Business Maths Made Simple

A guide for entrepreneurial business owners to the numbers that ***really*** matter in your business…and where to find them.

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Refreshingly different accounting for entrepreneurs

Business Maths Made Simple by Noel Guilford

First published 2022 by Guilford Accounting Limited, Fourwinds House, Balderton, Chester, CH4 9LF

https://guilfordaccounting.co.uk

A catalogue for this book is available at the British Library

ISBN: 978-0-9933678-2-3

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Introduction

Whether you admit to it or not, are you one of the four out of five business owners who struggles to understand 'business maths'? Do you say:

> I leave that to my accountant', or
>
> My bank balance is the only number I worry about', or even
>
> I'm not a numbers person'.

Ask yourself: What thoughts keep me awake at night? What am I afraid to ask for fear of looking stupid?

For 80% of business owners the answers come down to not knowing their business numbers – and yet business is literally a numbers game. A game in which the winners know their numbers.

Which is why I have written this book. Just to be clear this book is not about bookkeeping or accounting – your accountant or bookkeeper does that stuff. This book is about the numbers business owners need to know to improve their sales, profit and cash flow.

Many business owners, new and experienced alike, struggle to achieve their optimum business performance. This isn't because they are bad at whatever they do and isn't even a marketing or selling problem. It's because they were never taught how to analyse and interpret their business numbers to support them as business owners. So rather than being confident and feeling like real business owners, they feel overwhelmed and burdened by their business.

When people ask me what I do I usually say, 'I help businesses like yours become more successful, more profitable and more enjoyable to run.' I usually get a response like 'Well I need that! How do you do it?'

The answer is always that you need to start by knowing your business numbers – what I call business maths. Numbers are the language of business, and it is numbers that will ultimately determine your success. Business is literally a numbers game. Everything that matters in business can be expressed in numbers: your sales, your margins, your customers, your costs, your debtors, your profit, your cash flow and so on. They are all driven by numbers.

Anyone running, or involved in, a business should know the financial state of the business on a regular basis, but, more importantly, they should be able to use the financial information about the business to manage it more effectively, increase sales, cut costs and take important strategic decisions about the direction the business needs to take.

Unfortunately, too many small business owners fail to get the most out of the financial information available to them: some are genuinely afraid of the 'money' side of the business, others find numbers confusing, and have been conditioned into thinking it is all too complicated when in reality it is largely straightforward and common sense.

Furthermore, it needn't cost a great deal. A properly designed accounting system, which enables a large amount of valuable information to be produced on a weekly, monthly, quarterly and annual basis, then analysed to allow strategic decision making, will pay for itself many times over.

Business owners sometimes ask: "Why hasn't my accountant told me this?" The reason is that a lot of accounting professionals actually struggle with things like data analytics, KPIs, marketing metrics and ratio analysis if they haven't come from a management accounting background.

My goal in this book is to help you:

- Become a master of your key business numbers.
- Identify the most important metrics you need to monitor; and
- Set you up to track these metrics consistently.

So you can start to make better, faster and easier decisions in your business to achieve more profit, growth and free time.

How to use this book

On your first reading, go through the chapters in this book in the order in which they are written until you reach the end. Working through the book in order, page by page, will enable you to grasp the core concepts without missing a step. That way you'll create a solid foundation for your business.

Every time you encounter a new idea, when you come across a question or exercise in a book you're reading, you might be tempted to skip over it, or to just think about the answers instead of actually answering them in detail. You want to save time and keep reading so you can learn more.

But the questions and exercises are there to help you progress faster, not to slow you down! They're like building blocks and will make the future sections and exercises in the book easier to complete because of the momentum you'll build as you go. If you take the time to give each question careful consideration and write down your answers so you can refer back to them later the book the better this book will work for you.

In this short book I'm not going to explain what your accounts are, how to read your P/L and balance sheet or the difference between cash and profit. You can read all that in my previous book 'How to Build a Successful Business' which you can download at https://guilfordaccounting.co.uk/how-to-build-a-successful-business.

Instead, I'm going to take a deep dive into some of the most important numbers in your business that will enable you to take strategic decisions about the direction the business should take such as:

- Why most profit and loss accounts hide your most important numbers.
- The 12 key numbers every business owner should know.
- How much you can afford to spend to get a new customer.
- Why the most important number in your accounts is in your cash summary.
- How to track the return on investment (ROI) on your marketing.
- Which numbers to include on your business dashboard.
- How to increase your take home pay just by adjusting your profit extraction strategy.

In the appendices are a couple of articles you may find of interest. The first is an article entitled '**The language of accounting'** which explains the language accountants use and how accounting transactions are recorded. It isn't essential for an understanding of the basics of business maths, but I know some readers will want to understand the conceptual framework behind their numbers (and maybe have a better chance of understanding their accountant!)

The second is entitled '**Your business structure and profit extraction strategy'**: you started your own business to provide for your lifestyle and family, so it makes sense to know how to maximise the amount you draw from your business. Did you know that your business structure and remuneration strategy significantly influence the amount of tax you pay on the amount you draw from your business? If not, I'll show you in this article.

My promise to you

As a business owner, you've got too much to do. Your time is at a premium. You can't afford to spend even as little as 4-5 hours mastering a new skill.

At least NOT unless you're 100% sure that the time and effort you put into it will save you more time or make you more money in return.

But if you feel like spending a couple of hours of your time going over a short, 50-page book that shows you exactly how to save BOTH time AND a small fortune... is that worth your attention?

By the time you finish this short book — you will know enough about the numbers that matter in your business to significantly improve your profits, cash flow and wealth.

Now, you may be thinking, OK, the book is short, but how much time is it ACTUALLY going to take to master these hidden business metrics?

Well, 99% of the metrics, tools and techniques I cover in this book can be mastered... well, right as you read about them. So I'm fairly comfortable in saying - in next to no time.

And yet, the small portion of a single evening you're going to spend going through this short book can enable you to make more profit every single month. Does that sound like a fair trade for a couple of hours of your time?

And you can even download a **Business Maths Made Simple Checklist** to remind you of each part of the making business maths simple process.

You'll still want to read every word of this short yet powerful book, because the checklist won't make much sense to you unless you consume everything I share. To get your checklist visit https://guilfordaccounting.co.uk/business-maths-made-simple-checklist.

I'll also send you my other checklists as they become available and you can, of course, opt out at any time

Lastly, if at any time you are struggling to implement my ideas you can ask for my advice. I'd love to receive your thoughts on this book and hear about your progress. You can contact me at noel@guilfordaccounting.co.uk or by connecting with me on LinkedIn at www.linkedin.com/noelguilford.

To your success.

Noel Guilford
Chester
March 2022

1. What is business maths?

Business is a numbers game. A game in which the winners know their numbers, which is why we call in Business Maths.

Unlike that algebra, calculus and trigonometry they tried to teach us a school (that was hard!) business maths is simple. It's about adding, subtracting, and a little bit of multiplying and dividing. The clever bit is knowing which numbers to use.

The problem is that most business owners are too busy with the day to day of running their business to make time for the numbers, or they think it's too difficult or maybe they just don't know where to start.

At best these businesses aren't operating as efficiently or effectively as they could. At worst, changes in markets, technologies and the competitive environment can leave them unable to respond.

Which is why, in Business Maths Made simple, I'm going to show you how to get started on the journey to understanding the business numbers that really matter in your business. If this is your first dip into business maths, we'll start with just a few – maybe only two or three – numbers and then you can build – if you want – from there.

My definition of business maths is:

Identifying, analysing and interpreting the key numbers in a business that will enable the business owner to make strategic decisions to improve the business's performance.

Sometimes, you may hear them called your business metrics or key performance indicators (KPIs); they are the measures that enable you to understand how you are doing against your business objectives.

Numbers show the facts. Some of them may be painful and depressing at first. But the facts help drive the strategy, that drives the actions that lead to results. As Peter Drucker said: 'What gets measured gets managed'.

In an ideal system, a business creates numerous metrics and targets from its top-level strategic objectives down to the measurement of the daily activities of frontline staff. Underperformance triggers action to address the problem.

But remember the objective is to **master just a few key metrics** in your business from the myriad of numbers that are available (and often overwhelming).

Let’s start with the basics

Numbers tell you the health of your business; they tell the truth. They show you reality. And there are a few key characteristics of good KPIs:

- They are specific and measurable
- They are measured against a baseline and target
- They drive the actions in your business
- They are easy to understand
- They are tracked regularly, and
- They’re visible.

And they are only any good if you USE them!

Before we start to identify the numbers to track and construct a simple dashboard for how to track them, we need to identify the metrics we need to know and then get the numbers to see where they are now.

Start by asking yourself this question: “If you were stranded on a desert island with no connection to your business at all, but you could get a daily one-page report of key metrics, what numbers would you need to see to determine exactly where your business is at and the health of it?”

You will probably want to start by thinking of the key metrics you want to know as the business owner, and then move on to each major function in your business: marketing, sales, operations, fulfilment and finance.

Be careful, however, in doing this exercise. As William Bruce Cameron said in his 1963 text *Informal Sociology: A Casual Introduction to Sociological Thinking* **not everything that can be counted counts, and not everything that counts can be counted.**

For example, metrics like total website visitors or LinkedIn connections may be easy to track but may not be the most important numbers in your business.

