

Strategy in a Complex World: What To Do and What Not To Do

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In a world characterised by radical uncertainty and irreducible complexity, the concept of strategy in the organisational setting needs a reset. Leaders have to stop assuming that crises are disruptions of an equilibrium normal state, and should embrace the notion that uncertainty and volatility are part of our real-world dynamics.

It is conventional, these days, to begin any rumination on the state of the world with a hat-tip towards complexity and the associated themes of disruption and uncertainty. The VUCA (volatile, uncertain, complex and ambiguous) lens is inevitably trotted out in any presentation.

Much of the treatment on this topic focuses on particular manifestations of complexity and disruptions – Industry 4.0, automation, artificial intelligence, the planetary climate crisis, and so on. However, businesses, and even governments, would do well to consider the mental models (whether explicitly articulated or tacitly held) that undergird our interpretations of reality and our actions.

Take, for instance, the phrase: “We are now operating in a complex environment.” On close examination, the “now” suggests that prior to some arbitrary point in history, the environment was un-complex and that it somehow tipped over into a complex one. It further suggests a sense that our modes of thinking and acting that were appropriate to that simpler world are inadequate at best and disastrous at worst for this VUCA world.

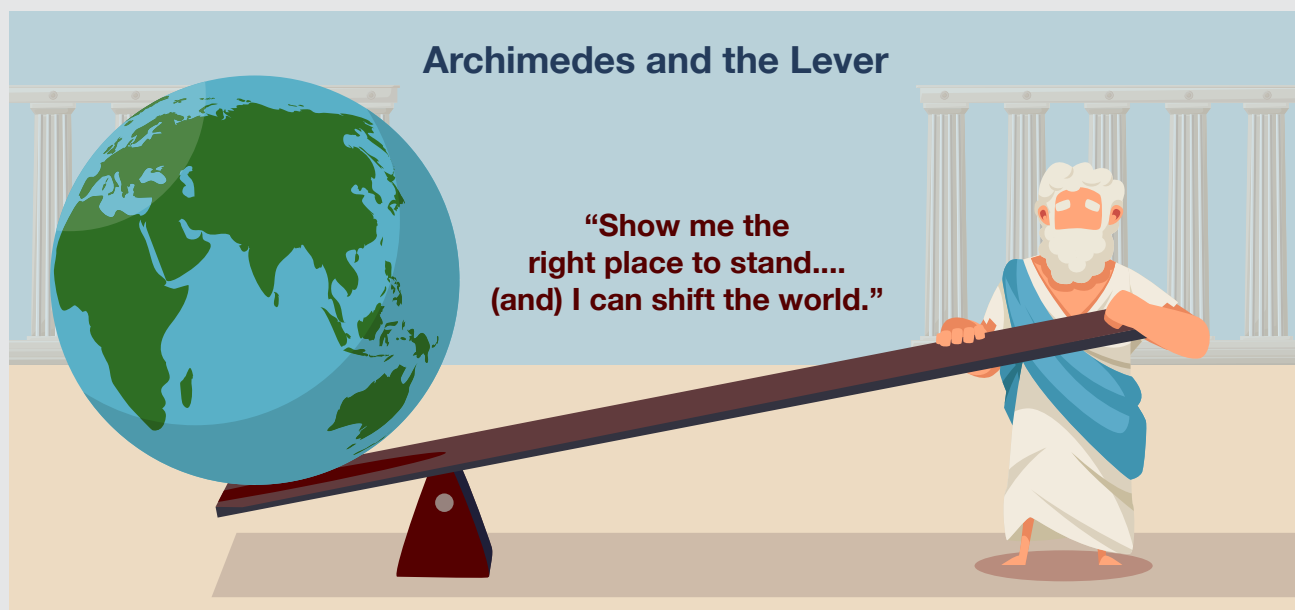
Perhaps the world was once a simpler one. But how we conceive of and practise strategy is increasingly inappropriate for this emerging world of complexity.

Economical strategy, economical hero

In her book *Doughnut Economics*, Kate Raworth argued that “economics is the mother tongue of public policy, the language of public life, and the mindset that shapes society”. In the same way, the field of modern corporate strategy is a close cousin of economics, or more specifically, the neoclassical school of economics.

Consider the vocabulary of corporate strategy and the extent to which it borrows from lexicon of economics: *ceteris paribus*, rationality, efficiency, optimisation, margins, cost-benefit analysis, trade-offs, reductionism and the like. These concepts form the basis of the work of the modern-day strategist and planner, including planning templates and organisational frameworks used in corporate strategy.

The word “strategy” originates from the Greek *strategos*, which means “general”. This is the mythic image of the hero-leader that exceeds the bounds of the military context and permeates the field of corporate strategy: the CEO becomes the modern-day general, along with the borrowed language of war, with terms such as “battle for market share”, “frontline”, “targets”, and even “captains of industry”. However, the more appropriate image that explains the orthodoxy of strategy is that of Archimedes and the lever (see box, “Archimedes and the Lever”).



Archimedes, the scientist from Greek antiquity, is supposed to have said, “Show me the right place to stand and the right fulcrum point, and with the right lever, I can shift the world.” This image showcases the heroic character of strategists – Archimedes, who formulates the one unique, optimal solution, the lever. His unique vantage point and knowledge of where to act (i.e. the fulcrum point), is able to effectively and efficiently move the world.

In the same vein, it is generally accepted that the way to understand and deal with both material and social phenomena is to apprehend them using the most efficient investigative tools and/or conceptual apparatus. However, using the most direct approach, as explained by Robert Chia, a business school professor at the University of Strathclyde, is problematic and even dangerous, in the present context.

