

# Accounts & Budgeting

a one-day interactive  
workshop featuring the

## Virtual Village Pub<sup>®</sup>

business simulation

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# Accounts & Budgeting



## Introduction

This workshop uses a shortened version of the **Virtual Village Pub** business simulation to bring to life two important topics for the non-financial manager:

- **Accounting** (which is important because that's how businesses keep score and, in most cases, how they measure success), and
- **Budgeting** (which is the most important interface between your colleagues in the Finance Team and everyone else).

We use the simulation not just because it makes it more fun (though it certainly does), but also because it provides us with 'real' data that we can use, so the theoretical learning is quickly embedded by the experiential. Learning by doing, as they say...

In the simulation, you will be taking over a tired and neglected pub in the charming village of Little Chadwick and trying to improve its fortunes over four quarters. Because the emphasis is on budgeting, we will do all the decisions in one go, rather than round by round. That way, we'll have a set of accounts to get our heads around well before lunch. We will try to establish why some pubs have made more profit than others but that is of secondary importance in this shorter version. Note that this workshop only includes the Profit & Loss Account (not the Balance Sheet and not the Cash Flow).

After lunch we will focus on budgeting – what it is, why we bother and how to do it well. Then you will be using your pub's accounts to help you create a budget for another four quarters, using a spreadsheet.

We will then consider how the budget is used as a control mechanism and analyse your pub's variances to budget for the fifth quarter, exploring all the reasons why variances to budget can occur. Then we will think about reforecasting the rest of the second year.

Each pub will be run by 2 or 3 people, either in the training room or in a virtual breakout room. There are eight pubs in the village but no more than four are played 'live' in the simulation – the others are on 'autopilot'. As the game begins, all eight pubs are all uniformly dull, dreary, dog-eared and dilapidated. Your pub is a blank canvas just waiting for your management team to apply some colour!

The facilitator will provide a full introduction to the simulation and the decision grid on page 3.

### Logistics:

1. Once in their group, or virtual breakout room, each team sends a blank email to [control@virtualvillagepub.com](mailto:control@virtualvillagepub.com) with the name of their pub being the email's subject.
2. The facilitator replies to the emails, either attaching the decision grid, or giving the teams their 4-digit password to download it from their pub's private page.
3. Teams fill in the first 4 quarters (Autumn to Summer)
4. The completed grid is emailed back to the facilitator (as an attachment) before the agreed deadline.

# The Eight Pubs of Little Chadwick



① The Black Horse



② The White Hart



③ The Red Lion



④ The Green Man



⑤ The Bluecoat Arms ⑥ The Orange Tree ⑦ The Golden Eagle ⑧ The Silver Bullet



DECISION GRID				Summer	Autumn	Winter	Spring	Summer
<b>HOURS</b>								
All day opening	0 or 1	1= open between 3 and 7pm	0					
<b>PRODUCTS &amp; PRICES</b>								
Drinks margin	60% to 75%	60% = cheapest	65.0%					
Range of beers	1, 2, 3, 4, 5	1= limited, 5 = extensive	2					
Range of other drinks	1, 2, 3, 4, 5	1= limited, 5 = extensive	2					
<b>Food</b>								
Food margin	60% to 75%	60% = cheapest	65.0%					
Size of menu	1, 2, 3, 4, 5	1= limited, 5 = extensive	2					
Quality of food	1, 2, 3, 4, 5	1= awful, 5 = excellent	2					
Evening food?	0 or 1	1= yes, 0 = no	1					
<b>Guest room rate</b>								
Guest room rate	£	per room	0					
<b>STAFFING</b>								
Staff numbers	3 to 12	no.s at peak times	5					
Pay rate		% above minimum wage	0.0%					
<b>GAMES</b>								
Pool tables	0, 1, 2, 3	no. of tables	0					
Dart boards	0, 1, 2	no. of boards	0					
Fruit machines	0, 1, 2, 3, 4	no. of machines	0					
<b>ENTERTAINMENT</b>								
TV Sport	0, 1, 2	0= none, 1= some, 2= lots	0					
Quiz nights	0, 1, 2	0 = none	0					
Loud music	0, 1, 2		0					
Live bands	0, 1, 2		0					
Discos	0, 1, 2		0					
Karaoke	0, 1, 2	1= occasional	0					
Comedy	0, 1, 2	2 = regular	0					
Adult	0, 1, 2		0					
<b>MARKETING</b>								
Price promotions - drink	0, 1, 2, 3	strength of promo	0					
Price promotions - food	0, 1, 2, 3	strength of promo	0					
Print Advertising	0, 1, 2, 3	degree of exposure	0					
Online Marketing	0, 1, 2, 3	degree of exposure	0					
Sponsorship	Enter amount you are offering for whole year							
Family friendly	0, 1, 2	0 = no kids allowed	0					
<b>CAPITAL EXPENDITURE</b>								
Garden	£3,000	maximum of 3 in game	0					
Playground	£1000	maximum of 3 in game	0					
Car Park	£5,000	maximum of 3 in game	0					
External lighting	£1000	maximum of 3 in game	0					
Dining room	£10,000	maximum of 3 in game	0					
Function room	£10,000	maximum of 3 in game	0					
Guest room	£10,000	maximum of 10 in game*	0					
Internal refurbishment	£10,000	maximum of 5 in game*	0					

\* limited to 3 per quarter



# Your Decisions

Each round in the game represents one quarter (i.e. three months) in the life of the village.