Keep things simple, track what matters and remember the 80/20 rule: the top 20% of metrics you need to know will probably provide 80% of the information you need. You can add other metrics over time.

Five rules to follow

To help you figure out what matters most and what you should put emphasis on here are five rules to keep in mind:

1. Does the KPI drive the end result you want? Start with the end in mind and ask what it is that you really want. If the metric is not tied to the end result, either directly or indirectly, then it's not essential to track.

2. Does it impact your customers? If your customers don't care about it or it doesn't impact them, then it's likely it doesn't matter. Customers should be at the centre of your business so think about what really matters to them. Your business comes down to getting customers and then keeping them so the top KPIs you track are likely to be in one of these two areas.

3. Is it simple to measure and track? A KPI that is confusing is one that will soon not be used so making your business metrics simple, clear and direct and it's much more likely you will be able to optimise them. Ask yourself: 'What are the highest leverage actions that I can take to grow my business? Then identify the few key metrics that will tell you how that strategy is going.

4. Have you set targets and baseline goals? A metric for which you don't have a target and baseline (the absolute minimum of where you should be) isn't a KPI[1].

5. Is it comparable across multiple data points? A number by itself is useless but compared with the past few weeks or months you can see a trend beginning to develop. One of the single best things you can do with your KPIs is to record them on a dashboard over a period of time and turn them into charts and graphs to show the trend more easily. We will go deeper into these charts and graphs with a simple scorecard you can create a bit later in this book.

The three key questions to ask

When we face a business problem or encounter a business challenge there are three key questions to ask:

1. What's the goal (end result) we're after?
2. What is the current reality (what are the numbers)?
3. What are the opportunities and actions we can take to improve the result?

Without the numbers you'd just be guessing, or worse, leaving profit and cash on the table for someone else.

[1] Assume that you measure your gross margin and identify that it's 30%. Is this good or bad? You have no way of knowing unless you have set a target gross margin and baseline below which it should not fall.

What to include on your business dashboard

The numbers are your guide (and the guide for your team if you have one). They represent the dashboard of facts that enable you to drive your business forward if you act on them.

When you have identified which metrics matter most, track them regularly and assign an owner to each one so that different members of your team have the responsibility of driving and improving that metric create a clear visible dashboard so everyone is on the same page and can be held accountable to them, just like you would yourself.

For each metric you ideally have four data points to have the full picture:

1. The current actual performance
2. Historical recent performance (where you have been during the last few weeks or months as a comparison).
3. Target, being the goal for which you are aiming.
4. Baseline, being the absolute minimum threshold to hit.

If you don't know the top ten numbers that drive your business, block off some time this week and figure them out.

Most businesses have access to rich data on the performance of their operations. The technological advances associated with increasing use of automation, advanced analytics, and connected devices means that this resource constantly improves. I cannot emphasise how important knowing and acting on your numbers and top business KPIs is. You'll join the elite amongst business owners when you do.

2. Why your accountant isn't working for you

The accounts your accountant prepares are not designed for you, the business owner, but for HMRC who are more interested in the details of your expenses than anything else. If your accountant was working for you, you'd know your numbers that matter. Take a look at your last annual accounts: was there anything useful in them?

Sales

Take, for example the figure for sales, usually found at the top of the profit and loss account. It's probably the most useless piece of information in your accounts and may not even reflect how much your customers have, or are going to, pay you[2].

But the real reason your sales figure is useless is that it isn't **actionable**, by which I mean information that you can use to take decisions to improve the financial performance of the business.

Your sales are made up of a wealth of valuable information such as sales by customer and by product or service, your gross margins, the lifetime value of each of your customers and the big one – how much you can afford to spend to obtain a new customer. But you need to dig more deeply to get this information (and you won't find it in your accounts!)

Cost of sales

The second reason the accounts your accountant prepares are not designed for you is revealed, again on the profit and loss account, by the way that costs and expenses are reported.

This time, take cost of sales as an example. This figure will almost certainly contain both variable[3] and fixed costs[4] (such as direct wages and possibly a proportion of manufacturing overheads).

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[2] This is because the figures in your accounts are recorded on the accruals basis, which in the case of sales assumes that your customers are all going to pay you.

[3] Variable costs are the costs that you incur on making, buying and selling each unit you sell. For example, raw materials, goods for resale and marketing expenses.

[4] Fixed costs are costs that are the same, regardless of how many items you sell. All start-up costs, such as legal fees, stationery, and computers, are considered fixed costs, since you must make these outlays, before you even sell your first item. Then, your annual payments for salaries, rent, rates, heating, insurance, lighting, and so on, are all fixed costs.

This is the treatment laid down by accounting standards, which all accountants are required to follow in the accounts they prepare and on which they report. There are even different standards for businesses of different sizes!

But including fixed costs in cost of sales is counter-intuitive and misleading. What business owners need to know is their gross margin after all variable costs.

Which reveals another problem caused by accounting standards. Certain variable costs, such as marketing expenses, are reported as overheads or expenses whereas they are every bit as much a cost of sale as raw materials.

Which is why you should ask your accountant or bookkeeper to restate your profit and loss account in a more meaningful way to include only, and all, variable costs in cost of sales. Or better still, set up your accounting software to produce reports accurately and let your accountant adjust these at year end for statutory purposes to comply with accounting standards.

Overheads and expense

Have you ever wondered why the accounts your accountant prepares includes a long list of your expenses on fairly insignificant items? It's not for you, but for HMRC who are interested in what you may be claiming a tax deduction for that they can disallow. Of course, you need to know these numbers, which can easily be obtained from your accounting software; don't pay your accountant unnecessary fees to report them for you.

Cash flow statement

If you need more evidence that the accounts your accountant prepares are not designed for you, look for your cash flow statement.

Not there? What a surprise. Of course, it's not, because despite being the most useful of the three financial statements for most businesses it is not required by accounting standards.

Balance sheet

For many business owners their balance sheet is another useless report, particularly if it comes in the summarised form that accumulates current assets and current liabilities under separate headings without any analysis.

It is a mistake, however, to dismiss the balance sheet as not having any useful information to reveal about the financial health of a business. Far from it, as we'll see in the later chapter on cash flow and working capital management.

When you understand that the accounts prepared by your accountant are not for your benefit but to comply with the accounting standard for your size of business and to provide information to HMRC, it becomes obvious that you need more meaningful reports and information to assess the financial performance of your business and make decisions about what you can improve.

In the next chapter we'll lift the lid on sales to see how to use the valuable information a detailed analysis of sales and margins can yield.

3. Lift the lid on sales and (cost of sales)

In the last chapter we saw how your accounts (the ones your accountant prepares) show your sales as one figure at the top of the profit and loss account, whereas sales are made up of a wealth of valuable information such as sales by customer, by product or service, your gross margins, the lifetime value of each of your customers and the big one – how much you can afford to spend to obtain a new customer.

Understanding your gross margin

But first, a word about calculating your gross margin; some business owners confuse gross margin with mark-up. Let me explain the difference.

Mark-up is the amount (usually a percentage) which you want to add to your costs to arrive at your selling price. So, for example, if your costs are £60 and you want to make £40 profit, your mark-up will be 67% (40/60 expressed as a percentage). The percentage mark-up they need tends to be higher than many business owners think. In this example, the margin is 40% (calculated as 40/100 expressed as a percentage).

The margin percentage will always be lower than mark-up, but if you confuse them you could end up ‘marking up’ by 40%, rather than 67%, which would give you a selling price of £84, a gross profit of only £24 and a margin of 28% which is much lower than you expected and may be insufficient to cover your overheads. Understanding how to calculate and apply mark-up percentages and margins is an essential business skill.

Break even

Do you know your break-even point? Having set a realistic price for your product it’s time to check that your business will make a decent profit. This means that your sales need to be higher than your costs and expenses. However, to know if it’s higher you need to know the point at which your sales equal your costs and expenses, which is called your break-even point.

Break-even point = Sales minus (costs + expenses)

If you sell more, then you make a profit. On the other hand, if you sell less then you make a loss. Surprisingly, even though it is relatively simple to calculate, few business owners know their break-even point. However, if you can make a reasonable estimate or, even better, forecast your sales and costs, conducting a break-even analysis is a matter of simple maths. You do need to know one more thing about costs, however, and this is the difference between fixed and variable costs, which we discussed in the previous chapter.

Of course, setting your price is critical to your break-even analysis; you cannot calculate likely revenues if you don't know what the unit price will be. Unit price is the amount you plan to charge customers to buy a single unit of your product (or an hour of your time if you provide a service). Now you know the values of the three variables – fixed costs, variable costs, and the price of the product – you can calculate your break-even point, in terms of sales volume. The formula to conduct your break-even analysis is to take your fixed costs, divided by your price, minus your variable costs.

As an equation, this is:

Break-even sales (units) = Total fixed costs/ (Unit selling price - variable costs per unit)

This calculation will let you know how many units of a product you'll need to sell to break even. Once you've reached that point, you've recovered all costs associated with producing your product (both variable and fixed). Above the break-even point, every additional unit sold increases profit by the amount of the unit contribution margin.

