

# Mental Models

**Build Your Thinking Toolkit  
to Build Your Business**



Vishal Khandelwal | [www.safalniveshak.com](http://www.safalniveshak.com)  
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**The general who  
wins a battle  
makes many  
calculations in his  
temple before the  
battle is fought.**

~ Sun Tzu, *The Art of War*

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SUN TZU

TUTTLE

THE  
ART  
OF  
WAR



The definitive interpretation of  
Sun Tzu's classic book of strategy  
STEPHEN F. KAUFMAN, Hanshi 10th Dan

...in the same way, to win the battle in the business world, you need to understand the big ideas, the big models, which provide tools for rational thinking. These ideas would help you when achieving goals, explaining "why," preventing and reducing mistakes, solving problems, and evaluating opportunities.

When Charlie Munger was asked what would be the best question he should ask himself, he said –

*"...I think the best question is, "Is there anything I can do to make my whole life and my whole mental process work better?" And I would say that developing the habit of mastering the multiple models which underlie reality is the best thing you can do...It's just so much fun – and it works so well."*

# World is Changing Pretty Fast



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The world around us is changing pretty fast and the modern computers are becoming cheaper, faster and more intelligent than ever which means they are ready to replace a large part of human workforce. The day is not far where our work and skills will be threatened by an artificial intelligence. **To stay relevant, we need to make sure that we remain valuable to the society in a way which can't be substituted by a robot.**

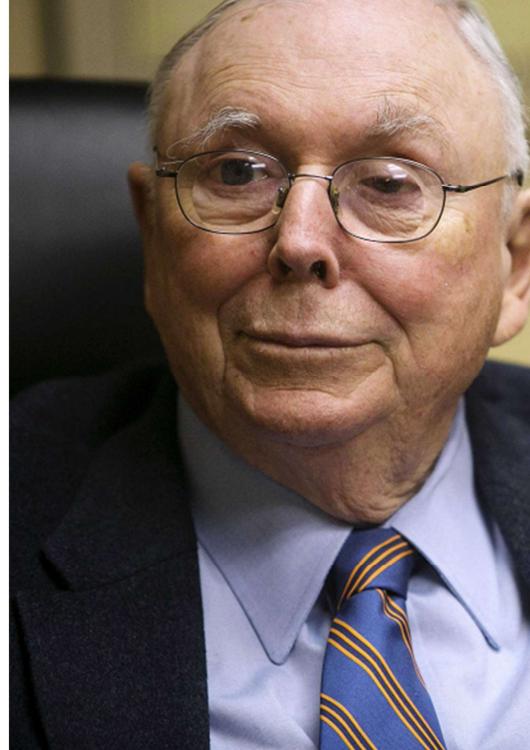
**So it's time that we recognize not just the importance but the urgency of the need to become a learning machine.**

Watch this video - <https://youtu.be/uGI00HV7Cfw>

**"I constantly see people rise in life who are not the smartest, sometimes not even the most diligent, but they are learning machines.**

**They go to bed every night a little wiser than they were when they got up and boy does that help, particularly when you have a long run ahead of you."**

**~ Charlie Munger**



# What are Mental Models?

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**A mental model is a way of looking at the world. Put simply, mental models are the set of tools that you use to think. Each mental model offers a different framework that you can use to look at life (or at an individual problem).**

We often go through each day without questioning our perception of the world. We seldom stop to wonder whether the world we perceive matches the real world outside. Most of the time, that's fine...because our perceptions serve us quite well. In fact, our perception is good enough to guide us through a very complex world with few problems. But because it serves us so well, it's easy to forget how limited perception really is. And one reason for inadequacy of human perception is that it has to deal with an enormously complex real world.

