

## Managing Complexity

With so much change and uncertainty before us, one way to throw out the noise and traditional viewpoints is to aggressively manage complexity. When you start to manage complexity, you immediately gain some control over the change and uncertainty that you feel you have no control over. For example, “complexity theory” recognizes that crowds are a big factor related to complexity. Knowing something about the psychology of the crowd can be important to how you manage complexity.

*“At the heart of most real-world examples of complexity is the situation in which a collection of objects are competing for some kind of limited resource – for example, food, space, energy, power, or wealth. In such situations, the emergence of a crowd can have very important practical consequences. For example, in a financial market or the housing market, the spontaneous formation of a crowd of people who wish to sell – and hence are effectively competing for buyers – can lead to a market crash in which the price falls dramatically in a short time. A related crowd phenomenon occurs among commuters who are competing for space on a particular road at the same time. This leads to a traffic jam, which is the traffic equivalent of a market crash. The holy grail of complexity science is to understand, predict, and control such emergent phenomenon – in particular, potentially catastrophic crowds – like effects such as market crashes, traffic jams, epidemics, illnesses such as cancer, human conflicts and environmental change.” – Simply Complexity: A Clear Guide to Complexity Theory by Neil F. Johnson*

The concept of crowded markets is well described in the book: Blue Ocean Strategy by W. Chan Kim and Renee Mauborgne. The authors advocate the pursuit of markets ignored by others, lots of blue ocean water where there are few competitors as opposed to swimming in shark infested waters that are very crowded where the competition eats you alive in no time flat. Or in the words of Tom Peters – Niche or be niched. You have to be exceptionally good at something to create a niche that no one else can touch. This is part of how you deal effectively with complexity.

Certain forms of “crowds” can also add to complexity. More interdependencies can add to your complexity. This can take the form of partnerships, vendors in the supply chain or numerous system interfaces with software applications. Even more diversity in your work place can add to complexity. This brings us to four factors that add to complexity as explained in the book: Managing Complexity in Organizations by Christoph Nedopil, Ulrich Steger and Wolfgang Amann:

1. **Interdependence** – It’s important to form partnerships and decrease boundaries to operate in a global world, but with these interdependencies comes more challenge. You have to manage all of these relationships in a very tight way to keep things under control.
2. **Diversity** – Organizations are faced with lots more diversity in terms of varied systems, variation in doing business from country to country, different strategies for different products, diverse stakeholders, and different customers. This all adds to complexity. Knowing how to manage all of these moving parts holistically is very important.
3. **Ambiguity** – When you operate under different rules, countries or business units, things can become more ambiguous. If you decide to pursue too many customers, too many strategies or do things that are beyond your capabilities, you can expect a lot more complexity. On the other hand, if you are following a single standard or set of rules over everything, things become less complex.
4. **Flux** – No matter how well you master things like diversity and ambiguity, you still have to manage change. You can always expect changes or fluctuations – new technologies, new competitors, or changes in the economy. Things like learning, leadership, and communication are critically important to managing change or flux.

You should also recognize important qualities in managing complexity. These include:

- Opportunity Planning – Engage aggressively in seeking out new opportunities. This requires connecting with customers, developing relationships, testing out new solutions, and uncovering niches that your organization can exploit.
- Monitor Performance – You must have feedback processes in place to monitor and control what is going on. Every organization should have a set of balanced (financial and non-financial) metrics that is constantly reporting the health of business units, customers, processes, and other critical activities.
- Alternative Courses of Action – You should have some alternative scenarios or contingencies mapped out for the future. Things will not work out as you originally planned – you must be prepared to run in a different direction quickly.
- Collaborative Problem Solving – One area where you should engage crowds is problem solving – things like CrowdSourcing. You can much better insights by tapping into the wisdom of people inside and outside of your organization.
- Networked Leadership – As opposed to a traditional organizational structure with leaders at the top, the organization operates more on a networked basis with leaders throughout.

*“When companies treat complexity as something they must overcome, they miss an opportunity. If complexity, in all its aspects, is seen as a challenge to be managed and potentially exploited, not as a problem to be eliminated, businesses can generate additional sources of profit and competitive advantage. Managed well, complexity can also increase the resilience of a company by enhancing its ability to adapt to a changing world.” – Cracking the Complexity Code, McKinsey Quarterly*

Finally, don't forget to follow the KISS principle – Keep It Simple Stupid applies. If you have trouble explaining your business model to someone, then you probably will eventually run into some serious problems with managing the business. Just take a look at things like credit card default swaps – how do you assign a value to something like this? The more complex the business or transaction, the more risk of an eventual fallout from a sudden crowd or rush that forces a correction.

*“If I understand it, it's simple; if not, it's complicated.” - Yogi Berra*

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