If you want to calculate your break-even sales in value (rather than unit) terms, first express your gross margin as a percentage. The equation for calculating break-even sales value is:

Break-even sales (value) = Fixed costs/ Gross margin percentage

Knowing your break-even point is an essential number within the business maths framework.

Measure your gross margin over multiple data points

The most useful metrics a business can derive from its analysis of sales and cost of sales are its gross margins across multiple data points such as products, services, customers, and distribution channels. These metrics become actionable in relation to numerous objectives such as profit improvement, cash flow enhancement and working capital management.

Fortunately thanks to technological advances, modern accounting software does the heavy lifting which enables the calculation of these data sets to be automated. In Xero Accounting this can be achieved using the 'tracking' function and in QuickBooks Online by accessing the Profit by Customer reports.

In the next chapter we'll identify the 12 key numbers every business owner should know to set targets for your marketing (no. of leads), sales and profitability metrics.

4. Your 12 key numbers

There are 12 key numbers[5] every business owner should know to be able to set their business targets, as shown on the table opposite, which are:

1. **Leads**: This could be number of website visitors or number of homes that receive a flyer or number of visitors to your stand at a trade show etc. There are lots of variations depending on what business you are in and the type of marketing you're doing. In simple terms though, this is the number at the top of your marketing funnel.

2. **Lead Conversion (%)**: You have to nurture your leads and this metric is the rate at which you convert your leads into 'prospects'.. Your ability to nurture your leads via your funnel by sending them videos and emails can become a critical factor in the success of your marketing.

3. **Prospects**: A prospect is someone who, by their behaviour, has shown some interest in what it is that you do/sell. So, for example, this could be someone who has filled out the opt-in form on your website or had a discovery call or meeting with you.

The goal is to convert more leads into prospects. What makes someone a prospect as opposed to a lead will vary by business. In my business, a lead becomes a prospect when they have a discovery call or meeting with me. In other words, the lead is the person who comes in at the top of your marketing funnel. The prospect is when the next major thing happens, such as a discovery call or a meeting.

4. **Customer Conversion (%)** Not all your prospects will become customers. The rate at which you convert prospects to customers is your Customer Conversion; this is a critical number because it determines how many prospects (and therefore how many leads) you need in order to hit your targets.

5. **Number of Sales**: This is probably the most straightforward number on the list. It's the number of sales you make.

6. **Average Transaction Value**: Some customers spend a lot and others spend a little, but the Average Transaction Value is simply the total value of your sales, divided by the number of transactions. Every business has variances in transaction size, but every business also has an *average* transaction value.

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[5] The 12 key numbers system was conceived by Allan Dib in his book the *1-Page Marketing Plan: Get New Customers, Make More Money, and Stand Out from the Crowd,* developed by Nigel Botterill of the Entrepreneurs Circle (https://entrepreneurscircle.org/) and featured in my book (co-authored with Nigel Botterill) The Entrepreneurs Marketing System.

7. **Total Revenue**: this one's simply the Number of Sales multiplied by the Average Transaction Value.

12 key numbers (for a business with recurring clients)

Yellow cells are input cells - only type in yellow cells!!
All other cells will calculate themselves once the yellow cells are inputted
The breakeven column will self-calculate once the yellow cells are inputted

Where are you NOW...

	Top Down Model...	Now
1	**Leads**	
	times	
2	**Prospect conversion**	20%
	Equals	
3	**Prospects**	-
	times	
4	**Customer conversion**	50%
	Equals	
5	**No of New Sales**	-
	No of existing customer	20
	Churn Rate	5%
	Total customers	19
6	**Ave transaction value**	£10,000
	Equals	
7	**Total Revenue**	£190,000
	times	
8	**Gross Margin %**	35%
	Equals	
9	**Gross Profit**	£66,500
	Less	
10	**Fixed costs**	£20,000
	Less	
11	**Salaries**	£30,000
	Equals	
12	**Net Profit *(before tax)***	£16,500

The difference a few changes make...

Little Changes...	% change	After
Leads		-
Prospect conversion	0%	20%
Prospects		-
Customer conversion	0%	50%
No of New Sales		-
No of existing customers		20
Churn Rate	4%	4%
Total customers		19
Ave transaction value	10%	£11,000
Equals		
Total Revenue		£211,200
times		
Gross Margin %	2%	37%
Equals		
Gross Profit		£78,144
Less		
Fixed costs	5%	£19,000
Less		
Salaries		£30,000
Equals		
Net Profit *(before tax)*		£29,144

Breakeven

Breakeven (based on where you are now)
14
£10,000
£142,857
35%
£50,000
£20,000
£30,000
£0

Where you NEED TO BE to hit your target profit...

Bottom Up, Profit First Model *Tells you how many leads you need to achieve your target profit*	Now	Where	
No of Leads Needed	248	182	1
Equals			
Prospect conversion	20%	20%	2
Divided by			
Prospects	50	36	3
Equals			
Customer conversion	50%	50%	4
Divided by			
No of Sales	25	18	5
No of existing customers	19	19	
Churn Rate	5%	4%	
Total customers	43	37	
Ave transaction value	£10,000	£11,000	6
Divided by			
Total Revenue	£428,571	£402,703	7
Equals			
Gross Margin %	35%	37%	8
Divided by			
Gross Profit	£150,000	£149,000	9
Equals			
Overheads	£20,000	£19,000	10
Plus			
Salaries	£30,000	£30,000	11
Plus			
Target Net Profit *(before t*	£100,000	£100,000	12

8. **Gross Margin Percentage**: Gross profit (see below) is the amount you earn after direct costs and is the amount of each sale that you get to 'keep' in your business to contribute towards your overheads and your profit. Your Gross Margin Percentage is this number expressed as a percentage. It is important to get as accurate as possible with this number, and add into it all the costs that are 'spent' when you make sales. In the best case, this would include your marketing costs. It will also include all sub-contracted costs that you only incur when you make a sale.

So, for instance, if you had a sub-contract worker who you only paid when they carried some work for you, then you'd include those costs in your Gross Margin Percentage. Be careful here. If your worker is on the payroll and you had to pay them regardless of how much you sold, then their costs would be included in the salaries (see below). The best thing about your Gross Margin Percentage is that once you've passed break-even point, your gross profit is the amount by which your profit grows by every time you make a sale.

9. **Gross Profit**: This is the amount of you have left to fund your overheads, salaries and profit AFTER all your 'direct costs' have been paid and is a sum of the Total Revenue line multiplied by the Gross Margin Percentage.

10. **Overheads**: These are your fixed costs. In other words, all the costs you have to pay regardless of how many sales you make. This is where you'll include all your occupancy, establishment, vehicle costs, utilities etc. Don't include your salary costs here.

11. **Salaries**: These are your people costs. Only include here your costs of everyone you pay UNLESS they only get paid when you make a sale (in which case they'd be included in your Gross Margin Percentage above). If they expect to be paid at the end of the week or month regardless of how many sales you've made, then their costs go in here.

12. **Net Profit (before tax)**: This is what's actually left for you, after you've paid all your costs, but BEFORE you pay tax. The amount of tax you'll pay depends on the structure of your business and how you extract the profits. See Appendix 2

Now, what's important about all the numbers is that they are all linked. For example, net profit + salaries + overheads = gross profit. Your total revenue comes from the number of sales you make and the average transaction value. Your sales will come from prospects which in turn come from leads. Everything is linked.

And when you have calculated your ***actual*** 12 key numbers in the top-down model, based on your latest management accounts and your marketing conversion rates, you can use the results to set targets for the performance results you want in the future.

You can download this spreadsheet at https://guilfordaccounting.co.uk/business-maths-made-simple-12-key-numbers/.

Start by inserting the profit before tax you want in box 12 in the bottom-up model to see how many leads and prospects you need to achieve this level of profit based on your current performance ratios. Then 'tweak' the conversion rates, average transaction value and gross margin in the 'After' column to see how these alter the number of leads, prospects and customers you need.

You now know the target values for some of the metrics you may want to track on your business scorecard.

5. Cash flow and working capital management

The cash flow statement, sometimes called the cash summary, records the flows of cash in and out of a business. Like the profit and loss, it records the flow over a period of time – a week, month, quarter or year.

The irony of the cash flow statement is that it is the most useful of the three financial statements but is the only one that accountants rarely include in the accounts they prepare for their clients.

As I said earlier, this is because accounting rules dictate the information that is required to be published in accounts. These requirements concentrate on information considered to be useful to external investors and creditors, rather than the information that will be useful for business owners.

The other distinguishing feature of the cash flow statement is that it is, also, the only one of the three statements that is based on fact, rather than estimates and assumptions.

The cash flow statement is divided into three sections:

1. Operating cash flow;

2. Financing cash flow; and

3. Investing cash flow.

The most useful of these is the **operating cash flow statement** as this records whether net cash has flowed into or out of a business over a period of time and determines whether the business is solvent and for how long it will remain so.

The metric of net operating cash flow and its trend over various data points is probably the most useful number for you to know. If net operating cash flow is positive then the business will be accumulating cash for distribution to its owners or for future investment. The business is solvent and healthy.

If operating cash flow is negative this represents a warning sign and if it remains negative for any length of time, then the warning rises to critical. The business is running out of cash.

A simple calculation to compare 'cash burn', the weekly or monthly negative operating cash flow, with cash reserves will tell you how soon cash will run out if the reserves are not topped up.

