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Organisations do not operate in isolation

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Objectives of Presentation

- This presentation will initially consider views of the organisation, both internally and in interaction with the environment and the subsequent impact of these variables for effective project control and delivery.
- It will then consider how Monte Carlo approaches combined with the use of a Risk Register can address Risk and Uncertainty assisting effective project delivery.
- Next cost monitoring and Earned Value Management are addressed.
- Approaches to maintaining effective Project Cost Control and effective project delivery are then considered.
- Questions.....?

Pestle Analysis



External Environment view that goes beyond pure focus on cost, consider factors affecting both own and supplier organisations

Reminds us of the importance of

- An broad approach to Project Planning
- Continuous monitoring and assessment of projects in terms of interdependencies
- i) cost/spend
- ii) schedule/timeline
- lii) goals – quality/technical performance
(Scope = Time x Resources)
("On Time, On Spec, On Budget")

External Influences

Political

Government Action, Tax Reforms, Fiscal policies

Economic

Inflation, Interest Rates, VAT, Economic Growth, Demand and Supply Trends

Social

Cultural trends, Demographic Determinants

Technological

Innovations have both direct and indirect influence (esp. if project has long time line)
Can decrease cost of operations but can also cause obsolescence of key products

Legal

Regulatory Laws and Standards, Social Laws

Environmental

Geographical location, weather, climate

SWOT Analysis

STRENGTHS	WEAKNESSES
OPPORTUNITIES	THREATS

Complements PESTLE (External) Analysis
Objective Internal Environment review.
Can help inform Risk Register

Goes beyond pure focus on cost to consider operations and position in external market. Aligns operational and financial tactics with long-term strategy. Can be a determinant of project success.

- i) Build on strengths (identify drivers*)
- ii) Identify and remove weaknesses
- iii) Seize Opportunities (strategic)
- iv) Tackle Threats (barriers to entry?)

- Business Drivers – critically important factor determining/ causing increase in value/improvement to business
Need to be constantly updated to compete against latest environmental/market trends and deliver competitive advantage

Managing Risk and Uncertainty– Risk Registers & Monte Carlo (3PE)

Monte Carlo

- PERT- Programme Evaluation and Review Technique
- Can address uncertainty/Limited information
- Decompose into work breakdown structure (list of estimable tasks)
- E- weighted average – most optimistic (a), most pessimistic (b) , most likely (m)
- Numerous distributions can be employed – most common is triangular distribution $E=(a+b+m)/3$
- Triangular distribution assumes that data from all tasks combine to be approximately normal
- Increased accuracy over point estimates developed to consider risk – positive (opportunity) and negative (cost)
- Identifies risks early in process so can manage/mitigate negative and capitalise/exploit positive opportunities
- Stakeholder management – joint collaboration lead to efficient use of finance and resources

Risk Register

- Considers impact and likelihood of risks (uncertainties) affecting project – PESTLE & SWOT Analysis are beneficial.
- Consideration of potential operational, market, customer, competition factors – constraints finance, time, resources.
- In fostering the mitigation/control of any potential problems it encourages a proactive rather than reactive approach.

Project Planning, Budgeting and Project Cost Control

Planning and Budgeting - Quick Overview

- Budget – planned outcome for the future defined by the goal that the project wants to achieve
- Costs should be classified according to key cost drivers
- Costs should also be analysed into Direct, Indirect, Fixed, Variable and one off Capital Costs
- Indirect costs should be absorbed by Activity Based Costing (Cost Drivers)
- Historic information can be beneficial but should be adjusted/updated in light of operational changes

- Cashflow Models help identify peaks and troughs - match to timeline of available funds (important to ensure that nominal cashflows are not confused with real (adjusted for inflation) cashflows)
- Discounted Cashflow Models which take into account the value of money

Project Cost Control

- Organisations operate in a Dynamic Environment, not in isolation
- Important to maintain a firm grip on costs – project can be completed and goals achieved
- “Cash is King” – to ensure successful project completion it is important to ensure that projects do not run out of cash
- Analytical review of Actual Costs against Budgeted Costs – nature of any significant differences (one off, recurring)
- How to measure “intangible” costs- economic accounting - equivalent monetary value of benefits and costs
- Also beneficial to consider Earned Value Management when analysing project performance

Project Performance- Earned Value Management

Integrated Performance Management Approach- incorporates work progress as “earned value” yardstick
3 baselines- cost, schedule, & technical performance – enables more accurate forecasts than pure cost focus

- Scope of work, schedule and budget resources – enables schedule & cost variances isolated and reported
- Progress is quantified using Planned Value (PV) and Earned Value (EV)
- PV/BCWS Planned Value/Budgeted Cost of Work Scheduled
- EV/BCWP Earned value/Budgeted Cost of Work Performed

Large/Complex projects

May also maintain

Forecasts of cost performance (over budget/under budget)

Forecast of schedule performance (behind schedule/ahead of schedule)

Example

Project 1 – Project duration: 4 Years – Spend to date 25% budget. Only 10% scheduled work completed.
(Not good)

Project 2 - Project duration: 4 Years –Spend to date 25% budget. However 40% work scheduled completed
(Good)

Conclusion

- In an increasing age of globalisation organisations do not operate in isolation but within a dynamic and evolving environment presenting ever greater competing and changing demands and opportunities. It is important that these factors are considered when planning and delivering a project.
- A consideration of the phrase “On Time On Spec On Budget” reminds us that it is important to manage a range of factors including cost in ensuring effective Project performance and delivery.
- I hope that this presentation has suggested some beneficial approaches and management techniques to enable effective project management and cost control within the evolving business world.



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