
Postgraduate Certificate in International Construction Management

Construction Economics

Construction Economics: Construction Economics is a branch of economics that deals with the economic aspects of construction projects. It involves analyzing costs, revenues, and risks associated with construction activities to help stakeholders make informed decisions.

Key Terms and Vocabulary:

1. **Cost Estimation:** Cost estimation is the process of predicting the costs of a construction project. It involves identifying and quantifying all the expenses associated with the project, including labor, materials, equipment, and overhead costs.
2. **Life Cycle Costing:** Life cycle costing is a method used to evaluate the total cost of a construction project over its entire life cycle. It considers not only the initial construction costs but also the costs of maintenance, operation, and disposal.
3. **Value Engineering:** Value engineering is a systematic method used to improve the value of a project by analyzing its functions and reducing costs without sacrificing quality. It aims to maximize the value of the project while minimizing costs.
4. **Cost Benefit Analysis:** Cost benefit analysis is a technique used to compare the costs and benefits of a construction project. It helps stakeholders determine whether the benefits of a project outweigh its costs and whether it is worth pursuing.
5. **Risk Management:** Risk management involves identifying, assessing, and mitigating risks associated with a construction project. It aims to minimize the impact of risks on the project's cost, schedule, and quality.
6. **Cash Flow Analysis:** Cash flow analysis is the process of evaluating the inflows and outflows of cash in a construction project. It helps stakeholders understand the project's financial health and make decisions to ensure sufficient cash flow.
7. **Escalation:** Escalation refers to the increase in costs over time due to factors such as inflation, changes in market conditions, or unforeseen events. It is important to consider escalation when estimating project costs.
8. **Price Fluctuations:** Price fluctuations refer to changes in the prices of materials, labor, and other resources used in construction. These fluctuations can impact project costs and profitability.
9. **Cost Overrun:** Cost overrun occurs when the actual costs of a construction project exceed the estimated costs. It is a common challenge in construction projects and can have a significant impact on project

profitability.

10. Profit Margin: Profit margin is the difference between the revenue generated from a construction project and the total costs incurred. It is an important measure of a project's profitability.

11. Depreciation: Depreciation is the decrease in the value of assets over time due to wear and tear, obsolescence, or other factors. It is important to consider depreciation when assessing the financial performance of a construction project.

12. Cost Control: Cost control is the process of monitoring and managing costs throughout a construction project. It involves identifying cost variances, analyzing their causes, and taking corrective actions to ensure the project stays within budget.

13. Earned Value Management: Earned value management is a technique used to measure a project's performance and progress based on the budget and schedule. It helps stakeholders identify deviations from the plan and take corrective actions.

14. Inflation: Inflation is the general increase in prices of goods and services over time. It can impact the costs of construction projects by increasing the prices of materials, labor, and other resources.

15. Opportunity Cost: Opportunity cost is the value of the next best alternative foregone when a decision is made. It is important to consider opportunity costs when evaluating different options for a construction project.

16. Feasibility Study: A feasibility study is an assessment of the viability of a construction project. It involves evaluating the project's technical, economic, and legal aspects to determine whether it is feasible to proceed.

17. Break-even Point: The break-even point is the point at which total revenues equal total costs, resulting in neither profit nor loss. It is an important milestone for a construction project to achieve profitability.

18. Cost Benefit Ratio: The cost benefit ratio is a measure used to evaluate the efficiency of a construction project. It compares the total benefits of the project to its total costs to determine whether it is economically viable.

19. Whole Life Cost: The whole life cost is the total cost of owning and operating a building over its entire life cycle. It includes not only the initial construction costs but also maintenance, operation, and disposal costs.

20. Tendering Process: The tendering process is the process of inviting bids from contractors to undertake a construction project. It involves issuing tender documents, evaluating bids, and selecting a contractor based on price and other criteria.

21. Value Management: Value management is a systematic process used to improve the value of a project by optimizing its functions and reducing costs. It focuses on enhancing value for money without compromising quality.

22. Cost Model: A cost model is a mathematical representation of the costs associated with a construction project. It helps stakeholders estimate project costs, analyze cost drivers, and make informed decisions.

23. Cost Planning: Cost planning involves developing a budget for a construction project based on cost estimates and other factors. It helps stakeholders allocate resources effectively and monitor costs throughout the project.

24. Cost Benefit Analysis: Cost benefit analysis is a technique used to compare the costs and benefits of a construction project. It helps stakeholders determine whether the benefits of a project outweigh its costs and whether it is worth pursuing.

25. Value Engineering: Value engineering is a systematic method used to improve the value of a project by analyzing its functions and reducing costs without sacrificing quality. It aims to maximize the value of the project while minimizing costs.

26. Risk Management: Risk management involves identifying, assessing, and mitigating risks associated with a construction project. It aims to minimize the impact of risks on the project's cost, schedule, and quality.

27. Cash Flow Analysis: Cash flow analysis is the process of evaluating the inflows and outflows of cash in a construction project. It helps stakeholders understand the project's financial health and make decisions to ensure sufficient cash flow.

