

Effective Workforce Utilization in Organizations: Key aspects to consider in Portfolio and Project Management

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Abstract

The key asset to any organization is a qualified workforce or skilled resources, that play an important role in growth and success of the organization in a competitive environment. However, with the advent of internet revolution, emergence of new technologies and latest advancements in areas of machine learning, robotics automation and artificial intelligence, it's imperative to prioritize on learning, upskilling and right skilling the workforce for organizations to thrive. Also, with recent epidemic (COVID-19), organizations are looking at ways to keep the workforce engaged as well increase utilization for maximizing the bottom-line. By incorporating some of the key best practices the onboarding of a resource like updating the key skills of the resource from a predefined skills database, managing skills inventory in the database on an ongoing basis and maintaining resource availability constraints on regular basis for future dates, organizations can ensure maximum utilization of the resources which can help with better productivity, increased margin and an engaged workforce. These practices and processes can also help provide better career advancement opportunities to skilled resources within an organization. In case of contingent situations, when there is an urgent requirement for a rare and critical skill or resource, organizations can ensure the effective execution of a project or tasks on time by following some of the key best practices. By updating and maintaining skills inventory for the workforce and ensuring a proper reporting and analytics mechanism, organizations can ensure to invest training budget effectively on skills which are in demand for better outcomes.

Introduction

The employee or contractor onboarding process in most organizations involves familiarizing the resource with the organization process, procedure and logistics and updating information on bank and social security, work authorization details etc. However, incorporating a key process of documenting or maintaining relevant predefined skill with a corresponding proficiency level for each new resource, can be an immensely helpful step for organizations to achieve a better utilization of resources as well as career advancement opportunities for employees. The key aspect to make this approach a practical reality can be achieved with the help of a system software, tools and process in place which houses data from multiple functions including human resources (skills, availability and absence), project management, non-project related work (regular departmental work or support functions). There is also a need to identify a role or function within an organization to match the demand side (project, non-project work) with supply

(resources availability) which can be a portfolio, project or department manager or a separate function for Resource utilization management.

Maintaining the Skill and Proficiency Level for Each Resource

The skills can be predefined in organizational skill database which can be constantly updated by a HR or skill administrator and the level can also be defined as defined below:

Employee Name	Employee ID			
John Parker	1100044			
Technical Skills Proficiency	Java Expert	C Advanced	Python Basic	Skill N
Functional Skills Proficiency	Sales Expert	Marketing Advanced	Software Dev Advanced	Team Lead Expert
Language Proficiency	French Expert	English Basic	Italian Advanced	
Industry	Construction	Manufacturing		
Certifications	PMP	Scrum Master	TOGAF	

Table 1

When an employee is onboarded, he can update his skills database with key primary and secondary skills and the level associated with each skill level (Table 1). Organizations can also include processes like updating the skills data base with certifications, industry segment and any research paper published.

Maintaining or integrating the Planned Absence information for each Employee

Apart from the skills information, maintaining the planned absence details can help with overallocation of the employee when their skill is urgently needed across multiple initiatives. However, it is common practice that a future planned vacation or absence is confirmed only when the leave is approved. Organizations can promote a culture or process to indicate the planned absence much in advance in the system of records, for better workforce planning and utilization.

Employee Motivation and Upskilling

Though the technology is constantly changing at a fast pace, organizations can ensure that skills database is constantly updated and managed with latest skills. Another distinct advantage can be realized by building a **color code** or abbreviation schema in software systems to indicate that the skill is not relevant anymore because of outdated version or

technology. This would help or motivate the employee to upskill to the latest version for better utilization and productivity.

Better Utilization in Projects.

Resource Utilization Managers in large organizations who plan projects much in advance can utilize the skills database to search the whole organization based on skill and proficiency level requirements, in their portfolio projects to identify and book the right resources. Also viewing the availability of resource for a specific timeline dictated by project need can also help with better project planning and scheduling to avoid slippage. Portfolio managers can have early dialog with resource owners to book those resources and plan for their upcoming projects. The dialog process to assign the relevant resources to a project planned for the immediate future can also help with planning in advance if there is need to hire new resources or contractors from outside through third-party vendors.

Emergency and Contingency Management

The advantage of managing resource utilization management with skill, proficiency and availability can also help in emergency situations like the absence of a critical resource with a special certification requirement during a critical phase of a project or task. It would be easy to find a replacement in short time with the help of searching the resource from the skills database which is maintained for the whole organization.

Sales & Service and new Business Opportunities

Also, many consulting or contracting companies are motivated to provide a complete solution, based on customer request, which comprises of areas normally not in portfolio of services offered. It is often a common scenario, where the salesperson regrets, that in spite of bidding for all the capabilities there are exceptions in one or more areas, where need arises to work or search other partners who can fill the gap to fulfil the commitment. So, with a skill database in place, it would be much easier to tap for the expertise in house, saving time and money and can prove to be an effective aspect in new business win and increased profit margin.

Best Practice based reports for Organizational Effectiveness.

Though there are many different reports and tools available for resource optimization, the key benefits can be realized within organizations when utilizing some of the key aspects mentioned below. The key challenge can be, organizations may need to bring the data from multiple systems for obtaining the data like human resource, project management, scheduling systems etc.

The table below captures some of the best reporting metrics which be used along with reporting attributes and benefit which can be realized to achieve a better resource managed and utilized organization.

Reporting Metric	Reporting Attributes	Potential Benefit
Resource Utilization Report	Resource allocated to projects/task in a specific period.	Training plan for underutilized resource based on skill gap to maximize productivity.
Resource allocation to project	Resource can be booked against project to block their availability, so they are not planned for other projects.	Avoid over and under allocation of resources.
Months in year with most overutilization & underutilization	This reporting can be done across function or department to identify peaks and valley and help plan contingency.	Plan contingency and provides indicator for project schedulers.
Skills which are in most demand	Reporting can be done based on past on future or identify trend.	More focus and spending on training related to these skills.
Skills/certifications not used or outdated	Resource by these outdated skills can be reported.	Resource identification for upskill and reskill. Special color coding can indicate or warn resources on need to upskill.
Months or period with minimum and maximum resource availability.	Project utilizing these reports can be reported.	Contingent or contract resources can be planned for overutilization.
Certifications in demand.	Project and task requirement by certification.	Training plan for these certification and new hiring focused on certification in demand.
Skills without any resources	Skill Exception report which identifies no suitable resource.	These skills can be identified as hot skills and can be advertised regularly as hot skills in need.
Non-technical skills most in need	Reporting on project requirement and non-technical skills.	Organization wide training programs for all resources.
Foreign Language skills	Reporting on foreign language and proficiency based on demand.	Training plan on foreign language skills, form communication groups, Jam page in foreign language for faster adoption.

Conclusion.

Including certain process changes while onboarding Resources, maintaining a skills database and constantly updating it, can be a key factor to ensure effective resource utilization for any organization. Also, this would also provide an opportunity for resources within an organization to utilize their skill to maximum extent and effectively manage their time in various initiatives. Furthermore, by analyzing the skill demands and trends within an organization, a workforce can get relevant guidance on which skills can be beneficial and are relevant to current job or industry segment and can provide pointers on important skills to learn or upgrade. Portfolio and department managers can ensure that a project is executed on time with effective resource planning.

References

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