for overhead as a burden on direct labor. To improve financial performance of the company, the overhead must not be excessive and yet allow for the smooth functioning and growth of the business. The position that is being considered in this decision model is that of Materials Manager, which is an overhead position.
2. Maximize ROI from employees. Employees as a resource necessitate a certain investment (salary, benefits, training etc.). The contribution an employee makes to the organization should be considered relative to their cost to the organization; this needs to be a balanced judgment that includes expectations on future contributions from the employee. Many of the employee financial costs can be well defined. Although quantitative data can be produced, there is a high degree of management judgment required as to the future expected performance of an individual.

## Section 2

### **Decision Model**

The list of objectives, sub-objectives, and alternatives was used as a basis for the decision model using Analytic Hierarchy Process (AHP) and Expert Choice® (EC2000) software. The goals, objectives, and alternatives are the three major levels of the hierarchy.

AHP is used to “Structure Complexity” and enables ratio scale priorities to be derived, not assigned. There are three basic principles employed when using AHP.

1. Decomposition – is applied to structure a complex problem in a hierarchy of clusters and sub-clusters. Sub clusters are used to increase the specificity of the hierarchy.
2. Comparative judgments – is applied to construct pairwise comparisons of all combinations of elements in a cluster. From these comparisons local priorities are derived for the elements with respect to the parent.
3. Synthesis – is applied to multiply the local priorities of elements by the global priority of the parent element, then adding the global priorities for the lowest level elements.

Figure 1 shows the hierarchy of the goal, objectives and sub-objectives.