In this version, you need to make decisions for all four quarters in one go. You will then receive a Profit & Loss Account (P&L) that will reveal how much profit your pub made and where it came from. You will also learn which parts of the market were attracted to your pub.



In the second part of the workshop, you will get the chance to create a budget for a second year and to make decisions for the first quarter of that year (i.e. Q5, the second autumn).

The emphasis today is on understanding a P&L and on exploring the whys and wherefores of budgeting. How much profit you make is of less importance but you will still want to make as much as you can!

Before you make any of these decisions, it would be a good idea to arrive at some kind of market positioning for your pub. Who are you trying to attract? The simulation does not like conflict. If you are going for the high end of the dining market (fine cuisine, good décor, excellent service) do you really want karaoke? If you are targeting the business market, do you want lots of kids running around? Try to come up with a set of decisions which is both coherent and consistent.

You do not have to offer the market exactly the same 'product' in each quarter, but do bear in mind that you cannot reinvent yourself overnight. During the year, you will acquire some kind of reputation and it will be based not just on what your pub is but on what it used to be. Once you've taken the loud music out of your pub, it will be quite some time before everybody notices.

And remember that the model will be looking not just at your decisions but the offerings of the other seven pubs too. Your new car park may give you an early advantage but this will disappear as other pubs catch up.

You will need to think ahead. Management resource dictates that only two long-term capital items (see page 10) can be bought in any one quarter, so you may need to prioritise what happens when.

In settling on a market positioning, you may like to consider the particular demographics of your pub. Does its location offer inbuilt advantages with any parts of the market? Are the competitive pressures different for your pub to that faced by others? The distances are small, so don't overestimate the impact of the location – but it is there.

**You might like to make your own copy of the decisions you have taken on the grid.**

## All Day Opening

You may decide to close your pub between 3pm and 7pm. Otherwise, your pub will be open from noon until 11pm. Enter a '1' if you wish to remain open during that relatively quiet period; enter a '0' if you want to put your feet up.



# Products & Prices

## Drinks margin

This is the pence of profit from every pound of drinks sales (after knocking off the VAT and before paying for overheads). The allowable range is 60% (dirt cheap) to 75% (very expensive).

As you take over the pub your drinks margin is 65%. This means that the cost of the drinks must be 35% (because together they must equal the 100% selling price. Actually the *real* selling price is going to be 120%, but the other 20% is just VAT which is being collected on behalf of the government – it's not the pub's money to keep).

If you are buying a pint from the brewery for £1.05p:

Cost price	= 35%	= £1.05	
Margin	= 65%	= £1.95	[£1.05 x (65/35)]
Pub gets	= 100%	= £3.00	
Govt gets	= 20%	= 60p	[£3.00 x 0.20]
Customer pays	= 120%	= £3.60	



*[you could also do £1.05 x (100/35) to go straight from the cost price to the ex-VAT selling price and then multiply by 1.20 to add on the VAT]*

You do not have to worry about what the actual cost prices or selling prices are – you are just indicating what margin you are going to apply to the cost prices of your various different drinks in computing your selling prices.

Note that the accounts show sales and costs **excluding VAT** and that the simulation assumes a VAT rate of 20% throughout.

This margin is what you might call your 'theoretical' margin – it's not actually the margin you will achieve on your drink sales, especially if you start doing price promotions ("buy three glasses and get the bottle for free"). Even if you don't discount your prices, there's the beer in the pipes, the cork in the wine, the bottle in pieces on the floor – and that's before the freebies.

Everyone would rather pay less for their drinks so, all things being equal, a lower price should drive volume. But don't expect every part of the market to be equally price-sensitive; it's just one factor in the mix and it is more important for some groups than for others.

## Range of beers and other drinks

As you take over your pub, the drinks range is 2, where 1 is limited and 5 is extensive. A good range of drinks is a selling point but do be aware of the downside in carrying more stock. A higher stock figure will mean higher stock losses and you are also paying interest to your head office for all the cash that is sitting in the form of beers, wines and spirits.

### Working with Percentages

COST PRICE	+	GROSS MARGIN	=	EX VAT SELLING PRICE	
				[always 100%]	
35%	+	65%	=	100%	[%'s]
0.35	+	0.65	=	1.00	[decimals]

Always 'go via 1%'. If you know your cost price is 35% and is £1.05, find out what 1% is first and then find out what 100% is....

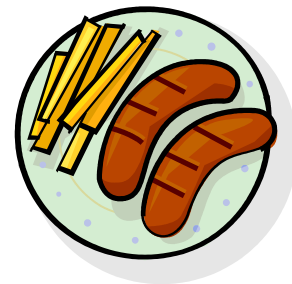
$$\begin{aligned} \pounds 1.05 \div 35 &= \pounds 0.03 \quad [\text{this is 1\%}] \\ \pounds 0.03 \times 100 &= \pounds 3.00 \quad [\text{this is 100\%}] \end{aligned}$$

The customer actually pays 120% after adding on the VAT.

$$\begin{aligned} \pounds 1.05 \div 35 &= \pounds 0.03 \quad [\text{this is still 1\%}] \\ \pounds 0.03 \times 120 &= \pounds 3.60 \quad [\text{this is 120\%}] \end{aligned}$$

## Food margin

The permissible range is between 60% and 75%. The food market can crudely be split between those after 'pub grub' and those looking for a higher quality offering. In the former case, price is important, in the latter case it is less so. A high margin does not make the food of higher quality; it means that the % gap between the cost price and the selling price is greater. Your food can have the highest margin in Little Chadwick and still be rubbish.



