

Want to seal your business's success? Find the algorithm that sits at its core

FRANK DILLON reviews *The Design of Business: why Design Thinking is the Next Competitive Advantage* by Roger Martin; Harvard Business Press; £20 (€22)

ROGER MARTIN – cited by *Business Week* as one of the 10 most influential business professors in the world – suggests in this book that successful business innovation evolves in three stages. The first is the recognition of a mystery, the second involves a heuristic or “rule of thumb” that suggests a solution to a problem, while the final phase is the development of an algorithm, a predicable formula that can be used to scale a product or business.

Fast food chain McDonald’s provides a classic example. The McDonald brothers, who established the business in the 1940s, were faced with the mystery of what the mobile, leisured middle classes of southern California wanted to eat. Their heuristic was a quick service restaurant with strictly limited menu options. Their hunch proved a success. However, the brothers’ vision only went so far. It was one of their food ingredient suppliers, Ray Kroc, who saw the real potential, purchased the business from them and developed the algorithm that turned McDonald’s into a global phenomenon.

Kroc’s algorithm removed judgment and variety. In his model, everything from site selection, layout, staff hiring and ingredients to cooking times followed a rigorous formula defined in operating manuals. The franchise model he developed produced scale and super efficiencies in the supply chain.

Kroc’s success would not have happened without the brothers’ initial insights. This is a familiar pattern. Most organisations excel either at exploration or searching for new knowledge. Or in exploitation, the leveraging of that knowledge to maximise payoff.

However, there is a danger in this approach. The algorithm Kroc chose has left McDonald’s exposed in more recent times. Subway, for example, returned to the heuristic of quick service, but replaced burgers and fries with healthier sandwich choices in response to consumer concerns about nutrition. McDonald’s suffered for a while as a consequence.

Other companies can spare themselves such anguish, Martin suggests, by using the cost savings generated from pushing their current activities through the knowledge funnel to revisit the mystery whose initial solution drove the business model.

Companies that do this can also gain an offensive advantage. Take Procter Gamble, for example. It realised enormous efficiencies by refining its knowledge of household cleaning products. The equity it generated through those efficiencies was invested in nappies, creating Pampers, one of its largest and most successful businesses.

Few companies, however, balance exploration with exploitation. With scale, companies tend to become more comfortable with the administration of business. Risk-aversion sets in and they embrace a highly restrictive definition of what constitutes reasonable grounds for moving ahead with a project. Managers are trained and rewarded for looking at the past for proof before making big decisions.

This is quite understandable and expecting corporations to eschew analytical thinking and embrace randomness is unrealistic, the author agrees. But he proposes a third way – what he calls “design thinking” – based on the abductive logic theory proposed by philosopher Charles Sanders Pierce. The central idea here is that it is not possible to prove any new concept in advance and that these ideas can only be validated through the unfolding of future events.

Big gains can be made from sailing in uncharted waters but a different approach requires new structures. To achieve the right balance, significant parts of the organisation should be structured as projects with teams and processes designed to move knowledge forward but with a definite end point. Planning and budgeting have to be loosened to incorporate initiatives whose outcomes can't be predicted.

This brave approach requires strong leadership. PG's chief executive AG Lafley is credited with transforming a large reliability-biased enterprise into a design-friendly organisation that maintains a balance between analytical thinking and abductive reasoning. Apple's Steve Jobs, meanwhile, is praised not only for helping to create innovative products such as the iPod and iPhone but for giving the green light to spend the resources necessary to make lasting successes of his designers' innovations.

For design thinking to work, innovation must be matched to what is technically feasible and to what the market needs and wants. Apple's Newton, the world's first portable digital assistant launched in 1993, for example, failed because it did not advance a better solution to a customer need than what a laptop would provide.

Martin acknowledges that design thinking is difficult and the path to implanting it is full of roadblocks. Companies often leave mysteries alone, declaring them unsolvable. A second problem is that heuristics are often left in the hands of highly paid executives with “knowledge, turf and pay cheques to defend”, he says. If these experts were to advance the heuristics in their heads to algorithms, the company could break the specialists' information monopoly and hand the job to a less costly employee.

Few organisations refine their algorithms into code and they sit unrecognised and unexploited because they are run by people, not software. This wastes the opportunity to free resources to invest in solving the next mystery.

The design-thinking organisation, in contrast, has the time and capital to tackle the next challenge. But, as Martin notes, it takes a special type of leadership to stare down the capital markets and do what is necessary to promote the company's long-term health and vibrancy.