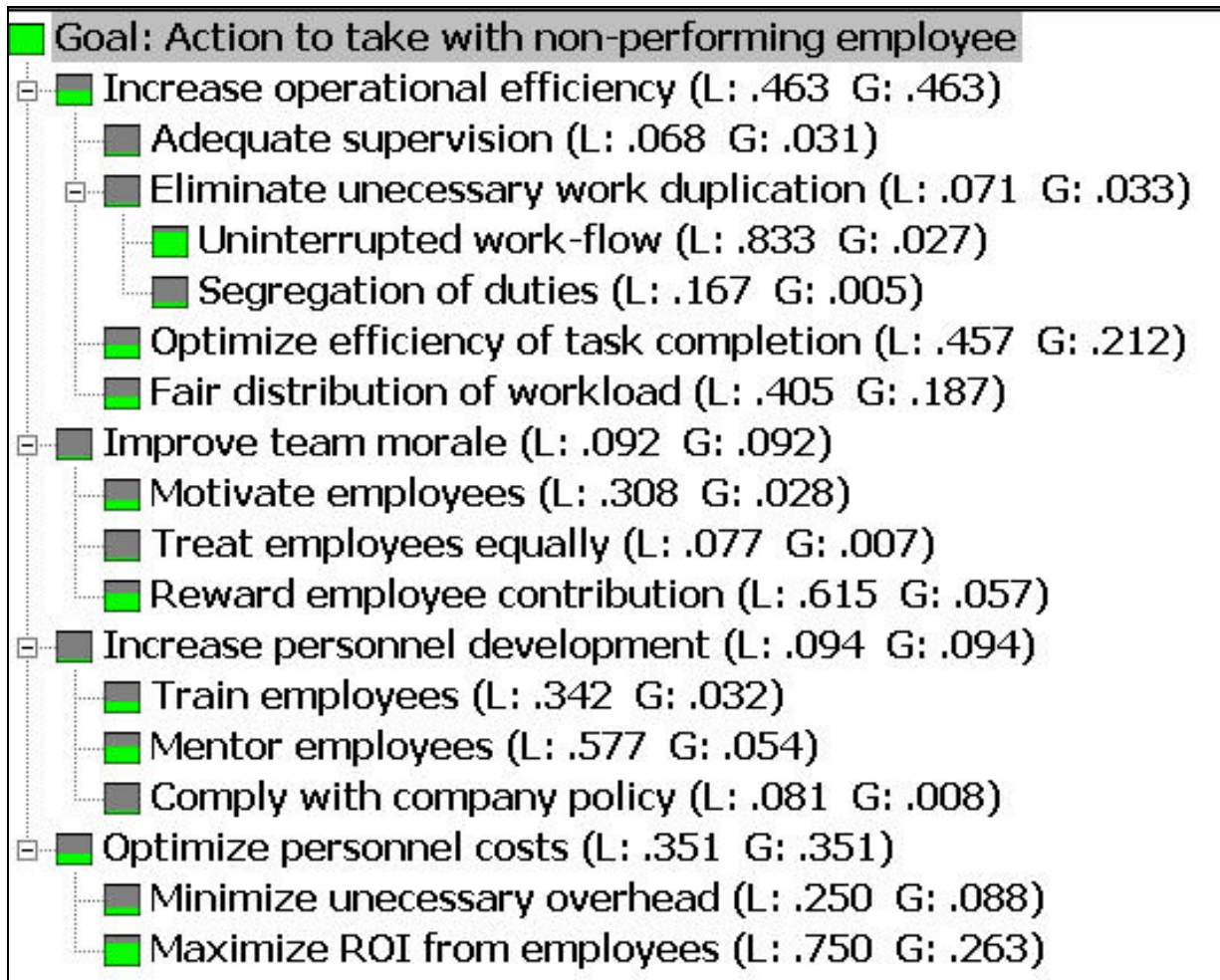


Figure 1, Goals and Objectives Hierarchy

Also observed in Figure 1 are the priorities that were derived from pairwise comparisons (discussed in more detail below). The derivation of priorities is the heart of the decision model. The figures by each objective and sub-objective have a “L” and a “G” nomenclature; these stand for ‘local’ and ‘global’ respectively. Any node, which has sub-objectives underneath it, is referred to as a “parent node”. The global figure is the product of the individual element’s local priority and the parent node’s global priority. For all the objectives immediately beneath the goal, the local and global priorities are the same. The sum of local priorities within an individual cluster always equals one.

Priorities are established after the problem has been arranged in a hierarchical fashion. Each node was evaluated against each of its peers in relation to its parent node. This is called pairwise comparisons, and in this model the comparisons were made with respect to their relative importance. The comparisons generate a ratio of relative importance between the two elements being compared. The comparisons can be made via a verbal comparison, numerical comparison, or graphical comparison. Figures 2, 3, and 4 show the EC2000 screens for the three types of comparison from various nodes of the hierarchy.