## Size of menu

At the start of the game your menu size is '2', where '5' represents the most extensive menu and '1' the smallest. Remember, a larger menu is likely to mean a higher stock figure and that you are paying interest to your head office for the cash tied up in stock.

## Quality of food

When you take over your pub, the quality of its food is measured as a '2' on a scale where 5 is excellent and 1 is frankly awful. Higher quality should mean higher sales but look out for additional costs too. To make your food really attractive, you may have to replace that microwave with a real chef and that is going to add to your staffing costs.

## Evening food?

All the pubs must serve food at lunchtime but, in the evenings, it is a decision for the management. Consider whether food is a significant part of the pub's appeal in the evenings. If it is not, it may be worth sacrificing a low number of sales to reduce the costs of the operation.

## Guest Room Rate

At the start of the game, none of Little Chadwick's pubs is offering overnight accommodation. You do have the option of converting one or more upstairs rooms into a bedroom at a cost of £10,000 per room. If you do this, you need to indicate how much your room or rooms are to be sold for.



# Staffing

## Staff Numbers

Although you cannot be sure how often your pub will be busy, you need to indicate how many people you will have on duty at peak times (in addition to management). This should be at least 3 and no more than 10. Consider whether you need to flex your staff numbers over the four quarters. For instance, if your pub does more food or enters the hotel market, the staff will be stretched more thinly and customer service levels may suffer. If you lower your prices or hold aggressive price promotions, your pub may get a lot busier! At the start of the game, you have one manager and one assistant manager. A second assistant manager will be needed if you create a function room, dining room or hotel rooms.



## Pay per hour

This is the average pay rate above the minimum wage (excluding the managers and any chef). At the lower rates, your staff will be less experienced and this means they could be less customer-friendly and less efficient. They may also be less practiced in handling stock.

Overall, the model looks at your staffing levels and pay rates and at the demands being placed on those staff in deciding on the quality of your customer service. For some parts of the market, service levels will be crucial – for others, less so.

Be aware that the supply of labour won't necessarily keep pace with the demand. If there's a labour shortage in the village, it will be the pubs who pay less and who work their staff harder who are likely to face problems in recruiting the staff numbers that they want.

# Games

## Pool tables

At the start of the game there are no pool tables in the village. Providing one or more tables will provide both a competitive advantage (at least for some of the market) and a new revenue stream. Do bear in mind that tables take up space and cost £400 each per quarter to hire. If you put them in the right kind of environment, they will earn you money but if you put them in the wrong kind of pub, they will cost you money. Either way, they will have a significant impact on the character of your pub.



## Dart boards

In a similar way, these take up space and affect your pub's character but the cost is negligible and there is no revenue (at least none which is directly attributable).

## Fruit machines

Again, this is another revenue stream – once you have covered the £1000 quarterly rental cost for each machine. Do consider whether the gaming machines fit with the character of the establishment and look out for diminishing returns (e.g. three machines will not be played three times more than one machine).



# Entertainment

## TV Sport

Big match football is passing Little Chadwick by. Your pub can steal a competitive advantage by screening football matches and other big events. The premier package includes every game on every channel but costs your pub a cool £6,000 per quarter. A more modest package costs £3,000.



## Quiz nights

One of the cheaper forms of entertainment that you can offer. An occasional quiz night will cost £520 a quarter, with a more regular quiz costing £1,040. Enter 2 for regular, 1 for occasional.

## Loud music

If you are going to have music, you will need the appropriate licence. If your music is loud or regular it will cost £780 a quarter. If your music is quieter or occasional it will cost £390. Perhaps of greater significance than the cost is the effect that music will have on the character of the pub. For some it will be a significant draw; for others a serious deterrent. Enter 2 for loud or regular, 1 for quieter or occasional.



## Live bands

Regular live bands could cost as much as £4,000 a quarter. An occasional band will cost £2,000. Again, there will be a significant impact on the character of the establishment. Enter 2 for regular, 1 for occasional.



## Discos

Dancing will also increase the entertainment costs – by about £4,000 for a regular event or £2,000 for an occasional one. Enter 2 for regular, 1 for occasional.

## Karaoke

Provision of a professional karaoke system will cost £80 a night whether it is offered once a week or twice a week. Enter 2 for twice weekly, 1 for once a week.



## Comedy

A weekly comedy evening can feature either one or two comedians. Expect to pay £100 per comedian per night. No laughing matter. Enter 1 for a solo, 2 for a double act.

## Adult

If you want to take your pub in this direction, expect some significant costs. We don't exactly know how much or what you're getting for the money; we're not that kind of computer. 2 gets you twice as much as whatever 1 gets you.

