Workload Best Practices

A Methodology to Analyze Workload in Public Sector Organizations

What is Workload Analysis?

**Workload Analysis** is a methodology to determine the time, effort and resources necessary to carry out the department’s operations, resulting in identifying the organization’s actual needs of human resources both in terms of quality and quantity, and develop these resources to achieve the goals and strategies that the organization wants to achieve in the various work sites.

In this methodology, the workload is analyzed by evaluating the current human resources structure, and then the organization’s actual needs of human resources are identified in order to implement the processes necessary to provide a particular service.

Why Workload Analysis?

- Identifying the actual needs of human resources both in terms of quality and quantity in the short term and long term.
- Identifying the current and future training needs, which facilitate designing training programs according to actual needs.
- Maintaining the appropriate number of employees in the work system, to ensure not to prevent or delay processing the customers’ transactions.

How to Analyze Workload?

1. **Receive the support of the organization’s management to implement workload analysis project**

2. **Determine the strategic objectives of workload analysis project**

3. **Determine the project’s scope of work**

4. **Determine the processes in the priority department for workload analysis**

5. **Calculate the number of employees**

6. **Determine the corrective actions**

**Figure 1: the impact of workload analysis on increasing service customers’ satisfaction**

Receiving the support and approval of the organization’s senior management is the starting point for the project, ensuring support for the project’s decisions and obtaining the needed funding to implement the project.

It is necessary to link the organization’s strategic plans with the projects it plans to implement. Examples of the strategic objectives of the workload analysis project include:

- Creating a competitive organization by enabling it to predict and adapt to current and future requirements.
- Improving the performance of the various units of the organization.
- Develop the recruitment policies adopted in the organization, by accurately identifying its needs of human resources.

3. **Determine the project’s scope of work**

At this stage, the divisions that most need the workload analysis are identified depending on the severity and depth of their problems. A number of indicators are adopted for this purpose.

### Indicators that can be used to determine the scope of work

- Number of customers’ complaints
- Number of employees’ complaints
- Customer’s satisfaction level
- Number of customers
- Previous institutional performance results
- Rate of employee’s performance evaluation
- Employees’ satisfaction level

5. **Determine the processes in the priority department for workload analysis**

The work team determines all the existing processes in the division, in order to analyze them separately to determine the appropriate number of employees for each of the government department’s divisions. Process flowchart maps are also prepared at this stage.

6. **Calculate the number of employees**

The most appropriate number of employees is calculated by using one of these two methods:

**First: calculate the number of employees based on the standard time**

This method relies mainly on the availability of sufficient information on the standard time for each process, in which:

- The number of services delivered by the division each year is identified.
- The average work time available per employee per year is calculated, taking into account to consider the following when calculating the average work time available per year:
  - The expected resignations
  - Retired employees
  - Maternity leaves and other expected leaves

Hence, the number of employees required is calculated based on the following equation:

\[
\text{Number of employees required} = \frac{(\text{Standard time per process} \times \text{number of completed transactions per year})}{\text{Average work time available per employee per year}}
\]

**Second: calculate the number of employees based on productivity**

In this method, the employee’s productivity, the amount of work required and other factors are taken into consideration, as follows:

A. **Determine the current number of employees in each division**

B. **Collect data to determine the time needed to process a transaction in a single process.** This is done as follows:

1. Design data collection form
2. Select the team responsible for collecting data
3. Identify the tools necessary to collect data
4. Collect data; one of these two methods can be used to collect data:

**The first method:** recording data relating to a particular transaction (it includes the operation steps, the person responsible for implementation and the time needed); the transaction is followed-up from the beginning at the division under study until it leaves the division. This is the most widely used method to analyze the workload.

**The second method:** recording the number of transactions performed by the division under study in a specific time period (one hour for example) in a single process, then using the equation below to find out the average time spent per transaction in a particular process, taking into account to consider the different types of transactions performed by the division when using the equation, so that the average is calculated for each type of transactions separately.

5. Calculating the average time needed for each type of service provided by each division.

C. **Determine the number of customers (the number of transactions) within the department’s current work system,** where the number is determined by customers who have received the services which is revealed by reviewing the annual statistics.

D. **Determine the average work time available per employee per year (minutes/ employee).**

E. **Determine productivity**

This amount represents the actual proportion of the time spent by employees to provide services to the public; productivity is calculated using one of these two equations:

\[
\text{Productivity} = \frac{\text{Total (number of completed transactions per year for the current year } \times \text{ average time needed to process a single transaction per minute})}{\text{ the time available for the employees in the same division per minute}}
\]

Or

\[
\text{Utilized time } ÷ \text{(Unutilized time + utilized time)}
\]

When using the second equation, the work team is asked to observe the employees to determine the utilized time spent by these employees in providing services to the public and the unutilized time.

F. **Determine the expected number of customers for the next time period (customer/ process)**

The number of transactions expected to be completed in the coming year is calculated using one of these methods:

- Naïve Forecasting
- Weighted Moving Average
- Exponential Smoothing
- Simple Moving Average

This is the most common way; the forecast depends of the data of at least three previous years in order to find out the correct number of transactions expected to be completed in the coming year by using the following equation:

\[
\text{Expected number of service recipients for the new year} = \frac{\text{Total number of service recipients in the previous three years}}{3}
\]

Low productivity is not necessarily a sign of employees’ inefficiency; it may reflect the lack of sufficient workload (low number of transactions completed per year), which implies the importance of investing employees’ time in performing other work.
G. Determine the number of employees required in each division

The number of employees required in each division is calculated using the following equation:

\[
\text{Number of employees required in the division for the coming year} = \\
\left(\text{Number of expected annual transactions} \times \text{the time needed to complete a single transaction}\right) / \text{Available average time per employee}
\]

- If the number of employees calculated using the equation is greater than the number of current employees, this implies the need to hire more employees.
- If the number of employees calculated using the equation is less than the number of current employees, this implies the need to redistribute some employees in the division or transfer them to other divisions.

Determine the corrective actions

The following figure shows the possible scenarios after the workload analysis:

A surplus in the number of employees in the division
The need to increase the division’s employees

Each scenario requires the organization to take the appropriate corrective actions, as follows:

A. If there is a need to increase the division’s employees, this lack is compensated by internally transferring the employees or redistributing them between the different divisions as needed (redistribution of tasks). The organization may have to resort to external recruitment.

B. If there is a surplus in the number of employees in the same division, they can be redistributed to other vacant positions in the organization, taking into account the job requirements necessary to carry out the tasks that will be distributed to employees.