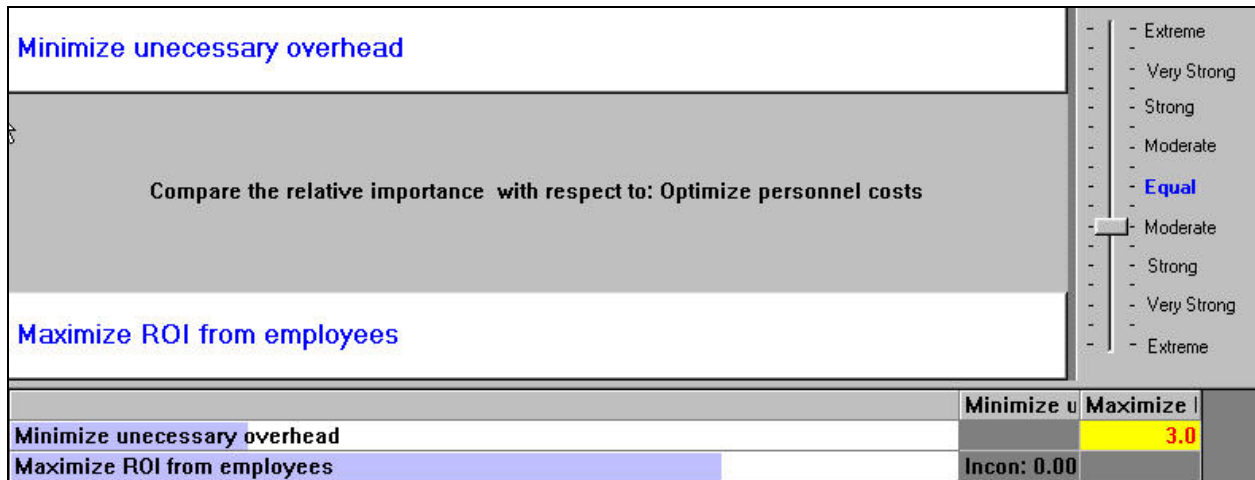


Figure 2, Verbal Comparison

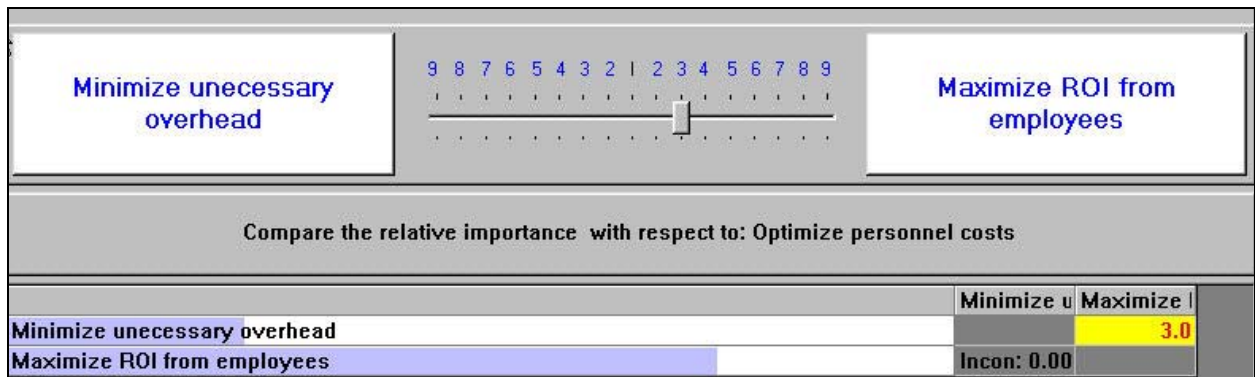


Figure 3, Numeric Comparison

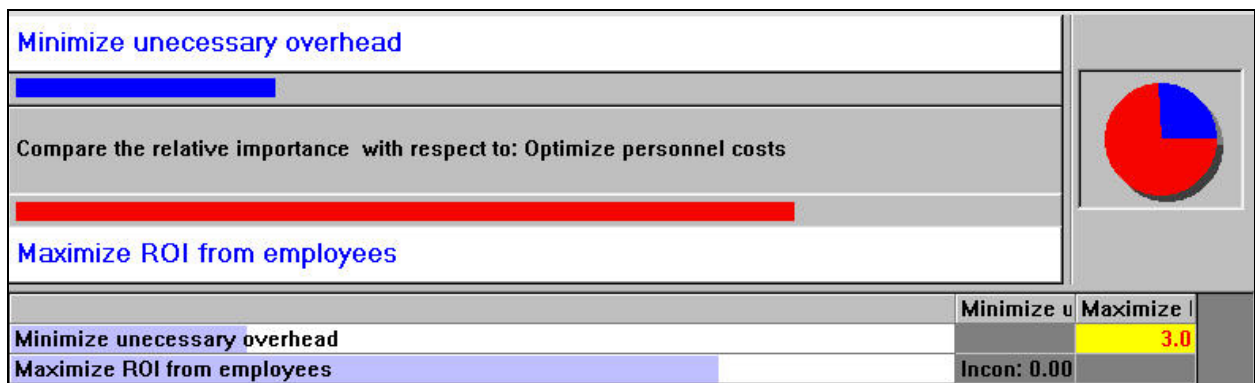


Figure 4, Graphical Comparison

With verbal comparisons, words are used to represent the magnitude of the scale. The slide bar on the right side of the pane is used to indicate which element is preferred and the strength of that preference is represented by a corresponding word. The two opposing sides of the scale represent each element being compared.

Numerical judgments are made by comparing two elements using the slide bar to indicate which judgment is preferred and the strength of that preference. The two opposing sides of the scale represent each element being compared.

Graphical judgments are made with bar graphs. The lengths of the bars indicate the relative dominance of the elements. If they are equal length, then the elements are equally important. If one bar is twice as long as the other, then it is twice as important. Relative dominance is also represented with a pie chart on the right side of the pane.