# Marketing

## Price promotions

This involves either reducing the price for a particular time (e.g. early evening) or providing more stock at the same price. Do remember that these sales are at a much lower margin than your normal sales. For example, a promotion where the beer normally being sold for £3.60 (see 'drinks margin') is sold instead for £2.40:



Customer pays	=	£2.40	=	120%	
Govt gets	=	40p	=	20%	[£2.40 x (20/120)]
Pub gets	=	£2.00	=	100%	
Cost price	=	£1.05			
Margin	=	95p	=	47.5%	[ (£0.95/£2.00) x100]

The greater the proportion of your sales that are sold at these discounted rates, the greater the dilution of your margins. And do remember that a customer who is charged £1 less still needs the same amount of customer service and the same amount of floor space.

You can enter a 1, 2 or 3 if you want to do price promotions on your drinks and/or food. The higher the number, the more regular the promotions and the greater the level of discounting. Do be aware that the success of your promotions will depend not just on the attractiveness of your offer but also on what your competitors are doing. If you are going to discount your prices it is important to advertise the fact – otherwise you will be dropping your margins without gaining extra footfall.

## Print Advertising and Online Marketing

If you wish to advertise, you can enter a 1, 2 or 3, with a 3 representing the highest degree of exposure. Each unit implies a quarterly cost of £400. Apart from communicating any promotions, advertising is particularly useful for attracting tourists, diners and overnight guests.

Your pub has no online presence at the outset. Maintaining a website and social media profile will help to attract tourists, diners and overnight guests, as well as the younger market groups. Outsourcing this task will cost £300, £600 or £900 per quarter.



## Sponsorship

Little Chadwick Cricket Club will be after a new sponsor from the spring quarter onwards. They will sell their stumps to the highest bidder, so you may like to indicate how much you would offer them for their regular custom throughout the summer (and half of the spring). Their previous sponsor gave them £850 last season.



## Family Friendly

What will your pub's attitude be towards children? A 2 means they are welcomed, a 1 means they are tolerated, zero means they are not allowed in. Apart from attracting families, a high score will attract tourists. For some groups, however, the presence of children may deter.



# Capital Expenditure

## How It Works

Capital Investment is about buying items of long-term value to the business (e.g. creating a landscaped pub garden). These should all have a positive impact on sales performance, though their effect on different parts of the market will vary and, as always, the activities of your competitors may undermine your efforts.



You need to be very careful in ordering these items, since the figures you enter should be for the items wish to *buy* in the next quarter rather than a running total of the items you have bought so far. Consider this example which contrasts a capital item (a car park) with a non-capital item (a hired pool table):

In the autumn you want one pool table in the bar and you want to build one unit of car park, so you enter a '1' against both items.

In the winter you wish to still have one pool table and not to enlarge the car park, so you enter a '1' for the pool table (you're keeping it) but a '0' for the car park (you're not extending it).

In the spring, you wish to add a second pool table and double the size of your car park, so you enter a '2' for the pool table and enter a '1' for the car park.

The prices relate to each 'unit' bought, so if you put a '1' against 'Internal Refurbishment' in the first quarter that will cost £10,000; if you put a '2' it will cost you £20,000.

The maximum additions during a (five quarter) game are 5 for internal refurbishments, 10 for guest rooms and 3 for all others. Due to management constraints, you may only buy two different items of capital expenditure in any one quarter (thus a '2' on just garden and playground is fine, a '1' on garden, playground and refurbishment is not allowed).

Do remember that cash invested in these 'fixed' assets (as we call capital items) is cash on which your head office is charging you interest.

Because these assets will stay in the business for several years, it is not fair to put all of their cost on the Profit & Loss Account as soon as they are bought. Instead, we spread the cost out over the estimated life of the asset. For example, any guest rooms we convert will have an estimated life of ten years and so the outlay of £10,000 will be charged at a rate of £1,000 per year (or £250 per quarter). This is known as **depreciation**. The £10,000 cash will still have to be paid upfront – but when we work out the profit for each of the ten years, we will just include £1,000 of depreciation.

The estimated life of the fixed assets is as follows:

- 10 years - guest rooms, function rooms, dining rooms, car park
- 5 years - gardens, playgrounds, lighting, internal refurbishment

The pub building itself is not depreciated.

Any capital expenditure comes online half way through the next quarter. For example, if you indicate that you want to convert an upstairs room into a guest room during the spring, it will be available to sell for half of the quarter (i.e. for 45 nights rather than for 90). This means you will need to think ahead – the summer is too late to start planning your beer garden! Note that the depreciation charge will assume that the room arrived at the start of the quarter.



# Eight Capital Expenditure Options

## Garden

A garden increases the popularity of your pub across all groups, though its impact is particularly strong in the summer and almost non-existent in the winter. Costs £3,000 per unit, with a maximum of £9,000 over the game. A medium-sized garden can cost between £400 and £2,000 a quarter to maintain, depending on the season.



## Playground

Popular with families. Most groups are ambivalent, but some are put off by it. Costs £1,000 per unit with a maximum of £3,000 over the game.

## Car Park

Has a positive impact with most parts of the market. Cost is £5,000 per unit and you can buy up to three units during the game. One unit is about eight bays.

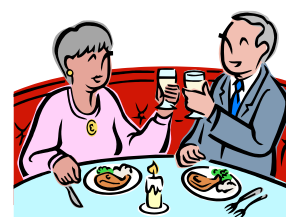


## External Lighting

When you take over your pub it appears gloomy from the outside (and, frankly, from the inside too). One unit of external lighting will be adequate, two or three will make it stand out from the crowd. Cost is £1,000 a time but look out for the running cost as well – about £300 per unit per quarter.

