FINANCIAL BASICS - Patrick's Pizza

A practical resource for students

Note from the Author

The aim is of this book is to give students an excellent foundation knowledge of the fundamental components of financial statements and how they are compiled.

The case study is written in simple language and takes us through the story of Patrick, who wants to start a business.

It looks at:

- *his expectations and forecasts (including break-even analysis)*
- *getting finance*
- *doing the books*
- *writing up financial statements (income statement, balance sheet and cash flow)*
- *monitoring the business to assess performa*nce

Students complete a series of questions at the end of each chapter. A second case study to assess their understanding is provided in chapter 7 "Now You Do It!"

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"The next thing you need to know is that an **income statement** is for a **period** of time. It could be for a week, a month, a quarter of a year or a year."

"The bank would like it for a year," said Patrick.

"Great. Let's start with sales," Mike replied. "Sales will be $264,000 according to your **break-even analysis**. They go on the top line."

Learning Point

Accounting periods are usually one financial year - 1/7 to 30/6

Mike grabbed a piece of paper.

He first wrote a heading:

"**Projected Income Statement–Patrick's Pizza.**"

Underneath that, he wrote:

"For the period 1/7/20XX - 30/6/20XX"

"The headings are very important," he said.

He then completed the statement as follows:

Projected Income Statement–Patrick's Pizza		
For the period 1/7/20XX - 30/6/20XX		
Sales		264,000
less Cost of goods sold		118,800
Gross profit		**145,200**
***less* Expenses**		
Advertising	1,200	
Cleaning of shop	600	
Rent	15,600	
Wages	20,800	
Electricity	4,000	
Telephone	960	
General expenses	2,600	
Lease	2,000	
Interest on loan	1,500	**49,260**
Net profit		**95,940**

Mike had added "Lease" and "Interest on loan" as expenses.

Patrick was impressed, but he still had some questions.

"Why are there two **profits**?" he asked. "**Gross and net**? What's the difference?"

Mike explained:

"**Gross profit** is what we get when we take away those costs that are directly related to the goods that you are supplying. In this case, you have already calculated the cost of the ingredients in the **break-even analysis**. These represent the costs of the actual product. As another example– if you were running a retail store, your **cost of goods sold** would be the actual product that the customer takes home. In some businesses, such as service businesses, **gross profit** can't be calculated because there are no actual goods."

"OK, so **gross profit** is the profit I make on the pizza before I pay for any other expenses." Patrick replied.

"Exactly, and it can be a really useful thing to know. For example, you could calculate your **gross profit ratio** by taking **gross profit** and dividing it by sales."

Patrick noted down the following calculation:

Gross Profit Ratio Calculation

$$\frac{145{,}200 \text{ (Gross profit)}}{264{,}000 \text{ (Sales)}} = 55\%$$

"So that means your **gross profit ratio** is 55%. Think about it like this: if you sell a pizza for $10, about $5.50 ($10 x 55%) is the **gross profit** on the pizza, whilst the other $4.50 ($10 x 45%) is the cost of the pizza. This percentage can also tell you if your pricing is correct. For example, if all other pizza stores have a **gross profit ratio** of, say, 65%, this means that either: your prices are too low, the cost of your ingredients too high, or you are wasting ingredients."

"I think I have that. What about **net profit**?"

Learning Point

Ratios allow for easier analysis

"**Net profit** is calculated when you take your **gross profit** and subtract all the other expenses that you have incurred. These are usually general expenses such as wages, rent, etc. Most of the time, they are the same as the **fixed costs** in your **break-even analysis**. This is called your "bottom line." This is a really important figure for the owner of the business–the profit they end up with. Again, we can use this figure in the calculation of the **net profit ratio** which is net profit divided by sales."

Net Profit Ratio Calculation

$$\frac{95{,}940 \text{ (Net profit)}}{264{,}000 \text{ (Sales)}} = 36\%$$

"You can think of your **net profit ratio** in terms of a $10 pizza. When you sell a pizza for $10, you make $3.60 ($10 x 36%) in **net profit**, the remainder covering the costs of the ingredients plus all other expenses."

