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A SHORT GUIDE TO

PROJECT COST ESTIMATION

**IN SOFTWARE DEVELOPMENT
OUTSOURCING**



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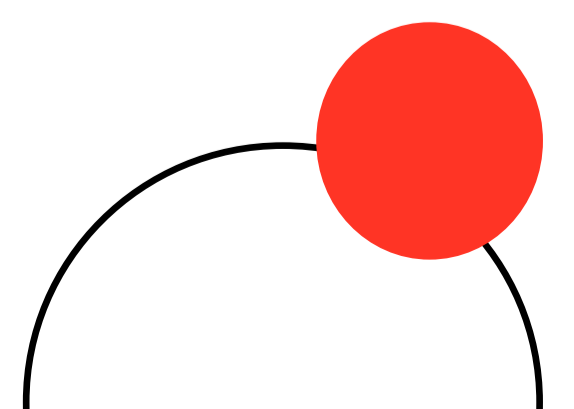
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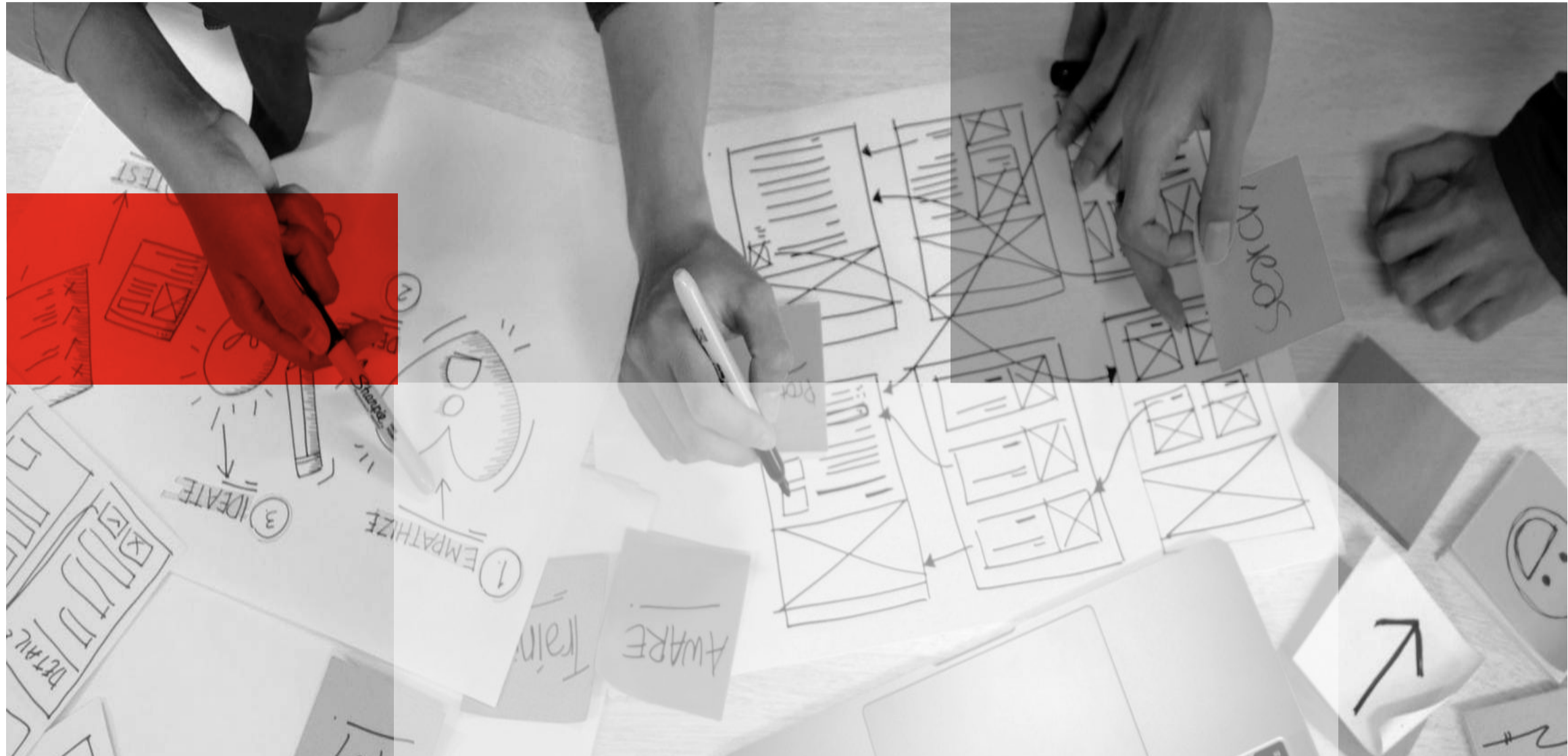


