

Two business a2 level critical path analysis questions

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Discuss the benefits to Balfour Beatty of using critical path analysis in order to plan its construction projects. (15 marks) Critical path analysis identifies the most efficient and cost effective way of completing a complex project. The various activities which together will make up the project are identified, and the order of these activities are identified. Then, the duration of each activity is estimated and these factors are then arranged as a network or graph, showing the whole project from start to finish, and showing which tasks can happen at the same time.

The sequence of tasks which have to be done one after another with no gaps in between is called the Critical Path. One benefit of Critical Path analysis to Balfour Beatty is that it always finds the shortest time possible for completing a complex project. " The customer requested completion in 124 weeks but through careful planning using Critical Path Analysis, Balfour Beatty was able to plan the project for completion in 79 weeks. This can give a competitive edge and is an important element of time-based management. If a company is able to complete the task faster than others, it is more likely that they will get chosen, providing the company with more customers, more revenue and therefore more profit. A second benefit of Critical Path Analysis to Balfour Beatty is that it allows managers to operate Just-in-time production. Resources such as raw materials, labour and equipment can be employed right at the earliest start time.

Construction companies rely on subcontractors to complete certain tasks and for certain equipment to be hired at specific times, so with Critical Path Analysis, a manager could predict the exact time a certain piece of equipment would be needed and book the particular equipment early on to

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ensure that the company will have it when needed. This saves on the storage costs and opportunity costs of stock holding, and improves liquidity.

Overall, I believe that Critical Path Analysis is a very recommended way of managing time, and will ensure that a Balfour Beatty will use their time in the most productive way possible when using this network, improving efficiency and making customers want to use them again. Q2) Evaluate the main difficulties faced by Balfour Beatty and other construction companies in their use of CPA to plan their projects. (15 marks) Critical path analysis identifies the most efficient and cost effective way of completing a complex project.

The various activities which together will make up the project are identified, and the order of these activities are identified. Then, the duration of each activity is estimated and these factors are then arranged as a network or graph, showing the whole project from start to finish, and showing which tasks can happen at the same time. The sequence of tasks which have to be done one after another with no gaps in between is called the Critical Path. One difficulty of using Critical Path Analysis is that unless critical activities are identified and supervised closely, there'll be delays to the whole project.

Critical path analysis puts pressure on managers to manage effectively and meet deadlines. If, for example, Balfour Beatty was unable to get hold of a particular piece of equipment when needed, the whole project could be delayed by the amount of time that it takes to get the equipment. This means that there will be many employees being paid with no output and the whole project is delayed which doesn't usually bode well with the customer. A

second difficulty of using Critical Path Analysis is that Critical path analysis sets tight deadlines, especially for critical activities.

It can be very tempting for the employees to cut corners in order to meet these deadlines, but that can mean quality can suffer. If Balfour Beatty's employees cut corners with the Bull ring shopping centre, this could mean that the construction was not done properly, causing risks to persons entering the shopping centre, or the planning of the bull ring centre may have been rushed, meaning that the layout was not thought out properly, causing problems when it came to construction. Critical Path Analysis puts a lot of pressure on all employees, which could in turn affect the whole project.