28. Escalation: Escalation refers to the increase in costs over time due to factors such as inflation, changes in market conditions, or unforeseen events. It is important to consider escalation when estimating project costs.

29. Price Fluctuations: Price fluctuations refer to changes in the prices of materials, labor, and other resources used in construction. These fluctuations can impact project costs and profitability.

30. Cost Overrun: Cost overrun occurs when the actual costs of a construction project exceed the estimated costs. It is a common challenge in construction projects and can have a significant impact on project profitability.

31. Profit Margin: Profit margin is the difference between the revenue generated from a construction project and the total costs incurred. It is an important measure of a project's profitability.

32. Depreciation: Depreciation is the decrease in the value of assets over time due to wear and tear, obsolescence, or other factors. It is important to consider depreciation when assessing the financial performance of a construction project.

33. **Cost Control:** Cost control is the process of monitoring and managing costs throughout a construction project. It involves identifying cost variances, analyzing their causes, and taking corrective actions to ensure the project stays within budget.

34. **Earned Value Management:** Earned value management is a technique used to measure a project's performance and progress based on the budget and schedule. It helps stakeholders identify deviations from the plan and take corrective actions.

35. **Inflation:** Inflation is the general increase in prices of goods and services over time. It can impact the costs of construction projects by increasing the prices of materials, labor, and other resources.

36. **Opportunity Cost:** Opportunity cost is the value of the next best alternative foregone when a decision is made. It is important to consider opportunity costs when evaluating different options for a construction project.

37. **Feasibility Study:** A feasibility study is an assessment of the viability of a construction project. It involves evaluating the project's technical, economic, and legal aspects to determine whether it is feasible to proceed.

38. **Break-even Point:** The break-even point is the point at which total revenues equal total costs, resulting in neither profit nor loss. It is an important milestone for a construction project to achieve profitability.

39. **Cost Benefit Ratio:** The cost benefit ratio is a measure used to evaluate the efficiency of a construction project. It compares the total benefits of the project to its total costs to determine whether it is economically viable.

40. **Whole Life Cost:** The whole life cost is the total cost of owning and operating a building over its entire life cycle. It includes not only the initial construction costs but also maintenance, operation, and disposal costs.

41. **Tendering Process:** The tendering process is the process of inviting bids from contractors to undertake a construction project. It involves issuing tender documents, evaluating bids, and selecting a contractor based on price and other criteria.

42. **Value Management:** Value management is a systematic process used to improve the value of a project by optimizing its functions and reducing costs. It focuses on enhancing value for money without compromising quality.

43. **Cost Model:** A cost model is a mathematical representation of the costs associated with a construction project. It helps stakeholders estimate project costs, analyze cost drivers, and make informed decisions.

44. **Cost Planning:** Cost planning involves developing a budget for a construction project based on cost estimates and other factors. It helps stakeholders allocate resources effectively and monitor costs

throughout the project.

45. **Cost Benefit Analysis:** Cost benefit analysis is a technique used to compare the costs and benefits of a construction project. It helps stakeholders determine whether the benefits of a project outweigh its costs and whether it is worth pursuing.

46. **Value Engineering:** Value engineering is a systematic method used to improve the value of a project by analyzing its functions and reducing costs without sacrificing quality. It aims to maximize the value of the project while minimizing costs.

47. **Risk Management:** Risk management involves identifying, assessing, and mitigating risks associated with a construction project. It aims to minimize the impact of risks on the project's cost, schedule, and quality.

48. **Cash Flow Analysis:** Cash flow analysis is the process of evaluating the inflows and outflows of cash in a construction project. It helps stakeholders understand the project's financial health and make decisions to ensure sufficient cash flow.

49. **Escalation:** Escalation refers to the increase in costs over time due to factors such as inflation, changes in market conditions, or unforeseen events. It is important to consider escalation when estimating project costs.

50. **Price Fluctuations:** Price fluctuations refer to changes in the prices of materials, labor, and other resources used in construction. These fluctuations can impact project costs and profitability.

51. **Cost Overrun:** Cost overrun occurs when the actual costs of a construction project exceed the estimated costs. It is a common challenge in construction projects and can have a significant impact on project profitability.

52. **Profit Margin:** Profit margin is the difference between the revenue generated from a construction project and the total costs incurred. It is an important measure of a project's profitability.

53. **Depreciation:** Depreciation is the decrease in the value of assets over time due to wear and tear, obsolescence, or other factors. It is important to consider depreciation when assessing the financial performance of a construction project.

54. **Cost Control:** Cost control is the process of monitoring and managing costs throughout a construction project. It involves identifying cost variances, analyzing their causes, and taking corrective actions to ensure the project stays within budget.

55. **Earned Value Management:** Earned value management is a technique used to measure a project's performance and progress based on the budget and schedule. It helps stakeholders identify deviations from the plan and take corrective actions.