A SHORT GUIDE TO PROJECT COST ESTIMATION IN SOFTWARE DEVELOPMENT OUTSOURCING



Project cost estimation is a complex process of predicting the most realistic amount of effort, time, and money required for the development and testing of a software product and/or its deployment and maintenance.

The estimation process is the initial and one of the most important steps in software development outsourcing. With analysis and planning carried out properly, an estimate creates a solid foundation for all of the subsequent decision-making efforts and project management stages you will go through together with **your trusted software development company.**



It's a rather sophisticated piece of work that requires active collaboration and real experience on both sides, you and your vendor. An estimate gives you certainty that the vendor is committed to completing the project within the specified scope and time frame. It also helps avoid any ambiguity or false assumptions that would jeopardize your entire project.

By industry standards, the difference between the estimated and actual software development costs should be no more than 5-10%. The deviation depends on a lot of different factors such as the estimation approach you've chosen and the mistakes you didn't allow to happen in the process.

The key factors that affect the precision and quality of a software development project estimate are:

- **Project scope**
- **Deliverables**
- **Required resources**
- **Timeline**
- **Risks**

THE IMPORTANCE OF PROJECT COST ESTIMATION



Estimation gives you clarity

It's important to bring everyone on the same page about what needs to be done. When the outsourcing company you've hired goes through the project requirements, user stories, and any other documentation you provided, their experts, both business and technical, form independent conclusions about the complexity of the project and the effort required to complete it.



Estimation helps you manage trade-offs

The estimation process allows your development team to refine your project requirements and adjust the course of action before the team runs into any unexpected complications that could lead to sacrificing features and quality. Your vendor will identify potential issues and prepare a baseline to effectively tackle them: adjust the scope, expand the timeline, extend the team, etc.



Estimation saves you from getting lowballed

Underestimation is a pitfall you will find extremely hard to deal with the deeper you are into the development phase. A low estimate may serve as a means of deception that a dishonest outsourcing vendor is using to hook you with a lower price tag. It may also be the aggressive goals you've set and the planning fallacy so common in today's fast-paced digital world.

PROJECT COST ESTIMATION APPROACHES AND TECHNIQUES

01

Three-point estimation technique is used to calculate the most optimistic and pessimistic values that are then averaged to determine the most likely cost of a project.

02

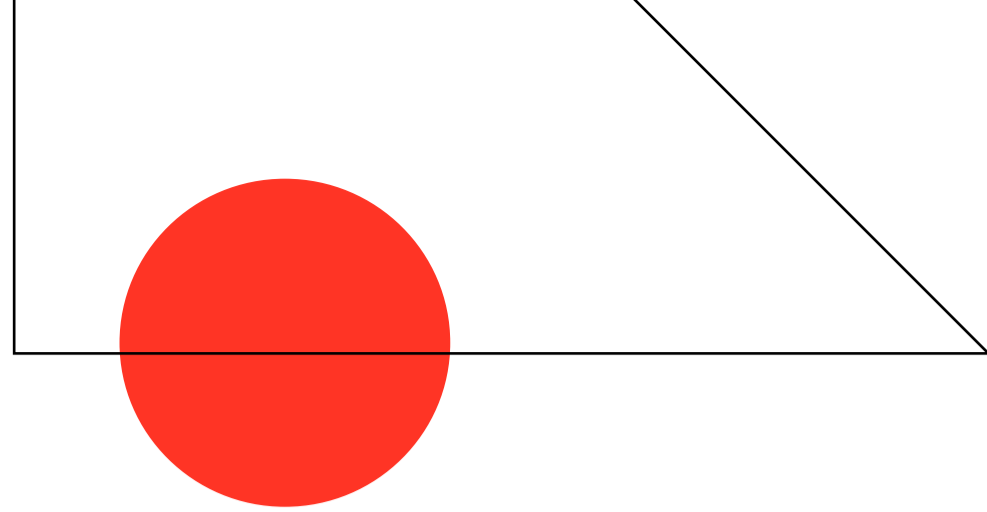
PERT (Program Evaluation and Review Technique) implies overweighting the most likely estimate to convert a simpler triangular three-point curve into a bell-shaped one that provides you with more accurate ranges of expected values.

