Project Management and the Role of Dedicated Software

Project management is a sophisticated discipline, which aims to ensure that complex business processes have well defined goals and that each element is carefully planned from the start and monitored all the way to the finish. Project management methods are used in many industries, such as industrial design, construction, engineering, software development and event planning.

A project is a venture of limited duration with a clear beginning and defined goal. Depending on its type and size, at any given time, a company could have one or many projects in progress. Even for relatively simple projects, reaching the planned goal within the specified timeframe and budget is frequently far from straightforward.

Looking at the intricacies of a common undertaking like building a house serves to illustrate the complexity of a seemingly uncomplicated project. There are numerous component elements. There are the physical materials for the building, such as bricks, wood, slates, wiring, plaster, cement, tiles, etc. There is the labour needed, such as, bricklayers, carpenters, roofers, electricians, plasterers, plumbers, etc. Now, consider how complicated planning the project becomes simply because, at the beginning, you have to assign precise dates for when each category of workers should be on site. Take, for example, the painters who must be booked well in advance, so that they are available on the required days. Before you can book them, you first must calculate when the walls will be built and plastered. Furthermore, you need to know when the plaster will be fully dry, since it can't be painted when it's wet. All this planning is based on further informed assumptions. A fundamental one is that the materials arrive on time. Another is that each element of the work is carried out in accordance with the set schedule. Painters idly standing around because the walls are not yet plastered still have to be paid.

Delays may not only affect the finishing date, but also the cost. In reality, a huge number of variables have to be accounted for. Among them are the weather, late material delivery, industrial action, illness, accident, etc. The above scenario is a very simple illustration of project management as it would apply to the construction of a single house. Imagine the complexities of the project if it were not about one house but about a development of hundreds or even thousands of houses.

Professional project managers are skilled at factoring in all of these variables and knowing how to handle disruptions en route. To manage a big project so that it is delivered on time, within budget and without serious mistakes is a mammoth task. For that reason, most project managers rely on dedicated software to help them with the task.

To use this software effectively, the user doesn't have to be a trained project manager. However, some knowledge of project management techniques and methods is necessary. The simplified and intuitive interface of most project management software enables most users gain proficiency after a few days intensive tuition from a professional IT training organisation. For someone with no prior experience of project management methods and terminology, a short introductory course should be taken before attempting to learn the software.

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One of the greatest benefits of project management software is the confidence it gives the user. With so many interdependent elements like tasks, resources, costs and time critically influencing the outcome, one of the biggest worries of a project manager is whether he or she has overlooked some element that could have serious repercussions. The software virtually eliminates such a possibility. It provides an ongoing, accurate assessment and an instant snapshot of the project at every point in the cycle and flags any potential problems. In short, the software performs an immensely important task. How well it does its work is subject to one vital condition. That condition is that the correct information be input in the first place.

User-friendly and intuitive interfaces mean that with just a few hours of practice, users are able to access a vast amount of complex information in a format that is easy to decipher. Using the "View" feature, they can see the overall progress of the project graphically depicted as a timeline on a Gantt chart. They can see how one task is dependent on another in the PERT chart view. The Calendar view is useful to examine the main elements as they relate to dates. To get a clear picture of how each individual task is advancing, various Task views clearly illustrate progress, just as the Resources views allow the user to monitor resource deployment and costs. Along with these views, the user can create and print customised reports of any aspect of the project.

So much data has to be monitored and controlled by project managers and their teams, that prior to the widespread use of dedicated software, frequent errors were inevitable, some of them serious. Software does not eliminate all mistakes, but it greatly reduces their frequency. It makes the job of a project management team not just less stressful, but significantly more efficient and cost-effective.