

DEPARTMENT OF HUMANITIES AND MANAGEMENT

INTERNAL ASSIGNMENT – 3 (IA3) JULY-DEC 2025

V SEM HUM 3021- Engineering Economics and Financial

Management

Financial Statement Analysis: The Ratio Analysis

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Project Risk Management (or Risk in Capital Budgeting)

The topic Ratio analysis is an important tool for analyzing financial statement of a company. As an engineer, everyone should be able to read financial statements and analyze a company's performance using a simple method known as ratio analysis.

The other key concept which is covered in this assessment is Project Risk Management. Risk management is an important part of any decision-making process, particularly in finance and economics. As a result, the "**Project Risk Management**", attempts to provide insights into what risks are and how to manage them. It then introduces concepts related to risk estimation and management, which will help you make financial decisions.

These topics are assigned for self-study, and the study materials and learning resources are listed below. **You must learn the concept using the references listed below and the materials provided by the course instructor.**

Finally, the understanding of these topics is assessed through an **Internal Assessment – IA3 – Write and Submit (5 marks) and IA4 - Quiz (5 Marks)** on the scheduled week for IA4 (i.e. 3rd November, 2025) as per academic section guidelines shared with you.

Also note as this is a part of the course, questions on these topics **may be asked** in the **end of the semester examination**.

REFERENCES

Topic 1: Project Risk Management

Two PPTs under the title “Risks Management” and Risk Analysis are provided for supporting the reading of self-study topics.

The main reference books for the PPTs and for all the Self-study Topics are:

1. Institute of Chartered Accountants of India. (2025). Risk in capital budgeting. In *Financial management* (Chapter 8). Institute of Chartered Accountants of India.
2. Park, C. S. (2007). *Contemporary engineering economics* (4th edition). **Chapter 12**, Upper Saddle River, NJ: Prentice Hall.
3. Hirschey, M. (1979). *Fundamentals of managerial economics*. **Chapter 14**, McGraw-Hill.

Video Sources

- 1) ***What is Risk Management. Risk Processes.** [Online]: <https://youtu.be/IP-E75FGFkU?feature=shared>
- 2) Methods of Risk Estimation: Scenario, Sensitivity, and Breakeven Analysis. [online]: <https://youtu.be/zlfDyTRuqB0?feature=shared>
- 3) ***How to reduce risk using Sensitivity Analysis in Project Management, Project Appraisal.** [online]: <https://youtu.be/6yBhHfKf2Iw?feature=shared>
- 4) ***How to analyze the risk using Scenario Analysis Techniques?** [Online]: <https://youtu.be/QHKI4PpCndQ?feature=shared>

(Note: * in red font represent important sources for reading and for assessment)

Topic 2: Financial Ratio Analysis

The ***PPTs for the chapter Preparing the Financial Statements and Ratio Analysis are provided.**

The main reference books for the PPTs and for all the Self-study Topics are:

1. ***The Institute of Chartered Accountants of India (2024). Financial Analysis and Planning- Ratio Analysis, Chapter 3.** [online]: https://static.careers360.mobi/media/uploads/froala_editor/files/Financial-Analysis-and-Planning-Ratio-Analysis.pdf (Accessed 06/02/2024)
2. Chandra, P. (2017). *Fundamentals of financial management*. McGraw Hill Education.

Video Sources:

3. NPTEL Video by Prof. A. K Sharma under the title “Ratio Analysis (Part 1)”. [Online]: https://www.youtube.com/watch?v=y132ILD4Vvg&list=PLPjSqlTyvDeUTEAOGhip_ubjN3y8oqT13&index=35 (Accessed 24/04/2023)
4. NPTEL Video by Prof. A. K. Sharma under the title “Ratio Analysis (Part 2)”. [Online]: <https://www.youtube.com/watch?v=5kXrk3xaBi8> (Accessed 24/04/2023)
5. NPTEL Video by Prof. A. K. Sharma under the title “Ratio Analysis (Part 3)”. [Online]: <https://www.youtube.com/watch?v=FCCJe2m3Rko> (Accessed 24/04/2023)
6. Ratio Analysis – Short Video under title Mod-07 Lec-14 Ratio Analysis. [online]: <https://www.youtube.com/watch?v=t9nPs0PyMvY>, Source: Managerial Accounting by Dr. Varadraj Bapat, Department of Management, IIT Bombay. For more details on NPTEL visit <http://nptel.ac.in>

(Note: * in red font represent important sources for reading and for assessment)