What is important for business owners to understand is that operating cash flow can be negative even if the business is showing a profit.

In the long term, however, just topping up reserves by, say, borrowing more, will only delay the inevitable insolvency of the business. Without positive operating cash flow over the long term a business will eventually fail.

The **financing cash flow statement** shows the flows of money invested by way of equity from the owners and loans (positive) and payment of dividends, interest and loan repayments (negative).

The **investing cash flow statement** shows the investment being made in the business through the acquisition of fixed assets.

Where has all the profit gone?

A question I am quite often asked by business owners is "My accounts show a profit but I've got no cash in the bank; where is it?"

The answer is always to be found in the cash flow statement. I recommend preparing a reconciliation between profit earned and cash flow during a period. This is simple to prepare and should, really, be on every business owners' agenda for their monthly review of their accounts.

The usual items making up the difference are:

- Owners' drawings or dividends
- Tax and VAT payments
- Loan repayments
- Purchases of assets
- Increases in stock
- Increases or decreases in debtors and creditors.

You can begin to see why the cash flow statement is such a useful tool that should be in every business owners' toolbox.

The cash conversion cycle

One of the most useful KPIs for a business is its **cash conversion cycle**. This is the number of days (or weeks) it takes for £1 spent by the business to be returned in cash or the length of time the business owner has to 'invest' in the business before a cash return is made.

Consider this example: A business buys raw materials for £1 on 30 days credit from a supplier and pays in 30 days. The materials are used to manufacture goods which are placed in stock. 25 days later the goods are sold on credit and the customer takes 60 days to pay.

Number of days before customer pays = 60

Number of days sales held in stock = 25

Number of days before suppliers are paid = 30

Cash conversion cycle = 55 days (60+25-30)

So if annual sales are £500,000, the working capital required is over £75,000 as follows:

$$\frac{\text{£}500{,}000 * 55}{365} = \text{£}75{,}342$$

In this example of a business that sells on credit and holds stock, the cash conversion cycle is the sum of the number of days there are in debtors (before a customer pays) plus the number of days stock is held, LESS the number of days required to pay creditors (before suppliers are paid).

The total of 55 days – the time it takes for the £1 to return to the business – is nearly eight weeks, which is more than most people realise.

Working capital requirement

Working capital comprises the amount a business needs to invest in stock and debtors to finance its sales before it gets paid. The investment is reduced by the amount of creditors who are financing part of the working capital requirement until they are paid.

So, the formula for working capital is: Stock + Debtors – Creditors, which obviously fluctuates daily as stock is purchased, sales are made and cash is collected and paid. It is useful, therefore, to have a rule of thumb for assessing how much working capital is needed to finance stock and debtors.

Using your annual turnover, you can work out the amount of working capital your business needs. If the business is growing this is an essential metric to know and one I find that is almost always greater than business owners expect.

Some business owners may think that the best way to improve cash flow is to increase sales, but this overlooks the fact that cash may need to be invested *before* it is collected from the additional sales.

This is the reason why working capital is often financed by borrowing; if this is the case in your business then its important to understand exactly how much working capital you will need, as if a bank overdraft, for example, is too low, the business may run out of cash before its customer debts are collected.

Here's how to calculate your working capital requirment: suppose your sales are £10,000 per month (£120,000 per year). If customers take 60 days to pay your debtors will be £24,000 (2 x £10,000 plus VAT at 20%) which is 20% of sales (£24,000/£120,000) expressed as a percentage.

Next there is stock to consider. This will vary depending on if you hold raw materials and working in progress as well as finished stock for sale, but if the raw material content of sales is 40% and total cost of sales is 70% (leaving a 30% gross margin), then the raw material percentage will be 5% and both work in progress and finished goods 7%, making at total of 19%.

So, stock and debtors combined require financing of 39% of annual sales; assuming the one mitigating factor – creditors – means that you can get 90 days credit on raw material purchases which amounts to 12% of annual sales, your total working capital requirement will be 27% of annual sales, a whopping £270,000 on sales of £1 million per annum[6].

[6] This calculation is not straightforward unless you know your average debtor days, gross margin, raw material content of sales and average creditor days which is why we recommend you track each of these metrics on a monthly basis.

6. Some business metrics to start with

Business, first and foremost, is about **profit**. Without profit, you can't market, and without **marketing** you'll never reach your ideal customers. Then it's about turning profit into **cash**.

So in deciding the key metrics to measure in your business, it makes sense to consider metrics for:

- Profitability
- Marketing (and customers), and
- Cash (and working capital)

In the next chapter we'll look at creating your business dashboard, but not all metrics – even though they are important – need to appear on your weekly or monthly dashboard. This is because they won't change in these time frames and only need to be calculated, say, annually. Examples of these are metrics such as your break-even point and average customer lifetime value.

An important distinction to make is between leading and lagging metrics (sometimes called input and output metrics) both of which should be represented on your dashboard.

Most business owners focus on their results such as revenue and profit (which are lagging metrics). But what actually drives those results? This is what leading metrics are: measures such as discovery calls held, appointments booked etc.

Remember, too, that there is no such thing as a list of metrics that apply to all businesses. No two businesses are exactly the same and there will always be metrics that are relevant just to your business.

Profitability metrics

1. **How much profit you made last month:** there are numerous measures of profit that accountants like to calculate and give names to such as operating profit, EBIT, EBITDA and so on, but one simple measure tracked over time is all you need. The one I suggest is profit before tax, but be careful because this may not be your *true* profit if it is calculated before deducting your drawings (sole trader) or if you pay yourself a minimum salary and take dividends (limited company) as only the salary, and not dividends, will be deducted. In these situations you should adjust the profit figure in your books to include a full management salary.
   At the very minimum every business owner should be able to answer the question: "How much profit did you make last month?"

2. **Your break-even point:** we discussed the importance and calculation of your break-even point in chapter 3, and although this is unlikely to change significantly on a monthly basis (and therefore we don't suggest it's included on your scorecard) it is an essential metric that every business owner should know.

3. **Gross margin.** The most useful metrics a business can derive from its analysis of sales and cost of sales are its gross profit and gross margin. Some analysts consider gross profit to be the *true revenue* of a business, particularly where the gross margin is low such as, for example, a supermarket. Gross profit, as I explained earlier, is calculated by deducting all the business's variable costs from sales. Gross margin is this number divided by sales and expressed as a percentage. The real value of the gross margin metric is where it is measured by customer, product or distribution channel.

Marketing metrics

Very few business owners track their marketing metrics accurately, if at all. They don't know how much it costs them to generate a lead from each of the marketing pillars they employ or their conversion rates from lead to prospect to customers. Without this key data much of what they spend on marketing may be wasted.

Nor, when measuring your marketing activity, are all metrics considered equal. If you focus on the wrong metrics to make strategic decisions, you may slow or even halt the growth of your business.

That's not to say that you *shouldn't* measure 'vanity metrics.' These are still important indicators to measure marketing performance. But there's a distinction between the key strategic metrics you need to measure and the indicators of activity across channels, content and landing pages.

But first…. before you can measure the success of your marketing activity, you need to have a clear understanding of your target market and ideal customer, map your customer journey and define your positioning and your unique selling proposition (USP) so that you can stand out from the crowd and engage in meaningful interactions with your potential customers.

There are 10 key metrics that are important when measuring your marketing performance. Most of these might seem obvious, but they're the foundation of your marketing tracking, and tracking them is far easier these days, thanks to automation and the shift to digital channels.

A comprehensive digital marketing plan is key if you want to meaningfully connect and engage your target audience online. With your digital marketing plan in place, you'll need to measure your results against your goals. Every single marketing activity should be measured against the goals you set, and the metrics you should use to do this include:

4. **Return on investment (ROI)**. Possibly the most important metric, you should always strive for a positive ROI for every marketing activity. Your marketing return on investment can be calculated one of two ways:
    - Dividing the amount spent on marketing (overall and across specific channels) by the revenue generated; and
    - Dividing the amount spent on marketing by customer lifetime value (CLV)
    - The first gives you a true, objective view of your marketing. It shows you how much you've earned from your marketing efforts. However, it's still wise to calculate against CLV to help project future revenue and justify your marketing investment.

5. **Sales.** Sales generated by marketing pillar is probably the most critical metric for measuring how well your marketing is performing because, at the end of the day, a marketing campaign could generate thousands of visits to your website or likes on a Facebook post. But if it's not generating sales, there's something going wrong.

    Measuring your marketing by sales channel gives you an objective view of your marketing performance. But as we saw in lifting the lid on sales, it is the analysis of sales by different marketing pillars that is important so you can track which pillars are giving the best return on investment (ROI)

6. **Net new customers**. This metric should not just measure the total number of customers on your list (which isn't, in itself, what you should be targeting) but the **number of ideal customers that meet your target criteria** such as minimum level of spend, expected lifetime value, cash conversion period, gross margin etc. Taking on too many of the wrong type of customer such as those with a low gross margin and high working capital requirement can worsen, rather than improve, business performance and, at worst, cause a business to run out of cash.

7. **Customer lifetime value (CLV)**. This is calculated by the average sale per customer multiplied by the average number of times they buy across a year. This one is particularly useful for measuring long-term ROI of your marketing

efforts. Along with sales, understanding the lifetime value of your customers is invaluable. When you understand your average CLV, you can calculate the true ROI of your marketing activity.