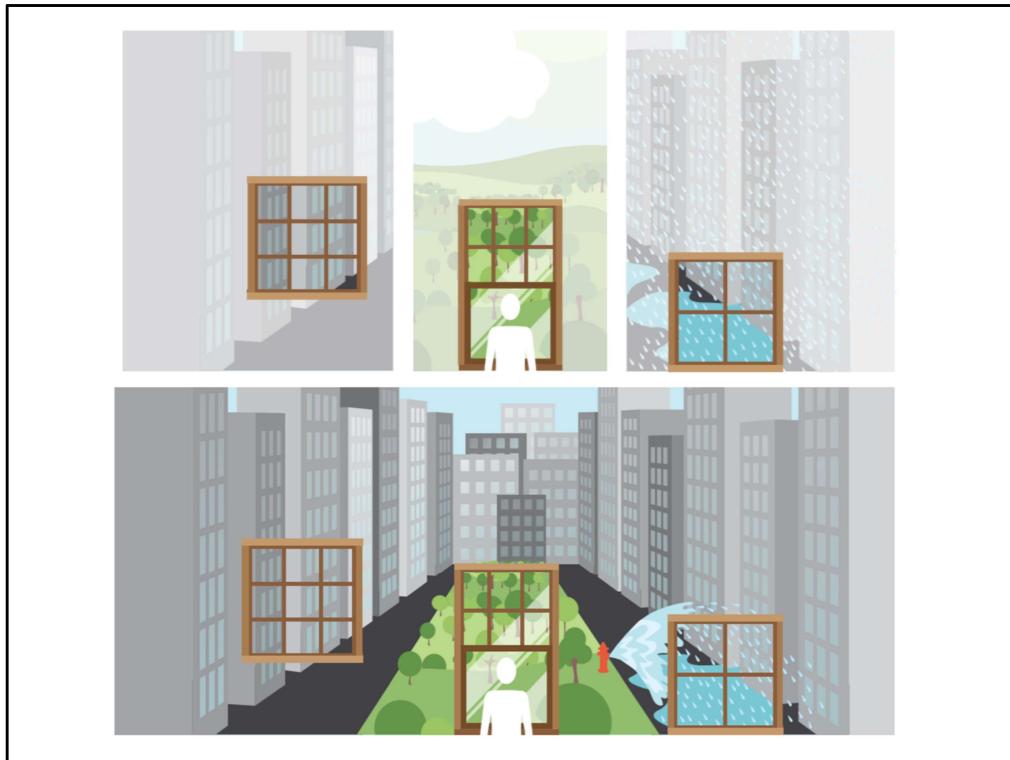
We live in a world that is not only complex but vastly older and bigger than we are. To think we can fit it all into our heads is a logical absurdity. At same time, our world and life is full of opportunities, disguised as problems and challenges, which need to be either pursued or avoided. You don't want to spend a disproportionate amount of time analysing a single problem. Instead the strategy should be to race through numerous problems and quickly identify the solvable ones.

How do you do that? By learning the mental models.



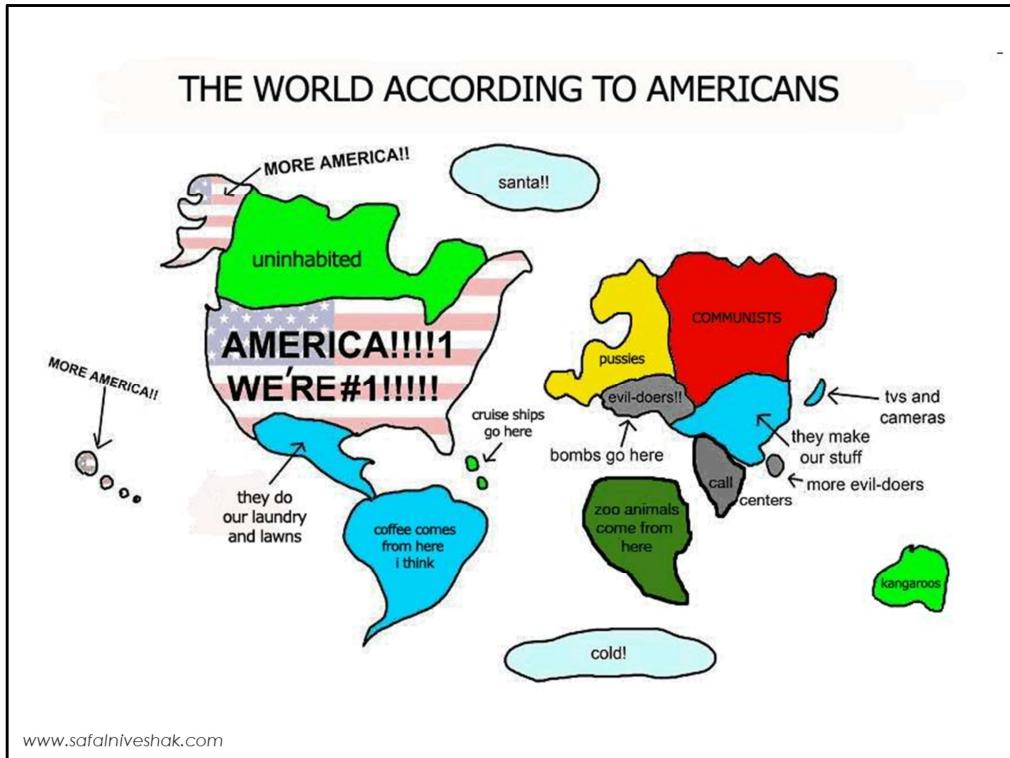
A mental model is a representation, inside your head, of an external reality. Mental models are the basic units which construct a person's world view. It is the representation that a person has in his mind about the object he is interacting with. It is the way the person thinks about what it is they are doing or dealing with. Mental models shape our actions as to how we act or behave in a particular situation. They define what people will pay attention to and how they approach and solve problems.