## Dining Room

Pubs who wish to enter the serious end of the restaurant market may wish to consider giving over some of their bar space to a proper dining room. This increases the credibility of your food offering but at the cost of reducing your available space for drinkers. The work will require some alterations (as well as a lot of furniture) so the cost is £10,000 for a small dining room, £20,000 for a larger one and £30,000 for the largest of all. It is also possible to gradually increase the size of the dining room, i.e. starting with a small one and then enlarging it.

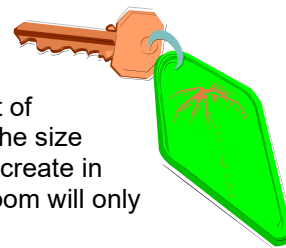


## Function Room

Providing a function room will allow your pub to compete in a new market since there are corporate and social functions in the village and beyond that will only be won by pubs that have provided such rooms. The rooms are not hired out but will attract extra revenue. Function rooms do not reduce the space available to drinkers; they are hewed from rooms at the back of your pub which are currently not in use. Be realistic about what a £10,000 conversion will buy you – there will be room for a live band if the drummer travels light but not for any audience. A £30,000 conversion will give you a room large enough to allow your pub to split its personality, i.e. the loud music and the diners will have more prospect of harmonious co-existence.

## Guest Rooms

When you take over your pub, there is no overnight accommodation available in the village. Each pub has the option of converting upstairs rooms into guest rooms at a cost of £10,000 per room. The occupancy that your pub achieves for its rooms will depend on the size of the market (which is quite seasonal), on your pricing, on the kind of environment you create in your pub and on your advertising. Look out for diminishing returns too – your seventh room will only get sold when the first six are full up.



## Internal Refurbishment

It is many years since any money was spent on the interior of your pub. If you wish to improve the quality of the bar area you should consider a programme of internal refurbishment. This is available at £10,000 a unit and you can schedule a total of five units over the course of the simulation.

### Quarterly Depreciation Charges per Unit of Capital Expenditure

Option	Cost per unit	Est. life (yrs)	Est. life (qtrs)	Depreciation/qtr
Garden	£3,000	5	20	£150
Playground	£1,000	5	20	£50
Car Park	£5,000	10	40	£125
External Lighting	£1,000	5	20	£50
All Rooms	£10,000	10	40	£250
Internal Refurbishment	£10,000	5	20	£500



# Accounts

## How to Understand the Profit & Loss Account (“P&L”)

This report, also known as the **Income Statement**, shows you how much profit (or loss) your pub made in the latest quarter. Your pub’s accounting year runs from Autumn to Summer, with a year end of 31 August.

Essentially, the P&L shows all the sales revenue you earned in the period and then subtracts all the costs. If the figure at the bottom is positive, you’ve made a profit; if it’s negative, you’ve made a loss.

The key to unlocking the P&L is to appreciate that it adheres to the **Matching Principle**. Therefore:

- We **match** sales to the period in which we earned them (**regardless of when we receive the money**)
- We **match** the sales to any costs directly related to those sales (so they appear in the same period’s P&L)
- We **match** our other costs to the period they relate to (**ignoring when we actually make our payments**)

The P&L will usually be split into three parts:

### Gross Profit

What you made from selling your goods (before overheads).

### Overheads

What other costs you incurred during the period.

### Bottom Line

What profit you made overall and what happened to it.

## Gross Profit

This is the difference between ‘sales revenue’ and the ‘cost of sales’. In effect, it is the profit on the revenue stream before overheads are taken account of.

	<b>Sales Revenue</b>	<b>x</b>
<b>MINUS</b>	<b>Cost of Sales</b>	<b>x</b>
<b>EQUALS</b>	<b>Gross Profit</b>	<b>x</b>

### Sales Revenue

Initially you will have two revenue streams – drink and food. You may decide to add a third stream by opening one or more guest rooms. Note that any revenue you may get from pool tables and fruit machines is netted off the cost of renting the equipment and is included further down the report.

Do remember that there are opportunities for cross-selling. Customers who have a meal will probably buy a drink (and those who come in for a drink may decide to have a meal). Overnight guests are very likely to eat or drink.

The number of customers you attract will depend on the size of the market in a given quarter and what you are offering compared to your competitors. How much you can sell to each customer will depend on who they are.

The sales revenue figure (also known as ‘Sales’, ‘Revenue’, ‘Turnover’ and ‘Income’, just to confuse you) is the total you have sold the drink, food and guest rooms for during the period and it excludes any VAT.

Because pubs are retailers, they will receive the money at the same time they make the sale (plus an extra 20% VAT which they’ll pass on to the government). Businesses that sell to other businesses usually do so on credit terms (eg 30 days), and we include the sale in the P&L when we provide the goods (or services) and raise an invoice – not when the customer gets round to paying us.

