Student Guide

Exercise: In one month, a bakery sells 76 cakes at a price of $24 per cake, 453 individual cookies at a price of $1.5 per cookie, and 112 packages of a dozen cookies at a price of $15 per dozen cookies. The bakery had no other sources of income for the month. The bakery had total expenses of $4,156 for the month.

Calculate the bakery's total income for the month: ____________________

Calculate the bakery's profit or loss for the month: _____________________

Calculate the bakery's net profit margin for the month: ___________________

Exercise: Does the profit margin seem reasonable to you? What would be a reasonable profit margin? What factors might impact a business's ability to generate income?

Exercise: What can people do if losses occur in their personal finances or in their businesses?

Profit or Loss

Profits or losses are financial terms that refer to the amount of money that a business or individual makes after all expenses have been paid.

Income (making money), expenses (spending money), and profit or loss (how much money you made or lost), are measured over time. This contrasts with assets (what you own), liabilities (what you owe), and equity (what you are worth), which are measured as of fixed points in time. Assets, liabilities, and equity will be discussed more later in the course.

As an example, all income and all expenses can be added for a calendar period from January 1 to December 31. This summarizes income and expenses for a calendar year. By subtracting total expenses from total income over this period, we can determine a business or individual's profit or loss for the calendar year.

- A profit occurs when income exceeds expenses over a given period (ex. month, quarter, year, etc.)
- A loss occurs when expenses exceed income over a period (ex. month, quarter, year, etc.)
- A breakeven point occurs when income equals expenses

Knowing the amount of profit relative to income is an important financial metric. This net profit margin is calculated as follows:

- Net profit margin = (Income – Expenses) / Income

Businesses typically generate income is by selling goods, services, and/or information to customers. Sales activities together with the prices that businesses charge customers for goods, services, and/or information determine a business's income.

Here is a quick example of these concepts in practice:

Mia is a middle school student learning about income, expenses, and profitability in her school's finlit class. Wanting to know more about these concepts, Mia asked her parents about it.

Mia's parents owned a small bakery in town. They were happy to explain to her how they managed income and expenses. Their bakery earned income by selling baked goods to customers. This income was used to pay for the bakery's expenses, such as the cost of ingredients, labor, rent, taxes, and utilities.

Some baked goods required more expensive ingredients and took longer to make. This meant that some baked goods had higher costs than others. Mia's parents had to price the baked goods appropriately. If the prices for the baked goods were too high, customers would go *elsewhere for similar products, but if the prices were too low, the income generated may not cover the bakery's expenses.*

Mia's parents explained to her that it was important to carefully manage their income and expenses to be profitable. If the bakery's expenses were too high, it would not make enough money to cover them. On the other hand, if the bakery were able to generate more income than it spent on expenses, it would be profitable. A profitable bakery could use the profits for future investments or business expansion.

When people and organizations have profits, they can use the profits as they wish. As noted in the prior example, profits could be used to finance business expansion, develop new products, hire more employees, open more locations, etc.

Managing profits are easy, but what about losses? How could losses be managed?

Over short time periods, losses can be financed by selling things you own (assets) or borrowing money (liabilities). However, neither option is sustainable over long time periods. Eventually, you run out of things to sell or run out of people/organizations to borrow money from. People and organizations should always try to keep income > expenses.

Key takeaway

Net losses over long periods are unsustainable.