EICOM REVIEW

THE MOULDING MIND METHOD

A HOLISTIC AND SYSTEMATIC APPROACH TO DIGITAL COMMERCE CHALLENGES.

EICOM INSTITUTE

OVERVIEW

- WHAT IS THE MOULDING MIND METHOD?
  - WHAT IT DOES
  - THE ELEMENTS IT COMBINES
  - WHY IT IS USED
- THE TRINITARIAN EQUATION
  - AN OBSERVATIONAL STARTING POINT
  - BETTER OBSERVATIONS THAN EVER
  - DATA ISN'T ALWAYS PERFECT, USE YOUR INTUITION CAREFULLY
- THE MULTIDIMENSIONAL MINDSET
- EXAMPLE PROBLEM - QUESTIONS AND HYPOTHESES
- LOGIC AND REASON - THE FINAL STEPS OF THE MMM
- OTHER APPROACHES TO PROBLEM SOLVING

WRITTEN BY
RODRIGO DELLACQUA, MATHEUS SANTANA
AND ADAM FRÉMOND-JEEVANJEE

WHAT IS THE MOULDING MIND METHOD?

Let's take a good look at the moulding mind method ("MMM"), a holistic and systematic process for solving all problems in digital commerce. It's a unique decision-making tool you can leverage to diagnose the root causes of problems and develop the strongest solutions.

What it does

It's a logical procedure that enables you to look at a commerce problem scientifically, stripping away assumptions and irrelevant information. You begin by making observations and gathering data, asking whatever questions are necessary to understand the facts. This enables you to formulate diagnostic hypotheses as to the cause/s of the problem, and propose solutions.

Next, you test those diagnostic hypotheses to assess which solution hypotheses are worth testing and most likely to be relevant and impactful. Finally, you assess your results, which may involve returning to the questioning stage if your 'solution hypotheses' turn out to be false.

The elements it combines

There are a few different elements that go into the MMM. The **Trinitarian Equation** and the **multidimensional mindset** are helpful in the early stages of the method, when you're making the relevant observations and framing your questions.

In order to then generate hypotheses and propose likely solutions, you'll use your technical and ecommerce knowledge and experience. You'll need to consider the problem from all five knowledge dimensions; Digital Marketing, Sales & Merchandising, Supply Chain & Operations, Finance & Accounting, and Data & Technology.

Finally, you just follow the logical steps of inductive reasoning known as the **Scientific Method.**[1] Testing your hypotheses and proposed solutions, assessing the results and drawing conclusions.

Why it is used

The MMM is systematic, based on the observation of facts. And ecommerce is built on facts - every click and action is data that we can observe and measure, facts we can use, the building blocks for our hypotheses and proposed solutions. This wealth of data, truly objective observations, makes ecommerce the perfect arena to apply a logical and scientific methodology.

Let's break things down and take a closer look at the MMM and some of its core components, to see just why it's such a powerful approach. We'll start with the concepts needed for the early stages of the MMM, when you're observing and investigating; the Trinitarian Equation and the Multidimensional Mindset.

[1] Inductive Research, article by Indeed, July 2021. / Inductive Approach, article by Business Research Methodology.

THE TRINITARIAN EQUATION

Also known as the Ecommerce Revenue Equation, the Trinitarian Equation ("TE") is a visionary formula that captures the very essence of ecommerce revenue. It's the touchstone of all problem-solving in ecommerce.

Think of it as a foundational concept, like Newton's Laws of Motion and the Schrödinger equation are in physics. Just as they 'describe' the movements of large and tiny objects, so the TE gives us a framework to understand the economics of ecommerce revenue. All three concepts reveal the inner workings of systems; they help explain why something is happening.

So here it is:

Revenue = Sessions (Traffic) x Conversion Rate x Average Order Value (AOV)

For example, if 20,000 people visit your website (traffic) and 5% convert, with an average order value of $50, then your revenue is 20,000 x 5% x $50 = $50,000.

An observational starting point

Do you see how useful this is? By looking at an ecommerce problem through this equation you can quickly formulate questions and hypotheses to help identify areas to focus on. For example, if you're trying to solve a problem concerning traffic, you can use the TE to think about the relationships between traffic, conversion rate, order value and revenue.

