# THE MAGIC TREE OF BUSINESS CLARITY 

Discover the essential structure that underlies most business problems, and identify a dozen solutions in under a minute, by Fred Pelard


Whenever you are faced with a complex business problem, it helps to pause to clarify your thoughts.

Some people talk to themselves aloud, others write numbers down on paper, and many visualize shapes in space.

I'd like to entice you to do a mixture of all three, that I call "the Magic Tree of Business Clarity". The Magic Tree is a technique for discovering the underlying structure of any quantitative problem,
and identifying a dozen possible solutions in the blink of an eye. Like every technique it takes a few iterations to learn, practice and master. But once you've used it two or three times, no quantitative issue will resist your powers ever again.

Let's pick four companies, and some of the issues they face, to demonstrate the approach. Hopefully, you'll agree that if the Magic Tree approach proves useful for these four meaty issues, then surely it can help you tackle all sorts of problems.

Our companies \& issues are:

- McKinsey: how to grow revenues?
- Ryanair: how to increase the number of passengers flown?
- Walmart: how to reduce store staff costs?
- Pearl \& Dean: how to stop the decrease in profits?

We'll use the Magic Tree of Business Clarity to discover a wide range of possible solutions to these issues in under a minute. We'll realize along the way that this approach can be applied to pretty much any quantitative issue. The most fascinating discovery of all will be that so many business problems share the same underlying structure...

## Principles of Magic Tree

The Magic Tree results from three observations:

- most business issues can be turned into a quantitative problem, with a key number,
- any number can easily be broken down into an influencer and a ratio,
- the more your replicate this split, the greater the clarity that emerges.

Most business issues can be turned into a quantitative problem, with a key number

More often than not in business, a problem can be brought back to a "number of something", where the "something" is a tangible object or a currency (e.g. number of customers, sales, costs, number of transactions, profit, etc). The problem faced can then be summarized as seeking to optimize the trend for that number (i.e. increase it, decrease it, keep it the same). In our examples, McKinsey is seeking to increase revenues and Pearl \& Dean to keep profits the same.

Sometimes the issue appears more qualitative (e.g. how do we get customers to like us more, etc). In these circumstances we suggest you slightly force the issue to turn it into a quantitative number (i.e. how do we increase the number of likes from customers on social media, etc) to gain additional insights \& clarity on possible solutions. With a little imagination, all but a few business issues can be simplified into a key number.

Any number can easily be broken down into an influencer and a ratio

The number of interest to Ryanair in our example is "number of passenger" (shorthand: \# Pass), and for McKinsey it is revenues (shorthand: \$ Sales). The total number of passengers flown by Ryanair (\# Pass) is clearly influenced by the number of flights flown by Ryanair (\# Flights).

So, we can write that the number of passengers flown equals the number of flights flown multiplied by the average number of passengers per flight. In symbols: \# Pass = \# Flights $\times$ (passengers / flight). Visually:


Likewise the total sales of McKinsey can be written as the total number of projects sold by McKinsey multiplied by the average revenue per project:


Any other number can similarly be written as the multiplication of an influencer by a ratio. Visually, you can clearly see that each example creates a little triangle. Number A at the top, influencer B at the bottom left, multiply in the middle, and ratio $A / B$ at the bottom right:


The more your replicate this split, the greater the clarity that emerges

Once you've created a little triangle under your number of choice, it's easy to go one level down, and create a similar triangle under the influencer and the ratio. And so on, and so on.

For clarity's sake, we always highlight in green the box where a new influencer is introduced into the Magic Tree for the first time. Influencers are easy to spot: they always start with \# or \$ and are always on the left of a multiply symbol.

By adding one level below the existing triangles, our two examples now become as follows:


We've simply added an extra level in the trees, and we now have three influencers in each. The new influencers are \# Clients and \# Days for McKinsey, and \# Cities and \# Seats for Ryanair.

The introduction of the two new influencers in each tree (and the resulting extra level) allows us to break our initial number into four more components. It also allows us in no time to come up with four new families of improvements.

