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COST-BENEFIT ANALYSIS

A CHECKLIST FOR PROJECT MANAGERS

DEFINITION

Cost-benefit analysis is the assessment of different investment alternatives or projects. It focuses on their qualitative as well as quantitative cost and outcomes, such as their profitability and liquidity effects.

Learn more about the cost-benefit analysis: project-management.info/cost-benefit-analysis-business-cases/

SCOPE AND PURPOSE

- Define the scope of your assessment
 - Select the different investment or project alternatives that are subject to this assessment
 - Define the components of an assessment and their definitions (e.g. inclusion of taxes, interest rates, internal cost and internal revenue etc.)
- Define the purpose and goal of the cost-benefit analysis
 - Definition of the criteria to be assessed
 - Quantitative goals (e.g. liquidity, profitability, cost reductions)
 - Qualitative outcomes, if relevant (e.g. improvement of employee satisfaction)
 - Relevant KPIs and success measures (e.g. present value, return on investment)

GOAL: DETERMINE THE CRITERIA AGAINST WHICH THE INVESTMENT OPTIONS ARE MEASURED.

ASSUMPTIONS

- Implementation scenarios
- Headcount
- Resource requirements
- Interest / discount rates (if applicable)
- Target profitability
- Term of the financial projection
- etc.

GOAL: DEFINE A SET OF PARAMETERS AND EXPECTATIONS FOR YOUR ANALYSIS THAT ARE VALID FOR ALL OPTIONS.

NEED MORE GUIDANCE?

For comprehensive instructions, read: project-management.info/cost-benefit-analysis-business-cases/#10-how-to-do-a-cost-benefit-analysis-in-7-steps

KPIs AND CALCULATION APPROACHES

Select the KPIs that are suitable as a success measure of your cost-benefit analysis. Subsequently, choose a fitting calculation approach:

	Net present value	Benefit Cost Ratio	Payback Period	Return on Investment	Internal Rate of Return
Type of value	Present value of a series of cash flows	Ratio of the present values of benefits and costs	Number of periods to a recovery of an investment	Return rate or ratio of returns compared to the investment	Imputed return rate of a series of cash flows
Calculation approach	Sum of discounted cash flows	Dividing discounted benefit cash flows by discounted cost cash flows	For even cash flows: investment divided by cash flow; for uneven cash flows: formula applied in the first period of positive cumulated cash flow	Basic calculation: return divided by investment. There are further approaches that also consider periodicity of cash flows	Searching the value of the unknown discount rate in a series of cash flows for a given NPV of 0
Business dimension	Profitability	Profitability and Riskiness	Liquidity	Profitability	Profitability
	<i>NPV formula & example</i>	<i>BCR formula & example</i>	<i>PbP formula & example</i>	<i>ROI formula & example</i>	<i>IRR formula & example</i>

GOAL: DEFINE THE RELEVANT SUCCESS MEASURES.

FORECAST AND CALCULATION

Before you start:

- Set up a team of subject matter experts to develop estimations and forecasts (if needed)
- Consider the input requirements for the selected calculation approach

For each investment/project option:

- Determine the qualitative advantages and disadvantages (Pros and Cons), including risks and opportunities
- Develop a financial forecast for the target time horizon
 - Investments (the initial or upfront expenses and outflows of an endeavor)
 - Benefits (e.g. revenue, cost savings)
 - Costs (e.g. running and administrative costs, maintenance)
- Calculate the relevant KPIs (as selected in the previous step)

CONSOLIDATE AND COMPARE THE RESULTS

- Consolidate the calculated KPIs of every investment/project alternative
- Add the qualitative aspects
- Interpret the results

GOAL: SELECT THE "BEST" ALTERNATIVE.