CLV is calculated by knowing how much a customer spends with you on average each time they buy, how often they buy and how long they're a customer. Here's a step-by-step process to calculate this:

- First, calculate your **average purchase value** by dividing the total amount of revenue over a year by the number of purchases over that same period;
- Then, calculate **average purchase frequency rate** by dividing the number of purchases above by the number of individual customers who purchased;
- Next, calculate **customer value** by multiplying the average purchase value (see step 1) by the average purchase frequency rate (see step 2);
- Now, calculate your **average customer lifespan,** which is simply the average number of years a customer does business with you;
- Finally, calculate CLTV by multiplying customer value (see step 3) by average customer lifespan (see step 4).

Here's an example: Sales: £100,000, number of purchases: 2,000, and number of individual customers who purchased: 50

- **Average purchase value:** £100,000 / 2,000 = £50
- **Average purchase frequency rate:** 2,000 / 50 = 40
- **Customer value:** £50 x 40 = £2,000
- **Average customer lifespan:** 2.5
- **CLV:** £2,000 x 2.5 = £5,000

You now have an estimate of the average amount of value a customer brings over their lifetime.

8. **Customer acquisition cost**. How much it costs to acquire a customer. By calculating how much it costs to acquire a customer, you can make better strategic decisions for your marketing. To calculate CAC, simply divide the amount spent on a marketing channel or campaign by the number of customers acquired. For example, if you spent £10,000 on Facebook Ads and generated 2,000 customers as a result, your CAC would be £5.

You can now use your CLV and CAC to calculate how much you need to spend on marketing for the next month to get the number of customers you need to meet your sales target. The calculation is:

- What is the lifetime value of a customer (CLV)?
- How much can you afford to pay to get this customer (A)?
- How many leads do you need to get a customer (B)?
- How much can you spend to get a lead (C=A/B)?
- How many new customers do you want (D)?
- How many leads do you need next month to get that number of customers (E= B x D)?
- How much you need to spend on marketing for the next month to get the number of customers you need (D x E)

9. **Cost per lead**. The cost of generating a new lead into your marketing funnel (segmented by channel). As well as CAC, the cost of generating a new lead into your marketing funnel (segmented by channel) is also important. And just like CAC, this is calculated by dividing the amount spent on a marketing initiative by the number of leads it generates.

   This, along with CAC, is useful for several reasons. First, it will determine if you're generating leads at a sustainable rate. And secondly, it will allow you to focus on optimising various stages of the funnel to reduce your cost per lead while increasing conversions.

   Let's use Facebook Ads again as an example. If you spend that £10,000 on ads and generate 5,000 leads, that means you have a cost per lead of £2. If you wanted to reduce your cost per lead, you could try a couple of things:
   - Reduce the cost-per-click (CPC) of your Facebook ads by making your copy and creative more relevant, or
   - Improve elements on your landing pages to increase conversion rates.

10. **Cost per sale**. The cost of generating a sale (segmented by channel). As well as CPL, the cost of generating a sale (segmented by channel) is also important. And just like CPL, this is calculated by dividing the amount spent on a marketing initiative by the number of sales it generates.

11. **Conversion rate**. The number of people who click your ad, visit your website etc. that take a specific action (download an eBook, sign up for a free trial etc.).

12. **Customer satisfaction.** Customers should be at the centre of your business, so there should be a metric that measures their level of satisfaction. One of

the best ways to do this is to ask: Would you recommend us to a friend/colleague/acquaintance? This is known as the net promoter score (NPS) question and is one of the key metrics of which businesses should have their own version (https://www.netpromoter.com/know/).

13. **Follow-up rate.** Very few prospects are ready to buy at exactly the time they come across your business or offer – it's actually fewer than 5%! This is why, as the saying goes, *the fortune's in the follow up.* The effective follow up of leads and enquiries is one of the most neglected business skills. Recent research by Microsoft revealed that, on average, a lead (a prospective customer) needs to be contacted between 10 and 12 time before they'll buy from you, by which time, most of your competitors have given up. The vast majority of businesses are very poor at following up with prospects. Follow-up is easy to do – but it needs a system and most businesses don't have one.

    So, having a metric that will measure not only the number and cost per lead, but the follow up rate and conversion percentage is important. The calculation of this metric will vary depending on the type of business, number of leads, the conversion cycle and average conversion time, but when measured, and compared with marketing spend by pillar, can often enable expenditure on generating new leads to be reduced and follow up activity increased.

Cash (and working capital) metrics

14. **Net operating cash flow.** Net operating cash flow – also called cash flow from operating activities is the cash that your business generates through its core business activities. It doesn't include revenue drawn from investments, or long-term capital expenditures. In other words, the operating cash flow ratio is entirely focused on your normal business operations and is a crucial metric to understand because it tells you whether your business has enough funds to continue in business and grow operations.

    Businesses with a positive operating cash flow can fund growth, develop new products and service lines, and pay dividends to the business owners. That wouldn't be possible with a negative operating cash flow ratio. The formula that businesses use to do an operating cash flow calculation is likely to vary, as different businesses won't always have the same items on their balance sheet. Generally speaking, however, you can calculate the operating cash flow ratio with the following formula: Net Operating Cash Flow = Net Income + Non-Cash Items + Changes in Working Capital.

15. **Cash conversion cycle** The cash conversion cycle is a metric that expresses the time (measured in days) it takes for a business to convert its investments in stock, debtors and other resources into cash flows from sales. The cash conversion cycle measures how long each net input pound is tied up in the production and sales process before it gets converted into cash received.

    This metric takes into account how much time the company needs to sell its stock, how much time it takes to collect debtors, and how much time it has to pay its bills. It is one of several metrics that evaluate the efficiency of a business's operations. A trend of decreasing or steady cash conversion over multiple periods is a good sign while rising ones should lead to more investigation and analysis. The formula for the calculation of the cash conversion cycle is explained in chapter 5.

16. **Cash cover.** Cash cover is the calculation of the amount of time, measured in weeks or months (but hopefully not days!) a business has during which it can pay its fixed costs, overheads, salaries, debt repayments and taxes from its existing cash reserves. As a rule of thumb a cash cover of three months is considered to be adequate and less than one month may be considered as a warning sign. Cash cover is a metric used by banks and suppliers to assess the credit-worthiness of a business.

17. **Debtor days.** Debtors days is the number of days sales, including VAT, included in debtors and is calculated by counting back daily sales to equal debtors. The higher the number of days the greater the amount the business has invested in working capital. Debtor days is a measure of how quickly a business gets paid. It's the average number of days taken for a business to collect a payment from its customers. The average time it takes for a business to get paid within a set time period can reveal a lot about the state of the business; a longer number of debtor days may mean that cash is in short supply.

    There are a few different ways to calculate the debtor days ratio, and the right calculation to use depends on the context in which you need to know your debtor days. The**:** best method for calculating debtor days is the count-back method. The benefits of using the count-back method are that it accounts for fluctuations month on month, which a yearly figure may not accurately depict. This is useful if you have irregular sales amounts during the year. The count-back method shows high and low month sales and what the impact is on your debt collection.

18. **Stock turnover** Stock turnover is a metric used to determine how well a business manages its stock by measuring how many times stock is sold, used or replaced within a fixed period of time. It is often used to measure the efficiency of warehouse or stock control processes. The stock turnover ratio is defined as the ratio of cost of goods sold during a period to the average stock held.

19. **Investment in working capital.** Working capital comprises the amount a business needs to invest in stock and debtors to finance its sales before it gets paid. The investment is reduced by the amount of creditors who are financing part of the working capital requirement until they are paid.

    Using your annual turnover, you can work out the amount of working capital your business needs. If the business is growing this is an essential metric to know and one, I find that is almost always greater than business owners expect.

    The calculation of the amount of working capital a business needs is shown in chapter 5. In this example the working capital requirement is 27% of annual sales (before VAT). As a rule of thumb a business's working capital requirement is likely to be between 25% and 35%. Finding ways to reduce this percentage can significantly improve cash flow, reduce borrowing and increase and cash reserves.

20. **Creditor days (and creditor strain).** Creditor days is the number of days purchases of raw materials, goods for sale and expenses, including VAT, included in creditors and is calculated, in the same way as debtor days, by counting back daily purchases to equal creditors.

    If sales increase too quickly and the net working capital requirement of a business increases at a faster rate than can be financed from retained earnings or borrowings, then there is only one further source you can lean on which is your creditors (which invariably includes the tax man). For those whose dashboard doesn't show this worsening situation and therefore fail to identify it, then **creditor strain** which is defined as the overdue element of trade credits, builds up.

    This is most easy to determine by taking your aged payables list of what you owe, aged into the months in which the liability was incurred, and categorising any purchases of raw materials and goods for sale over 60 days and expenses over 30 days as overdue. If you don't produce an aged payable list on a regular basis then compare actual creditors with a *normal* level of creditors calculated at 12% of sales, or whatever percentage you used in the calculation of your working capital percentage. The trend in the build-up of creditor strain from month to month will give you a true feel for the cash flow pressure building up.

These metrics are only a selection of those available that you may choose to measure. The challenge for most businesses is to select the metrics that are most meaningful and actionable.