All one needs to do is read the lowest level of the tree from left to right. For example for McKinsey, the question "how do we increase revenues?" can now be answered with four new solutions that can be found at the foot of the tree: gain new clients, sell more projects to existing clients, increase the average number of days per projects, and trial the elasticity of the day rate (i.e. higher or lower).

Think of the Magic Tree as a Christmas tree, with the number as the star at the top, and the solutions as the presents neatly ordered at the bottom. The more of the tree is revealed from the top down, the wider the base gets, and the more presents appear - as if by magic ...

Before we added this extra level in the Magic Tree we only had two potential solutions for McKinsey to increase revenues (sell more projects, and adjust the average revenue per project) and now we have six. Four more solutions in a few seconds.

These examples demonstrate that quickly identifying a few obvious influencers can help you turn any problem number into a simple structure and some clear solutions. You can recognize in particular that the following describes equally well both the Ryanair and the McKinsey examples:

- one key number (A)
- three influencers, in green ( $B, C, D$ )
- three multiply symbols
- when number A is broken down to Level 1 we get two generic solutions: increase $B$, and increase average $A / B$
- when number $A$ is broken down to Level 2 we get four additional solutions: increase C , increase average $B / C$, increase average $D / B$, and adjust A/D


The first time people notice this they get a bit spooked. There is nothing similar between an airline and a consulting firm ... and yet a few letters in some simple structure seems to capture as easily the underlying core issue of both businesses.

Would that similarity still apply at Level 3, the next level down? Clearly there would be a few more influencers, a few more multiply symbols, and a few more ratios. Let's check this overleaf.



The above is what a Magic Tree @ Level 3 looks like in all its glory. Yes, it can be a bit intimidating at first. All these letters, these ratios, etc.

The simple fact is that you find broadly the same things we've seen at Level 2 , just more of them:

- one key number at the top (A)
- six influencers, in green (B, C, D, E, F, G)
- six multiply symbols (the bottom right symbol can be anything, not necessarily a multiply)
- two new notions (X1, X2) that are part influencer, part ratio.

Rather than get too abstract, let's take a concrete example. You'll find on the next page the Magic Trees for our Ryanair example at Levels 1, 2, and 3 , with about a dozen ideas to increase the number of passengers flown (at the foot of Level 3).

If you're familiar with the airline industry, you'll notice that many of these ideas have already been implemented by one company or another - though not all of them yet (e.g. re-designing the sitting plans, using other transport means, etc).

The real insight of the Magic Tree is that a simple one-minute process can get you to the same level of clarity on the problem you face right now. Any problem. As long as there's a number at the top.

In particular, have a look at Ryanair's Magic Tree @ Level 3 again, this time focusing only on the influencers (i.e. the green boxes). \# Flights, \# Cities, \# Countries, \# Planes, \# Seats, \# Rows. How long do you reckon it would have taken you to come up with these 6 as influencing the number of passengers flown? Probably less than 20 seconds, and therein lays the secret of the Magic Tree ...

## Idea in Brief

Most business problems share the same underlying structure: a limited set of influencers affecting a key number that needs to be optimised. Once familiar with the Magic Tree of Business Clarity, you will be able to spot a dozen solutions to any issue in under a minute.

Most business problems are a lot simpler than they first appear, and come with at least a dozen solutions readily available in a minute when you know where to look. Look for the structure first, then collect the solutions. The Magic Tree is the structure that results from breaking down any key number into several levels of influencers and ratios using nearly only multiply symbols.

Pick the key number you're trying to optimize. List the 6 to 8 most likely influencers that affect this number, position them in the Magic Tree @ Level 3, and presto your solutions appear. At least a few of these solutions will be totally new to you, as they will have been generated by sheer structure and logic, rather than data or past experience. Perfect for solving really strategic issues.