03

Expert judgement approach involves bringing in specialists with the relevant experience, niche skills, industry-specific knowledge, or accurate historical data to double-check and narrow down the estimates.

04

Analogous (comparative) estimation is a combination of expert judgement and historical data analysis where the scope, resources, deliverables, timeline, and risks of similar projects are reviewed and compared to yours in order to provide an estimate.



05

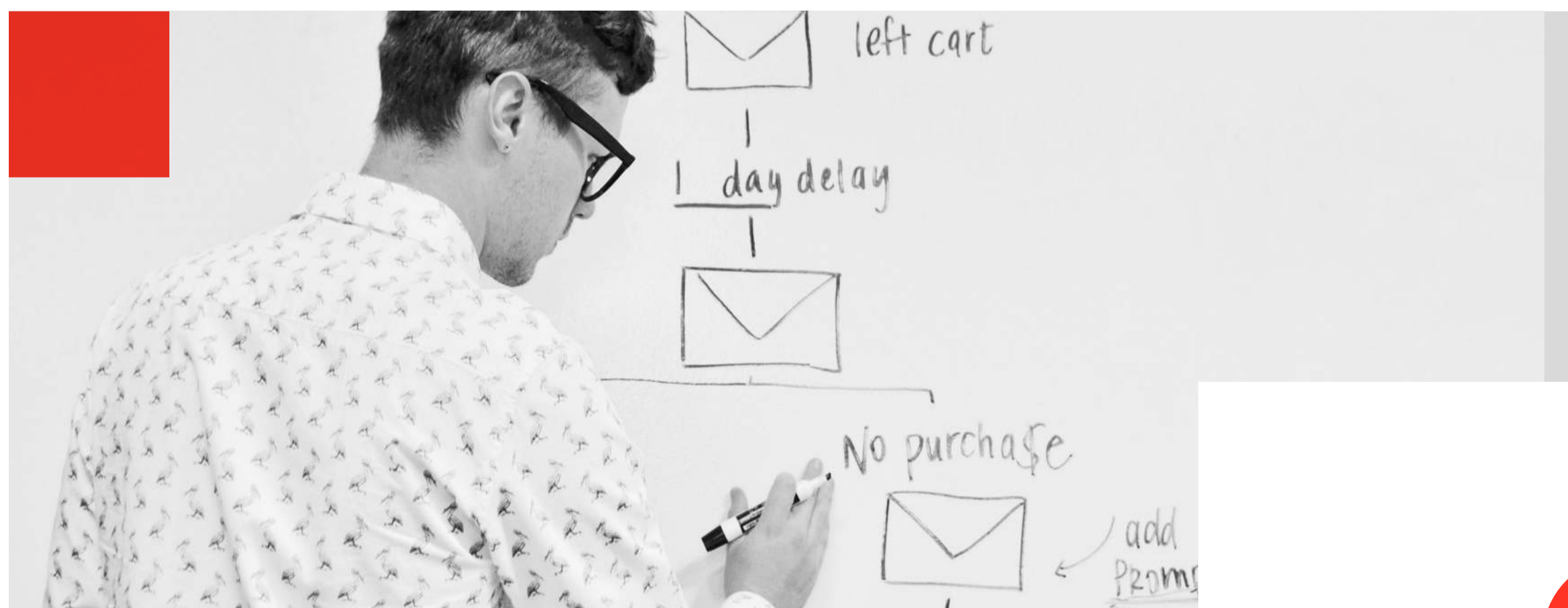
Parametric estimation is a more accurate alternative to estimation by analogy but requires a higher effort upfront. It applies a statistical or mathematical approach to historical data—uses the relationship between variables (i.e. unit cost/duration and number of units) from similar projects to estimate the cost, duration, and effort needed.

06

Top-down estimation approach is a project-level estimation technique that uses known data points and specific parameters to first establish the scope/cost/duration of the entire project and then apportion this data into individual tasks and deliverables using the task-level techniques listed above. It is generally restricted to projects where your vendor deals with a predetermined project budget and/or duration.

