



ADVANTAGE CONSULTING GROUP LTD.

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Problem: INCREASING PRODUCTIVITY IN YOUR WAREHOUSE

Every day in the Business section of the paper is an article on how the US economy has increased the productivity of workers by 3%, 4% or maybe 5%. How did they do it?

Productivity improvement is the art of getting more output with the same number or less people. In order to get more output you need to do one or more of the following.

1. Get people to work harder.
2. Introduce automation.
3. Change methods.
4. Install engineered performance standards
5. Install incentives.

GET PEOPLE TO WORK HARDER

During the recent downturn in the economy, most companies downsized their workforce. This required the remaining staff to expand their responsibilities to pick up the slack. Since most companies were not running with an excess of employees in the first place, the employees still at the company are faced with long hours, increased stress and a poorer working environment.

While this will raise the output per employee, e.g. productivity, in the short run, eventually, as soon as the economy starts to improve these productive employees will look for an improved working situation somewhere else.

Any gains in productivity will be wiped out as these employees leave.

INTRODUCE AUTOMATION

Automation is a good solution to reduce the labor cost of a very high volume operation that does the same operation over and over. If the return on the investment is high enough to justify the expense it is the way to go. Good examples are Robots to weld cars and automatic packing machines to box the cereal you eat

CHANGE METHODS

In the warehousing industry methods may make a difference.

Some Examples:

1. Reduce the distance required to select an order by moving the product.
 - a. If the products are rearranged so the items that are generally packed together are in the same area, this will cut down on travel time when picking an order.
2. Introduce flow rack for concentrated picking of slow moving product.
3. Use picking labels instead of lists. Or use pick to light or voice to pick.
4. Use RF and computers to pick.
 - a. RF systems can eliminate the need for pick sheets, and allow the picker to more easily determine what item is next on the list.
5. Slot the warehouse for better stacking of product.
6. Put the order desk on the way to the pick.
 - a. Better placement of the order desk, off of a high traffic area will lessen time spent picking up new orders and labels.
7. Direct load pallets and many others.

INSTALL ENGINEERED PERFORMANCE STANDARDS

In the typical warehouse, employees are normally working at a pace that is no better than 70%. This is often not due to how hard they work but how much they work.

If their task takes them to the far end of the warehouse, where there are no supervisors, they may be gone an hour before you see them again. The task may have been completed, but you don't know how long it should have taken. You can use historical averages but how good were the people doing the work that was in the averages?

The use of engineered performance standards makes it possible to measure your employees in an equitable way and requires no more than a normal pace.

Employees are measured based on the average time it takes an employee to complete a task. The averages are calculated based on a large sample of employees taking into consideration the effort put forth by the employee. Some employees will work at a pace that is less than average, and some will work at a pace that is far above "average." The effort level needs to be considered when setting standards.

With standards in place, the employee's time for each task can be compared to the standard, and a performance percentage can be assigned for each task and shift. These numbers can be used to coach employees on their performance. Discipline and incentives can then be based on these objective numbers.

To install Engineered Performance Standards the following is needed:

1. A breakdown of all the elements needed to do the work
2. A normal time for the elements based on time studies or predetermined times for the operation.
3. Allowances for personal time, fatigue and delay
4. A computer program that can take the order stream, receiving and replenishment downloads from the warehouse management system and apply the following:
 - a. Calculate the distance required to complete each order.
 - b. Apply time to select based on weight, quantity and level.
 - c. Apply pallet-handling time for fork lifts.
 - d. Apply constants such as get order.
 - e. Provide on line reporting comparing actual time to the standard by person, by order, day, week.
 - f. Establish a consistent discipline system
5. A training program for the supervisors to administer the program
6. Meetings with the employees to explain the program.

EMPLOYEE INCENTIVES

Once engineered performance standards have been established, an incentive system can be implemented to improve productivity even further.

Employees are capable of working at a pace greater than normal if the output benefits them.

For example even if you pay the employee their normal rate per hour for each extra hour earned the company will save fringe benefits which in some companies can amount to 50% added to the base pay.

In most incentive systems the company and the employee share the increases work effort. A typical arrangement being 75% to the employee and 25% to the company.

In many installations the addition of incentives makes it much easier for the employees to accept the fact they now have to work more of the time for no more pay.

Any incentive should start above 100%. If the employee is to be rewarded for extra effort, then they should be working at a pace that is above standard.

In some instances it may be more effective to reward the employee with additional time off. This may be a better benefit to some workers.

If you use time off as a reward be very careful that the employees take off at time convenient to the company. If not you will save nothing if everyone takes time off instead of extra pay.

With the use of standards and incentives you can increase productivity at a cost much less than most automation projects and in the end have a much happier work force.