**Mental models are tools for the mind. The more models you have from outside your discipline and the more you iterate through them when faced with a challenge in a checklist sort of fashion, the better you'll be able to solve problems.** While thinking about a problem, mental models provide you a map with which you can quickly course correct your line of inquiry.



**Individuals do not respond to objective experience but to their mental representations of experience.** In constructing their mental representations, people use interpretive frames provided by mental models. People may have access to multiple and conflicting mental models. Context can activate a particular mental model. Using a different mental model can change the individual's mental representation of the world around him.

The windows in the above images above provide partial views of an urban street. Depending on which window a spectator looks out of — a metaphor for which mental model he uses to interpret the world around him — his mental representation of the scene will be very different. He is unlikely to be aware that his view might be different if he were standing somewhere else or using a different mental model. This figure illustrates the fact that individuals tend to automatically jump to conclusions based on limited information, and that thinking processes (both automatic and deliberative) draw heavily on learned mental models.



Now here's the American mental model :-)

P.S. I haven't created this map, but found it on the Internet ☺

To the man  
with a  
hammer,  
everything  
looks like a  
nail.

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This is a dumb way of handling problems!

It's completely fine to use one model to understand the idea, and another to work out the details. But life becomes difficult when we think there's only one way to approach it.

Charlie Munger prescribes -

*"You must know the big ideas in the big disciplines, and use them routinely — all of them, not just a few. Most people are trained in one model — economics, for example — and try to solve all problems in one way. You know the old saying: to the man with a hammer, the world looks like a nail. This is a dumb way of handling problems."*

What Munger is suggesting is that one shouldn't try to solve problems with the only tool he or she possess. **When you're trying to make sense of the world around you, don't try to explain things by thinking of one reason and then latching on to it. Big outcomes are rarely caused because of one reason.** Ask "what else can cause this outcome." Get more tools. Learn various mental models.

# **Don't Be The Man With Just A Hammer. Get More Tools.**



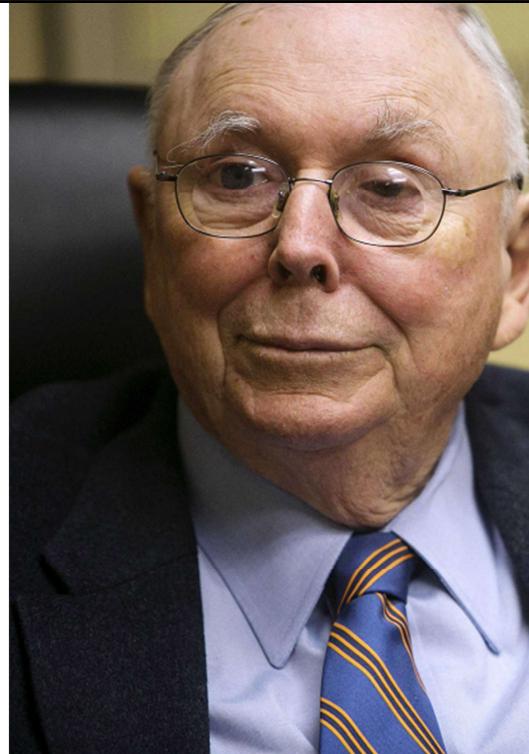
Worldly wisdom requires the use of multiple mental models to understand the real life experiences. It's said that there is nothing more dangerous than a man with an idea especially if it's the only idea he has. So instead of swinging your single hammer in every direction, you should learn to rely on your toolbox containing multiple instruments i.e., multiple metal models.

By learning the big ideas from multiple disciplines we are allowing ourselves to stand on the shoulders of giants. People who have come before us and developed useful ideas in different subjects have already done the groundwork required for improved thinking. What remains to be done on our part is to learn these ideas, master them and begin using them in our decision making process.

## **How Many Mental Models?**

**“...80 or 90 important models will carry about 90% of the freight in making you a worldly wise person. And, of those, only a mere handful really carry very heavy freight.”**

**~ Charlie Munger**



## Mental Models, Like Lego, Are Additive



**More Models = More Connections**

These models are additive. Like LEGO. The more you have the more things you can build, the more connections you can make between them and the more likely you are to be able to determine the relevant variables that govern the situation.

And when you learn these models you need to ask yourself under what conditions will this tool fail? That way you're not only looking for situations where the tool is useful but also situations where something interesting is happening that might warrant further attention.

# **Think Business Growth? Think Mental Models.**



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## Mental Models to Help You in Your Financial Advisory Business

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## 1. First Principles

**As to methods there may be a million and then some, but principles are few.**

**The man who grasps principles can successfully select his own methods.  
The man who tries methods, ignoring principles, is sure to have trouble.**

**~ Ralph Waldo Emerson**



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With first principles you boil things down to the most fundamental truths...and then reason up from there.