The judgments were made using a “bottom-up” approach by prioritizing each of the sub-objectives in regard to each of the alternatives first. The sub-objectives and objectives were compared relative to the goal. The objectives were then judged against each other to derive weights for them relative to the goal. The “bottom-up” approach was employed to get a better understanding of the alternatives and avoid judging of the importance of objectives with regard to the alternatives.

Pairwise comparison is used to derive ratio scale measures for the two items being compared. In all the comparisons that were used in this model, there were redundancies that contribute to a reduction in measurement error and produce a measured of consistency in the judgments. By including redundant comparisons to improve accuracy, accurate priorities can be derived from verbal judgments, even though the words themselves are not very accurate. In addition most people are more capable of making relative judgments than of absolute judgments. Using pairwise comparisons means that weights assigned to objectives and alternatives are derived, not arbitrarily assigned.

Most of the judgments made used the verbal comparison. There were some judgments that lent themselves to numeric judgments, for example, when considering the costs associated with eliminating a position (termination pay etc.) with the costs of terminating an employee and replacing them, an accurate numeric comparison can be calculated. Most of the judgments, however, involved more qualitative elements and were best accomplished using the verbal scale. For each set of pairwise comparisons, the most inconsistent comparisons were reviewed.

## **Synthesis**

When the judgments have been entered for each part of the model, the information is synthesized to produce an overall preference. EC2000 generates a report that ranks the alternatives in relation to the overall goal. Figure 5 below shows the report, which ranks the alternatives in relation to the overall goal. Training is the most preferred alternative for choice of action in this synthesis.

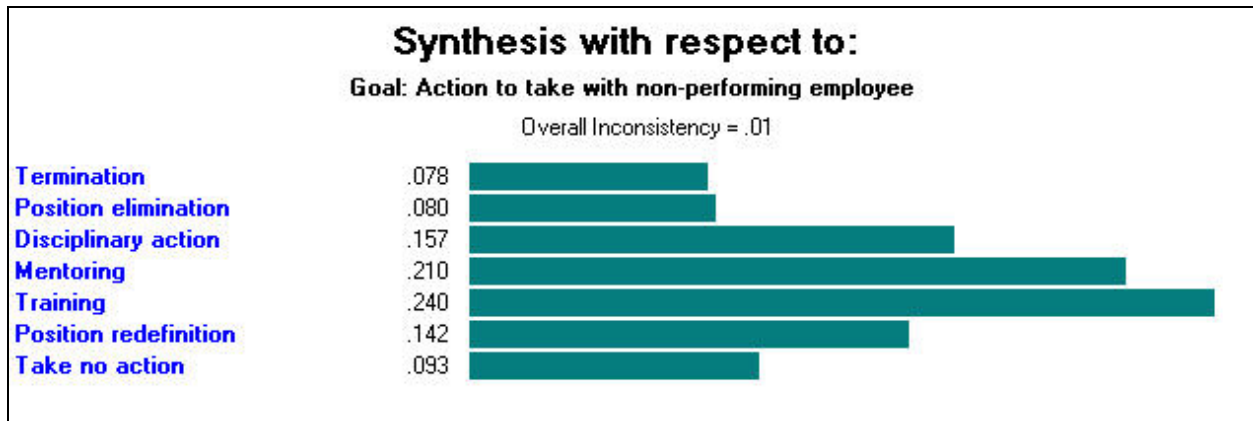


Figure 5, Ranking of Alternatives in Relation to Overall Goal

A more detailed report can be generated which includes a detailed ranking showing how each alternative was evaluated with respect to each objective.

### Sensitivity Analysis

After the synthesis was performed, a sensitivity analysis was performed to see how sensitive the alternatives are to changes in the importance of the objectives. Figure 6 shows the performance sensitivity with respect to the goal for nodes below the goal.

