The Pulitzer Prize-winning business historian Alfred duPont Chandler brought strategy into the modern age and championed the multi-divisional organizational form. After graduating from Harvard, he served in the US Navy before becoming, somewhat unusually, a historian at MIT in 1950. He served as professor of business history at Harvard since 1971.

Chandler’s hugely detailed research into the development of US companies between 1850 and 1920 has formed the cornerstone of much of his work. Chandler observed that organizational structures in companies such as Du Pont, Sears Roebuck, General Motors and Standard Oil were driven by the changing demands and pressures of the marketplace. He concluded that the market-driven proliferation of product lines led to a shift from a functional, monolithic organizational form to a more loosely coupled divisional structure.

Chandler was highly influential in the trend towards decentralization among large organizations during the 1960s and 1970s. In Strategy and Structure, Chandler praised Alfred Sloan’s decentralization of General Motors in the 1920s. He argued that the chief advantage of the multi-divisional organization was that “it clearly removed the executives responsible for the destiny of the entire enterprise from the more routine operational responsibilities and so gave them the time, information and even psychological commitment for long-term planning and appraisal”.

While the multi-divisional form has largely fallen out of favour, another of Chandler’s theories continues to raise the blood pressure of those who care about such things. Chandler argued that strategy came before structure. Having developed the best possible strategy, companies could then determine the most appropriate organizational structure to achieve it. In the early 1960s, this was speedily accepted as a fact of life.

More recently, Chandler’s premise has been regularly questioned. In a perfect world, critics say, companies would hatch perfect strategies and then create neat structures and organizational maps. Reality, however, is a mess in which strategy and structure mix madly.

Contemporary strategist Gary Hamel provides a more positive perspective on Chandler’s insights. “Those who dispute Chandler’s thesis that structure follows strategy miss the point,” he argues. “Of course, strategy and structure are inextricably intertwined. Chandler’s point was that new challenges give rise to new structures. The challenges of size and complexity, coupled with advances in communications and techniques of management control produced divisionalization and decentralization. These same forces are now driving us towards new structural solutions - the federated organization, the multi-company coalition and the virtual company. Few historians are prescient. Chandler was.”

Strategy and Structure also contributed to the professionalization of management. Chandler traces the historical development of what he labels “the managerial revolution” →
fuelling by the rise of oil-based energy, the development of the steel, chemical and engineering industries, and a dramatic rise in the scale of production and the size of companies. Increases in scale, Chandler observes, led to business owners having to recruit a new breed of professional manager.

Chandler believes that the roles of the salaried manager and technician are vital, and talks of the “visible hand” of management coordinating the flow of product to customers more efficiently than Adam Smith’s “invisible hand” of the market. The logical progression from this is that organizations and their managements require a planned economy rather than a capitalist free-for-all dominated by the unpredictable whims of market forces.

An interview with Alfred Chandler

What prompted you to write Strategy and Structure?
The decision to write Strategy and Structure came in 1954 when I was invited to create and teach a course at the Naval War College in Newport, Rhode Island, on “the basis of national strategy”.

William Rietzal, who was at the college in another capacity, had become interested in the post-second world war changes in military organizational structures, particularly those that came with the creation of the post-war department of defence. I was then developing my interest in the evolution of modern business structures. So we agreed that each of us would write a book on our respective intellectual concerns. Rietzal never completed his book. Mine came out in 1962.

Do you think strategy continues to determine structure?
Of course strategy continues to determine structure. This is the theme of a recently published book by Robert Burgelman, Strategy is Destiny (2002), that tells the evolution of Intel’s strategy and its supporting structure.

Would it be fair to say that the visible hand of management and the rise of the managerial class have had a more profound influence on the high-tech sectors of the economy than on traditional sectors?
That is correct. The management structures whose evolution are described in Strategy and Structure were primarily adopted by enterprises in increasingly capital and knowledge-intensive industries, as pointed out in its concluding chapter. This is because the new multidivisional structure permitted the commercialisation of new technologies producing products for different markets. For example, chemical companies were from the 1920s on producing a variety of chemicals, fibres, film, finishes, plastics, explosives and other things. The structure thus permitted them to lower their unit costs through the economies of scope as well as scale.

