3.8 Investment appraisal

The big picture

As the demand for microprocessors or logic chips soared in 2021, Samsung, a South Korean electronics company, announced it was planning to invest 30 billion USD to construct a new manufacturing facility in Pyeongtaek, South Korea in the second half of 2022. Large chip manufacturers, such as Intel and TSMC have also announced large investments in their factories to keep up with global demand.

To make such an investment, a business should carry out an investment appraisal. This involves a quantitative and qualitative evaluation of an investment decision.

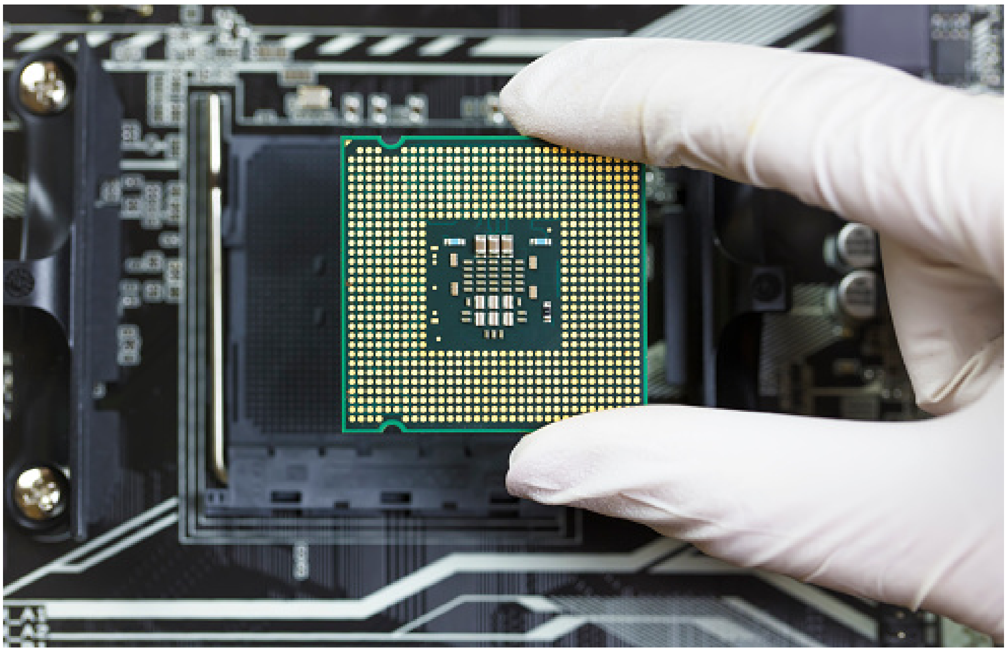

Figure 1. Major manufacturers of microprocessors, such as Samsung, Intel and TSMC, have announced large investments in their facilities to keep up with global demand.

Credit: mikroman6, Getty Images

Investment appraisal uses a range of decision-making techniques to assess investment projects. At any one time, most businesses have some potential investment opportunities they would like to make. These can involve building a new facility, updating a factory or increasing research and development spending.

Businesses do not have unlimited financial resources. Therefore, they have to choose which investments are most likely to bring the greatest profit. Each choice involves an opportunity cost. Investment appraisal helps businesses decide which projects should receive funding and which should be rejected.

Figure 2. Businesses have a range of investment options.

This subtopic introduces three quantitative investment appraisal techniques. These are:

- **Payback period.** This expresses the number of years and months it will take for the investment to pay for itself.
- **Average rate of return.** This expresses future cash inflows as an average return on the money the business invests on the project. In other words, what percentage profit can the business expect on average per year when it makes this investment?
- **Net present value (HL only).** This expresses the expected cash inflows in relation to the investment made.

International Mindedness

The quantitative methods outlined in this subtopic will be useful in analysing both domestic investment and foreign direct investment.

It is important to remember that for-profit social enterprises do not always seek to make a profit as their primary goal. However, it is important for these businesses to use investment appraisal to evaluate investment options and choose the more profitable or appropriate one. The profits of for-profit social enterprises and surpluses of non-profit social enterprises may be reinvested for the benefit of the community in innovative technologies, employee training and other sustainable practices.

All businesses, whether for-profit commercial enterprises or for-profit or non-profit social enterprises, will be looking at more than quantitative data to make investment decisions; a full range of qualitative data will also be considered. These will include business objectives, market research, STEEPLE factors, product life cycle analysis and other things. Social enterprises may examine other quantitative and qualitative metrics as well. For example, a school may look at enrolment numbers and literacy rates as an indicator of appropriateness of an investment into modernising school facilities. Social enterprises will be particularly concerned with social and environmental impact, and so data related to impact will be very useful in investment appraisal.

Generally, investment appraisal is used as a forward-looking tool. However, investment appraisal can also be used as a backward-looking tool. When used this way, businesses can reflect on past investments and evaluate their investment strategies. This reflection can help them make better decisions in the future.

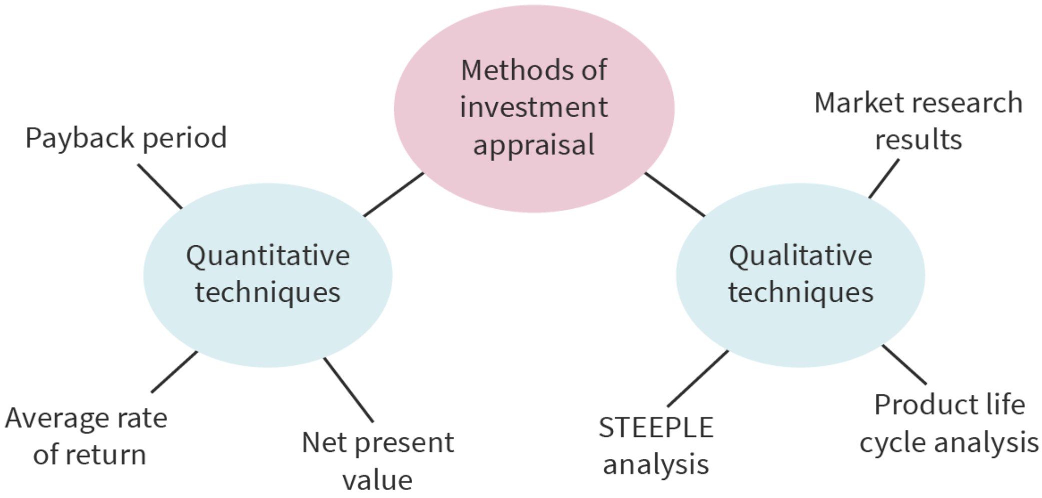

Figure 3. Quantitative and qualitative investment appraisal techniques.

Concept

Ethics

Ethics refers to moral principles that govern the behaviour of a person or groups. Every business decision has moral implications, and businesses are often engaged in the question of 'What is the right thing to do?' Ethical responsibilities in business come from the relationships and networks that are formed when business organisations are established.

When dealing with forward looking tools, such as the investment appraisal outlined in this subtopic, it is important to exercise ethical thinking regarding the assumptions built into the tools. The investment appraisal methods rely heavily on assumptions of rates of return for similar projects, inflation, projected sales and capacity usage, and so on.

Small changes to these assumptions may make an investment look profitable and thus beneficial to those making the calculation and thus should be carefully examined.