The conventional practice of strategy privileges the routine, the quantifiable and the measurable (think key performance indicators and standard

operating procedures). Such methods in strategy and planning might have been appropriate for a world far less complex than the one in which governments, corporations, and society at large find themselves. However, that arguably simpler world characterised by steady and largely-predictable change, led strategists, planners, consultants to almost exclusively think and act in terms of linear causalities sans unintended consequences, to carve the world out into neat two-by-two matrices captioned with buzzwords and platitudes.

So how exactly has the world changed, and what is it about complexity that has put paid to long-vaunted dogmas of corporate strategy?

Unknown unknowns and other inconveniences

In *The End of Theory*, former US Department of the Treasury research principal Richard Bookstaber argues that the future is unpredictable, especially if the future involves people, not just inanimate objects. And thus, it will be difficult to predict the consequences of plans and

strategies. This speaks to how neoclassical economics, and the other practices informed by it, had long ago assumed away the human element in its models.

For a start, there are “unknown unknowns”, a phrase that former US Secretary of Defense Donald Rumsfeld made popular in 2002. Since the future has yet to form, people cannot contemplate all the possible states of the future, much less assign probabilities to them. After all, people are enmeshed in the future they want to observe.

And so, actuaries can estimate probabilities for life expectancy. But they cannot anticipate the next world war or the next transformative technology, just as Japanese military planners in 1930 probably did not anticipate atomic bombs. Indeed, entrepreneurs reap profit, because they bear this radical uncertainty, as economist Frank Knight wrote in *Risk, Uncertainty and Profit*.

The future is unpredictable. That is because one affects and is affected by others, shaping collective outcomes.

Early in the pandemic in 2020, some stocked up on toilet paper; as others saw this, they too stocked up. And as supermarkets capped purchases and gave reassurances of supply, they may have spooked buyers further. This is an example of emergent phenomena: individual actions to bolster toilet-paper security led to a surprising and different collective outcome – a run on toilet paper.

Likewise, companies could be surprised by other emergent outcomes. For example, the killing of George Floyd in 2020 triggered larger protests

than earlier killings, thus pressuring companies to take a stance, as well as rebrand and repackage; PepsiCo, for instance, rebranded its Aunt Jemima pancake mixes as Pearl Milling.

Unlike inanimate objects configured in mechanistic ways, people change. What they did, they may no longer do. And so, what worked in predicting their behaviour may no longer work. People change their taste in food, hobbies and values; that is why regret is possible.

As another example, the *Our Singaporean Values* report, published this year by the Institute of Policy Studies finds that most Singaporeans now value environmental sustainability over economic growth; indicating that Singaporeans would not easily accept clearing forests for carparks, flats and factories. The complexity we are confronting is driven by the growing contestation over normative issues and ideological leanings.

In the realm of people, context and history matter. The laws of physics may be immutable, but social processes are non-ergodic (i.e. they change). The context matters, and the context changes.

These suggest that any future that involves people will be hard to predict – and to solve using formulas, shortcuts and simplifications. It is computationally irreducible. For example, math cannot determine where three planets will be at a point in the future – the three-body problem. For such problems, the only way to find out what will happen, well, is to let it happen, or to simulate it, step by step, on a computer.

There is no shortcut to finding out what happens in life, except to live it. As the saying goes, you just have to “roll with it”.

The human element

All of the above suggests that what may be needed is an oblique, sophisticated, counter-intuitive way of acting strategically that appreciates the world's perpetual mystery and fundamental uncertainty. But to even contemplate that, we must acknowledge how deeply entrenched the conventional wisdom of that simpler world is.

In the corporate world and, to a lesser extent, the world of public policy, there is a tendency to hero-worship successful corporations and captains of industry for their spectacular achievements, more often than not of a short-term nature. History would show that a fixation with the obvious leads to the exclusion of other drivers of change and determinants of success.

In a complex environment, though, such directness in human affairs carries with it inevitable downsides. We potentially end up in a situation similar to that described in the seminal article by MIT professor Daron Acemoglu and Boston University's Pascual Restrepo. "So-so technologies" are described as "advances that disrupt employment and displace workers without generating much of a boost in productivity or quality of service – think self-checkout kiosks at grocery stores or automated customer service over the phone." In other words, it's sexy, it's fashionable, everyone else is doing it, but it does not add value or improve productivity.

Similarly, the present persistence and even proliferation of strategy tools, models, templates and so forth that arguably worked in a previous world constitute a "so-so technology" of sorts: hollow and disconnected platitudes that lead to a contrived certitude

and false precision, where the dependency on standard playbooks supplants thinking and leads to intellectual laziness. Applying linear and simplistic tools into a complex system of hidden and poorly understood connections is to court disaster.

The appropriate albeit counter-intuitive approach is to, paradoxically, do nothing. This should be qualified in the sense that it is non-action rather than inaction: the Taoist notion of 无为. Enlightened non-action is driven by a clear understanding of the problem and more importantly, to accept the limits of your understanding, and to trust the self-organising, self-synchronising and self-correcting nature of a complex system.

Living and planning in a world of complexity requires us to relinquish the illusion of control. More than that, we need to stop assuming that crises are merely perturbations around some equilibrium normal state. We need to drop the assumption that we live in a world of certainty punctuated by moments of uncertainty. Strategy in such a world must embrace the mystery of uncertainty.

In a world of complex, hidden and poorly understood dynamics, and radical uncertainty, big actions could have small results. By contrast, small actions could have big results. And non-action may turn out to be the most efficacious of all. In other words, the "what to do" could actually turn out to be the "what not to do". ■

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