Case 1.1 What did that really cost you?

Summary

This case study presents a variety of applications of the concept of opportunity cost. The applications are intended to be at a ‘basic’ level, and can be used to supplement presentation of the definition of opportunity cost.

Suggested answers

1 Make a list of all the resources that you would use taking a plane trip. How would you value each of these resources in their next best alternative uses?

An example of some issues that might be addressed:

|  |  |
| --- | --- |
| Resource | Valued in next best alternative use |
| Time to buy ticket | Value of next best use of that amount of time (For example, value of spending that time studying or working in a part-time job) |
| Time to travel to airport and to get onto plane prior to travelling | Value of next best use of that amount of time |
| Money to buy ticket | Monetary value of ticket |
| Money for parking at airport | Monetary value of charge for parking |

2 In 2012 the Federal Government in Australia announced that companies with annual turnover of more than $1 billion would shift to paying their taxes on a quarterly basis to a monthly basis (Yeates, 2012).

Consider the following statement: ‘The government’s new tax payment plan does not change the total amount of tax big companies pay, just the timing. So the opportunity cost of paying tax is not affected by the new policy.’

Do you agree with this statement? Explain your answer.

The statement is not correct.

Under the new tax payment plan a large company must make tax payments to the government monthly rather than quarterly. For example, instead of making tax payments for its operations in the quarter of the year covering July to September at the end of September, it will be necessary for the company to make payments for July at the end of July, for August at the end of August, and for September at the end of September.

It is correct that this does not change the tax payments made by a large company. However that does not mean that the opportunity cost is not affected. The company must now hand over the tax payments earlier, and hence loses that money for a period of time where it was previously able to use it for its own purposes. This means that the opportunity cost of making the tax payments is higher.

The example above can be used to illustrate this conclusion. The company now has to make tax payments for July at the end of July, whereas previously it made those payments at the end of September. Suppose that under the previous system the best use of the money that the company uses to make tax payments for July is to keep it in an interest-paying bank account until the end of September. Therefore the new tax system means that the company is foregoing earning interest for two months on the money that it will use to make its tax payment for July. By the same argument under the new tax system the company will forego earning interest for one month on the money it will use to make its tax payment for August.

3 Sally Stockbroker has to decide whether to return to university to study for a Masters of Business Administration (MBA). The MBA will take three years to complete. Sally knows that the information relevant to calculating opportunity cost is that: (a) MBA fees will cost $20 000 per year; (b) Her salary as a stockbroker in every future year of her work life would be $80 000 per year if Sally does not do an MBA; (c) During her time studying Sally can work as a tutor at the university and earn $10 000 per year; and (d) Other costs such as textbooks that Sally would not otherwise incur are $5000 per year. At present Sally has not incurred any of these costs. What is Sally’s opportunity cost of doing an MBA?

Sally’s opportunity cost can be calculated as:

|  |  |  |
| --- | --- | --- |
|  | Resource used | Opportunity cost |
| Fees | Money | 3 years × $20 000 = $60 000 |
| Salary foregone | Time | 3 years × ($80 000 – $10 000) = $210 000 The net reduction in income that Sally experiences in each year fromß doing the MBA, compared to not doing it, equals the salary she could have earned as a stockbroker minus the money she can earn by tutoring. |
| Incidentals (books etc.) | Money | 3 × $5000 = $15 000 |
| Total |  | $285 000 |

4 A recent article in The Age described how Qantas had shelved a project to update its IT system for frequent flyers (O’Sullivan 2013). Qantas had already spent $20 million on the project and its completion was forecast to cost another $40 million.

What is the opportunity cost to Qantas of completing the IT project? What does this imply about Qantas’s beliefs regarding the benefits it would obtain from completing the project?

The opportunity cost to Qantas is $40 million: the amount that it would have to spend to complete the project after the date at which it is deciding whether to continue with the project.

If Qantas is rational, it will only complete the project if it gains benefits greater than the opportunity cost. Since Qantas has decided to not complete the project, this implies that Qantas expects that the benefits will be less than $40 million.