56. **Inflation:** Inflation is the general increase in prices of goods and services over time. It can impact the costs of construction projects by increasing the prices of materials, labor, and other resources.
57. **Opportunity Cost:** Opportunity cost is the value of the next best alternative foregone when a decision is made. It is important to consider opportunity costs when evaluating different options for a construction project.
58. **Feasibility Study:** A feasibility study is an assessment of the viability of a construction project. It involves evaluating the project's technical, economic, and legal aspects to determine whether it is feasible to proceed.
59. **Break-even Point:** The break-even point is the point at which total revenues equal total costs, resulting in neither profit nor loss. It is an important milestone for a construction project to achieve profitability.
60. **Cost Benefit Ratio:** The cost benefit ratio is a measure used to evaluate the efficiency of a construction project. It compares the total benefits of the project to its total costs to determine whether it is economically viable.
61. **Whole Life Cost:** The whole life cost is the total cost of owning and operating a building over its entire life cycle. It includes not only the initial construction costs but also maintenance, operation, and disposal costs.
62. **Tendering Process:** The tendering process is the process of inviting bids from contractors to undertake a construction project. It involves issuing tender documents, evaluating bids, and selecting a contractor based on price and other criteria.
63. **Value Management:** Value management is a systematic process used to improve the value of a project by optimizing its functions and reducing costs. It focuses on enhancing value for money without compromising quality.
64. **Cost Model:** A cost model is a mathematical representation of the costs associated with a construction project. It helps stakeholders estimate project costs, analyze cost drivers, and make informed decisions.
65. **Cost Planning:** Cost planning involves developing a budget for a construction project based on cost estimates and other factors. It helps stakeholders allocate resources effectively and monitor costs throughout the project.
66. **Cost Benefit Analysis:** Cost benefit analysis is a technique used to compare the costs and benefits of a construction project. It helps stakeholders determine whether the benefits of a project outweigh its costs and whether it is worth pursuing.
67. **Value Engineering:** Value engineering is a systematic method used to improve the value of a project by analyzing its functions and reducing costs without sacrificing quality. It aims to maximize the value of the

project while minimizing costs.

68. Risk Management: Risk management involves identifying, assessing, and mitigating risks associated with a construction project. It aims to minimize the impact of risks on the project's cost, schedule, and quality.

69. Cash Flow Analysis: Cash flow analysis is the process of evaluating the inflows and outflows of cash in a construction project. It helps stakeholders understand the project's financial health and make decisions to ensure sufficient cash flow.

70. Escalation: Escalation refers to the increase in costs over time due to factors such as inflation, changes in market conditions, or unforeseen events. It is important to consider escalation when estimating project costs.

71. Price Fluctuations: Price fluctuations refer to changes in the prices of materials, labor, and other resources used in construction. These fluctuations can impact project costs and profitability.

72. Cost Overrun: Cost overrun occurs when the actual costs of a construction project exceed the estimated costs. It is a common challenge in construction projects and can have a significant impact on project profitability.

73. Profit Margin: Profit margin is the difference between the revenue generated from a construction project and the total costs incurred. It is an important measure of a project's profitability.

74. Depreciation: Depreciation is the decrease in the value of assets over time due to wear and tear, obsolescence, or other factors. It is important to consider depreciation when assessing the financial performance of a construction project.

75. Cost Control: Cost control is the process of monitoring and managing costs throughout a construction project. It involves identifying cost variances, analyzing their causes, and taking corrective actions to ensure the project stays within budget.

76. Earned Value Management: Earned value management is a technique used to measure a project's performance and progress based on the budget and schedule. It helps stakeholders identify deviations from the plan and take corrective actions.

77. Inflation: Inflation is the general increase in prices of goods and services over time. It can impact the costs of construction projects by increasing the prices of materials, labor, and other resources.

78. Opportunity Cost: Opportunity cost is the value of the next best alternative foregone when a decision is made. It is important to consider opportunity costs when evaluating different options for a construction project.

79. Feasibility Study: A feasibility study is an assessment of the viability of a construction project. It involves

evaluating the project's technical, economic, and legal aspects to determine whether it is feasible to proceed.

80. Break-even Point: The break-even point is the point at which total revenues equal total costs, resulting in neither profit nor loss. It is an important milestone for a construction project to achieve profitability.

81. Cost Benefit Ratio: The cost benefit ratio is a measure used to evaluate the efficiency of a construction project. It compares the total benefits of the project to its total costs to determine whether it is economically viable.

82. Whole Life Cost: The whole life cost is the total cost of owning and operating a building over its entire life cycle. It includes not only the initial construction costs but also maintenance, operation, and disposal costs.

83. Tendering Process: The tendering process is the process of inviting bids from contractors to undertake a construction project. It involves issuing tender documents, evaluating bids, and selecting a contractor based on price and other criteria.

84. Value Management: Value management is a systematic process used to improve the value of a project by optimizing its functions and reducing costs. It focuses on enhancing value for money without compromising quality.

85. Cost Model: A cost model is a mathematical representation of the costs associated with a construction project. It helps stakeholders estimate project costs, analyze cost drivers, and make informed decisions.

86. Cost Planning: Cost planning involves developing a budget for a construction project based on cost estimates and other factors. It helps stakeholders allocate resources effectively and monitor costs throughout the project.

87. Cost Benefit Analysis: Cost benefit analysis is a technique used to compare the costs and benefits of a construction project. It