**First principles is a physics way of looking at the world. What that really means is that you boil things down to the most fundamental truths and then reason up from there. In simpler words, first principles thinking helps you to edit out complexity from your decision making so that you can focus on the most important things that matter to that decision.**

Let me explain with an example from Musk's life and how he used first principles to start SpaceX. If you are trying to estimate the cost of building a rocket, the simple way would be to look at the products available in the market, and add up all the costs. That's analogy-based thinking – "Let me pay what others are paying for this product." But what Musk and his team did was that they figured out what the necessary parts of a rocket are (like its battery) and then found out how much the raw materials of those parts would cost. Then they combined those materials into the shape of a battery cell and built batteries that were much, much cheaper than anyone realized.

## First Principles in Financial Advisory

How do I build trust?

Hire competent,  
honest,  
trustworthy people

Be competent,  
honest,  
trustworthy myself

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Being honest and transparent in your conduct isn't just a matter of ethics and morality alone. It's down right rational and pre-requisite for long term business.

## First Principles in Financial Advisory

How do I build  
a good long-  
term track  
record?

Help my  
clients invest  
sensibly, and  
for the long  
term

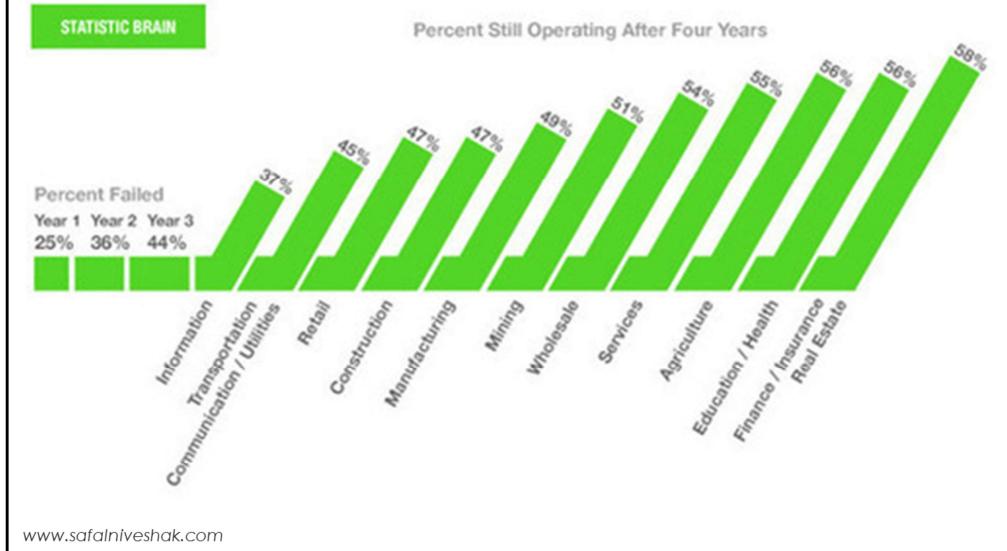
Choose my  
clients well  
(not everyone  
is in for the  
long term)

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The principle of “teaching your garden to weed itself”. Heard of “The Zappos offer?” Zappos had a policy where they offered the new hires to quit after first two months, taking one time payment, instead of staying back. This mechanism allowed the system to filter those people who weren’t serious about the job or those who had short term thinking.

## 2. Lindy Effect

Track record of startups...



Lindy Effect states that for non-perishable items (businesses, ideas, books, etc.) the observed lifespan of the non-perishable item is most likely to be at its half-life. Said another way, if a business is 100 years old, we should expect it to be around for another 100 years. We would expect a 10 year old business to be around for another 10 years. Lindy Effect is applicable to anything that is non-perishable like a technology. The longer a technology lives, the longer it can be expected to live.

Lindy Effect isn't an iron law but it's a good rule of thumb to use when you're thinking about the prospects of a shiny killer app that claims to revolutionize the world. Think about it, email was used before SMS technology came in, and email is still there whereas SMS is almost at the brink of extinction. Taleb argues that most of the technology that has existed for the past fifty years will serve us for another half century. And the recent technology will be passé in a few years' time.

Think about your financial advisory business or your industry using the Lindy Effect model. What has survived the longest? What has not changed in years? There is a great probability of what has not changed long time in the past to not change long time into the future. Like read what Jeff Bezos has to say on how he has built Amazon...

