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SOFTWARE PROJECT MANAGEMENT

BY PANKAJ KAMTHAN

REPORT- TOPIC ANALYSIS AND SYNTHESIS

Topic 102: A Project Is the Pursuit of a Solution

Cynthia A. Berg, PhD (ABD), PMP Glendale, Arizona, U.S.

Submitted by Shreyans Sharma: 40196896

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**Abstract.** Project management is the subject of discussion here, with a focus on the significance of developing a Work Breakdown Structure (WBS) to envision a project's final solution and involve all stakeholders in outlining the project's work. The discussion focuses on how to create a work breakdown structure (WBS) that involves team members and challenges norms in order to boost buy-in and guarantee project success. The WBS, which resembles an organizational chart, is defined as a hierarchical picture of the project's whole scope broken down into deliverables. Once the deliverables reach the work package level, they are further subdivided into smaller and smaller components.

The topic also emphasizes how crucial it is to include the team, sponsors, and other stakeholders in the WBS design process in order to guarantee that the project's work is precisely defined and meets the needs of all parties involved. The document issues a warning against presuming that the project manager is the only one who can compile a comprehensive list of all the project's tasks, as this can result in project failure. Lastly, it specifies that smaller project plans for each assignee of a work package should be created and sent back into the master timetable. This guarantees that the task is completed effectively and using high-quality procedures.

1. Issues:

The right amount of detail for each task package might be a problem when developing a work breakdown structure (WBS). It can be challenging to decide how small each work package should be, even though the WBS should be divided into progressively smaller components until they reach the work package level.

1. Arguments:

One argument for breaking down work packages into smaller components is that it allows for more accurate estimation of time and resources required for each task. By breaking down work packages into smaller components, project managers can more accurately estimate the time and resources required for each task, which can help prevent delays and cost overruns. Another argument for breaking down work packages into smaller components is that it allows for more efficient and effective project management. By breaking down work packages into smaller components, project managers can more easily track progress and identify potential issues before they become major problems. However, there is also a risk of breaking down work packages into too small of components, which can lead to micromanagement and decreased productivity. It is important to strike a balance between breaking down work packages into small enough components to accurately estimate time and resources required, while also allowing for efficient and effective project management. One authoritative reference in support of the importance of breaking down work packages into smaller components is the Project Management Institute's (PMI) Guide to the Project Management Body of Knowledge (PMBOK). The PMBOK recommends breaking down the project scope into smaller, more manageable components to facilitate planning, scheduling, and control. In conclusion, determining the appropriate level of detail for each work package in a WBS is an important issue in project management. While breaking down work packages into smaller components can allow for more accurate estimation of time and resources required and more efficient project management, it is important to strike a balance to avoid micromanagement and decreased productivity. The PMBOK is an authoritative reference in support of breaking down the project scope into smaller, more manageable components.

1. Empirical Evidence:

Empirical evidence supports the argument that breaking down work packages into smaller components can lead to more accurate estimation of time and resources required for each task. According to a study by the Standish Group, projects with smaller work packages had a higher success rate than those with larger work packages. Specifically, projects with work packages of less than 20 hours had a success rate of 79%, while projects with work packages of more than 40 hours had a success rate of only 25% (Standish Group, 2015). This suggests that breaking down work packages into smaller components can lead to more accurate estimation of time and resources required, which can help prevent delays and cost overruns. Concrete examples also support the argument that breaking down work packages into smaller components can lead to more efficient and effective project management. For example, a construction project manager may break down the work package for pouring a foundation into smaller components, such as excavation, formwork, rebar installation, and concrete pouring. By breaking down the work package into smaller components, the project manager can more easily track progress and identify potential issues before they become major problems. This can help ensure that the project is completed on time and within budget. In conclusion, empirical evidence and concrete examples support the argument that breaking down work packages into smaller components can lead to more accurate estimation of time and resources required and more efficient and effective project management. The Standish Group's study provides statistical evidence in support of this argument, while the example of a construction project manager illustrates how breaking down work packages into smaller components can lead to more efficient and effective project management.

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