Ryanair: increase passenger numbers @ Level 1

## \# Pass.

x

Ryanair: increase passenger numbers @ Level 2
\# Pass.
x



## The Magic Tree in Practice

The Magic Tree in practice entails four quick steps:

1. Choose a Number
2. List the Influencers
3. Position the Influencers
4. Collect the Presents

## STEP 1

Choose a Number
All business issues have at least one number at or near their core. In our examples these are revenues (McKinsey), passengers (Ryanair), store staff costs (Walmart), and profits (Pearl \& Dean). If you're not entirely sure what the key number is for your issue at hand, pick the two or three options that first spring to mind, and apply the Magic Tree approach to each. This will create marginally more work for you, but add even more upside.

## STEP 2 <br> List the Influencers

Take a few seconds to write down the 6 to 8 most likely candidates for the influencer roles. These are the "number of something" that you believe could be affecting the key number. For example, if you're trying to reduce total store staff costs for a retailer like Walmart, you can probably quickly list the following as very likely influencers of store staff costs: \# staff, \# stores, \# hours, \# tasks, \# customers, etc.

## STEP 3

## Position the Influencers

Once you have your short-list of influencers, all you need to do is position them in their rightful place in the Magic Tree. This is a game of trial and error at first. With a bit of practice you will also develop a sixth sense for this. For example, you'll realize that the most important location is box $B$, and you'll trial each of your influencer candidates for that role.

With one influencer in box $B$, you then try two more in boxes C and D . As you can spot on the example opposite it commonly takes a few attempts to reach the optimal solution. In our example the first three attempts were dismissed because number of stores per staff feels wrong (attempt Stores Staff), stores per hour is a tad weird too (attempt Stores Hours), and stores per staff again (attempt Staff Hours).

Our fourth attempt (Staff Stores) creates a very logical structure, with four clear and meaningful components at the bottom of the tree: \# stores, staff per store, \# hours per staff, and cost per hour.

You can then arrive for Walmart's issue at a Magic Tree @ Level 3 that looks something like the one overleaf. It does take a few iterations to get it right initially. But the benefits are well worth the effort.



## STEP 4

## Collect the Presents

Once the influencers are in position, cast your eyes to the foot of the tree. Read the components from left to right, and you'll find ways to achieve the desired trend objective for each. In our example above, ways to reduce "hours per task" include standardize processes, train staff better, and/or incentivize them.

The secret of the Magic Tree is that a lot of business problems can fit neatly onto its branches, and great ideas for solutions collected at its feet. Since the Magic Tree is so prevalent and so structured, often all we need to do is come up with six influencers to quickly discover a dozen improvement solutions for any number.

Some of these resulting ideas, or presents, will be obvious to you, but at least a few will be totally new and could be the best answer to the problem you're facing. One minute spent with the Magic Tree of Business Clarity can make the difference between success and failure for your current project.

You might have noticed that the bottom right corner of the Magic Tree @ Level 3 is not always a multiply. Indeed in both the Ryanair and Walmart examples we used a plus. This corner, with the unspecified mathematical symbol and the X1 and X 2 notions, is the area of greatest flexibility. Have a look in time at all our examples to spot variations. This and some practice on your own key issue will give you a good feel for the different likely choices.

## A Little Bit More Magic For You

We have created two more examples for you to practice on: increasing revenues for McKinsey, and maintaining profits for Pearl \& Dean. Have a go at both before looking at our solutions overleaf.

Pearl \& Dean is a cinema advertising sales outfit. They sell space on cinema screens to advertisers. Not everyone will be familiar with their business, so here are 6 big influencers of their profits: \# Viewers, \# Adverts, \# Brands, \# Campaigns, \# Screenings and \# Clients. Order these the right way round in a Magic Tree @ Level 3 and discover a dozen ways to maintain Pearl \& Dean's profits.

McKinsey's business might be more familiar to you. Do come up with the influencers yourself, position them correctly, and then compare our solution and your efforts. Give yourselves a couple of minutes to try a few alternatives first.

Finally, one last question: what's your number? There is bound to be at least one issue at work right now that occupies a lot of your worry time. And that issue can be simplified into at least one number somehow. Give the Magic Tree a spin!

What have you got to lose?...

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