By understanding the relationships between the different variables you can begin to deconstruct the problem you're looking at, and formulate hypotheses about the possible causes. You can tweak one or more variables to see what effects that might have on the other variables.

Think of the TE as the first step in the logical process of the MMM. It helps guide your attention so you can make the insightful observations required to formulate diagnostic hypotheses as to the cause of the problem.

Better observations than ever

The TE helps us to make the relevant observations, and as we said earlier, ecommerce is built on facts and observations. We need a lot of objective data to properly test hypotheses, and fortunately, ecommerce provides us with a vast amount of it. This makes ecommerce an ideal forum for a logical process like the MMM.

Of course, it hasn't always been like this. Generations of brick-and-mortar stores provided a fraction of the data points we can now generate from ecommerce. The more data we have, the better our hypotheses, and the stronger our solutions.

Our data-gathering abilities continue to grow, as humans' capacity to measure nature improves over time. The Assyrians used glass lenses for magnification as far back as 700BC; now we have the cryo-electron microscope, for examining the structure of biomolecules, which won its developers the 2017 Nobel Prize in Chemistry.[2]

The point is, human invention and ingenuity drive science and discovery. We continually create instruments and technology to better measure the world around us. Now we understand that these same principles extend into business decision making. We can use all this data to help derive **game-changing business insights**, and **fine-tune and optimise** our operations.

Data isn't always perfect, use your intuition carefully

Sometimes data can be biassed or incomplete, and sometimes we use it incorrectly. Even the most diligent people can be guilty of 'selective reporting' of results, i.e. the data they choose to document.

If your existing beliefs about something are strong enough, it is human nature to subconsciously steer your process in that direction. Sometimes we may find ourselves only reporting data that support our hypotheses, whilst ignoring evidence to the contrary.

This is where your intuition has a big role to play in the MMM, but you must manage it carefully. Of course, you should use your feelings and imagination to help guide you when developing questions and hypotheses. But follow the data strictly when testing and interpreting them; let the results speak for themselves. Theory helps frame the right questions, but only data answers them.

[2] Scientific Thinking in Business, article by MIT, Jan 2014.

THE MULTIDIMENSIONAL MINDSET

This is the aspect of the MMM that most influenced us in giving it the name 'moulding mind method' because to adopt a multi-dimensional mindset, you need to mould your mind to be flexible enough to adopt different perspectives within the same flow of thinking. You need to be a multi-disciplinary thinker, able to switch between perspectives so that one moment you are asking a question as a tech person, another moment you become a commercial person, in the next moment a finance person and in another moment you are a logistics person - like a chameleon commerce professional able to 'change colour' depending on what type of questions you are asking. As a last analogy, the famous Bruce Lee gave us a helpful metaphor for understanding how to effectively apply the multidimensional mindset. He says you need to "be like water", shapeless and formless, able to take the shape of whatever problem you tackle.

So returning to a more practical perspective now, recalling the five knowledge dimensions of digital commerce we have: Digital Marketing, Sales & Merchandising, Supply Chain & Operations, Finance & Accounting, and Data & Technology. Applying the multidimensional mindset when thinking about a problem to be solved means you must approach it from the perspective of all five dimensions.

This means that when you are considering a problem (e.g. 'Our stock inventory is showing inconsistent results'), you must consider it from multiple angles. It's not enough to just think about potential issues with the supply chain and your accounting processes, you need to go deeper.

Always consider all five dimensions, and generate as many questions and hypotheses as you need for each one. Then think of some more - the path to success lies in divergent and creative thinking, considering as many perspectives and solutions as possible.

Those who develop a multidimensional mindset are likely to be excellent commerce professionals, and are bound to succeed more often than those who only ask a narrow and limited amount of questions. You must actively investigate and test your assumptions, go beyond the facts to determine their causes.

EXAMPLE PROBLEM - QUESTIONS AND HYPOTHESES

Let's look at a real-life example. The questions, hypotheses and solutions you're about to read all come from a real case.

