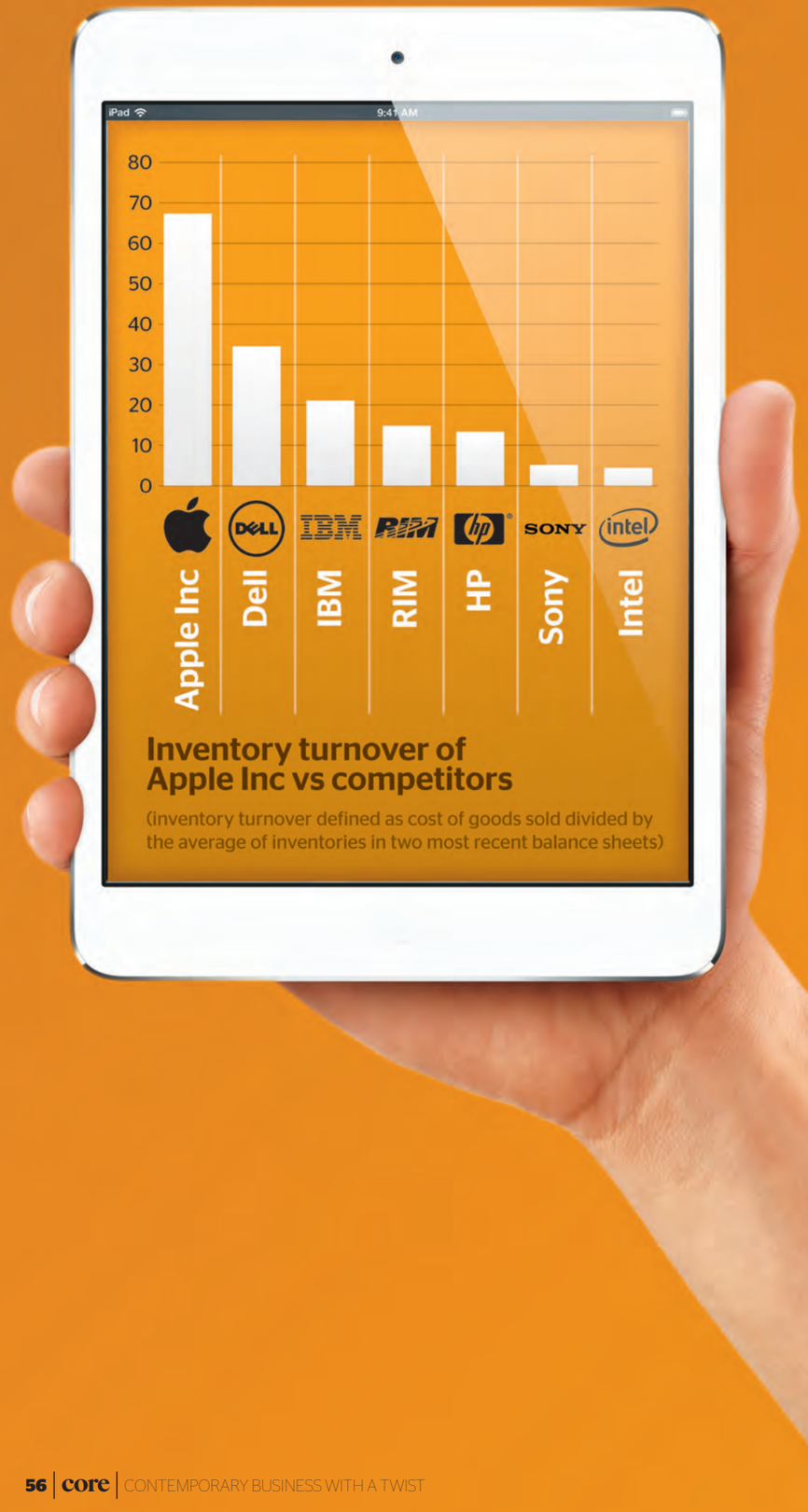


# Quantum strategy at Apple Inc.

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Apple is a master of Quantum Strategy, which is both unconventional as well as extremely difficult to implement. Loizos Heracleous explains the magic of Apple and why it will stand the test of time

Over the last 15 years Apple has revolutionised the personal electronics, telecoms, computer and media industries through a string of blockbuster products that offer unique, designer, integrated customer experiences. In the process, Apple helped to accelerate the blurring of industry boundaries and position itself in a way that it exerts significant bargaining power over both consumers and industry players, with outstanding performance results. Apple is the most valuable listed company with a market value of $600bn in mid-October 2012, having gathered the highest accumulation of cash and liquid reserves ($117bn in June 2012) of any listed company. And it regularly achieves net margins above 20 per cent in industries where most competitors achieve single-digit margins.