07

Bottom-up estimation approach approximates the cost, duration, and resource requirements of the project at a very granular level. This technique involves working your way up from estimating individual low-level activities and work packages to phases and deliverables to, eventually, rolling these up into overall project estimates. It is significantly more accurate than the top-down approach, but the trade-off is that it is a lot more time-consuming.



PROJECT COST ESTIMATION PROCESS STEP BY STEP

Pre-sale phase

It all begins when you submit your request to us. Our account manager responds within a day, and we normally start our relationship by signing an NDA in accordance with the information security standards our company follows. We send you a project template to fill, assign a delivery manager to the project, and determine whether the information is sufficient for our team to start working on high-level estimates. In case it isn't, we prepare a list of questions, followed by a call to clear things out. With every issue discussed and settled, we move on to high-level estimation.

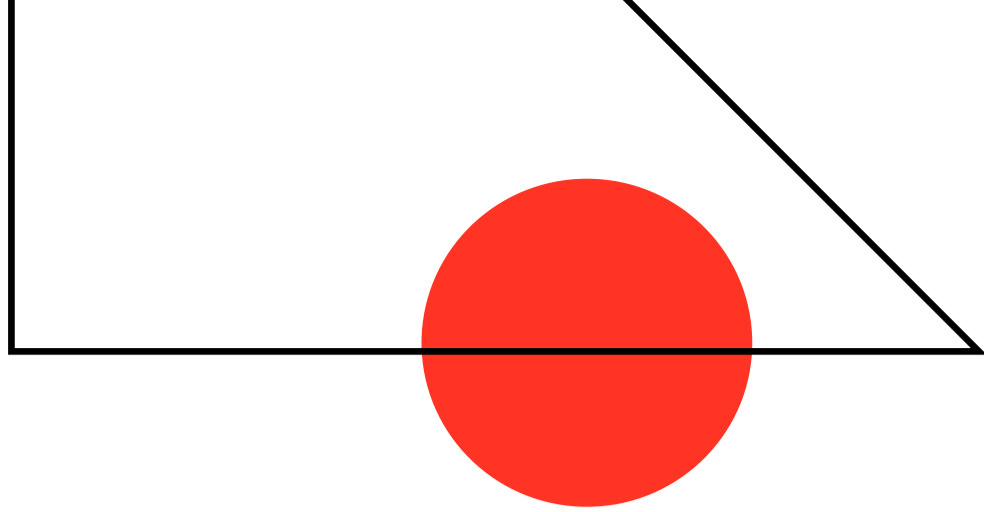


High-level estimation and resource analysis



The assigned delivery manager coordinates with our software architecture team to look at what architectural choices and options we've got. We provide suggestions on appropriate tech stacks and development approaches most suitable to your project goals. Then we liaise with our resource managers and make sure people with the required professional skills, domain knowledge, and experience are available for the job.

As a result of the high-level estimation phase, the client receives two documents: proposal with our vision for implementation and high-level estimate broken down into tasks, deliverables, and the expected time/cost for each.



Discovery phase

Without the discovery phase, both your company and the software development vendor on the job can suffer huge financial losses. Thus, we dive deep into the tech and business analysis, discovering possible flaws, inconsistencies, and opportunities to then adjust the estimates accordingly. This helps us achieve certainty in that the project requirements are final and there will be no sudden/dramatic change of course. It also helps us refine assumptions and reveal hidden risks or potential blockers—lay the groundwork for delivery on time and within budget.

The artifacts that should be produced as a result of the discovery phase are:

- **Project Management Plan**
- **Product Backlog**
- **Acceptance Criteria**
- **Work Breakdown Structure**
- **UI/UX approach**
- **Architectural approach**
- **Business approach**



Signing of the contract

Following the discovery phase, comes the presentation of our solution to you. There are times when we revise the budget both up and down, depending on whether we were faced with additional risks and complications or, on the contrary, refined the requirements and developed a more efficient delivery plan. As a result, if you are satisfied with the low-level estimate we provided, the team commits to the project, we sign the delivery agreement, and the work begins.

And there you have it—a concise breakdown of how the amount of effort, time, and budget needed to deliver a project is estimated in software development outsourcing. If you have a project cost estimation issue you need help with, we will be more than happy to provide you with a **free consultation**.