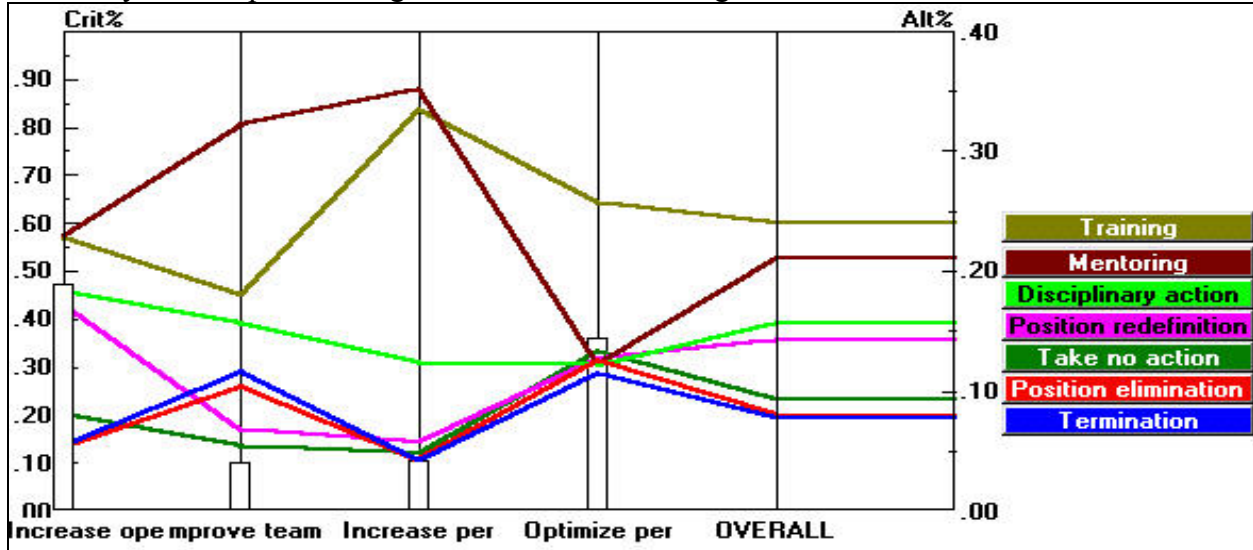


Figure 6, Performance Sensitivity with Respect to Goal

In Figure 6, the vertical white bar represents the relative importance of each objective, and the relative preference for each alternative with respect to each objective is shown as the intersection of the alternatives' curves with the vertical line for each objective. As an example, mentoring had the highest relative importance for the "Increase personnel development" objective (shown as "Increase per" in Figure 6), while the height of the "Increase personnel development" vertical

bar indicates an approximate relative importance (weight) of 0.1. It should be noted, that as with all AHP priorities, these priorities are ratio scale measurements; for example, from the graph it can be seen that the “Optimize personnel costs” (Optimize per) is approximately three times more important than the “Increase personnel development” objective.

EC2000 can also provide sensitivity graphs showing the information in different formats, namely; head-to-head comparisons of the nodes, gradient sensitivity of the nodes, and the dynamic sensitivity of the nodes. For this decision model the sensitivity analysis was performed using the performance sensitivity as shown in Figure 6. Using this sensitivity chart, management can view the effect of changing the degree of importance of the objectives and impact on the priorities of the alternatives. As an example, Figure 7 shows the same graph as Figure 6, except the relative importance of “increase operational efficiency” and “Improve team morale” have been increased. In this scenario, mentoring comes out as the preferred alternative over training.