Patrick was excited. "The bank will definitely give me a loan for this business," he said. "Look at that profit!"

Mike interrupted: "We need to do the **cash flow forecast** as well before you go."

"Isn't it the same thing as the **income statement**?" asked Patrick.

"No, not exactly," said Mike. "There are a few really important differences. A **cash flow forecast** will include some items not listed on your **income statement**."

"Such as?"

"Well, first of all, what are you going to do for your own personal expenses such as food, rent, etc when you are running the shop?"

Patrick hadn't thought about that. "Well, I will need to take maybe $1,000 a week."

"As you are going to be a **sole trader**, we call those **drawings**," said Mike.

"You also mentioned that you wanted to fit out the shop with a loan for benches and fridges and the like. I think you suggested the amount of $15,000. Well, that will need to be repaid. The bank will want to see how you plan to repay that loan–and repaying a loan is not an **expense**, so it doesn't go on your **income statement**. The interest on a loan is an **expense**, and you will see that I included that as an extra on your income statement."

"**Cash flow statements** are completed for a **period** of time as well. So we will use a year to keep it consistent with the **income statement**."

Income Statement – Patrick's Pizza				
For the period 1/7/20XX - 30/6/20XX				
	Actual	**Budgeted**	**Difference**	**%**
Sales	312,000	264,000	48,000	18%
less Cost of goods sold	156,000	118,800	37,200	31%
Gross profit	**156,000**	**145,200**	10,800	7%
***less* Expenses**				
Advertising	1,350	1,200	150	13%
Cleaning of shop	600	600	0	0%
Electricity	3,850	4,000	-150	-4%
General expenses	3,000	2,600	400	15%
Insurance	1,100	0	1,100	na
Interest on loan	1,500	1,500	0	0%
Lease	2,000	2,000	0	0%
Printing	500	0	500	na
Rent	15,600	15,600	0	0%
Superannuation on wages	2,220	0	2,220	na
Telephone	960	960	0	0%
Wages	24,000	20,800	3,200	15%
Workers compensation	1,080	0	1,080	na
Total expenses	**57,760**	**49,260**	8,500	17%
Net profit	**98,240**	**95,940**	**2,300**	**2%**

The difference is the actual minus the budgeted

The % is the difference divided by the budget

Patrick looked at the results.

"I actually sold 18% more pizzas than I had budgeted for, so that's great. But it looks like I went through more ingredients than I expected – which meant that an 18% increase in sales only resulted in a 7% improvement in **gross profit**. And my expenses were 17% greater than I had budgeted. I guess that's not too bad considering the increase in sales, but there were a few expenses that I didn't even know about – superannuation and workers compensation. Lesson learned. I also forgot to factor in insurance."

Mike commended Patrick for his analysis.

7. Now You Do It!

The following case study will assess your understanding of the main concepts learned in this book. Each activity references a page number in the book so students can easily refer back. It follows the story of Jenny Smith, who knits excellent jumpers.

Background

Jenny Smith is looking to sell her unique woollen jumpers from a warehouse in her local suburb. She has asked you to help put together some financial statements and assess the viability of her business, Jenny's Jumper's. She will be operating as a sole trader.

Break-even analysis

Jenny gives you the following information about her products:

Sale price per jumper = $40

Cost of wool for each jumper = $20

Activity 1

See page 6

Based on this information, use the following table to help you calculate the contribution margin.

Gross Profit Calculation Using Break-even Analysis

		$
	Sale price per item	
less	Variable costs per item	
equals	Contribution margin	

Jenny now gives you a list of the expenses she expects in her first year of operation. She tells you they are **fixed costs**.

Expense	**Amount**
Advertising	$2,400
Insurances	$4,000
Wages	$35,500
Superannuation	$3,284
Electricity	$5,000
Telephone	$1,650
General expenses	$1,000
Total	**$52,834**