

COMM 112 – Financial Information for Business

Semester 1, 2024

Assignment 2

Assignment 2 is due on **Monday, May 13th, 2024, at 11.59 pm**. An electronic copy of your assignment **saved as a PDF document** is to be submitted to the **Assignment 2 drop-box** on the Akoraka | Learn course webpage.

Submitting to the *Assignment 2 drop-box* on the course webpage also submits your assessment to Turnitin – plagiarism detection software. The report generated by Turnitin will be useful for reviewing your referencing and thus all students are able to submit their assignment early, review the Turnitin report and make any necessary changes before submitting the final copy of their assignment for marking to the online drop-box as outlined above.

The assignment contributes a maximum of **10** percent to the final grade. The assignment must be completed **individually** and must follow the guidelines in the Faculty of Agribusiness and Commerce Style Guide, and be submitted with a signed completed assessment coversheet. The Style Guide is available on Learn.

Refer to the marking criteria on the last page.

Topics covered:

- Risk and return (Module 4, Topic 1)
- Time value of money (Module 4, Topic 2)
- Investment appraisal (Module 4, Topic 3)
- Cost of capital (Module 4, Topic 4)
- Discounted cash flow analysis – NPV and IRR (Module 4, Topic 5)
- Other applications of DCF analysis (Module 4, Topic 6)
- Other topics in Module 1, 2, and 3 may also be helpful.*

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Background Information:

Simon operates a cropping farm owned by his grandfather, George. Simon has experienced a few break-downs with the harvesting machine he currently uses, and he would like to purchase one that is newer and will have more power for using with the other machinery in the paddocks. Grandpa George is not convinced that the cropping farm will be more efficient and profitable with the new machine, so the farm's rural accountant has suggested using capital budgeting to help with the investment decision.

The new machine requires a capital outlay of \$300,000 and will have a residual value of \$80,000 at the end of its six year useful life.

It is expected that the new machine will generate the following Net Cash Inflow:

Year	Net Cash Inflow
1	\$75,000
2	\$75,000
3	\$72,000
4	\$70,000
5	\$68,000
6	\$60,000

Simon uses straight-line depreciation on all farm machinery.

Simon requires a minimum 20 per cent accounting rate of return and a four-year payback period for any farm investment project. Simon's cost of capital is 10 per cent.

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Required:

Use the background information above and any other information you believe necessary to answer the following questions. Show **ALL** workings. Ignore income tax in your calculations.

1. Identify, using examples, **TWO (2)** specific risks associated with investment in the proposed new harvesting machine **AND** explain how these risks could impact the cropping farm.
(8 marks)

2. Draw the cash flow timeline for the investment in the proposed new machine and indicate the cash flow patterns represented on the cash flow timeline.
(5 marks)

3. Calculate the annual depreciation expense for the proposed new machine.
(5 marks)

4. Calculate the average accounting rate of return (ARR) of the proposed new machine.
(10 marks)

5. Calculate the payback period (PP) of the proposed new machine.
(5 marks)

6. Calculate the net present value (NPV) of the proposed new machine.
(10 marks)

7. Compute the internal rate of return (IRR) of the proposed new machine.
(15 marks)

8. Given your answers to Questions 4-7, explain whether or not Simon should invest in the proposed new machine.
(8 marks)

9. Briefly discuss whether, and if so how, depreciation affects your calculations in Questions 4-7.
(8 marks)

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10. Identify, giving reasons, TWO pieces of additional information that would aid Simon in deciding whether or not to invest in the new machine. (6 marks)

11. Format of assignment (10 marks)

12. Referencing (10 marks)

[Total 100 marks]

Marking Guide:

Question	Marks will be based on:
Calculation questions (Questions 2-7)	Understanding of the question and material; correct formula used, correct calculations and workings.
Narrative questions (Questions 1, 8-10)	Understanding of the question and material; quality of written response; discussion of issues; use of supporting material; evidence of original thinking.
Format of Assignment	Title page (including the assignment number, student name, and ID number), appropriate page breaks, question headings, font size (12 or 11), 1.5 or 2 line spacing, spelling and grammar (less than 4-5 errors), numerical formats (visible full numbers, appropriate use of commas).
Referencing	In-text referencing for narrative questions using APA style, source of references (including course notes, course readings and other appropriate sources such as webpages, book chapters with page numbers, YouTube links etc.), and reference list presented separately at the end of the assignment using APA style. Use 3+ sources.