## Focus on What's NOT Going to Change



Bezos says –

*"I very frequently get the question: 'What's going to change in the next 10 years?' And that is a very interesting question; it's a very common one. I almost never get the question: 'What's not going to change in the next 10 years?' And I submit to you that that second question is actually the more important of the two — because **you can build a business strategy around the things that are stable in time**. ...[I]n our retail business, we know that customers want low prices, and I know that's going to be true 10 years from now. They want fast delivery; they want vast selection. It's impossible to imagine a future 10 years from now where a customer comes up and says, 'Jeff I love Amazon; I just wish the prices were a little higher,' [or] 'I love Amazon; I just wish you'd deliver a little more slowly.' Impossible. And so the effort we put into those things, spinning those things up, we know the energy we put into it today will still be paying off dividends for our customers 10 years from now. **When you have something that you know is true, even over the long term, you can afford to put a lot of energy into it.**"*

### 3. Occam's Razor

**"All things being equal, the simplest solution tends to be the best one."**

**~ William of Occam**



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Albert Einstein supposedly said, "If you can't explain it to a six-year-old, you don't understand it yourself."

**Practicing simplicity in business is one of the blocks of building trust.** And I see this lacking in the financial advisory business, as far as my experience with advisors is concerned. If your client needs just 2 insurance policies, and 5 mutual funds, don't sell him more! He came to you so that you can help him simplify his life, not make it more complex.

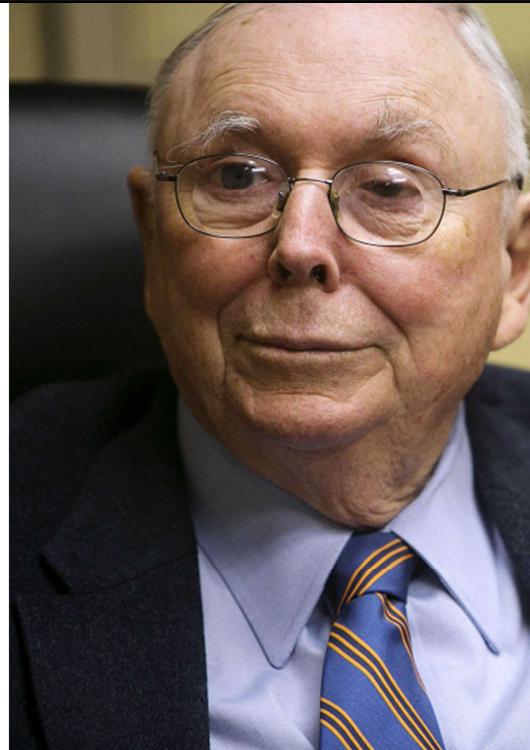
A man with one watch knows what time it is; a man with two watches is never quite sure.  
Keep it simple please!

**People calculate too much and think too little...We have a passion for keeping things simple.**

**If something is too hard, we move on to something else. What could be more simple than that?**

**~ Charlie Munger**

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A good financial plan has to be simple, and one that aims to beat inflation. You don't need to help your client beat the market. When it comes to investing, less is more. And if you guide your client to try to do more, he or she will often end up with less.

## 4. Storytelling



The concept of DCF or discounted cash flow in simple words is – a rupee received today is worth more than a rupee received tomorrow. Didn't Aesop said this in 600 BC when he said – "A bird in hand is worth two in the bush."

**Storytelling is a tremendously useful tool to increase the longevity of your message in audience's mind.** So it's no surprise that being a master story teller is one of essential traits required for effective communication.

Your purpose as an honest, ethical financial advisor is to move more people to do sensible things in their financial lives. It's your philosophical heartbeat: to inspire people to act and behave in a way which will enrich their financial lives and those of people around them. Everything you do has to be in service of this purpose, and storytelling provides you with a powerful tool to make change happen.

Stories spark emotions. People use stories to make sense of things. People learn from stories. Storytelling is a great tool for leaders seeking new behaviours in their teams. Sharing emotive stories of best practice inspires individuals and teams, helps them learn more quickly and helps organizations to become more agile.

## 5. Alternative Histories



Nassim Taleb writes on “alternative history” in his “Fooled by Randomness” –

*“Imagine you are offered \$10 million to play Russian roulette, i.e., to put a revolver containing one bullet in the six available chambers to your head and pull the trigger. Each realization would count as one history, for a total of six possible histories of equal probabilities. Five out of these six histories would lead to enrichment; one would lead to a statistic, that is, an obituary with an embarrassing (but certainly original) cause of death.”*

Avoid making predictions, especially about the future. Clearly, the quality of your decisions should not be solely judged based on their outcome, but the process you followed. A lot of people in the financial services industry have become famous for getting it right once in a row. You don't want to be such a person for your client.