A toy business with more than 200 stores has reported that their conversion rate has dropped 50% out of nowhere. Their CEO says the situation is heavily impacting their business and declares an emergency. You need to diagnose the problem, but what's the root cause? What could possibly have caused the conversion rate to suddenly drop by such a huge amount? This is where you take a pause and start to apply the MMM - formulate your observations, questions, hypotheses and experiments.

1st part

What questions would you ask? Here are some examples of questions that we a group of us at EICOM internally formulated from each knowledge dimension.

Sales & Merchandising

Question: was there a special sale event?

Hypothesis: a special sale event would make sessions rise, but if there is limited stock, the sales wouldn't increase proportionally

Question: did this change take place in a period with seasonal effects?

Hypothesis: during Christmas and the school holidays, searches for toys might naturally increase

Supply Chain & Operations

Question: was there an increase in stockout events during this period?

Hypothesis: if the products that customers are looking for are not available, conversion rates will drop

Digital Marketing

Question: were there any changes in the digital marketing strategy?

Hypothesis: a change in strategy might have increased general traffic, but with lower quality

Question: can we identify if there was a change in the traffic source?

Hypothesis: if a traffic source is bringing non-qualified leads, conversion rate will drop

Finance & Accounting

Question: was there an increase in the cancellation of orders due to suspicion of fraud?

Hypothesis: if the antifraud system is too strict, it might be wrongly cancelling orders

Question: were there many orders that were not completed because of payment pending?

Hypothesis: if customers make an order but do not complete payment, conversion rate will drop

Technology & Data

Question: was there a promotion during this period which advertised the wrong prices?

Hypothesis: if a promotion campaign mistakenly shows low prices, sessions will increase but customers will leave the site when they realise that the actual price is higher

Question: is the site being attacked by bots?

Hypothesis: the site is being attacked by spamming bots, causing session numbers to increase

2nd part

The toy business shares the following data to help answer the questions, detailing the previous state and the current situation.

	Previous state	Current state
Conversion Rate	2%	1%
Sessions	2.2m	4.4m
Ticket	$150	$150

How does this change your thinking? What questions would you ask now?

- Follow the MMM again - formulate your observations, questions, hypotheses, and experiments.

Think of it like a brainstorm of questions and hypotheses, from each knowledge dimension. The questions and hypotheses above were generated from different perspectives from different people, each exploring different dimensions. They calmly looked at the problem, created a table of the five dimensions and posited as many questions as they could think of - moulding their mind to see the problem differently from each dimension. **It is worth noting that multiple people each with a unique and different perspective all collaborating together in a huge brainstorm** is an optimal way to maximise the MMM and get to the problem's cause/s. We recommend doing this together with one or more colleagues on your next problem and you may wish to use this table to organise your thinking.

After testing the hypotheses, you assess the results and draw conclusions. They're all quite straightforward to test, but unfortunately, none of them provide us with a solution. There were no special sales or stockouts, no changes in the digital marketing strategy, no issues with payment or wrongly advertised prices.

Looking again at the data, let's think about the Trinitarian Equation for a minute.

Revenue = Sessions (Traffic) x Conversion Rate x Average Order Value (AOV)

Notice the strange relationship in this case – the sessions doubled (from 2.2m to 4.4m) and the conversion rate halved (2% to 1%), while the revenue remained constant. This is unusual, and we should drill into the data some more. What questions might you ask?

How about this one, in the **Technology & Data** dimension:

- Question: were significant changes made to the website between the previous state and the current one?

  Hypothesis: changes were made to the website which increased the bounce rate (i.e. more people than before have been leaving the site without clicking to any other pages besides the one they first landed on)

To test this hypothesis we can look at Google Analytics (GA) to check if the bounce rate did increase. GA tells us

that the average bounce rate is currently 4%. This is strangely low, it would typically be somewhere between 40-55%, but GA shows it dropped suddenly seven weeks ago.

This suggests that the data must be incorrect – something happened seven weeks ago which caused a huge drop in the bounce rate. Analysis shows that the IT team installed a new system at that point, which had the unintended consequence of duplicating the sessions. This caused the bounce rate to drop because, even when a user leaves the site straight away, their session is duplicated so it appears that they are clicking to another page.

