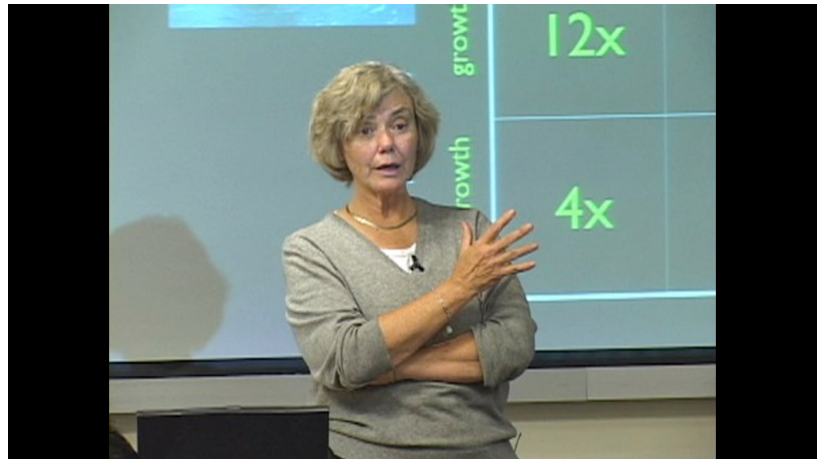


URL: <https://stvp.stanford.edu/blog/videos/edge-of-chaos>

Eisenhardt shares her work on managing at the edge of chaos. She defines the edge of chaos as the perfect balance between being too structured and not having enough structure. In particular, she compares optimal strategies for the highly regulated and structured biotech market and the ambiguous mobile gaming market.



## Transcript

We started thinking about, well, dynamic markets and markets where high companies are tend to have four attributes.. They tend to be fast moving, or they can be complicated, or they can be ambiguous, or they can be uncertain.. OK? So four attributes.. We decide to try some simulations and then also look at some empirical data on what was going on in those different kinds of markets.. So the idea is to be on the edge of chaos because you can be too structured and you can't get anything done because you're just wrapped up and you can't address or you can be too unstructured and it's too crazy you never get going.. So you want to have some sort of optimal structure where you're starting to realize.. Let me show you some of the results.. I think they're kind of interesting.. This is a market, what you have is a lot of opportunities.. So thinking about a lot of opportunities, the fast flow of opportunities, the Internet boom of the late '90s it's a classic example..

What this picture showing you is what a performance bang you get just by being in a market like that.. And actually the empirical facts on the Internet.. You know, we all talk and we all hear about all these companies that died.. The actual survival rate in the Internet boom was much higher than most periods.. Yeah, there was a lot of debt but there was also a lot of startup.. And in fact, many companies did well.. Many, many companies did well and some of them became lifestyle businesses that you don't know of but many companies did well.. So the first thing we started realizing if there's just a lot of opportunities around the space, it's a really good place to be.. On the other hand, there's really bad places to be.. And that's in complicated markets..

What's a complicated market? It's a market where you have to get a lot of things right.. So biotech is a classic example of a complicated market where you got to get FDA right and you got to get a whole bunch of things right to be successful in a market like biotech.. And if you look at the results in biotech, it's mostly low performance.. Yes, there's some stars like Genentech and Amgen but mostly it's not a very good investment.. And so, these two complicated markets so you could see in that picture.. You want low complexity, high velocity.. And there we looked at a different kind of a market we said supposes an ambiguous market you can't really tell what's going on.. So really early markets, ambiguous, and you can't figure it out.. You don't really know what people are buying.. You don't know what the business model is..

You don't know who the customers are.. So what does this picture say? It says if you're in a highly ambiguous market, it doesn't really matter what you're doing.. You can just kind of do a bunch of stuff.. You won't really do very well but you just kind of doing stuff and it's mostly about luck.. In contrast, a low ambiguity market is about skill, about the ability to be at the right structure.. So what that says is, if you think back to some of the other things I was saying it says that if you're in in a really ambiguous new market you want to structure it.. As I was saying before you want to keep the other players out, you want a claim and so forth.. And so, if you're a skilled person, you want to get rid of that ambiguity by structuring the market.. If you're not so skilled, and you want to learn it, then you don't want a structure.. So it's kind of interesting I think, different strategies if you enter those kinds of markets and what you might want to do depending on how good you are..

And then finally, we look at uncertainty.. These are markets where you kind of know what's going on but you can't judge the uncertainty.. Typically, these are growth markets.. So you may know there's going to be a genre in wireless gaming but you don't know which one.. You know there's several different standards but you don't know who's going to win.. So you know things but there's uncertainty.. What this says is if it's a stable market, again, it doesn't matter too much what you do.. If it's an unstable, uncertain market, then what you really are trying to do is find the optimal structure.. And so, you really want to

manage how much structure you have.. You're also saying that the means moved..

And so, you actually want less structure.. As you go in an uncertain market, what you typically want is less structure and you typically want to manage the amount that you have.. What makes uncertain markets so hard for big companies is because they're coming from markets like these where it didn't matter how much structure you had and they're going to a market where it does matter.. And so, that's one of the reasons why big companies have trouble going to the new markets.. On the other hand, very small companies, one of the things you're actually not seeing in this curve but you actually see.. It looks like a U here, but it's actually skewed.. And it's really steep on this side, it's a little more skewed on the other.. And that the risk for young companies is they don't get structured enough.. So you got to get structured fast if you're new.. In fact, in my experience most of the best entrepreneurial companies have more structure than their peers, their entrepreneurial peers..

So they get some structure fast...