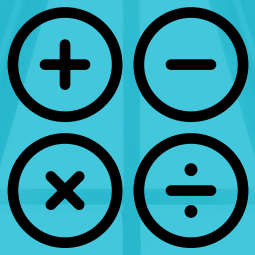
AUTODESK.

ROI and the Architect

CALCULATING RETURN ON THE TECHNOLOGY INVESTMENT



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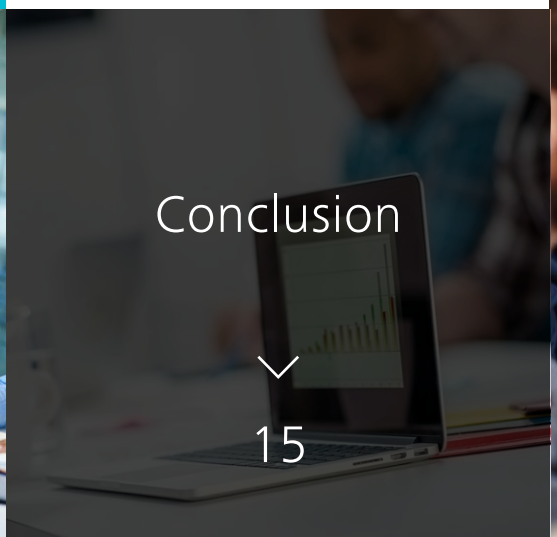

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As your architecture business grows, so should the design technology you rely on so you can be prepared to take on new opportunities when they arise. Investing in new software gives you new and improved tools to realize your firm's potential. But investing in new design technologies can be a significant undertaking for any architectural firm. After all, how do you know if it will pay off? That's when it makes sense to calculate your return on investment.

Calculating your return on investment (ROI) is one way to determine whether expected returns outweigh, and justify, the costs.

At its most basic, if the calculated result is greater than zero, then returns exceed costs. You can perform the basic ROI calculation by dividing the net return from an investment by the cost of the investment and then expressing this as a percentage. But there are other factors to consider before you perform an ROI calculation.

$$\text{ROI} = \frac{\text{Earnings}}{\text{Cost}}$$

CHAPTER 1

Laying the Groundwork

Before calculating ROI, you need to define three aspects that will influence the end result of your calculations and any decisions they drive.

Timeframe

When calculating ROI, the timeframe to consider may vary depending on the context. In IT, for instance, three years is common for calculating the return on investment in hardware projects because technology is often viewed as outdated after that time. But newer "rental" models for software purchases offer a lower up-front cost that is distributed throughout the year rather than a large one-time capital expense. Pick a timeframe and purchase format that's relevant to the investment you are evaluating.

Consistency

ROI calculations should be consistently applied across all comparable projects or investments. Consistency is also key to the assumptions behind the ROI calculations. For example, treatment of inflation and taxation (corporate and VAT/sales taxes) should be the same in all calculations.

Precision

Details shown to the last dollar or cent may imply accuracy that does not exist. When calculating the ROI of large-scale investments, rounding to an even number would be more appropriate. But beware of being overly general; if you use too rounded numbers, some may think your calculations are not realistic.

CHAPTER 2

Calculating the Investment by Assessing the Costs

The investments architecture firms make occur at different times and fall into many categories. As an example, let's consider investments in design technology and look at three cost factors beyond the price of the technology itself.

Startup costs to implement technology

What other material and immaterial expenses are you likely to incur as a result of investing in a new design tool? These could include tangible expenses such as hardware, network, storage and cloud capacity, and workspace modifications. Startup costs can also include training courses and the need to dedicate billable time to learn how to use new systems.

Expenses of tailoring innovative technology to a specific project

Does the long-term benefit of this investment also justify the potential short-term interruption of current business processes? Investments required in this phase might include project management adaptations, disruptions in existing workflows, team process changes, and accommodations that need to be made to data or model requirements.

Longer-term strategic outlays

Can this investment coexist with the company's current roadmap? Future goals can be harder to quantify but include initiatives, standards development, and the need to monitor, document, or measure impacts. Longer term, additional staff or roles may require resources. Finally, leadership and culture investments can be required as part of a technology investment.

In each case, calculating ROI becomes more complicated when set against the backdrop of your company's short-term needs and long-term goals. But ignoring these seemingly nebulous expenses can have repercussions that hamper your company's future growth and success.

CHAPTER 3

Calculating the Return on the Investment

In the second part of your equation, you need to quantify the benefits fo the investment. Architecture firms can consider how the return on investment could impact your business across three dimensions:

Organization dimension

How will your architecture firm benefit from the new design technology overall? Consider whether benefits are to be measured at the project level or in the context of the firm. At the project level, you can look at quantifying specific factors such as a reduction in waste and risk, improved design quality, and error reduction. You can track metrics around improved project delivery and project approval and permitting timeframes. At the firm level, you can track positive returns, such as the opportunity to work with new clients, and opportunities to expand a business model and offer new services.

Stakeholder dimension

How will stakeholders view the overall benefit of the new design technology? Consider the specific role your firm plays in the project ecosystem relative to technology adoption. Will you be able to better communicate with partners, resulting in increased accuracy? Your role in a building project will determine what technology you use and to what extent you stand to benefit from it.

Technology adoption maturity dimension

How will your working processes benefit from the new design technology? Will improved collaboration tools mean you can complete work faster so you can take on more projects? The level of return on investment your firm experiences after adopting a new technology will also vary based on your technology starting point and the timeframe for implementing the technology.

ROI calculations are useful for determining whether an investment will be profitable. Taking the time to assess how the investment will impact your architecture practice – overall or at the project level, in relation to individuals or specific groups, and at various points in time – may provide even more information about how the investment fits into the firm's plans for future growth and success.

CHAPTER 4

How Do I Know if Returns Justify the Costs?

You now need to determine if the returns justify the costs. Of course, the higher the ROI, the more likely that investment is to be worthwhile.

A 200 percent ROI over four years indicates a return of double the design technology investment over a four-year period. Financially, if you have several possible investment possibilities to choose from, it may make sense to choose the ones with the highest ROI first.

If the decision still isn't clear, other information gleaned from your calculation might tip the scales in favor of or against an investment in design technology:

- NPV (net present value). This is the return a project will make at a specified discount rate. Ideally this should be a high/positive value
- IRR (internal rate of return). This is the yearly return percentage of the investment – here too, the higher, the better

It’s never too soon to start planning for the future of your firm. Among other things, ROI is a valuable tool for helping to determine the feasibility and profitability of design technology investments. Pinning down the timeframe for the investment, assessing potential additional expenses that may crop up as a result, or evaluating how the investment will impact your company are just some of the ways to help map your future.