The solution now becomes clear - conversion rate hasn't actually dropped by 50% at all. Nothing has actually changed, but because the sessions appear to have doubled (due to duplication of the data) it has made the conversion rate appear to halve.

The fact that it took the company seven weeks of their conversion rate being down by 50% before they took action, suggests their digital culture is poor, and gives us a glimpse into the MMM's potential impact on commerce organisations undergoing digital transformation.

- Conversion rate should be managed every day.
- Big firms manage it hour-by-hour.

In a company with a strong digital culture, these sorts of checks and processes are habitual; that's why they spot problems quickly. And that's why it's so important to understand the MMM and put it into practice, so that it becomes part of an organisation's cultural approach to solving problems whenever they arise.

LOGIC AND REASON - THE FINAL STEPS OF THE MMM

The MMM is a logical procedure. We begin with observations, which generate hypotheses, which are then tested and assessed, leading to conclusions. This last stage, of testing hypotheses and assessing results, is a systematic logical process of inductive reasoning.

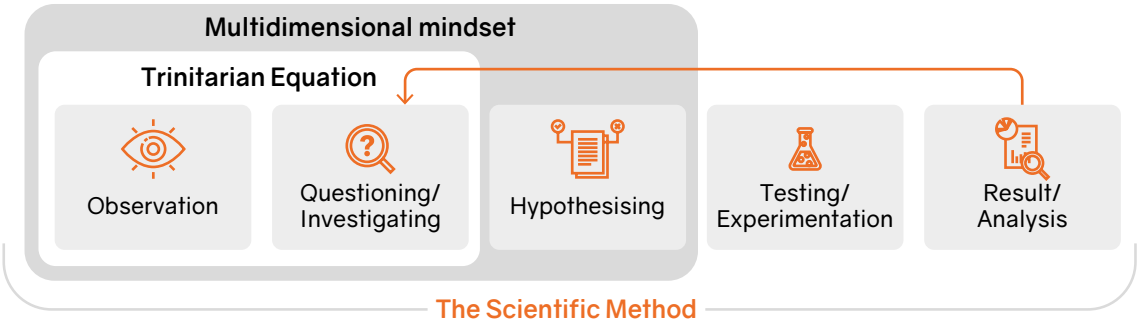
You can think of the MMM as being similar to the scientific method, which tells us to rigorously question our assumptions and accept that they are often incorrect. We must think critically and follow the logical connections between ideas. The scientific method shows us how to solve problems systematically, not to rely solely on intuition or instinct.

Put simply, the MMM and the scientific method both get you to the truth. They are logical processes of observation, questions, hypotheses, experimentation, analysis, and refinement.

Like the scientific method, the MMM helps us get to the core questions, and gives us a logical framework for answering them effectively. Islamic scholar Hasan Ibn al-Haytham pioneered the scientific method over 1000 years ago, stating that the way a person learns the truth is 'to make himself an enemy of all that he reads, and ... attack it from every side.'[3]

[3] Ibn al-Haytham - Biography, article by Wikipedia, Aug 2022.

VISUALISING THE MOULDING MIND METHOD



This is the same principle we're following with the multidimensional mindset. Don't assume that one question or approach is enough to understand the data - follow the MMM and look at the problem from every side, from all five knowledge dimensions, so that you ask the right questions and generate the right hypotheses, ideally by collaborating in a group brainstorm. The solutions will follow.

OTHER APPROACHES TO PROBLEM SOLVING

There are other ways to make the relevant observations and frame your questions correctly, to get to the root of a problem. Compare the MMM to other problem solving tools:

- The 5 Whys - keep asking 'why' until the root cause is revealed; focus on processes, not people
- Ishikawa Diagram - root cause analysis
- Root-cause problem solving - continuous improvement through root-cause problem solving
- Creative Problem Solving - seven-step process (imaginative, innovative, unconventional)

EICOM REVIEW

About EICOM

We are a vanguard institution that provides high quality education and grading to all levels of professionals within the Commerce field. We educate and support commerce professionals to form a bold digital transformation strategy.

EICOM INSTITUTE