### The Matching Principle

*The key to understanding accounts. We have to **match** the revenues and costs that belong together – we can’t have the money from selling a product in one period and the cost of buying or making that product in a different one – and we have to **match** the revenues and costs to the period they relate to. In working out the profit, we’re not interested in **when** the cash actually moves (we let the ‘Cash Flow Statement’ worry about that).*

*Examples of the Matching Principle:*

- *We include sales revenue when we provide the goods or services, not when the customer pays us, maybe 30 days later (that’s not an issue for the pubs as they’re cash businesses).*
- *We include **stock** when we sell it, not when we buy or make it, so we can match the revenue to the cost in the same period. That means we’ll use the Cost of Sales figure in our gross profit calculation and not the Purchases figure.*
- *We **depreciate** capital expenditure over the asset’s estimated life, so we match the capital cost to the whole period that we expect to benefit from its use, rather than penalising the period in which we buy or replace the asset.*
- *We include costs we’ve incurred even if our suppliers have given us 30 days to pay.*
- *We estimate costs we’ve incurred in a period where the invoice hasn’t been received and include those in our P&L (these are **accruals**)*
- *We don’t include costs we’ve paid upfront if they don’t relate to this period (so we include one twelfth of the annual insurance premium – the bit we haven’t included is a **prepayment**)*
- *We don’t include money we’ve received if we haven’t yet provided the goods or service to the customer – this is **deferred income**.*

## Cost of Sales

This is the cost price of the stock that has been used up during the period. It is almost certainly not the same as the value of stock purchased as there is likely to have been some change in the level of stock being held. We include stock in the calculation of profit when we sell the stuff, not when we buy it. This is because the revenue must appear in the same period as the cost of the stock that we used up in making that sale, as per the Matching Principle.

In simple terms, you work out the cost of sales thus:

$$\text{Opening stock} + \text{Purchases} - \text{Closing stock} = \text{Cost of Sales}$$

Or  $\text{Purchases} + \text{Reduction in stock level} = \text{Cost of Sales}$

Or  $\text{Purchases} - \text{Increase in stock level} = \text{Cost of Sales}$

But any stock that has been wasted – over-generous measures, corked wine, food past the sell-by date and maybe even pilferage – must be added to that Cost of Sales figure. The value of these ‘stock losses’ (or ‘shrinkage’) is only known with accuracy when you do a physical stocktake:

	Opening stock (as per the previous stocktake)
Plus	stock purchases
Less	theoretical cost of sales (which the pub's computer system will work out, ie the cost price of all the stock that has been sold in the period)
Less	closing stock (as per the latest stocktake)
Equals	stock losses

In other words, the stock losses are the missing figure when you do a stocktake! The value of stock losses then gets added to the cost of sales figure. In between stocktakes, there will be a theoretical stock figure (opening stock plus purchases less theoretical cost of sales).

Because accountants are **prudent**, most businesses assume there will be some stock losses even before they have been accurately counted. This is done by making a **stock provision** (writing down the stock value on the balance sheet and increasing the cost of sales figure on the P&L). The provisions will not affect the size of the real stock losses over the company's life but they will affect the period in which such losses are reported. (This contravenes the Matching Principle but, in accounting, it's usually trumped by the Prudence Principle!)

Note that there is no cost of sale in selling a hotel room, so all the hotel revenue appears as hotel gross profit.

### Cost of Sales in Manufacturing

*In manufacturing, the cost of the goods sold is not just the material cost, but also the costs incurred in turning raw materials into finished goods. This will typically include production labour and energy.*

*To apply the Matching Principle, those costs should only hit the P&L (in the Cost of Sales figure) when the goods are sold. This means that the value of unsold stock (which sits on the Balance Sheet) will include an element of labour and energy etc. Accountants will find a sensible way to allocate these costs to units being produced and then they will move from the Balance Sheet (Stock) to the P&L (Cost of Sales) when the units are sold.*

*Product which is partially completed is shown as Work in Progress (with all the material cost and some of the labour and energy cost).*

### Cost of Sales in Services

*In organisations that sell services, the bulk of the 'product' cost is actually labour time. The Matching Principle should still apply, so hours of chargeable time may be posted to Work in Progress on the Balance Sheet and will then move to Cost of Sales when the job is invoiced to the client.*

*In this way, the revenue from a job is matched to the cost of providing the service to the client – together in the same period. Only by doing this will the P&L truly reflect the profit made in a particular period.*

*For some organisations, it may not be appropriate to have a Cost of Sales figure and a Gross Profit subtotal, eg if the revenue and associated costs appear in the same period by default. These organisations will just subtract all the costs from the sales revenue to reach their profit figure.*

## Overheads

These are the costs you incurred in making your Gross Profit and they have to be taken off to arrive at the Operating Profit or 'bottom line profit'.

	Sales Revenue	x
MINUS	Cost of Sales	<u>x</u>
EQUALS	Gross Profit	x
MINUS	Overheads	<u>x</u>
EQUALS	Operating Profit	<u>x</u>

### Labour Costs

These will be the largest overhead of your pub. The management salaries will be £14,000 per quarter, to cover a manager and an assistant manager. We call this a 'fixed cost', as it is unrelated to the sales level. If you decide to put in any guest rooms, or a function room, or a dining room, you will need a second assistant manager and the quarterly cost will grow to £20,000.

The staff wages figure is crucially important. You affect it directly with your choice of how many people you have on duty when you are at your busiest and your choice of hourly rate. You also affect it indirectly in various ways. If you have high quality food, this will mean a higher wage figure. If you have more dining and accommodation in your sales mix, this will increase your wage figure because these activities require more labour resource. Above all, if you give the market lots of reasons to come along to your pub you will be busier more often and thus will need to be staffed at those peak levels on a more regular basis. The wages is thus what we could call a 'semi-variable' cost, since it increases somewhat as the volume of sales goes up.