The chief architect of the business model and value system that led to this exceptional performance is widely acknowledged to be the late Steve Jobs. With Jobs' passing in October 2011, many wondered whether the magic at Apple would last, or gradually fizzle out.

My research suggests that the magic will last, at least in the medium term.

This is not only due to clear and consistent strategic choices which have served to institutionalise the Apple way, but also due to the fact that Apple has pursued a strategy that is both rare and incredibly difficult for competitors to imitate.

## Quantum physics

A key aspect of Apple's strategy is the ability to balance intense efficiency in operations (in fact the highest efficiency levels in its peer group) with outstanding serial innovation and addictive product design, both of which command premium pricing and redefine markets. This combination defies conventional wisdom, which maintains that if a company's competitive advantage is based on intense efficiency and value, it won't invest beyond what's necessary in innovation, design or service, and in fact will strive to cut costs everywhere along its value chain so as to align these elements with its strategy. Conversely, conventional wisdom holds that a company competing on innovation, outstanding design or service excellence will not be able to reach intense levels of efficiency since these capabilities are costly to develop and maintain.

Apple has accomplished serial innovation and outstanding design in terms of its offerings and its own business model, as well as simultaneous cost leadership, having become more efficient than the traditional cost leader, Dell.

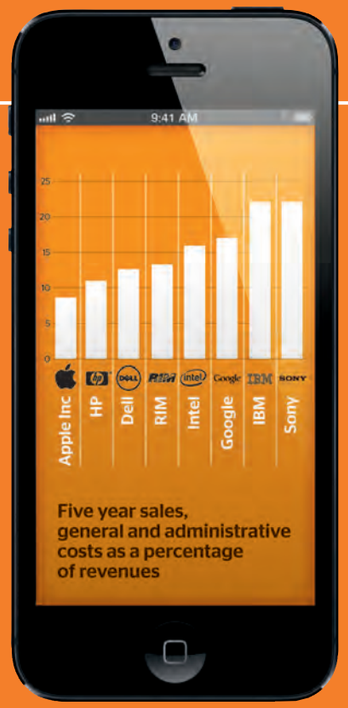
Apple has achieved what might be seen as the holy grail of strategy, and it is worth asking how. The answer can help us gain insight into the trickiest of strategies to execute, and one that most companies do not even try to achieve. This strategy, if successfully executed, represents a shift of the iso-value curve in any industry it is employed in, not just movement along such a curve where most competitors are positioned.

I call this Quantum Strategy, after the idea that at the quantum level of reality, the same electron can be at two places at the same time, and two different electrons can occupy the very same physical space, both seeming logical and natural impossibilities, which nevertheless do occur. An understanding of Quantum Strategy offers lessons for executives, in particular the principles involved in breaking the trade-offs that are conventionally assumed to constrain strategic choices.

## Solving the quantum puzzle

Apple has achieved its outstanding performance through effectively implementing an unconventional strategy: differentiation through innovation (along various dimensions that include serial, strategic and incremental innovation), with simultaneous intense levels of efficiency, leading to the lowest costs in its peer group.

Conventional wisdom – most




# Quantum performance

| EXCEPTIONAL INNOVATION & DESIGN... | AT ROCK BOTTOM COST |
|---|---|
| **Indicators of differentiation** | **Indicators of efficiency** |
| Winner of several innovation and design awards; consistent groundbreaking offerings | Lowest SG&A costs; highest inventory turnover; both more efficient than Dell |
| Ability to command premium prices and achieve exceptional profit margins and revenue growth | R&D intensity lowest in peer group (while recognised as world's most innovative company) |
| **How Apple achieves differentiation** | **How Apple achieves intense efficiency** |
| Focus on, and investment in, innovation capability; deep collaboration approach | Strategic focus in terms of product markets, types of products and product features |
| People strategy – hiring the best people and motivating them to excel (location advantage from being based in Silicon Valley) | Distributed organisation design – high value added functions in California, manufacturing outsourced to cheapest locations |
| Branding – image of maverick creativity; investment in Apple Stores in high profile locations | Synergies from related diversification in terms of industries as well as products (eg technological platforms) |
| Apple's proprietary ecosystem allows higher pricing control and customer capture | Intense focus on supply chain efficiency (less warehouses, reduction of supplier numbers) |
| Historically, Steve Jobs' leadership – demanding, perfectionist, visionary | Flat organisation and simplified processes increase efficiency |

famously set out by Michael Porter – holds that such strategies would be impossible to achieve in a long-term, sustainable timeframe because they entail mutually contradictory investments and organisational processes; and that companies that try to achieve them would end up "stuck in the middle", without any competitive advantage – a position that has gradually become strategic orthodoxy. It is said that companies that achieve such strategy can only do so temporarily, and only if competitors are themselves stuck in the middle, having achieved neither cost leadership nor differentiation; if cost is strongly affected by market share and inter-company relationships; or if a firm pioneers a major technological or process innovation. Such advantages would swiftly be copied by competitors however, leading to the need for firms to eventually make a clear choice about which generic strategy to follow, and configure their organisation accordingly to implement it.

