How The Hidden Structures Of Competition Drive Your Company's Strategic Decisions

In our behaviour and beliefs, we are influenced by various hidden structures and characteristics of the people surrounding us. Over the past decades, for example, hundreds of studies on social networks and “small worlds” have shown that with whom we have had prior relationships, and how these people relate to each other, influences the information we receive, how much personal power we have, how likely we are to find a job, get promoted, how creative and innovative we are, and so forth.

This research on social networks basically draws lines between you and the people you know, and lines between those people you know who also know each other; lines between them and other people you don’t know at all, etcetera, to reveal very different structures. We call these structures networks with or without “structural holes”, with more or less “indirect ties”, “network closure”, and so on.

Ample research has also revealed that, just like individuals, the same type of structures influence firms in their behaviour and performance. In this case, the lines between different firms – referred to as “social ties” – can be determined by prior alliances between these companies, or shared members of their boards of directors (so-called board interlocks), or some other cooperative tie. Firms may not always realise it, but their strategic choices and success can be heavily influenced by these social networks.

What a former PhD student of mine – Kai-Yu Hsieh (now an assistant professor at the National University of Singapore) – and I did is similar but also very different from this social network research. We started to draw lines between the different firms in an industry, not based on “social ties” but based on who competes with whom. Some firms in an industry namely compete directly with each other where others don’t. For example, in the pharmaceutical industry, a firm making anti-epileptic drugs and cardiovascular drugs would be competing with another firm that makes cardiovascular drugs but not with a firm that makes antibiotics medicine. The firm’s competitors, however, could also be competing with each other, for instance if both also happened to make cancer drugs. The point is that, drawing lines between the different firms in various industries also revealed remarkably different structures – just like social networks do. And we wanted to find out if organizations, in their behaviour, are also influenced by
such competitive structures; which we labeled “the structure of competition”.

And the answer is “oh yes”.

We deliberately selected two very different industries for which to compute these competitive structures. We analysed whom competes with whom among computer hardware manufacturers in Taiwan. And we computed the exact same structures for pharmaceutical firms in China. The type of strategic behaviour that we chose to analyse through these competitive structures was imitative market entry: how inclined would these firms be, dependent on their structure of competition, to follow each other into new markets? Or might certain type of structures induce them not to imitate each other at all, and in fact stay out of certain markets altogether?

Remarkably, in these very different industries the exact same types of competitive structures led to the exact same types of strategic behaviour. And the influence of the structure of competition was substantial: firms could display completely opposite behaviour when facing different structures (flipping from a strong inclination to imitate to an inclination to do the opposite of others).

We interviewed people in these industries to find out why these structures were influencing their behaviour so heavily. The first thing we found out was that, in spite of their strong influence, managers were not aware of the different type of structures. But they were aware of their influence. Our interviews suggested that operating within a particular structure seemed to leave a particular “imprinting effect” on a firm, making it more or less aggressive in its market behaviour and towards its competitors.

In this study, we analyzed the strong influence of these hidden structures of competition on firm’s imitative market entry behaviour, but it seems likely that – just as in the case of social networks – they might heavily influence a whole range of other strategic variables and behaviours. Hence, we see our research – due to appear in the academic journal Organization Science – as just a first step to uncovering the hidden influence of the structure of competition on economic life.

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