What’s the difference between the entrepreneurs talked of by Schumpeter and the managerial class you talk about in The Visible Hand?
Schumpeter’s entrepreneurs were the creators of a new product, usually based on a new technology. The managers referred to in The Visible Hand were those that created the organization essential to capture the economies of scale and scope. For example, Henry Ford was the entrepreneur who invented the modern automobile industry with his mass-produced Model T. Alfred Sloan was the classic manager who built the essential management structure to benefit from the economies of scale and scope.

In 1921, when Sloan took charge of General Motors, GM’s share of the US market was 13 per cent; Ford’s was 56 per cent. In 1927, after Sloan had completed and fully introduced the multidivisional operating management structure, Ford’s share was nine per cent and GM’s 44 per cent. Ford had little choice but to adjust to GM’s strategy and structure.

So if Sloan’s work at GM in the 1920s pioneered the divisional form of organization, are there any similarly instructive modern inspirations?
Yes, there is an excellent comparison: Andy Grove’s Intel as told by Burgelman’s Strategy is Destiny. Events such as the collapse of Enron have brought the managerial class into disrepute. Are we approaching the end of the rule of the managerial class and their cohorts in the fields of management consulting and auditing?

I consider Enron’s managers, as well as those in the accounting firms, as part of the managerial class. I assume that the latter will continue to provide consulting and accounting services, although they may have to operate within different enterprises if Congress passes a law separating consulting from auditing.

The assessment of Richard John
Richard R. John of the University of Illinois is author of Elaborations, Revisions, Dissents: Alfred D. Chandler Jr’s The Visible Hand after Twenty Years.

How did Strategy and Structure differ from the other management books being written about the same time?
Strategy and Structure is an historical monograph, based on an exhaustive investigation of the relevant primary sources. Thus, it brought the tools of the professional historian to the study of corporate governance. This was new at the time and has remained a distinguishing feature of Chandler’s work. Barnard was a business executive; Drucker a consultant. Neither was working within established academic disciplines.

What was the main contribution of Chandler’s book The Visible Hand?
The Visible Hand summarized and recast a half-century of scholarship in business history. It shifted the focus from the morality of individual business leaders to the effectiveness of different kinds of organizational forms – of which the most important was the industrial corporation (or what Chandler called the “modern
business enterprise"). In so doing, it gave the modern corporation a kind of moral legitimacy that altered the ways historians and economists began to write about the modern US economy.

Chandler has always linked technological innovation with the modern business enterprise. Not everyone has agreed with him here, but this is a consistent theme in his work. He has, in particular, encouraged a great deal of scholarship on industrial research and has recently been working on two high-tech fields: electronics and chemicals.

**Why did it take so long for writers and researchers to write about the managerial revolution, given that it started in the 19th century and was largely complete by the first world war?**

It is common in historical enquiry for periods to be characterized long after the event. No one living through the late 18th century British “Industrial Revolution” called it that (the term was only popularised in the 1880s).

GM executive Alfred Sloan, beginning in the 1920s, anticipated some of the themes that Chandler would highlight. In addition, the principles of modern management were well understood by certain figures in the business press. But a full answer to this question would really demand a review of much of 20th century American cultural history.

**What’s the difference between the heroic entrepreneurs of Schumpeter’s work and the managers that Drucker and Chandler talk about?**

Chandler is interested both in managers and in Schumpeterian entrepreneurs. But he has tended to highlight the contributions of the managers since they maintain the organizations that entrepreneurs help establish.

To put it simply (and perhaps too simply) managers operate within given constraints; entrepreneurs alter the constraints. To put it simply (and perhaps too simply) managers operate within given constraints; entrepreneurs alter the constraints.

Managers and financiers – as would most commentators in the US, going back all the way to Thorstein Veblen (who died in 1929).

The Enron debacle is very serious, but it is an indictment of the current deregulatory mania – not of managerial capitalism – with which (at least as Chandler would define it) it has very little in common.