Apple's reputation for exceptional innovation is widely appreciated.

> "Innovation is only one part of Apple's quantum strategy. What is harder to understand, is how all this can be done at a level of efficiency that is superior to that of the traditional cost leader, Dell"

It was celebrated as America's most innovative company by *Business Week* for seven consecutive years (2005 - 2011) and has topped Fortune's world's most admired companies for the fourth year in a row (2008 - 2011). Apple's design prowess, and ability to seamlessly integrate hardware and software while attracting the best people, is widely recognised.

Apple's approach to differentiation is exemplary. It focuses on developing innovation capability through having the best people and pushing them hard, within a corporate culture where innovation is second nature. Add to this the "deep collaboration" approach made possible by the fact that Apple's innovation is centralised in a single physical space – its campus in California – and you have an innovation hotbed. Buttress your market presence through clever, contrarian maverick branding, supported by actually coming up with radically new products, and you can develop a cult following. Control the customer experience and create barriers to entry for competitors and barriers to exit for customers through developing constellations rather than stand-along products, and you can charge premium prices with near impunity. Have a courageous, eccentric, genius, driven leader who takes the tough decisions and makes the difficult choices associated with the above, and you have a recipe for success. Apple's gross margin in 2011 was 40.5 per cent and net margin was 23.9 per cent.

But innovation is only one part of Apple's quantum strategy. What is harder to understand, is how all this can be done at a level of efficiency that is superior to that of the traditional cost leader, Dell.

## Cook's controls

Efficiency was a major goal of Steve Jobs when he recruited Tim Cook in 1998 from Compaq to be Apple's chief operating officer. Cook was instrumental in driving efficiency by streamlining Apple's manufacturing processes, supply chain and distribution operations. Soon after moving to Apple, Cook rationalised the warehouses for finished products, reasoning that "if you have closets, you'll fill them up". He also cut the number of key suppliers from 100 to 24, enhancing Apple's bargaining power with these suppliers; and asked them to set up near Apple's facilities so that components could be delivered just-in-time and manufacturing time slashed.

However, what is not widely recognised is that Apple's efficiency is as much due to strategic focus and simplicity, as to supply chain rationalisation. Apple focuses in terms of target market, of product line, of product design and even in terms of its own organisation design.

First, Apple aims largely for the consumer market as opposed to the B2B sector, allowing the company to simplify its investments and operations and focus on what it does best. The market proposition in the consumer sector can focus on coolness, desire, fun, elements alien to corporate buyers who are accountable for IT investments and go for reliability and value.

Second, the narrow depth and breadth of the product line preserves management attention, facilitates marketing and increases negotiating power over suppliers. Apple chose not to produce printers and scanners, for example, given the narrow margins and low cult potential. Rather than offering several models of the iPhone with an array of different functions, as, for example, Nokia or Sony-Ericsson do, Apple offers one main model of the iPhone which is regularly updated.

After Jobs returned to Apple in 1997, he terminated two-thirds of development projects, since he judged them as not having the potential to deliver groundbreaking products. Jobs exclaimed in the first management meeting after his return, which he attended in shorts and sneakers and bearing stubble, that Apple was in trouble because the products had no 'sex' any more.

Third, the simplicity in the design and features of the products that Apple does produce. The designs are both streamlined and limited in number, and include only a few features that buyers will actually use. In making these difficult choices (of what to focus on and which features are best to include out of the hundreds of potential features), Apple becomes both aligned with its customers' usage patterns, increasing value for the customer, whilst at the same time decreasing the cost of production through simplicity in design and rationalisation of features.

Fourth, Apple's own organisation design is flat and bureaucracy is eschewed. As Jobs explained, Apple "is organised like a start -up. One person is in charge of iPhone OS software, one person is in charge of Mac hardware, one person is in charge of iPhone hardware engineering, another person is in charge of worldwide marketing, another person is in charge of operations". Apple retains control of the functions that matter (design and innovation), while outsourcing the functions that can be provided by others more efficiently (manufacturing).

As with other elements of its strategy, Apple has ignored popular pronouncements that companies should locate their R&D facilities around the world, near their main markets, and engage in global transfer of learning. Rather than disperse its operations around the world, innovation takes place in a single space, the magic cauldron at One Infinite Loop in California. By hiring the best and co-locating them in the innovation melting pot of Apple's campus, Apple achieves extraordinary results, with only a fraction of innovation spending related to its competitors; at the same time as it is acknowledged to be the most innovative company in the world. ■

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