		Process	
		Good	Bad
Outcome	Good	Inevitable (Long term)	Luck (Short term)
	Bad	Luck (Short term)	Inevitable (Long term)

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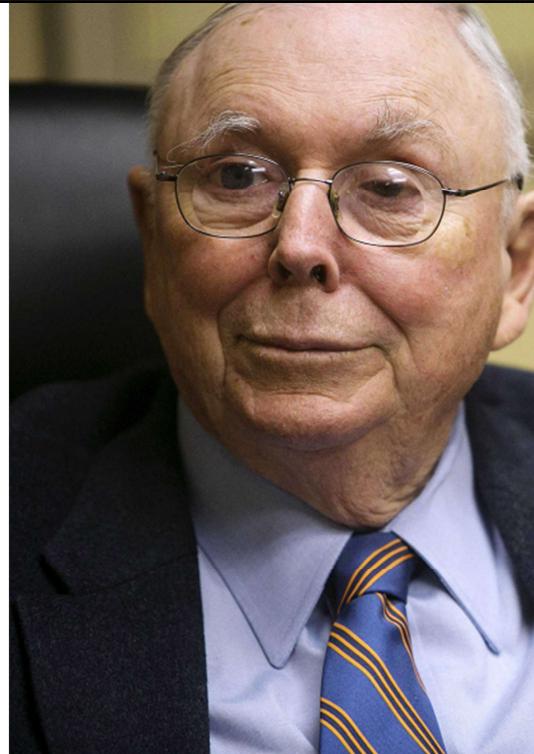
You should first focus on the path/process that was followed to achieve the outcome. A good process ensures a good outcome over long term. This above matrix is helpful in understanding the importance of 'good process' in decision making.

## 6. Inversion

**“All I want to  
know is where I’m  
going to die, so I’ll  
never go there.”**

**~ Charlie Munger**

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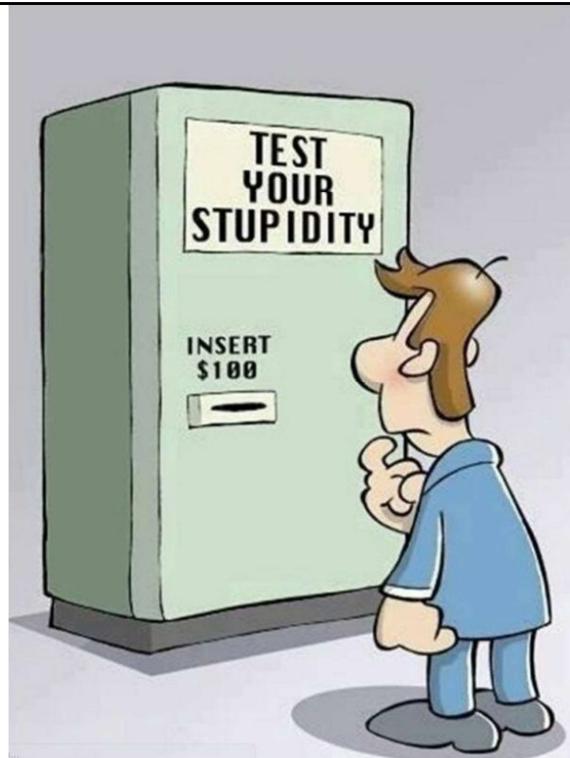


It is in the nature of things that many hard problems are best solved when they are addressed backward.

Let's take a look at an example. Say you want to create more innovation at your organization. Thinking forward, you'd think about all of the things you could do to foster innovation. If you look at the problem by inversion, however, you'd think about all the things you could do that would discourage innovation. Ideally, you'd avoid those things. Sounds simple right? I bet your organization does some of those 'stupid' things today.

**Avoiding  
stupidity is  
easier than  
seeking  
brilliance.**

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Inverting the problem won't always solve it, but it will help you avoid trouble. You can think of it as the avoiding stupidity filter. So what does this mean in practice? Spend less time trying to be brilliant and more time trying to avoid obvious stupidity. The kicker? Avoiding stupidity is easier than seeking brilliance.

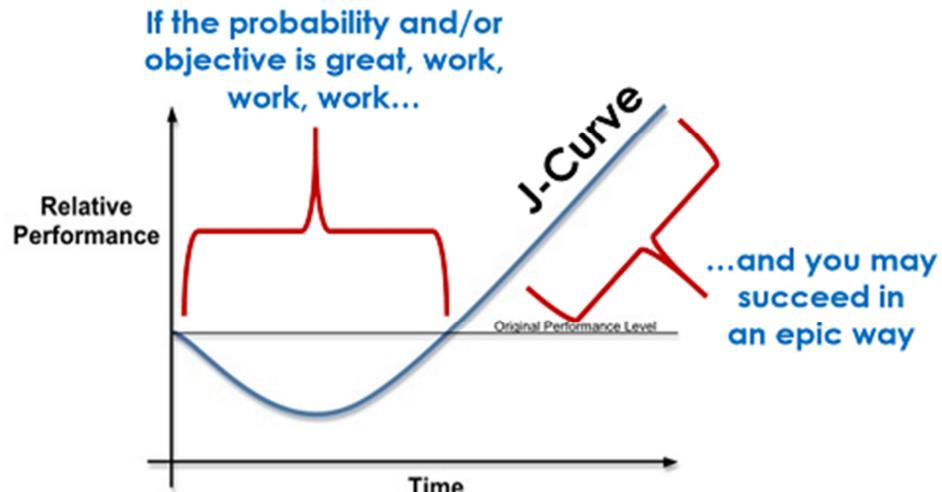
## 7. Gresham's Law



Like bad money drives out good money, unethical behaviour is contagious. If you find that it's easy to cheat and steal in an organization, it's just a matter of time before majority of the people in that system start exhibiting dishonest and unethical behaviour. Even if everybody was absolutely honest to begin with, social proof makes it increasingly hard for any individual to behave in a good way. Watching those around you succeed for wrong reasons isn't easy to handle. Envy is hard to counter. Such is the human behaviour.