**The assessment of Kathleen Eisenhardt**

Kathleen Eisenhardt is Professor of Strategy and Organization at Stanford University and co-author of *Competing on the Edge*.

**Are the ideas of Strategy and Structure still appropriate?**

The Chandler idea that strategy is set and then structure follows makes sense in clear, static markets. In ambiguous, dynamic markets, the two are much more intertwined. In my view, in the overall approach, structure and, more important, the processes by which structure changes are the constants, while strategy changes.

**Is strategy dead, as Michael Porter argues?**

First, Mike knows a lot about traditional industries but may well be less informed about more dynamic, ambiguous or uncertain industries such as those that were prevalent in the so-called new economy. The pace, uncertainty and ambiguity faced by these companies calls for a strategic logic that is different from Mike’s nearly static positioning logic and its related reliance on tightly woven activity systems. Therefore, he might not have understood that while the general precept about strategy as being centred on differences is still valid, the manner in which those differences play out is unlike static industries. The underlying logic is much more about opportunity capture and much less about a static position.

Second, I think that it is an overstatement to claim that new-economy companies did not have strategies. As in any market situation, some companies had effective strategies, some had ineffective ones and some simply had none. This was the case in the new economy as it is in any market situation. So I would not generalize to say that there was a death of strategy, although there might well have been more companies than usual in the third category.

**Are competitive advantage strategies still relevant?**

Competitive advantage is always desirable but is not always achievable. The core issue is not so much whether there is a competitive advantage. Rather, it is how long that advantage will last. From the perspective of managers in uncertain, ambiguous and/or dynamic markets, the reality is that it is almost impossible to know how long any advantage will last. Therefore, managers must operate as if sustained competitive advantage does not exist.

**How do you explain the rise of the new economy?**

I think that there was a wave of entrepreneurship (in both new and established companies). This kind of era has happened before (for example, in the early 1980s with the rise of...
The assessment of Christopher McKenna

→ the personal computer and microprocessor technologies) and it will happen again. More so than in other types of eras, these periods create a few big winners and a large number of losers.

What changed in strategy during the 1990s and what have been the main consequences for strategy formulation?
First, strategy has become simpler. In the kinds of markets that we saw in the 1990s and see today, there is too much fluctuation and ambiguity to make complicated strategies sensible. Simple strategies provide coherence while retaining flexibility to adjust. Second, it has become more organizational. Strategy depends a lot more on organizational processes of change – the ability to change is a key aspect of strategy. And, third, strategy has become more time related.

The key consequences for strategy formulation are: one, a delegation of responsibility for setting strategy to business unit teams; two, a change of responsibilities among corporate executives to centre on organizing the internal and external boundaries of the corporation rather than on business strategy; three, a shift from an emphasis on analysis to one on recognizing patterns in the marketplace through intense reliance on information; four, an increased importance for conflict management as smart people are likely to disagree; and finally, an increased need to be able to manage in a longer timeframe.

How does Chandler's work fit in with the works of other pioneers such as Barnard, Drucker and Ansoff?
While it is true that Chandler's work was a product of his times – its focus on the rational and on the stages of economic growth (like W.W. Rostow, who was also teaching at MIT at the time) – he was different from the other strategists largely because he did not situate himself in the work of managerial theorists but remained an historian. This explains why Chandler, unlike the others, felt it was so important to define his terms – his definition of strategy remains the most important one to this day – and also why his perspective seemed so different.

And soon after Chandler's work and that of Ansoff appeared, consulting firms moved into the field of strategy. Is that significant?
Chandler’s work took place just as the first strategy consulting firms were emerging. Prior to the 1960s, McKinsey was not a strategy firm, since strategy as a discipline did not exist, but instead concentrated on restructuring organizations. Similarly, BCG, which was founded in the early 1960s after Bruce Henderson left Arthur D. Little, also benefited from this new interest in strategy as a subject. The key addition that Chandler made was to connect strategy and structure. Thus restructuring was an outgrowth of strategy and this meant that a company should first review its strategy before pursuing a different structure. Since corporations are always reviewing new strategies, the growth of strategy consulting gave a tremendous boost to consulting as a field and the consultancies that were able to profit from this growth did very well.