And remember that those metrics that don't make it on to the scorecard, but are still important to keep track of, should be reported in your monthly management accounts.

7. Your business dashboard

Before you start to construct your business dashboard there are two key questions you need to ask yourself (and your team):

- How many and which metrics should you measure; and
- Over what time periods should they be measured.

There is no one size fits all answer to these questions. It depends on the nature and size of your business and whether you have a team to support you.

If you are just starting out on this journey or are a solopreneur with a small team, **do not be too ambitious and try to measure too much too often**. Less is more in this regard. Start with a few (3-4) metrics measured monthly and build from there.

In due course you should aim to have 3-4 key weekly metrics (we call them your vital signs) and 8-10 monthly metrics (we call these your scorecard) displayed on your one-page business dashboard.If you have a finance department or a larger team, you can move to 8-10 weekly metrics provided that each metric is *owned* by a different team member.

Remind yourself, too, of the key characteristics of good KPIs:

• They are specific and measurable	• They are measured against and target
• They drive the actions in your business	• They are easy to understand
• They are tracked regularly	• They're visible

As a general rule your vital signs should measure your key marketing and sales metrics and your scorecard should measure your profitability, cash, working capital and other metrics.

Your vital signs

Examples of metrics that you may want to measure to track your vital signs are:

B2B business	Appointment based business	Retail business
LinkedIn connections	Appointments booked	Footfall
Discovery calls	Percentage of capacity	Sales per square foot
Proposals sent	No-show percentage	No. of transactions
Net new/total customers	Average customer spend	Average transaction value
Conversion rate	Revenue	Conversion rate

Your vital signs should be metrics that provide you with information that will allow you to take decisive action which will have an immediate impact on the business.

expedio Business Scorecard

Enter the first date you'll complete this scorecard (the rest of the year will populate automatically).

Make your weekly data entries in this section under the right date. You'll need to enter at least two weeks before you see anything in the summary or in the dashboard on the next tab.

Funnel position	Measurable	Less or More than	Week 1 Target	Week 52 Target	This week	vs Last Week	Last 13 Weeks	vs Previous 13 Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13
	Website Visitors Target																				
Top	Website Visitors				No data	▸ 0.00%	No data	No data													
	Leads Target																				
Middle	Leads				No data	▸ 0.00%	No data	No data													
	Sales Calls Target																				
	Sales Calls				No data	▸ 0.00%	No data	No data													
	Sales Meetings Target																				
	Sales Meetings				No data	▸ 0.00%	No data	No data													
	Proposals Sent Target																				
	Proposals Sent				No data	▸ 0.00%	No data	No data													
Bottom	Number of Sales				No data	▸ 0.00%	No data	No data													
	Sales Value				No data	▸ 0.00%	No data	No data													
	Number of Customer Reviews				No data	▸ 0.00%	No data	No data													
	Accounts Receivable Target																				
	Accounts Receivable				No data	▸ 0.00%	No data	No data													
	Accounts Payable Target																				
	Accounts Payable				No data	▸ 0.00%	No data	No data													
	Cash at Bank Target																				
	Cash at Bank				No data	▸ 0.00%	No data	No data													
	Email Unsubscribes Target																				
	Email Unsubscribes				No data	▸ 0.00%	No data	No data													

For example, if you have a B2B business and you aren't hitting your target for new customers, you may want to increase the number of LinkedIn connections or Discovery calls you make.

If you have an appointment-based business but aren't reaching your capacity utilisation target you may want to get on the telephone to past customers and offer them an incentive to book an appointment.

Scorecard

Your scorecard should contain 8 -10 metrics chosen from the 20 listed in chapter 6; any more than this and you'll lose focus.

If you haven't yet completed the Desert Island exercise do so now:

"If you were stranded on a desert island with no connection to your business at all, but you could get a daily one-page report of key metrics, what numbers would you need to see to determine exactly where your business is at and the health of it?"

You will probably want to start by thinking of the key metrics you want to know as the business owner. Start with a brainstorm of the key metrics you *could* measure. Can you set a target for each one? Are they easy to understand and actionable?

Now move on to each major function in your business: marketing, sales, operations, fulfilment and finance – what are the key metrics you need to see to determine how each function is performing?

Performing the Desert Island exercise also helps you to envision what it is like a true business owners working on, rather than being stuck in, the business.

An example of the type of scorecard you might want to develop is shown overleaf courtesy of my friend, the awesome Joanne Sparkes of Expedio. If you want a spreadsheet you can use to record your key metrics with conditional formatting built in go to https://expediodata.design/scorecard where you can get this one from.

The real power of analytics come from adoption; businesses must embed analytics in their operating model of day-to-day workflows. To paraphrase the legendary baseball umpire Bill Klem, 'Data analytics ain't nothin' until you use it'.

8. More advanced marketing metrics

At this point you have all you need to know to decide upon the key metrics you are going to use and start to build your business dashboard. This optional chapter is for those businesses that have a marketing team that wants to go one stage further, but is not recommended for solopreneurs, early-stage businesses or those with only a small team.

Metrics for Awareness

Measuring your results at the awareness stage of the marketing process is key to understanding the reach of your marketing message and is a good indicator of brand awareness at the very top of the funnel.

1. Website traffic

How much traffic are you generating to your website on a weekly or monthly basis? By getting a birds-eye view of the visitors to your website, you'll generate insights on seasonality, trends and your top-performing channels or content.

This data can all be acquired through web analytics tools, and there are several on the market. Google Analytics is the most well-known, free and easy to use option.

Start with overall traffic and check how many visitors you generated over the course of a year. Were there any spikes or drops across a certain month? Looking for these patterns can make you aware of seasonality trends, and plan accordingly for the following year.

You must also keep an eye on traffic across each marketing channel. These channels are usually segmented into the following categories:

1. **Direct**. Traditionally, this means people who visit your website by entering your URL straight into their browser. These days, it also counts for traffic that cannot be attributed (in other words, if the source of traffic to your site is unknown, it will be attributed as direct traffic).
2. **Referral**. This is traffic that came from another website.
3. **Organic Search**. These are visitors that found you through the organic search engine results pages. They entered a keyword and clicked through to your website.

4. **Social**. Traffic that comes from social media platforms, such as Twitter, Facebook and LinkedIn.
5. **Paid Search**. Similar to organic search, this is traffic that comes from your pay-per-click (PPC) campaigns.
6. **Email**. This includes any traffic that you generate from your email marketing campaigns.

Use traffic to measure your top-of-funnel and awareness performance. This way, you can determine which channels to invest in to increase volume.

2. Social media reach

The reach of your social media content is a great indicator of your marketing activity. Businesses have two options with social reach efforts: organic and paid.

Organic is free and comprised of engaging content that enhances your overall image and experience. With organic, it’s important to show customers your personality. Best practice is to be transparent while professional, respond to comments, follow hashtags and be relatable. This is your opportunity to connect with customers on a human level, which leads to trust and eventually loyalty.

Paid, on the other hand, is a chance to extend your reach through targeted ads or campaigns. Use these tools to boost awareness, generate leads, drive traffic to your site and offer promotions with improved visibility.

Social media reach also acts as an indicator of the distribution and coverage that your content is getting across your chosen social media platforms.

This is usually presented as the number of shares your content has generated and can be uncovered in a number of ways. For example, on Facebook, you’ll see how many people saw a post from your business page. You can also use tools like BuzzSumo or Ahrefs to evaluate reach. Simply enter your domain into their Content Analyzer, and you’ll see your most shared pages and content by channel.

Segment this data by social platform to see which are performing well. Couple this with traffic metrics to get a clear view on your top-performing channels and content. You can also get ideas from your competitor’s top-performing content by plugging in their site and reviewing their stats.

3. Brand mentions & searches

Seeing how often you're mentioned online is another great way to measure awareness. There are several ways to do this.

First, there's monitoring how many people mention you within their content online. This can easily be done with a tool like Google Alerts, which will give you a daily or weekly digest of sites that have mentioned you online:

Alternatively, you can use a tool with more in-depth functionality like Mention. These tools usually contain more advanced features, such as monitoring social media mentions in real-time (as well as the ability to respond to them directly from the platform).

You should also monitor how many visitors and impressions you're generating from search engines. Use Google Search Console to keep track of how many people are searching for your brand directly.

4. Engagement metrics

The content on your site can be consumed at all stages of the marketing funnel. However, it's important to measure engagement metrics to determine how visitors are interacting with your content. Two of the most common engagement metrics include:

1. **Average time on site/page**. This is the amount of time visitors spend on your website overall, or a specific page.
2. **Bounce rate**. The percentage of visitors who visit a page without navigating to another one. In other words, the rate of those who visit your site and "bounce" without taking another action.

Metrics for Conversion

We'll now look at how well individual elements of your marketing activity are contributing to the lead generation and conversion.

1. **Visits & conversions by source**

At the consideration and conversion phase of your marketing funnel, the focus is on guiding prospects through your funnel with the end goal of generating conversions. To measure the conversion rate at each stage of a customer journey, you need a view for each channel and source.