The national insurance cost will be a percentage of the salaries and wages and will thus increase in tandem with those figures.

### Operating Costs

Although we tend to think of overheads as being fixed (i.e. independent of the sales level), many in reality, and in Little Chadwick's pubs, have a variable element. Energy will vary mainly according to the time of year – but more meals cooked will mean more energy consumed. The pub will be cleaned every morning – but a busier pub will need more time and effort to clean, especially if there are bedrooms to be attended to. Glasses and crockery will need replacing more quickly if the pub has more customers and there will be more linen to wash and more things to repair. The garden maintenance will not be influenced by the sales figure – only by the season and the size of the garden you have created. In fact, several capital expenditure choices will have implications for your operating costs.

### Entertainment Costs

The revenue from the pool tables and fruit machines will be set against the cost of the machines, so do not be surprised to see a minus figure among these costs (and remember that a negative cost is good news!)

### Marketing Costs

The cost of your print advertising and the maintenance of your online presence are shown in this section. Don't forget to look out for a sponsorship opportunity later in the spring quarter.

### Administration Costs

Not a cost that you are directly controlling but a cost that must nevertheless be covered from your gross profit before you can start making a profit.

### Property Costs

Depreciation is another example of the Matching Principle. If a car park will help us earn money for 10 years, it makes no sense to put the whole cost of building a car park into one period's P&L. Instead, we put one tenth into each year and call it **depreciation**. When one of these long-term 'fixed assets' is bought, we put it on the Balance Sheet and then gradually write down its value over its estimated life, as its purchase price is 'drip-fed' from the Balance Sheet onto the P&L.

When you take over your pub, all of the long-term 'fixed assets' have been fully depreciated – it's a long time since anyone spent any money on these pubs! This means that any depreciation you see in your property costs during the game will be the depreciation of the fixed assets that you have decided to buy.

The pubs each pay business rates (ie local authority taxes). This is used to make the game fairer. Some of the pubs have in-built advantages (or disadvantages) borne of their location so, all other things being equal, some of the pubs would make more profit than others. To re-level the playing field, the rates bill is higher for those pubs with the advantages (broadly-speaking, the ones in the centre of the village), so that each pub ends up with the same chance of winning the game.

### Cost Behaviour

*It's useful to analyse costs into different categories according to how they behave. This will aid in management decision-making and budgeting.*

**Variable Costs** increase in proportion to the sales figure (eg Cost of Sales)

**Fixed Costs** are unrelated to the sales figure (eg business rates)

**Semi-variable Costs** will have both a fixed element and an element that varies with sales (eg wages, energy, cleaning, repairs)

**Stepped Fixed Costs** are unrelated to sales within a certain activity range but then jump up to a higher level (eg management salaries – fixed until a second assistant manager is recruited).

## Bottom Line

	Sales revenue	x
MINUS	Cost of Sales	<u>x</u>
EQUALS	Gross Profit	x
MINUS	Overheads	<u>x</u>
EQUALS	<b>Operating Profit</b>	<b>x</b>
MINUS	<b>Interest</b>	<u><b>x</b></u>
EQUALS	<b>Net Contribution</b>	<u><b>x</b></u>

### Operating profit

This figure, also known as “Profit before Interest and Tax” and (more colloquially) as “the bottom line”, is one of those key figures in the accounts. It is the profit your pub has made before taking into account how the business has been funded, how much tax you have to pay or what you are going to do with your profit. Some businesses prefer to report the profit before the depreciation charge is included. This is **EBITDA** (Earnings before Interest, Tax, Depreciation & Amortisation – which is the write-down of intangible fixed assets like licences and patents).

### Interest paid

Companies with long-term funding from banks would show the interest on those loans here (and interest received on their investments). In this simulation, your pub is not a separate company but a ‘branch’ within a larger organisation. The company’s Head Office charges your pub 2% per quarter on any cash tied up in stock or in long-term fixed assets (except for the building itself).

### Net Contribution

The profit made by your pub, after interest, would get added to the net contribution made by all the other pubs in the organisation.

At a Company level, the Profit & Loss Account would then end like this:

	Total Net Contribution (sum of all the pubs’ profits or losses)	x
MINUS	Central ‘Shared’ Costs (HR, Finance, IT etc)	<u>x</u>
EQUALS	Company Operating Profit	x
MINUS	Interest (on bank borrowings)	<u>x</u>
EQUALS	Profit before Tax	x
MINUS	Corporation Tax	<u>x</u>
EQUALS	Profit after Tax	<u>x</u>

The Profit after Tax is owned by the shareholders (because they own the company). They can either take the money out straight away by declaring a **dividend**, or they can allow the company to keep hold of the profits to fund further growth. In larger companies, shareholders delegate the recommending of the amount of dividend to a board of directors (but they will still need to approve it at the Annual General Meeting).

## Organisations that aren’t profit-seeking

Many organisations are not set up to make their shareholders richer but they will still need to prepare accounts and budgets and will still need to have good financial discipline. These will include charities, housing associations and membership organisations.

These are the main differences –

### Profit-seeking Companies

- Prepare a “Profit & Loss Account”
- Makes a “Profit” or a “Loss”
- Pays Corporation Tax
- Rewards shareholders with dividends, rest of profit reinvested in the company to make bigger profits in the future
- Aims to maximise profit

### Not-for-profit Organisations

- Prepare an “Income & Expenditure Account”
- Makes a “Surplus” or a “Deficit”
- Exempt Corporation Tax
- No dividends – all surpluses reinvested in the organisation’s activities.
- Aims to make small surplus to allow for growth, renewal and contingency.