Bad practices/bad people tend to replace the good practices/people. Reason why one needs to build an ethical organization, and more importantly when you are dealing with other people's money. Even a single instance of violation can't be taken lightly.

## 8. J-Curve



It's easy to consider Elon Musk and his advance in space, electric cars, and solar power as ridiculously rapid. But that's not the case at all. SpaceX was founded in June 2002, and Tesla in July 2003...that's around 12-13 years back. So, while we are seeing huge acceleration in what these companies can do, these have not been *overnight* successes. It's only that they have become better (and rapidly now) with time. So, what we are really seeing with Musk's businesses are the returns on the far side of the J-curve.

Look at your business this way. If your objective is good, keep working at it and wait for the J-Curve to play its part. I am not talking about denying the possibility of failure here though.

## Knowledge ≠ Understanding



Watch this video on why *knowledge* does not equals *understanding* -  
<https://youtu.be/MFzDaBzBILO>

How much ever you learn about mental models, you will not truly understand them till you practice them in the affairs of your business and life. **As the Chinese proverb goes – “I forget what I hear; I remember what I see; I know what I do.”**

**The best way to learn something is by doing it. So we must apply these and other mental models routinely to different situations.**

Like any skill, this takes both practice and discipline. But as Thomas Alva Edison said - “*The brain can be developed just the same way as the muscles can be developed, if one will only take the pains to train the mind to think.*”

**“I confess that I have been as blind as a mole, but it is better to learn wisdom late than never to learn it at all.”**

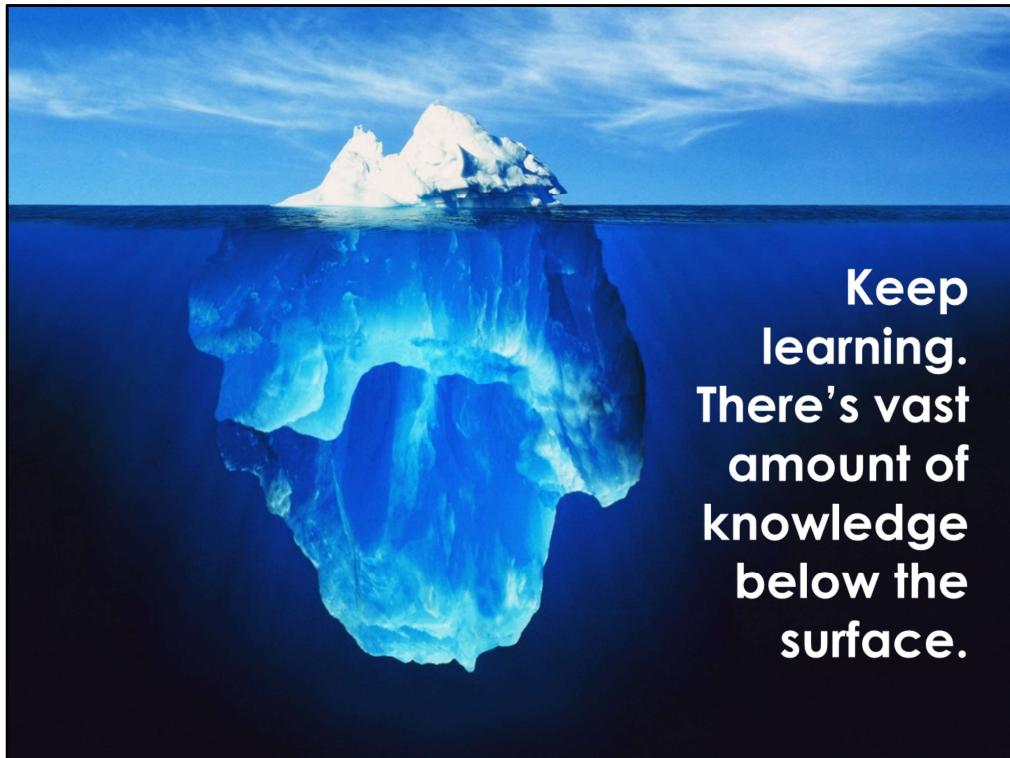
**~ Sherlock Holmes**



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I believe that luck plays a significant role in defining the direction of our lives and for me it was a wonderful stroke of luck that I stumbled upon the teachings of Charlie Munger. I must confess that, after discovering him, I lost my right to blame luck for my failures. This is as far as luck could have taken me – to the doorsteps of school of worldly wisdom. Now it's up to me.