Start by going back and looking at the number of visitors you generate to your website. Don't just look at this from a channel-level view ("organic search"). Go into the individual referring websites and social platforms that generate a high volume of traffic and conversions. In Google Analytics, you can do this by heading to Acquisition > All Traffic > Source/Medium. Then, use Goals to measure conversions and conversion rate by each channel. Monster Insights has an easy-to-follow guide you can check out here about how to do this.

2. Landing page performance

A landing page is a standalone page usually used for advertising or marketing purposes to promote a specific product, feature, deal, campaign, or item. It's the page a visitor lands on after clicking a hyperlink. A useful metric is the number of visitors you're generating for your website overall vs. your landing pages.

Keeping a keen eye on landing page traffic is key, as these are the pages that contribute to specific results and yield an action from your prospects.

Make sure you monitor the following metrics:

1. **Total landing page visits**. How many visitors are you generating to your landing pages? Measure this for each of your pages to segment them by performance
2. **Traffic source**. Which sources, referring pages and ad campaigns are generating traffic to your landing pages?
3. **Total conversions**. How many conversions are you generating across each landing page?
4. **Conversion rate**. What's the conversion rate (the percentage of visitors who take action) for each landing page? Go deeper and segment these by channel and campaign

These metrics will allow you to make decisions across your campaigns and the journey to a specific conversion. For example, if you see an important landing page has a lower conversion rate than others, you can prioritise this for your conversion rate optimisation (CRO) efforts.

3. Call-to-action (CTA) performance

This is one of the most effective metrics you can measure throughout the conversion phase. Look at how many visitors are actually clicking on your CTAs. This can be further segmented into:

1. **Navigational CTAs**. These are the CTAs that drive a visitor to the next stage of your funnel e.g., clicking an ad which takes them to a landing page.
2. **Conversion CTAs**. These will be found on your landing pages, and usually involve filling out and submitting a form.

Measure the click-through rate (CTR) of your CTAs and look for optimisation opportunities. For example, how does a change in colour or copy affect conversion rates? Split test and see how these changes improve performance.

Appendix 1

The language of accounting

If I gave you a book written in a foreign language the chances are that you wouldn't be able to read it. Not because you aren't intelligent or don't know how to read but because no one ever taught you the language in which it's written.

It is no different with financial reports and accounts. They are written in the **language of accounting** which, unless you have been taught it, can be as difficult to interpret as a foreign language.

The language of accounting has its own rules, principles and conventions which makes it difficult to understand if you don't know the rules. Just like if you we're reading German you might ask: 'Why are all these capital letters in the middle of sentences? When you understand that in German every noun begins with a capital letter, it becomes clear.

Quite often, business owners who are having difficulty reading and understanding their numbers and financial reports think it's their fault because the reports appear to be written in English. In truth, it's because they haven't learned the language of accounting.

In this part of the book, I'll take you on a brief journey to learn the basics of the language of accounting to enable you to read financial reports and better understand your numbers. Fortunately, it's relatively straightforward and nowhere near as difficult as learning a foreign language.

The accounting equation

It all begins with two simple concepts: the accounting equation and the double entry system. The accounting equation states that accounts must always balance because the assets of a business must always equal its liabilities.

Assets = Liabilities

This is achieved because for every business transaction two entries are made in the books, hence double entry.

For this purpose, the investment in the business of the owner (often called capital) is treated as a liability because it is a sum owed by the business to the owner. This confuses some business owners who think of the assets of their business as belonging to them but becomes clear when you recognise that the business as a separate entity from its owner whether legally (as in the case of a limited company) or not.

So, assume that a business owner invests £10,000 in the bank account of a new business, the accounting equation will look like this:

Bank account (£10,000) = Owner's capital (£10,000)

The one transaction of investing £10,000 in the bank results in two entries in the books. Every subsequent transaction must follow this rule.

Assume now that the owner uses some of this cash to purchase £8,000 of stock to sell. The accounting equation will now look like this:

Bank account (£2,000) + Stock (£8,000) = Owner's capital (£10,000)

All that has happened is that one type of asset, the bank account, has become a bank account and stock. Note that there is no change to the owner's capital.

If the business owner now sells half of the stock on credit for £10,000, the assets of the business become:

Bank account (£2,000) + Stock (£4,000) + Debtors (£10,000) = £16,000

So, because the accounting equation says that assets must always equal liabilities, the liabilities side of the equation must now equal £16,000, an increase of £6,000. This increase is of course the profit on the sale of the stock. So, the accounting equation now becomes:

Bank account (£2,000) + Stock (£4,000) + Debtors (£10,000) = Capital (£10,000) + Profit (£6,000)

It may appear strange that the profit the business just made is classified as a liability, however, this makes sense when you realise that the assets of the business have increased by the amount of the profit which is now owed to the business owner in addition to their original investment.

Because the business owner wants to understand in a little more detail about where the profit has come from the accounting equation can be expanded further to show:

Bank account (£2,000) + Stock (£4,000) + Debtors (£10,000) = Capital (£10,000) + Sales (£10,000) – Cost of stock sold (£4,000)

As the equation now begins to become a bit unwieldy, accountants split it into two financial reports, one which we call the profit and loss account and the other the balance sheet, hence:

Profit and loss account

Sales	£10,000
Less cost of sales	(4,000)
Profit	£ 6.000

Balance sheet

Assets		Liabilities	
Bank account	£2,000	Capital account	£10,000
Stock	4,000	Profit	6,000
Debtors	10,000		
	16,000		16,000

You have now learned the basics of the language of accounting:

1. Accounts must always balance because the assets of a business must always equal its liabilities.
2. For every business transaction two entries are made in the books (we call this double entry)
3. The investment in the business by the owner, or capital, is treated as a liability because it is a sum owed by the business to the owner.

We have also introduced the concept of two financial reports. You therefore need to know to which report a transaction should be posted. (Accountants use the term posted to describe the action of recording each side of the double entry to a particular account in the business's books).

This can be confusing as in many, but not all, cases one side of the double entry transaction is posted to a balance sheet account and the other side to a profit loss account.

In the example above, the purchase of stock affected two balance sheet accounts – the bank account and stock - whereas the sale of stock affected both balance sheet and profit and loss accounts.

Accountants record these transactions in double entry using the convention debit (Dr) or credit (Cr) as follows

Dr Stock	£8,000	
Cr Bank account		£8,000

These entries only impact the balance sheet, where a debit records an increase in the value of an asset and a credit the decrease in its value (or the creation of a liability).

And in the next example of a sale of goods:

Dr Debtors (BS)	£10,000	
Dr Cost of sales (PL)	4,000	
Cr Sales (PL)		£10,000
Cr Stock (BS)		4,000

In both cases the total of the debit entries equals the total of the credit entries to maintain the integrity of the accounting equation, but in the second case some of the entries are to profit and loss accounts and others to the balance sheet.

This is a situation where you (or your accountant or bookkeeper) need to make a judgement. Accounting software, however good it is, cannot make these judgments for you[7] (although AI is increasingly making the task easier). You need to ask: 'Does the accounting entry need to be posted to a balance sheet or profit and loss account?'

In many cases the answer will be obvious. A sale will always go to the profit and loss account but why is it a credit?

In other cases, it isn't so clear; what about wages payable, income tax, corporation tax and loan repayments? Fortunately, there are rules for these items which you just need to learn and remember (as with many languages).

If you recall the three basic rules, above, however you're off to a good start. Usually, it will be obvious that one side of the entry is a debit or a credit. Once you know which, the other side, by elimination, must be the opposite.

So, in the example of a sale on credit, the transaction gives rise to the creation or increase in a debtor, which is an asset. We know that an increase in an asset is a debit, therefore the 'sales' entry must be a credit.

What you may also notice from the balance sheet above is that although the business has *apparently* made a £6,000 profit, it only has £2,000 of cash left in the bank.

I use the term *apparently* deliberately. It is an accounting convention that a transaction is recorded when the economic benefit of that transaction (such as a sale) transfers from one party to other. The customer has the goods, so the transaction is complete. It is called the *accruals* concept and it's a fundamental accounting principle that accounts are prepared on an accruals basis, rather than a cash basis. (There is a similar principle called *matching* which says that if a transaction, such as a sale of goods, has been recorded the corresponding cost of sale must be recorded in the same accounting period, hence matching).

In fact, the sales figure in your profit and loss account is probably the most useless piece of information in your accounts; and it may not even reflect how much your customers have or are going to pay you.

Because from the point of view of the business owner the sale of goods transaction is not quite complete. They haven't been paid for yet! This is the reason business owners often ask: 'My accounts show I've made a profit so where is the cash?'

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[7] Despite what accounting software advertisers would like you to believe.

This issue also demonstrates a characteristic of both the profit and loss account and balance sheet, which is that **they are based on assumptions rather than fact**; in this case the assumption that the customer will pay for the goods in due course.

There is, of course, a third financial report that is fact based although too often it is omitted from the *'accounts'* prepared for business owners by their accountants[8]. This is the **cash flow statement** which shows the cash (usually in a bank account) that has flowed into and out of a business during a particular period. It is easy to prepare because all the transactions are recorded directly in the books from the bank account (and if you have bank feeds set up its even easier) and most accounting software will generate a cash flow statement.

This cash flow statement, and a reconciliation between profit earned and net cash flow, are critical reports without which it is impossible to gain a proper understanding of a business's financial position.