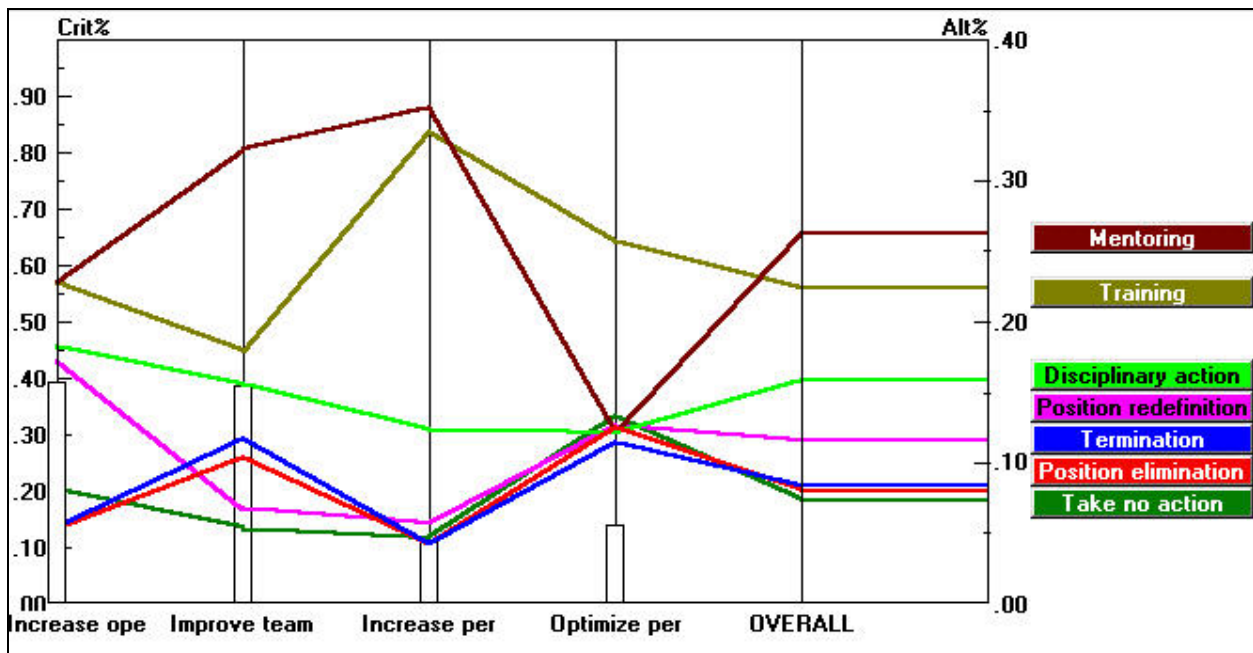


Figure 7, Modified Performance Sensitivity Graph

### Section 3

#### **Business Unit Manager Feedback**

The decision model was presented to Dr. Kyriakos Tsorbatzoglou, the Business Unit Manager of the company for his comment and feedback. It must be mentioned that this exercise had to be performed twice. After the initial presentation, the model was thought to be complete. However after several reviews of the original model, it was decided that there were some significant weaknesses that should be addressed. The decision model was modified and presented again for

comment. This embarrassing incident underscores the importance of iteration when constructing a model. The original model was too generic and some judgments had not been made considering the specific situation of the Materials Manager. In addition there were some objectives and alternatives that were not realistic considerations in this specific case. The alternatives and objectives were appropriately modified and the alternative of “Take no action” added to the model. The judgments were made again and checked. Interestingly, the inconsistencies were much lower in the modified model. The preferred alternative was also different on the new model “Training” versus “Counseling” from the original. During the second presentation, the reasons for modifying the model were discussed.

The feedback from the first model was permission to counsel the employee and define a follow up period. Luckily details of the counseling had not been forwarded to the HR department and no action had been taken with the Materials Manager. The second presentation was questioned much more closely. The individual judgments were questioned; those that Dr. Tsorbatzoglou disagreed with were noted and modified in the decision model for comparison purposes. There was no difference in the outcome; the unmodified model is attached with this report. A training program has been requested, along with details of goals of the training. If Dr. Tsorbatzoglou is satisfied with the training program it will be approved and then in three months a new decision model formed and reviewed.

The performance of the Materials Manager had been discussed several times with Dr. Tsorbatzoglou. Prior to running the decision model, he and Gareth Jones believed that the most appropriate action would be to terminate employment. The only discussion remaining was whether it would be a termination or if the position would be eliminated. The decision model was viewed very critically, as it provided a different alternative to termination. Reviewing the model demonstrated that earlier conversations on the subject had not taken into account all elements that should have been considered. When this was realized, it was relatively easy to shift viewpoints on the situation and accept the decision objectively as the best alternative.

## **Conclusion**

AHP is a powerful tool that can be employed for complex decisions. Focusing on the objectives and deriving ratio scale priorities for the alternatives and objectives leads one to choose Training as the best alternative action to be taken with this non-performing employee, the Materials Manager. Iteration is an important part of the decision process that is easy to overlook. The decision model does not get “frozen”; the best alternative under current conditions may not be the best alternative if conditions change. The decision model can be modified and synthesized to reflect changing conditions. In this specific case the decision making process will have to be repeated at a fixed point in the future (three months). In addition to the decision model itself, the importance of iteration and reviewing adequately prior to presentation was emphasized.

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