And then strategy moved forward with Michael Porter's work in the 1980s?
Michael Porter was remarkable for bringing the basic principles of economics into strategy. By repackaging the basics of economics as strategy, Porter revolutionized the way that business school faculty taught strategy. His work served as a rapprochement between the two subjects that had been divided at the moment of conception.

Chandler’s work, in this way, is not simply the alpha, the starting point, but also the omega, the finishing point, in the growth of strategy as a subject.

In comparison, Peters’ and Waterman’s book In Search of Excellence did two things at once. First, their book showed the potential for blockbuster books on business. Ever since the publication of In Search of Excellence, strategists and other writers have sought a best-seller whenever they publish a new book. Second, the book showed that having a best-selling author(s) within a consulting firm could greatly add to your consulting firm’s growth. So where Porter’s work fundamentally changed the nature of MBA teaching in strategy, Peters’ and Waterman’s work resulted in the expansion of the market for strategists within companies and consulting firms.

So is it a fair summary to say that the managerial revolution was hijacked by consultants?
It is tempting to see consultants as dominant over the businesses they serve – and it is true that their recommendations have fundamentally reshaped the way that the western economy functions. But in reality, it is best to understand that consulting is only one part of a larger institutional infrastructure of professions that underpin the western model of business (itself largely American in origin).
Thus consulting, the world’s newest profession, is only one part of an array of professional services,
including accounting, engineering, law firms, investment banks, public relations, advertising, venture capital and even business schools now considered to be essential to the modernization of a non-western economy. Consultants, importantly, have not only become one of these central features but have recommended that countries and companies adopt this array of advisors. In the process, they have fundamentally reshaped the nature of the managerial revolution in business as they have institutionalized the place of strategy in business.

**Michael Porter regards the advent of the new economy as a counter-revolution in strategy. Is he right?**

Porter is both right and wrong. He is right that many start-up companies ignored strategy as it is taught or simplified it in order to justify their existence to venture capitalists. On the other hand, Porter himself was responsible for the apparent slowdown in strategy during the 1990s. His dominance of the field as a theorist and as a model for teaching meant that the post-Porterian period of the 1990s left people without a clear guru to attach to strategy. Just like the period after the retirement of a dominant player in sports, the individual achievements of strategists in building new models seemed less significant during the 1990s – not because the field was any less active but simply because outsiders could not attach a single name to the discipline.

**How do you evaluate Sloan’s *My Years at General Motors* and Andy Grove’s *Only the Paranoid Survive*, which are probably the most complete manifestation of Chandler’s theories by practising executives?**

It is worth mentioning that Chandler helped Sloan to write his famous memoir, so it is not surprising that it bears the imprint of his views. Similarly, the fact that Grove has been teaching at Stanford for years also helped him to shape a book that is not just a memoir but also an important statement about strategy.

It is generally the case, however, that corporate memoirs are not very useful for theorizing about decision making. Interestingly, even a very good memoir like Tom Watson’s *Father, Son, and Co* about IBM is more interesting for its discussion about the personal aspects of running a business than in formulating strategy. Thus, aspects of IBM’s decision to capitulate to the US government in its response to antitrust suits turn out to be as much rooted in the psychology of the person as in the strategic dimensions of the problem.

And this, of course, is in direct contradiction to the way that objective strategy has generally been taught.

**Is it right to now regard strategy as a knowledge commodity?**

Luckily for Chandler, and for the rest of us who work at the nexus of strategy and history, strategy is not yet a commodity. A commodity is an undifferentiated good – and thus cheap. By comparison, strategy can easily be differentiated and made valuable in that process.

What is interesting is that 40 years after Chandler’s seminal work in strategy, history is once again becoming a central feature in the analysis of strategy. In particularizing the analysis of strategy away from generic strategies and simple mnemonics, strategists, alongside historians, are once again demonstrating the important differences between strategy and economics.

Chandler’s work, in this way, is not simply the alpha, the starting point, but also the omega, the finishing point, in the growth of strategy as a subject.