So, what have we learnt and how does this make understanding financial reports and accounts easier?

1. There are three financial statements: the balance sheet, profit and loss account and cash flow statement. They are all generated simultaneously from the same data. For a proper understanding of a business's financial position all three reports are necessary.

2. The balance sheet and profit and loss account are based on assumptions, accounting principles and conventions which may, or may not, be accurate.

3. The cash flow statement (and, in particular, the figure for *net operating cash flow*[9]) is the most meaningful of the three financial statements.

4. A reconciliation between profit earned and net cash flow is a key report.

5. The balance sheet is the most misunderstood and underutilised report as – with a little further analysis – it reveals the most information about the financial health of a business.

6. If the profit and loss account or cash flow statement indicate a problem with the financial health of a business, the solution is usually to be found on the balance sheet.

[8] As we saw in chapter 2, your accounts – unless you specify otherwise – are not prepared by your accountant primarily for you!
[9] We cover this in detail in chapter 5 on Cash and Working Capital Management.

Appendix 2

Business structure and profit extraction strategy

Extraction of a business's profits will result in a tax charge and often national insurance contributions (NIC) being levied. Careful planning is crucial. This is generally a complicated exercise as there are many different factors to consider. As well as considering the tax impact of the chosen profit extraction strategy, it is important not to lose sight of the commercial, legal or long-term implications.

Business structure

The way that the profits earned by a business are taxed depends upon its structure – whether it is unincorporated (a sole trader or partnership) or a company.

An unincorporated business has no legal distinction separate from its owners therefore **the profits earned are all taxable on the owners whether they are drawn from the business or not.** There is no concept of salaries paid to the owners who instead take what are commonly known as drawings. Profit shown in the business's accounts is shown before deducting these drawings. Both tax and national insurance is levied on the profits earned before deducting drawings.

A company is taxed under corporation tax. Once the profits are extracted, they are subject to taxation again in the hands of the individual owner. The rate and timing of the tax / NIC liability depends on the chosen method of profit extraction.

As a general rule, once profits reach a certain level (which is a lot lower than most business owners think) tax and national insurance contributions will be lower if a business trades as a company rather than an unincorporated business[10].

Summary of profit extraction options for a company shareholder/director

There are several methods for an owner of a company to extract profit as income[11]. The choice of profit extraction method may be specifically chosen according to the consequences.

[10] Although this obviously depends on the personal circumstances of the owners, and professional advice should always be taken before choosing the business structure.
[11] Separate considerations apply to the extraction of profit as capital which are beyond the scope of the article.

The following are the methods generally used to extract income to provide funds for the owner:

- dividends
- salaries and bonuses
- benefits in kind
- pension contributions
- loans from the company
- interest on loans to the company
- rent from the company from personally owned assets

Key practical questions to ask when carrying out profit extraction include:

- are there distributable reserves?
- how much cash is required for the company to continue to trade and for business expansion?
- how much cash is required for the owner's day-to-day living expenses?
- what are the medium and long-term remuneration / non-cash possibilities? For example, share reward, pensions, etc
- how should family members be remunerated?
- when will tax and national insurance liabilities arise and how they are settled (ie via PAYE or self assessment)?
- adherence to the National Minimum Wage Act
- maintenance of NIC record for the purpose of eligibility for the state pension
- what are the owner's future plans? For example, does the owner anticipate a future exit by way of selling shares back to the company, if so then sufficient distributable reserves need to be preserved
- is the company claiming research and development (R&D) credits — it may be better to extract profits as a salary or bonus if the costs are relevant for R&D relief.

Extracting profits by way of salary and/or dividends

Owners will usually require an on-going income stream from the company to fund their everyday living. This is usually taken in the form of a combination of salary, bonuses and dividends.

Most business owners will endeavour to achieve the optimum balance between extracting profits as salary and / or dividends. Generally, the most tax-efficient way of extracting profits is to extract a salary to the level of the NIC earnings primary threshold (£9,568 for 2021/22) and take the remainder of distributable profits as a dividend.

The changes to dividend taxation from April 2016 and changes expected in April 2022 to national insurance contributions and from April 2023 the introduction of the Social Care level on dividends mean that the tax advantage of taking dividends as opposed to salary has been reduced but not entirely eliminated although the increase in the corporation tax rate to 25% in 2023 will reduce the advantage further.

From April 2022 NIC rates will increase by 1.25%. These rates will revert back to their previous levels in 2023/24 but an additional 1.25% health and social care levy will be introduced. Unlike NIC, the social and health care levy will also apply to those over state pension age. Dividend tax rates will also increase by 1.25% in 2022/23.

Once immediate cash requirements have been satisfied, additional profits may be extracted by way of contributions to pension funds. For the medium term, effective profit extraction strategies may also include remuneration in the form of tax-approved share schemes.

‘Unearned’ income and NIC

NIC, both employee’s and employer’s, cannot be ignored and consideration should be given to the possibility of extracting unearned income which is not subject to NIC. This is commonly seen in the form of rental income where the owner personally owns the company’s trading premises or other assets.

Rental income is taxed as property business income at the individual’s marginal rate of tax but with the advantage of a deduction of expenses such as mortgage interest and repairs, etc from gross rent being possible.

Another possibility is the payment of interest by the company on a loan from the owner. This again is subject to tax at the individual’s marginal rate of tax but with no liability to pay NIC. If the owner has in turn taken out a loan to lend to the qualifying company, they may receive tax relief for the interest on that loan. There are some administrative requirements for the company. It will have to deduct tax at 20% at source on payment of the interest to the owner and make a quarterly return to HMRC.

Within the company, the payment of interest to the owner will be an allowable expense for tax purposes provided that the capital is being used for the purposes of the business. Where a company holds relatively low cash reserves, this should not be an issue. However, if there are amounts of cash in excess of what might be required for the day-to-day running of the business, there may be issues.

In this case, the company may need to show that the money is required for business purposes in some way. It may be ear-marked for something specific or be held for more uncertain contingency purposes; but ideally, the company should be able to show contemporaneous records explaining why such a loan has not been repaid.

Family members

Profit extraction planning for family businesses should be aimed at paying sufficient income utilising personal allowances and basic rate bands, to both spouses, and any children working in the business. Where higher levels of income are required, tax planning for a family business will also need to consider utilising the higher rate band and avoiding the marginal rate band created by the personal allowance abatement that occurs at £100,000 of income.

Pensions and share options

Pensions retain beneficial tax treatment despite the fact that tax relief for contributions is restricted by the annual allowance and also the allowance is tapered for high earners.

Benefits in kind

In addition to extracting cash to pay for general living expenditure, profits may be extracted by way of tax efficient benefits. Whilst this does not result in liquid cash for the owner to spend, it may reduce living expenditure in a tax efficient way.

Loans from the company

Owners often obtain loans from their companies. This gives rise to a tax charge on the company of 32.5% (to increase to 33.75% from 2022/23 in line with the increase in the dividend upper rate of tax) of the amount of the loan which has not been repaid within nine months of the company's accounting period end. The tax is repayable on the repayment or release of the loan. The repayment is due to the company nine months after the end of the accounting period in which the loan is repaid / released and so there may therefore be a significant delay in securing the repayment. Repayment interest applies.

If the loan is released, it is treated for tax purposes as a distribution regardless of whether the company had sufficient distributable reserves to legally make such a distribution.

For employees and directors, if the loan is interest-free or at a lower interest rate than HMRC's 'official' rate then the difference between interest at the beneficial rate and the amount paid is also taxable as employment income.

Appendix 3

About the author

Noel Guilford is a Chartered Accountant, entrepreneur and author. After leaving University he joined Arthur Andersen & Co. with whom he trained and qualified as a Chartered Accountant before joining Spicer& Pegler (now part of Deloittes) as Managing Partner of their Chester office.

After moving to Manchester as a partner in Deloittes in 1990, he specialised in Corporate Finance acting as lead advisor on numerous acquisitions, disposals and management buyouts.

In 2002 he left and set up Guilford Accounting, a small business accountancy practice specialising in advising owner-managed businesses on how to grow their business, current accounting, finance, and tax matters.

He is the author of the *Figure it Out – an Entrepreneurs Guide to Understanding your Business Numbers* (2014), *How to Build a Successful Business and Achieve the Lifestyle You Want* (2018) and *The Entrepreneurs' Marketing System* (co-authored with Nigel Botterill) (2020).

In 2015 he co-founded My Bookkeeping Business Limited which creates business opportunities for people for whom fitting into a conventional 9-5 job may not be an option because they want flexibility in their day to day lives.

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Next steps

If you have found this book useful and would like me to personally show you how you can adopt the concepts of Business Maths Made Simple in your business……then I'll happily set aside some time for you.

Here's how this works….

Click here or go to https://guilfordaccounting.co.uk/business-maths-made-simple/application and fill out the application form. Don't worry it's simple and unobtrusive. I just need to know a few details about your business.

What'll happen next…..

After I've received and gone over your application to see if I can help you develop your business metrics and build your business dashboard, I'll send you a Calendly link to schedule a 30-minute Zoom call with me at a time that suits you.

During the call we'll discuss your business goals and I'll help you identify the key metrics to include on your business dashboard, how to capture and measure these and the actions you can take to optimise your business performance.

I can't wait to hear from you.