# Additional Reports

## Sales Revenue Calculation

Your pub's **Food and Drink** sales can be broken down into three variables:

- How many customers are there in the market (one customer = one person visiting one pub)
- What share of these customers does your pub win?
- What is the average spend of each customer per visit?

The first two variables multiplied together gives you your **customer number**.

The customer number multiplied by the average spend gives you your **sales figure**.

In creating your budget for year two, you will need to estimate all three variables for all four quarters.

The **Hotel** sales are worked out differently (this is because the size of the market increases as the pubs build guest rooms).

Your Hotel sales also depends on three variables:

- How many rooms to you have available (remembering that one quarter equals 90 nights and rooms take half a quarter to arrive)
- What is your occupancy % (rooms sold ÷ rooms available)
- What is your room rate?

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## Gross Profit Margin Calculation

Your pub's **Food and Drink** Gross Profit (in money) is found by multiplying together:

- Your Sales figure
- The pence of profit in every pound of Sales that is left over after paying for the stock. This is your Gross Profit Margin %.

The actual Gross Margin % you achieve will be lower than the Gross Margin % you are entering on your decision grid. This is because of stock shrinkage and price promotions (if you are choosing to do price promotions).

The amount of **shrinkage** (ie stock that never gets sold) depends on the range of stock carried (a bigger range produces more shrinkage) and on the experience level of your staff (which will correlate with your pay rate compared to that of your rivals). Note that shrinkage percentages are normally quoted as a % of purchases rather than as a % of sales but we are using the latter to make the gross margin calculation easier to follow.

The amount of margin dilution caused by your price promotions will depend on the scale of your promotions and, paradoxically, on how successful they are (unsuccessful promotions will cause much less dilution than successful ones!). The effectiveness of your promotions will depend on marketing support (which you can control) and on your rivals' activities (which you can't).

Note that the gross margin on hotel rooms is always 100% as there is no stock involved. Additional costs like marketing, laundry and cleaning appear in the bottom half of the P&L as overheads.

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## Interest Calculation

Your head office is charging you 2% per quarter on any cash tied up in long-term fixed assets or in stock.

The figure you are being charged on is the 'Net Book Value' (NBV) of your fixed assets, which is the cost minus the depreciation so far charged.

You are not being charged interest on the pub building itself.

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## Who are your customers?

The coloured bar shows who you have attracted over the year. Green means popular, pink means unpopular, white is your average 12.5% market share (one eighth of 100%). The darker the shade, the greater the level of popularity or lack thereof.



## Gaming Income & Cost

The net figures for pool tables and fruit machines appear on the P&L. This table shows you the total value of coins received and the rental cost of the machines.

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## Resource Management

There are two ways in which your pub may encounter capacity problems.

### Space

You have a finite amount of room and, particularly if your pub is a high volume/low margin affair, this can be a problem. Available space for drinkers can be reduced by elements such as dining rooms, entertainment and gaming machines. Diners can find themselves squeezed out if the pub makes no separate provision for them. Function rooms can provide extra space, as can your garden (weather permitting).

### Staffing

You may find yourself understaffed if you try to cut back on staffing or fail to plan adequately when scheduling significant price promotions. More experienced (i.e. expensive) staff will help – but sometimes there is no substitute for getting extra bodies on the ground.

This short report compares the space and service requirements for both your drinkers and your diners. Where your customers' minimum requirements exceed what you are providing, these percentages will fall below 100% and that is the point at which you will start to lose revenue.

The colours behind the figures just emphasise how 'close to the wind' you are sailing. Red means below 100, green is comfortably over 100, yellows and oranges are in danger territory.

Be careful though. If everything is lit up in green, there could be a case for saying you're overstaffed and you're not working your assets hard enough. Unless you're planning on making your pub a very exclusive establishment, renowned for its customer service, you probably want to be in the oranges (ie the right side of 100% but not by too much!)

In this shorter version of the simulation, you will not have the chance to tinker with the levels on a quarter-by-quarter basis. If there's a problem, you will only find out about it after the end of the year! Nevertheless, it should be helpful in planning your resource requirements for the budget period.

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## Competitor Analysis

A lot of information on your competition can be gleaned simply by walking around Little Chadwick. This report tells you factual information about all eight pubs. For example, who is the most expensive on food or drink, who has a pool table, where can you go to avoid karaoke, who has been advertising a lot recently, who has the biggest car park...

Where a pub is not given a rating on, say, décor, it means that it is not worthy of comment, i.e. it does not stand out as being either particularly good or particularly bad.

This report would of course be changing quarter-by-quarter. The report you are seeing at the end of Year 1 is just telling you what are the pubs offering in the latest quarter (ie the summer).

Bear in mind that pubs who have had a particular attribute (e.g "good food") for longer, will have a more entrenched reputation than pubs that have only recently improved their food quality. Again, it should be helpful to you in identifying your closest competitors as you plan your offering for the budget period.

**Don't forget to download the PowerPoint slides on the P&L and on Budgeting. Your password will be valid for 7 days from the date of your course (after that, please contact us).**