Balancing Optimum Resources

What is it?

Optimum Resources is getting the correct balance of people, money and time available to generate the needed output as effectively as possible. Balancing the Optimum Resources is a method to see how all the tasks can be done by the same person within the “Takt Time”.

When to use it?

When trying to improve an area, there should always be a change in the way people work which should be controlled by Standard Operating Procedures (SOP). When we update SOP it is best practice to understand how the Balancing of Optimum Resources has been affected.

What does it achieve?

Balancing Optimum resources eliminate problems with overburden, provided valuable information to demonstrate how the process should work and see opportunities for further improvement based on how the process currently works.

Key steps

Getting Optimum Resources is started by measuring how frequently an output is needed to satisfy the customer. In some organisations they will have correctly calculated this time as “Takt Time”. The total quantity of tasks needed to complete that output is also measured. Optimum Resources means to divide the total quantity of tasks by how frequently an output is needed. The reason for using “Takt Time” is that this measure is based on Customer Demand and aligned to reducing unnecessary wastes, including Inventory.

e.g. Product X needs to be made every minute and 4 tasks are completed by an Operator every 30 seconds to produce it. The total quantity of tasks needed measures 30 x 4 = 120 seconds (2 minutes). Optimum Resources is 2 minutes divided by 1 minute, thus needing 2 Operators.

As each task to produce an output does not always take the same amount of time to complete, there is a method to balance the work of the optimum resources. A graph is drawn showing the “Takt Time” on one side and bars are drawn to show the tasks done by each operator.

When using in organisations, a factor is used to compensate for small problems when making the output. Normally this is between 90 – 95% of the total task time. For the above example each task time would need to be at least 27 secs. This gives a total time for each operator of 54 secs.
Variations

- None