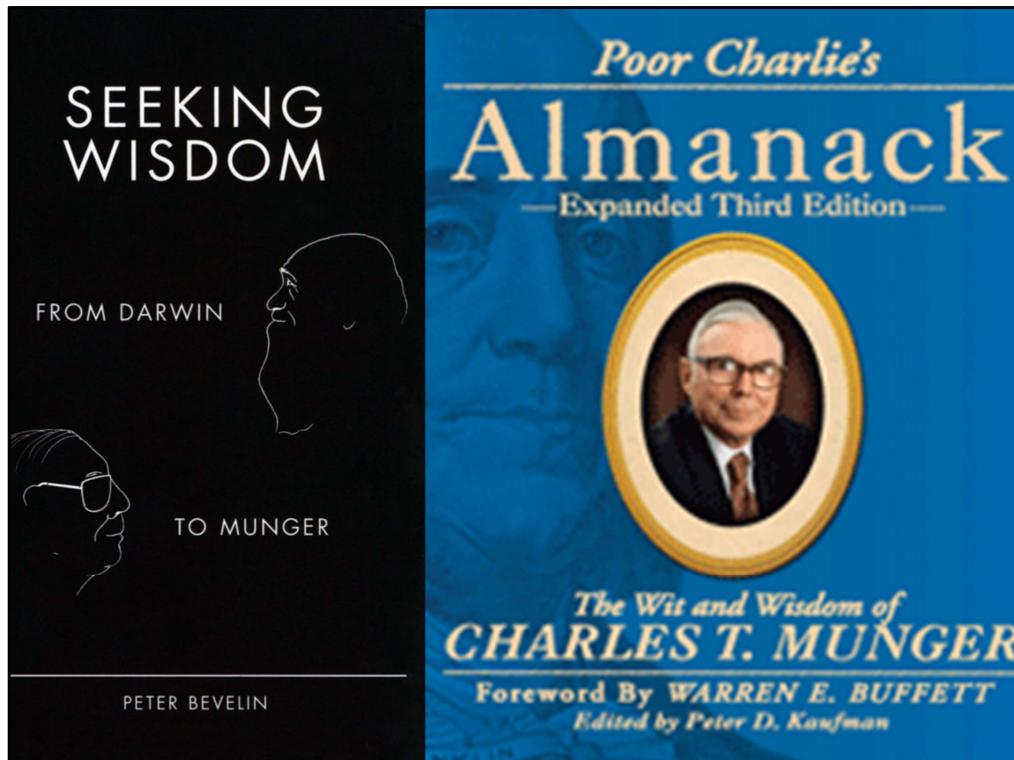
I hope you agree with me. And I hope you take the responsibility of acquiring worldly wisdom seriously, which is going to help you in your life and work.



**Keep  
learning.  
There's vast  
amount of  
knowledge  
below the  
surface.**

Superior performance in life and in investing, according to Charlie Munger, doesn't come from a magic formula. It comes from what he calls "constant search for better methods of thought."

**The search for wisdom is a long journey and no matter how much we learn the destination may still seem elusive. That's because we are still going to make misjudgments. The key is to know our limitations and keep improving.**



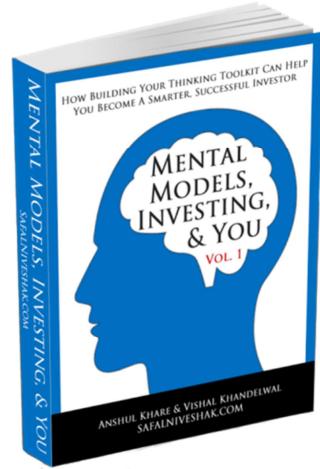
Two outstanding resources to learn mental models...

1. **Seeking Wisdom: From Darwin to Munger** (Peter Bevelin) - <http://amzn.to/2d4rAel>
2. **Poor Charlie's Almanack** (Peter Kaufman) - <http://amzn.to/2d4rAel>

***Disclosure:** I participate in the Amazon Associates Program, which simply means that if you purchase a book on Amazon from a link above, I receive a small commission. The book does not cost you any extra. I give away 100% of the commission for the betterment of the under-privileged.*

Also give this a try...

**Mental Models, Investing, and You** (from Safal Niveshak) is a 430+ page e-book where we have compiled 50 mental models arranged by fields of study. It covers ideas from the various disciplines like psychology, economics, business, mathematics, engineering, physics, social science, literature, statistics and decision making.



Click on this link to get our Mental Models e-book - <http://bit.ly/2d6ZVv6>

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